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  In New York: 212-239-7765
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**Canon ZR-80/ZR-85/ZR-90**

**DV Camcorders**

Offering exceptional value, easy operation, and outstanding performance, a ZR-series camcorder can turn even every day occasions into milestones you can cherish forever. They combine stunning digital video, still images and full, rich stereo sound in a sleek, artistic design that’s comfortable to hold and small enough to fit virtually any pocket. Smooth and compact, they immediately conform to the contour of your hand, allowing memories to be effortlessly captured anytime, anyplace.

The ZR-80 (18x optical/360x digital zoom), ZR-85 (20x optical/400x digital zoom) and ZR-90 (22x optical/440x digital zoom) feature digital effects, skin detail function, and image stabilization technology, so you’ll get perfect shots under almost any condition. Ergonomic controls allow you to toggle quickly and easily between fully automatic or manual exposure settings. Shoot either full-motion video or digital stills. Analog video input makes it easy to transfer footage from your 8mm or Hi8 camcorder to digital, while an i.LINK (IEEE1394) port allows you to download footage to a PC for editing.

The ZR-85 and ZR-90 step-up with USB terminal, XGA high-resolution still image capability, an SD/MMC Memory Card slot—making it even easier to save digital images, video e-mail mode, a host of printing options, and are bundled with software to make them even more versatile. The top-of-the-line ZR-90 adds S-Video input/output, Super Night mode and includes a wide angle adapter lens.

**Features**

**DIGIC DV**

- DIGIC DV is a system for achieving superior video and photographic images. Canon’s expertise in imaging and electronics is flawlessly blended together, resulting in outstanding performance. It offers substantial benefits in color reproduction. DIGIC DV makes it possible to achieve accurate color for both video and digital photos. Since video and photos have different color requirements, DIGIC DV utilizes two different color techniques to maximize video quality on a TV and still image quality for print or computer display.

**VIC**

- Embracing the industry’s latest and most sophisticated technology, ZR-series feature an exclusive connection circuit, called VIC. Traditionally, multiple chips were needed to perform the camcorder’s input and output functions. However VIC manages it all with one single chip. The result is seamless connectivity whether you are connecting to a computer, TV or VCR.

**Image Stabilizer**

- They incorporate a high quality image stabilization system that corrects camcorder shake instantly, making sure your videos always look smooth, steady and natural even when shooting hand-held at full telephoto.

**Genuine Canon Optics**

- The ZR-series is made by a company renowned for high-quality professional optics. Canon’s vast expertise in designing and crafting precision lenses for 35mm and broadcast TV cameras also goes into every camcorder lens they make. The ZR-80 (18x), ZR-85 (20x) and ZR-90’s (22x) optical zoom lens delivers superb definition and contrast, taking full advantage of the DV format.
- The ZR-80 (360x), ZR-85 (400x) and ZR-90’s (440x) digital zoom extends their magnification revealing details too small to see with the naked eye.
- With the ZR-90 (only), you can attach the supplied WA-30.5 Wide Attachment (0.6x), giving you a wide perspective for indoor shots or panoramic views.

**PCM Digital Sound**

- The ZR-80, ZR-85 and ZR-90 offer two digital audio modes, 12 and 16-bit. You can select 16-bit mode for high-quality, CD-equivalent stereo sound, or 12-bit to record only two of four channels, leaving two channels free for you to record additional sound later.

**Program Auto Exposure**

- While the Easy Recording mode is fine for most shooting situations, the camcorders also include additional preprogrammed auto exposure modes (Auto, Sports, Portrait, Spotlight, Sand & Snow and Low Light mode), each carefully designed to give you the best possible image results under special shooting conditions.

**Manual Controls**

- The fully-automatic ZR-80, ZR-85, and ZR-90 give great results in the hands of beginners, while more experienced users will appreciate the manual focus, exposure level, white balance, and shutter speed controls.
Night Mode
For low-light shooting, they incorporate an automatic slow shutter speed (from 1/30-1/500 of a second. In addition, they also offer a Night Mode setting. In this mode, the camcorders select the ideal shutter speed and sensitivity combination to brighten up the scene, without sacrificing color. Night mode can be easily activated by one press of the Night Mode button.

With the ZR-90 (only), you can also assign the Super Night or Night Plus mode to the Night Mode button. In the Super Night mode, the assist lamp lights up automatically responding to the brightness of the subject. In the Night Plus mode, the assist lamp stays on at all times.

Video/Digital Photo Mode
The ZR-series utilize high precision optics, a premium image stabilization system, and the latest processing technology to deliver outstanding video in all situations.

For added flexibility, you may take up to 700 still images on a MiniDV single tape (in SP Mode). The camcorder records the photos for approximately 6 seconds, as well as recording the sound for your verbal notes or narration.

Skin Detail Function
When shooting close-ups of people, the ZR-series utilizes a Skin Detail function to automatically soften details. By reducing the appearance of skin imperfections, you get a more complimentary appearance.

Time Code/Data Code
Data code, containing the date and time the recording was made and other data (shutter speed and exposure settings) is automatically recorded on a special section of the tape. In VCR mode, the data code can be displayed or hidden while the camera is in play, slow or still mode.

Analog Line-In/Converter
You can send an analog video signal from a TV, VCR or a camcorder into the ZR-80, ZR-85 or ZR-90 and record it onto a DV tape, or convert the analog signal into digital signal, for direct transfer to digital video devices or computers equipped with a IEEE1394 terminal.

Digital Effects
Show your creativity by using the special effects and digital faders available with the ZR-80, ZR-85 and ZR-90. A wide selection of faders and special effects will add visual appeal and greater imaging variety.

Faders:
Add a variety of transitions to your movies with a fade to or from black. Choose from Fade Trigger, Wipe, Corner, Jump, Flip, Puzzle, Zigzag, Beam and Tide

Special Effects:
For a more creative look, you can switch on the following digital effects during recording or playback: Art, Black & White, Sepia, Mosaic, Ball, Cube, Wave, Color Mask or Mirror.

Multi-Image Screen:
Divide your screen into four, nine or sixteen pictures with the Image Capture function. You can choose the speed at which the images are captured: Manual, Slow, Moderate or Fast.

IEEE1394 DV Terminal
An IEEE1394-compliant DV terminal lets you connect the ZR-80, ZR-85 or ZR-90 to a DV-compatible computer or another Canon DV camcorder. Transfer your digital movies to your computer’s hard disk, edit your scenes, then use them to create high-impact Web sites, video e-mail, interactive CDs and DVDs, or a personal video album.

The ZR-85 and ZR-95 are supplied with DV Messenger2 software (available as an optional download for the ZR-80), allowing you to use the camcorder for Internet Video Chat with Microsoft Windows Messenger through IEEE1394. Control the zoom and focus of your camcorder or the person you are chatting with. Preview thumbnails and transfer photos. Watch and control the video playback of either camcorder - all from your computer.

Flexible LCD View Screen and Color Viewfinder
The each incorporate a bright 112,000-pixel 2.5-inch LCD monitor that permits easy composition of sensational shots from any angle without having to squint into the viewfinder.

You can rotate the screen for high-or low-angle shots, or turn it around 180° to record yourself. When you’re done shooting, the screen is perfect for reviewing your scenes.

The screen swivels and flips for maximum handling comfort and flexibility, tucking neatly away when bright conditions make the 0.3-inch color viewfinder the preferred way to shoot.
Simultaneous Photo/Video Recording

- While recording video, the ZR90 and ZR85 are able to simultaneously capture VGA quality (640 x 480 pixels) digital photos onto a memory card. This is perfect for those who want to capture e-mail ready photos, without interruption.

Selectable Focusing Points

- Sometimes, the subject you want to photograph is not in the center of the frame. Choose from one of three focusing points to automatically put the subject you want into sharp focus.

A/V Insert and Audio Dubbing

- A/V Insert lets you insert new scenes of video from your VCR or other camcorder on to a tape recorded in the SP mode.
- Audio dubbing function lets you add narration or stereo sound to a recording made in the 12-bit audio mode.

High Resolution Photos

- The ZR-85 and ZR-90 capture beautiful high definition photos. Just press the photo button to capture stunning XGA (1024 x 768 pixel) images onto the included 8MB SD Memory Card.
- For added flexibility, you can select the compression size (Superfine/Fine/Normal). You can select how long you wish to review a still image after recording.

SD Memory Card and MultiMediaCard

- The ZR-85 and ZR-90 expand video possibilities with a built-in slot for an SD (Secure Digital) Memory Card or a MultiMediaCard, in addition to a MiniDV cassette. Easily transfer images to your PC directly from the camcorder using USB and IEEE1394. Produce effects not possible with just a cassette using the Card Mix Effects. Choose one of the sample images provided on the supplied SD Memory Card (such as picture frames, backgrounds and animations) and combine it with the live video recording.

Motion JPEG Recording

- The ZR-85 and ZR-90 allow you to record movie clips in Motion JPEG format onto the memory card, for clear images and smooth playback. You may choose to record in 320 x 240 pixels or 160 x 120 pixels. Best of all, you can record for the full length of the SD Memory Card*. If you like, you can even copy video from the Mini DV tape to the card, making it easy to attach a mini-movie to an e-mail or post on the web.
- * Max. 60 minutes (512MB SD Memory Card). When using MultiMediaCards, movie clips are limited to 10 seconds in 320 x 240 and 30 seconds in 160 x 120.

StitchAssist

- By using the StitchAssist Mode, you can create magnificent panoramas. Shoot your landscape, and transfer them to your computer. Then simply select and arrange your images in the correct order, and the supplied PhotoStitch software does the rest, aligning, overlapping and cropping the separate images to form one ultra-wide panoramic still image.

Picture Transfer Protocol (PTP)

- The ZR-85 and ZR-90 support Picture Transfer Protocol (PTP) that enables data communication with a computer without the need to install dedicated driver software. This direct link enables the computer to access the camcorder as though it was an external card reader. This feature is available only with computers running Windows XP or Mac OS X (version 10.1 or later) operating systems.

Direct Print Choices

- They offer flexible connectivity with a variety of printers. You can connect them to a PictBridge compliant Canon Card Photo Printer or Canon Bubble Jet Printer. A single cable connects the printer to the ZR-85 or ZR-90 and all printing options can be controlled from the camcorder’s menu. Choose from a range of different paper sizes with options for borderless or bordered prints. The ZR-85 and ZR-90 can also connect to any PictBridge compliant printer.
- The ZR-85 and ZR-90 support Exif Print (2.2), a worldwide standard that enhances communication between digital cameras and printers. At the time of shooting, vital camcorder settings and scene data are recorded with the image, resulting in realistic and reliable color reproduction. Poor lighting or mistakes can also be corrected, allowing photos to be even better than the originals.
**Conveniences**

- Use the End Search function to locate the end of the last recorded scene. The camcorder fast-forwards the tape, plays back the last few seconds of the recording and stops the tape.
- You can choose from the following languages: English, French, Spanish, German, Italian, Russian, Chinese and Japanese. The date format can also be selected.
- Personalize your camcorder by customizing the start-up image and camcorder operation sounds. With the ZR-85/ZR-90 you can also choose a startup image from the included software CD or use your own digital recordings.
- Record images in the 16:9 format for playback on widescreen TVs.
- Composite video input/output
- Headphone jack
- 2- and 10-second self-timer recordings
- In record pause mode, the Record Review function allows you to review recording to check if it has been recorded properly.
- In record pause mode, Record Search function allows you to play back the tape (forward or reverse) to locate the point where you wish to begin recording.
- Beep confirmation provides a beep upon camcorder operations such as power on/off, start/stop, selftimer countdown, automatic shut-off, and unusual conditions of the camcorder. Beep isn’t recorded.
- Set time zone, date and time, and you’ll never need to reset the clock anytime you travel to another time zone. Just set the time zone to the one of your destination, and the camcorder automatically adjusts the clock.
- With the supplied (ZR-85 and ZR-90 only) wireless remote control you can operate the camcorders from a distance of up to 16 feet. Following functions can only be operated with the wireless controller:
  - Some special playback modes
  - Photo/date search
  - Zero set memory
  - Analog line-in
  - DV dubbing
  - AV Insert, Audio dubbing

**accessories**

- ZR-80, ZR-85 or ZR-90
- BP-508 Battery Pack
- CA-570 Compact Power Adapter
- SS-900 Shoulder Strap
- Wireless controller (ZR-85/90 only)
- STV-250N stereo video cable
- 8MB SD Memory Card (ZR-85, ZR-90 only)
- USB Cable (ZR-85, ZR-90 only)

**Maximum Recording Time**

<table>
<thead>
<tr>
<th>Battery Pack</th>
<th>Using Viewfinder</th>
<th>Using LCD Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP-508 (single-capacity) (supplied)</td>
<td>2 hr. 5 min.</td>
<td>1 hr. 25 min.</td>
</tr>
<tr>
<td>BP-511 (single-capacity)</td>
<td>$49.95</td>
<td>3 hr. 45 min.</td>
</tr>
<tr>
<td>BP-512 (single-capacity)</td>
<td>$49.95</td>
<td>3 hr. 45 min.</td>
</tr>
<tr>
<td>BP-514 (single-capacity)</td>
<td>$49.95</td>
<td>4 hr. 20 min.</td>
</tr>
<tr>
<td>BP-522 (double-capacity)</td>
<td>$69.95</td>
<td>7 hr. 35 min.</td>
</tr>
<tr>
<td>BP-535 (triple-capacity)</td>
<td>$94.95</td>
<td>12 hr. 10 min.</td>
</tr>
</tbody>
</table>

There are several battery packs available for the ZR-80/85/90, each pack offering a different power capacity. Lithium-Ion batteries, unlike nicad batteries, have no “memory effect” which can reduce the usable power of the battery over time.
ULTRA-COMPACT MEGAPIXEL DV CAMCORDERs

Now you can unleash the full power of digital imaging. The Elura 60, Elura 65 and the Elura 70 are easy to handle, easy to afford and easy to use high-quality digital camcorders. Streamlined and lightweight, these 1.3-megapixel video cameras are easy enough for any beginner to use anytime, anywhere and for any occasion and simple enough to turn memorable moments into family heirloom video and prints. They feature DV Photo Plus which combines Canon’s core imaging essentials, to create video, still pictures and prints of superior clarity, color and brilliance. They offer Canon’s extraordinary Image Stabilization system, 2.5” LCD monitor, Night Mode, Video e-mail mode, digital effects and a host of conveniences.

They also feature innovative advanced photo features that permit their use as a still camera. These include simultaneous capture of VGA quality (640 x 480) digital photos onto SD memory cards while recording video, continuous shooting function, selectable focusing points and automatic exposure bracketing.

The Elura 60 has a 14x optical/280x digital zoom and all the above mentioned features, the Elura 65 steps up with 16x optical/320x digital zoom, Super Night Mode, a mic input, high resolution 16:9 widescreen mode, Photo and Date search, and includes an advanced accessory shoe. The top-of-the-line Elura 70 features 18x optical/360x digital zoom and includes a wide conversion lens, double capacity battery, and video editing and photo album software.

FEATURES

DV Photo Plus

DV Photo Plus unleashes the full digital imaging power of the Elura megapixel camcorders, promising a superior level of clarity, color and excellence for video and photos. DV Photo Plus is the integration of Canon’s world-renowned optics, their exclusive DIGIC DV image processor, a 1.33 megapixel CCD image sensor and a Print-and-Share feature that speeds image transfer from Canon camcorders to computer or printer.

Genuine Canon Optics: They feature high-precision lenses designed specifically for their use. Each Elura has a unique lens that matches its CCD for optimal quality. Canon's camcorder lenses feature the same quality found in 35mm and broadcast TV cameras. That's why pros and consumers alike trust the Canon name to preserve moments as vivid as the actual experience.

Megapixel CCD: Their megapixel CCD Image Sensor delivers crisp images with life-like detail. Whether you are shooting video or photos with the camcorder, you will get the best results. The CCD works like film — when light is captured by the sensor, it registers an image and advanced processing converts the pixels into digital data creating your video or photos.

DIGIC DV: DIGIC DV is Canon's exclusive signal processing circuit, makes it possible to achieve accurate color for both video and digital photos. Since video and digital photos have different color requirements, DIGIC DV utilizes two different color techniques to maximize video quality on a TV and still image quality for print or computer display.

Print and Share: Print and Share button makes it easy to print directly to a printer or transfer images onto your computer with a simple touch of a button. Simply connect the camcorder to a select Canon printer or any PictBridge compatible printer, select an image and print it for your family and friends, it’s like having your very own photo lab at home.
DIGIC DV

- DIGIC DV is a system for achieving superior video and photographic images. Canon’s expertise in imaging and electronics is flawlessly blended together, resulting in outstanding performance. It offers substantial benefits in color reproduction. DIGIC DV makes it possible to achieve accurate color for both video and digital photos. Since video and photos have different color requirements, DIGIC DV utilizes two different color techniques to maximize video quality on a TV and still image quality for print or computer display.

VIC

- Embracing the industry’s latest and most sophisticated technology, the Elura-series feature an exclusive connection circuit, called VIC. Traditionally, multiple chips were needed to perform the camcorder’s input and output functions. However VIC manages it all with one single chip. The result is seamless connectivity whether you are connecting to a computer, TV, or VCR.

Genuine Canon Optics

- The Elura-series is made by a company renowned for high-quality professional optics. Canon’s vast expertise in designing and crafting precision lenses for 35mm and broadcast TV cameras also goes into every camcorder lens they make. The Elura 60 (14x), Elura 65 (16x) and Elura 70’s (18x) optical zoom lens delivers superb definition and contrast, taking full advantage of the TV format.

- The Elura 60 (280x), Elura 65 (320x) and Elura 70’s (360x) digital zoom extends their magnification revealing details too small to see with the naked eye.

- With the Elura 70 (only), you can attach the supplied WA-34 Wide Attachment (0.7x), giving you a wide perspective for indoor shots or panoramic views.

Image Stabilizer

- They incorporate a high quality image stabilization system that corrects camcorder shake instantly, making sure your videos always look smooth, steady and natural even when shooting hand-held at full telephoto.

Night Mode

- For low-light shooting, they incorporate an automatic slow shutter speed (from 1/30-1/500 of a second. In addition, they also offer a Night Mode setting. In this mode, the camcorders select the ideal shutter speed and sensitivity combination to brighten up the scene, without sacrificing color. Night mode can be easily activated by one press of the Night Mode button.

- With the Elura 65/70, you can also assign the Super Night or Night Plus mode to the Night Mode button. In the Super Night mode, the assist lamp lights up automatically responding to the brightness of the subject. In the Night Plus mode, the assist lamp stays on at all times.

Program Auto Exposure

- They feature auto exposure modes (Auto, Sports, Portrait, Spotlight, Sand & Snow and Low Light mode), each carefully designed to give you the best possible image results under special shooting conditions.

Skin Detail Function

- When shooting close-ups of people, the Elura-series utilizes a Skin Detail function to automatically soften details. By reducing the appearance of skin imperfections, you get a more complimentary appearance.

IEEE1394 DV Terminal

- An IEEE1394-compliant DV terminal lets you connect the Elura 60/65/70 to a DV-compatible computer or another Canon DV camcorder. Transfer your digital movies to your computer’s hard disk, edit your scenes, then use them to create high-impact Web sites, video e-mail, interactive CDs and DVDs, or a personal video album.

- The Elura 65 and 70 are supplied with DV Messenger2 software allowing you to use the camcorder for Internet Video Chat with Microsoft Windows Messenger through IEEE1394. Control the zoom and focus of your camcorder or the person you are chatting with. Preview thumbnails and transfer photos. Watch and control the video playback of either camcorder all from your computer.

USB Terminal

- Allows high-speed transfer of images from your SD Memory Card or MultiMediaCard to your computer. By using the USB cable and software provided, you can process and organize your images on your PC.

Analog Line-In/Converter

- You can send an analog video signal from a VCR or a camcorder into the Elura-series and record it onto a DV tape, or convert the analog signal into digital signal, for direct transfer to digital video devices or computers equipped with a IEEE1394 terminal.

Picture Transfer Protocol (PTP)

- They support the Picture Transfer Protocol (PTP) that enables data communication with a computer without the need to install dedicated driver software. This direct link enables the computer to access the camcorder as though it was an external card reader. This feature is available only with computers running Windows XP or Mac OS X (version 10.1 or later) operating systems.

Included Software

- They include ZoomBrowser EX (WIN) and ImageBrowser (Mac) image management and editing software. Easily download, browse, archive, and retouch your photos. Automatically re-size images and attach them to e-mail, arrange them for printing, and add text.
**PCM Digital Sound**
- They offer two digital audio modes, 12 and 16-bit. You can select 16-bit mode for high-quality, CD-equivalent stereo sound, or 12-bit to record only two of four channels, leaving two channels free for you to record additional sound later.

**StitchAssist**
- StitchAssist Mode lets you create magnificent panoramas. Shoot your landscape, and then simply select and arrange your images in the correct order, and the supplied PhotoStitch software does the rest, aligning, overlapping and cropping the separate images to form one ultra-wide panoramic still image.

**Digital Effects**
- A wide selection of faders and special effects add visual appeal and greater imaging variety.

**Faders:**
- Add a variety of transitions to your movies with a fade to or from black. Choose from Fade Trigger, Wipe, Corner, Jump, Flip, Puzzle, Zigzag, Beam and Tide

**Special Effects:**
- For a more creative look, you can switch on the following digital effects during recording or playback: Art, Black & White, Sepia, Mosaic, Ball, Cube, Wave, Color Mask or Mirror.

**Multi-image Screen:**
- Divide your screen into four, nine or sixteen pictures with the Image Capture function. Choose the speed at which the images are captured: Manual, Slow, Moderate or Fast.

**LCD Monitor**
- The offer a bright 123,000-pixel 2.5” LCD monitor that permits easy composition of sensational shots from any angle without having to squint into the viewfinder.
- You can rotate the screen for high- or low-angle shots, or turn it around 180° to record yourself. When you’re done shooting, the screen is perfect for reviewing your scenes.
- The screen swivels and flips for maximum handling comfort and flexibility, tucking neatly away when bright conditions make the 0.3” color viewfinder the preferred way to shoot.

**SD and MMC Memory Cards**
- The Elura 60/65/70 expand video possibilities with a built-in slot for SD (Secure Digital) or MMC (MultiMediaCard) memory cards, in addition to a MiniDV cassette. Easily transfer images to your PC directly from the camcorder using USB and IEEE1394. Produce effects not possible with just a cassette using the Card Mix Effects. Choose one of the sample images provided on the supplied SD Memory Card (such as picture frames, backgrounds and animations) and combine it with the live video recording.
- They feature advanced image processing for capturing stunning 1.3-megapixel (1280 x 960) photos onto the supplied memory card. They may be captured at a variety of different image qualities and compression sizes (Superfine, Fine and Normal).
- Record 320 x 240 or 160 x 120 movie clips in Motion JPEG format for the full length of the SD Memory Card. If you like, you can copy video from the DV tape to the card, making it easy to attach a mini-movie to an e-mail or post on the web. (MMC cards are limited to 10 and 30 seconds).

**Advanced Photo Features**
- In addition to the 1.33 Megapixel CCD image sensor, all three camcorders offer innovative advanced photo features that permit their use as a still camera. These include:
  - Simultaneous Capture of VGA quality (640 x 480) digital photos onto the camera’s SD memory card while recording video, creating email ready photos without interrupting the video shoot
  - Selectable Focus Points that offer three options for sharply focused pictures when the subject is not in the center of the frame
  - Auto Exposure Bracketing automatically captures three alternately exposed photos (normal, underexposed and overexposed) with the press of the photo button. Ideal for tricky lighting situations.
  - A Continuous Shooting function of three frames per second or five frames per second in SXGA size (1280 x 960) still shots

**Direct Print Choices**
- They offer flexible connectivity with a variety of printers. You can connect them to a PictBridge compliant Canon Card Photo Printer or Canon Bubble Jet Printer. A single cable connects them to the printer, and all printing options can be controlled from the camcorder’s menu. Choose from a range of different paper sizes with options for borderless or bordered prints. They can also connect to any PictBridge compliant printer.
- They support Exif Print (2.2), the worldwide standard for communication between digital cameras and printers. At the time of shooting, vital camcorder settings and scene data are recorded with the image, resulting in realistic and reliable color reproduction. Poor lighting or mistakes can also be corrected, allowing photos to be even better than the originals.
- Print/Share button makes direct printing and downloading images to a computer easier than ever before. When connected to a printer, the Print/Share button lights up blue, letting you know that you can begin printing. You can also transfer a photo directly to your computer with the press of a button.
Conveniences

◆ End Search locates the end of the last recorded scene with one touch of the button, removing the danger of accidentally recording over previously shot footage;
◆ They display information in the LCD and viewfinder in a choice of English, French, Spanish, German, Italian, Russian, Chinese and Japanese.
◆ Personalize your camcorder by customizing the start-up image and camcorder operation sounds.
◆ They include a wireless remote control
◆ S-Video input and output
◆ 2- and 10-second self-timer recordings
◆ For added flexibility, take up to 700 still images on a single DV tape (in SP Mode).

Elura 65/70 Step-up Features

◆ Record in high-resolution, true full-width wide screen 16:9 movie format (as opposed to the electronically “stretched” process offered on other camcorders).
◆ Super Night Mode/Night Plus functions offer the option of adding light as needed by automatically turning on (and off) an unobtrusive white LED light positioned on the front of the camera. With the Night+ option, you can turn the white LED light on and keep it on as long you choose.
◆ They incorporate an Advanced Accessory Shoe for attaching and powering optional Canon external mics or combination light/flash or video light without using external cables.
◆ External microphone jack to use optional wired or wireless microphones.
◆ Photo Search/Date Search.

Elura 70 Step-up Features

◆ The Elura 70 also comes with an exclusive 0.7x wide attachment lens that expands the camcorder’s wide-angle capabilities.
◆ Ships with a double capacity rechargeable battery (compared with the standard capacity included with the Elura 60/65).
◆ Bundled with Pinnacle Instant Photo Album software and Pinnacle’s Studio 9 SE Video Editing Software for easily adding special finishing touches to videos.

Lithium Ion Battery Packs

There are several battery packs available for the Elura camcorders, each pack offering a different power capacity. Lithium-Ion batteries, unlike nicad batteries, have no “memory effect” which can reduce the usable power of the battery over time.

<table>
<thead>
<tr>
<th>Battery Pack</th>
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<td>225 min.</td>
<td>155 min.</td>
</tr>
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<td>BP-2L12 (single-capacity)</td>
<td>260 min.</td>
<td>180 min.</td>
</tr>
<tr>
<td>BP-2L14 (double-capacity)</td>
<td>455 min.</td>
<td>320 min.</td>
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</tbody>
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CB-2LT Battery Charger: Take this compact battery charger with you on the road. Plugs directly into a power outlet without a cable .............................................................39.95

CBC-NB2 Car Battery Charger: Use to charge battery packs on the move ............89.95

VFL-1 Light and Flash: Attaches to the Advanced Accessory Shoe for cable-free operation. As a video light, it can turn on and off automatically. As a flash, it can fire automatically or act as a pre-flash to reduce the red-eye effect..............................94.95

VL-3 Video Light: This 3-watt light attaches to the Advanced Accessory Shoe for cable-free operation. Continuous on and auto on/off settings. Powered by the camcorder’s power source ......................41.99

VL-10Li Video Light: Provides a powerful 10-watt illumination. A BP-900 series battery attaches directly, so operation is cable-free..................................................64.95

DM-50 Directional Stereo Microphone: Attaches to the Advanced Accessory Shoe for cable-free operation. Picks up shotgun or shotgun+ surrounding sound. Powered by the camcorder’s power source. Includes windshield...........................................134.95

TL-H34 Tele-Converter: Screws onto the front of the camera’s lens and increases the focal length by 1.5x Image resolution may be lower at the telephoto-side.................149.95

WD-H34 Wide-Converter: Screws onto the front of the camera’s lens and increases the wide angle coverage of the camera’s lens by 0.7x ...............................................................139.95

FS-34U Filter Set: Includes a neutral density filter (ND8) which will decrease the amount of light coming into the camera’s lens, and a protective MC filter to prevent the camera’s lens from getting scratched.........................................................59.95
Canon's Optura family of DV camcorders are equipped with a full range of sophisticated features to capture outstanding video and digital photos. Genuine Canon Optics, Image Stabilization, built-in flash, a high-quality 2-megapixel CCD and Advanced Photo features guarantee a success every time. Superior connectivity means you can share your memories quickly and easily, without jumping through hoops.

The Optura 30 and 40 offer a host of enhancements including improved audio quality and color control system. They also feature Picture Transfer Protocol, a Print Share button, Skin Detail Mode, and horizontal and vertical trimming while in Photo mode. The Optura 30/40 feature a Motion JPEG mode for recording short movie clips on an SD memory card, the Optura 300 and Xi feature MPEG-4 format. And all except the Optura 30 offer full manual audio control and Super Night Mode for shooting in the dark.

Ergonomically designed to fit the curve of the human hand, the horizontally oriented Optura 30, 40 and Xi camcorder make it easy to shoot steady video for long periods of time. The Optura Xi also offers the largest LCD monitor—a huge 3.5-inch monitor with 246,000 pixels, Custom Keys and Advanced Accessory Shoe. The Canon Optura 300 focuses on form as well as function, the trim vertical profile makes this mini marvel a perfect fit for your palm or pocket.

**DIGIC DV**
- DIGIC DV is Canon’s system for achieving superior video and photographic images. Canon’s expertise in imaging and electronics is flawlessly blended together, resulting in outstanding performance. It offers substantial benefits in color reproduction. DIGIC DV makes it possible to achieve accurate color for both video and digital photos. Since video and photos have different color requirements, DIGIC DV utilizes two different color techniques to maximize video quality on a TV and still image quality for print or computer display.

**RGB Primary Color Filter**
- In addition to achieving higher resolution, their megapixel CCDs integrate an RGB Primary Color Filter which separates light passing through the lens into individual red, green, and blue color components, similar to 3-CCD camcorders. As a result, Optura’s achieve more accurate color gradations—especially noticeable in skin tones and scenes with a dominant color (eg. sunsets).

**Genuine Canon Optics**
- Canon’s expertise in designing and crafting precision lenses for 35mm and broadcast TV cameras goes into every camcorder lens they make. Each optical zoom delivers superb definition and contrast, taking full advantage of the DV format, while their digital zooms extend their magnification, revealing details too small to see with the naked eye.
  - Optura 30: 12x optical/240x digital zoom.
  - Optura 40: 14x optical/280x digital zoom.
  - Optura 300: 10x optical/200x digital zoom.
  - Optura Xi: 11x optical/220x digital zoom.

**Program Auto Exposure**
- They feature auto exposure modes (Auto, Sports, Portrait, Spotlight, Sand & Snow and Low Light mode), each carefully designed to give you the best possible image results under special shooting conditions.

**Image Stabilizer**
- They incorporate a high quality image stabilization system that corrects camcorder shake instantly, making sure your videos always look smooth, steady and natural even when shooting hand-held at full telephoto.
- In addition the Optura Xi (only) features Canon’s optical stabilizer (has a dedicated optical element) which shifts up and down and side to side based on motion, so your video always looks smooth, steady, and natural. Whether you are shooting handheld at telephoto or from a moving vehicle, Canon’s Optical Image Stabilizer effectively handles unwanted vibration. And since it’s optical, there is no loss of image quality — inevitable with electronic image stabilizers.
Low-Light Shooting

◆ Even after the light has faded, you can keep shooting. In Night mode they select the ideal shutter speed and sensitivity combination to brighten up the scene, without sacrificing color.

◆ In Super Night mode (except Optura 30), an assist lamp lights your subject and lets you continue without turning the lights on. The assist lamp also helps supplement existing light when you need it, and can be used with the Red Eye reduction lamp when shooting digital photos.

Digital Effects

A wide selection of faders and special effects add visual appeal and greater imaging variety.

Faders:
Add a variety of transitions to your movies with a fade to or from black. Choose from Fade Trigger, Wipe, Corner, Jump, Flip, Puzzle, Zigzag, Beam and Tide

Special Effects:
For a more creative look, you can switch on the following digital effects during recording or playback: Art, Black & White, Sepia, Mosaic, Ball, Cube, Wave, Color Mask or Mirror.

Multi-image Screen:
Divide your screen into four, nine or sixteen pictures with the Image Capture function. Choose the speed at which the images are captured: Manual, Slow, Moderate or Fast.

LCD Monitor

◆ The offer a bright 123,000-pixel 2.5˝ LCD monitor (the Optura Xi has a huge 3.5˝ 246,000 pixel LCD monitor) that permits easy composition of sensational shots from any angle without having to squint into the viewfinder.

◆ You can rotate the screen for high- or low-angle shots, or turn it around 180° to record yourself. When you’re done shooting, the screen is perfect for reviewing your scenes.

◆ The screen swivels and flips for maximum handling comfort and flexibility, tucking neatly away when bright conditions make their 0.3˝ color viewfinder the preferred way to shoot.

SD Memory Card and MultiMediaCard

The Optura’s expand video possibilities with a built-in slot for an SD (Secure Digital) Memory Card or MultiMediaCard for capturing high-resolution digital photos or Motion JPEG/MPEG-4 movie clips. Easily transfer images to your PC directly from the camcorder using USB and IEEE1394. Produce effects not possible with just a cassette using the Card Mix Effects. Choose one of the sample images provided on the supplied SD Memory Card (such as picture frames, backgrounds and animations) and combine it with the live video recording.

IEEE1394 DV & USB Terminals

◆ USB Terminal allows high-speed transfer of images from your SD Memory Card or MultiMediaCard to your computer. By using the USB cable and software provided, you can process and organize your images on your PC. You can select the USB connection mode and use the camcorder like a card reader/writer.

◆ An IEEE1394-compliant DV terminal lets you connect Optura’s to a DV-compatible computer or another Canon DV camcorder. Transfer your digital movies to your computer’s hard disk, edit your scenes, and then use them to create high-impact Web sites, video e-mail, or interactive CDs and DVDs. Optura’s are supplied with DV Messenger2 software which allow you to use the camcorder for Internet Video Chat with Microsoft Windows Messenger through IEEE1394. Control the zoom and focus of your camcorder or the person you are chatting with. Preview thumbnails and transfer photos. Watch and control the video playback of either camcorder - all from your computer.

◆ When used in conjunction with the Optura’s Network mode, you can access your camcorder at home from a remote location. Network mode also makes it possible to switch either camcorder’s mode (Camera to VCR, Tape to Card) through the computer, instead of manually switching it on the camcorder.

◆ They include ZoomBrowser EX (Windows) and ImageBrowser (Macintosh) software which let you easily download, browse, archive, and retouch your photos. Automatically resize images and attach them to e-mail, arrange them for printing, and add text.

◆ The Optura 30 and 40 (only) support Picture Transfer Protocol (PTP) that enables data communication with a computer without the need to install dedicated driver software. This direct link enables the computer to access the camcorder as though it was an external card reader. This feature is available only with computers running Windows XP or Mac OS X (version 10.1 or later) operating systems.

Conveniences

◆ They (except the Optura 300) feature a manual focus ring, allowing you to easily and precisely adjust the focus.

◆ Supplied wireless remote can operate the camcorders from up to 16 feet. The remote also lets you perform Photo/date search. DV dubbing, AV Insert and Audio dubbing.

◆ StitchAssist Mode lets you create magnificent panoramas. Shoot your landscape, and transfer them to your computer. Then select and arrange your images in the correct order, and the supplied PhotoStitch software does the rest, aligning, overlapping and cropping the separate images to form one ultra-wide panoramic still image.

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16:9 Widescreen Mode

- You can record high-resolution videos in the 16:9 format for widescreen TVs. On the Optura Xi, the optical stabilizer is also effective while recording in the 16:9 mode.
- Unlike systems which only record a vertically stretched picture, the Optura 30 and 40 use the full width of the CCD, retaining image quality and providing a larger horizontal angle of view at the wide end.

Manual Controls

- Fully-automatic, they deliver great results in the hands of beginners, while more experienced users will appreciate the manual focus, exposure level, white balance, and shutter speed controls.

Motion JPEG/MPEG-4 Modes

- The Optura 30/40 record Motion JPEG video clips that are perfect for sending via e-mail, or for posting on the Web. Using a 64MB SD memory card, you can record for up to 60 seconds at 320 x 240 pixels or up to 3 minutes at 160 x 120 pixels.
- The Optura 300 and Xi record MPEG-4 video clips (uses much more sophisticated compression). Using a 64MB SD Memory card, record up to 16 minutes at 352 x 288 pixels or 48 minutes at 176 x 144 pixels.

Optura 30/40 Only

- When shooting close-ups of people, the Optura 30 and 40 utilize a Skin Detail function to automatically soften details. By reducing the appearance of skin imperfections, you get a more complimentary appearance.
- Advanced Accessory Shoe lets you attach and power optional Canon external mics or combination light/flash or video light without using external cables.
- Zebra pattern shows areas of overexposure, using diagonal stripes to guide you when setting the aperture and shutter speed.
- Customize the camcorder to your shooting preferences or environment by assigning functions such as the image stabilizer and zebra pattern to the Custom Key.

Audio

- Two digital audio modes: Select 16-bit mode for high-quality, CD-equivalent stereo sound, or 12-bit to record only two of four channels, leaving two channels free for you to record additional sound later.
- They offer manual audio adjustment for complete control. Audio levels are monitored in the viewfinder or LCD screen.
- The Optura 30/40 feature advanced audio processing for audio that’s cleaner than ever before. In addition, they have an electronic wind screen that removes wind noise without degrading audio quality.

Digital Still Camera Functions

High Resolution Photos: They feature advanced image processing, for capturing stunning 2-megapixel (1632 x 1224) photos onto a memory card. Still images can be captured at a variety of different image qualities and compression sizes (Superfine/Fine/Normal).

Simultaneous Photo Recording: While shooting video, they can simultaneously capture VGA quality (640 x 480 pixels) digital photos onto a memory card. This is perfect for those who want to capture e-mail ready photos, without interruption.

Selectable Focusing Points: Sometimes, the subject you want to photograph is not in the center of the frame. Choose from one of three focusing points to automatically put the subject you want into sharp focus.

Auto Exposure Bracketing: This feature allows you to record three photos (normal, underexposed and overexposed) simply by pressing the PHOTO button once.

Continuous Shooting Mode: They feature a continuous shooting mode, allowing you to capture a rapid succession of photos. Shoot up to 30 images at 3 fps (frames per second) at 640 x 480. This function is linked with the built-in flash, so continuous shooting is possible even in dark locations.

On the Optura 30 and 40 you can shoot up to 2 fps frame per second at 1632 x 1224, 3 fps at 1280 x 960 and 5 fps at 640 x 480.

Digital Photo Mode: For added flexibility, you may take up to 700 still images on a single MiniDV tape (in SP Mode). The camcorder records the photos for 6 seconds, as well as recording the sound for your verbal notes or narration. You can search through the recorded tape for your photos using the supplied remote control.

Built-in Flash: The have a built-in flash (automatically pops-up on the Optura Xi) with red-eye reduction for use in digital still picture-taking. This makes it easy to shoot correct exposures even in dark environments. First it fires one a pre-flash to check the exposure, then a second time to make the correct exposure.

Direct Printing: Connect them to a Canon CP-10 or CP-100/200/300 Card Photo Printer or Canon Bubble Jet Direct Printer, without a computer. A single cable connects the printer and Optura. Perform trimming and other functions right from the camcorder. Choose from a range of different paper sizes with options for borderless or bordered prints. They also connect to any PictBridge compliant printer.

Exif Print: They support Exif Print (2.2), the standard for communicating between digital cameras and printers. At the time of shooting, vital camcorder settings and scene data are recorded with the image, resulting in realistic and reliable color reproduction. Poor lighting or mistakes can also be corrected, allowing photos to be even better than the originals.
**CANON**

**OPTURA 30/40/300/Xi**

### Lithium Ion Battery Packs for Optura 30 and 40

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<thead>
<tr>
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<tr>
<td></td>
<td>Using LCD Screen: 85 min.</td>
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<tr>
<td>NB-2LH (single-capacity) supplied</td>
<td>225 min.</td>
</tr>
<tr>
<td>BP-2L12 (single-capacity)</td>
<td>260 min.</td>
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<td>BP-2L14 (double-capacity)</td>
<td>455 min.</td>
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</table>

**CB-2L Battery Charger:** Take this compact battery charger with you on the road. Plugs directly into a power outlet without a cable...39.95

**CBC-NB2 Car Battery Charger:** Use to charge battery packs on the move...89.95

### Lithium Ion Battery Packs for the Optura 300

<table>
<thead>
<tr>
<th>Battery Pack</th>
<th>Maximum Recording Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP-407 (single-capacity) supplied</td>
<td>Using Viewfinder: 75 min.</td>
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<tr>
<td></td>
<td>Using LCD Screen: 60 min.</td>
</tr>
<tr>
<td>BP-408 (single-capacity)</td>
<td>70 min.</td>
</tr>
<tr>
<td>BP-412 (double-capacity)</td>
<td>120 min.</td>
</tr>
<tr>
<td>BP-422 (triple-capacity)</td>
<td>230 min.</td>
</tr>
</tbody>
</table>

**CA-410 Compact Power Adapter:** A compact battery charger that plugs directly into a power outlet without a cable...Call

**CB-400 Car Battery Charger:** Charges BP-400 series battery packs from a car or cigarette lighter socket...119.95

### Lithium Ion Battery Packs for the Optura Xi

<table>
<thead>
<tr>
<th>Battery Pack</th>
<th>Maximum Recording Time</th>
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</thead>
<tbody>
<tr>
<td>BP-511 (single-capacity)</td>
<td>Using Viewfinder: 110 min.</td>
</tr>
<tr>
<td>BP-512 (single-capacity) supplied</td>
<td>110 min.</td>
</tr>
<tr>
<td>BP-522 (double-capacity)</td>
<td>235 min.</td>
</tr>
<tr>
<td>BP-535 (triple-capacity)</td>
<td>375 min.</td>
</tr>
</tbody>
</table>

**CG-570 Dual Battery Charger:** Use with the supplied CA-570 Power Adapter or the optional CB-570 Car Battery Cable to charge 2 BP-500 series batteries at once...89.95

**CG-580 Battery Charger:** Use this charger for charging a BP-500 series battery pack. It plugs directly into a power outlet without a cable...59.95

**CB-570 Car Battery Cable:** Use with the CG-570 charger to charge battery packs on the move...49.95

### SC-1000 Soft Carrying Case:
The SC-1000 Soft Carrying Case is the sporty way to organize and protect your gear when your Optura camcorder is not being used.

### SC-A50 Genuine Leather Carrying Case:
Manufactured from genuine leather, this soft case is the ideal way to protect and store your camcorder and accessories...59.95

### VFL-1 Light and Flash:
Attaches to the Advanced Accessory Shoe for cable-free operation. As a video light, it can turn on and off automatically. As a flash, it can fire automatically or act as a pre-flash to reduce the red-eye effect...94.95

### VL-10Li Video Light:
Provides a powerful 10-watt illumination. A BP-900 series battery attaches directly, so operation is cable-free...64.95

### Wide Converter
Perfect for shooting indoors in small rooms or for capturing the great outdoors, the Wide Converter gives you an even wider view (0.7x).

**WD-H46** for the Optura Xi...139.95

**WD-H30.5** for the Optura 300...94.95

**WD-H34** for the Optura 30 and 40...139.95

### Tele Converter
Screws onto the front of the camera’s lens and increases the focal length.

**TL-H46** for the Optura Xi...139.95

**TL-H30.5** for the Optura 300...104.95

**TL-H34** for the Optura 30 and 40...149.95

### Filter Set
Includes a neutral density filter (ND8) which will decrease the amount of light coming into the camera's lens, and a protective MC filter to prevent the camera's lens from getting scratched

**FS-H46U** for the Optura Xi...64.95

**FS-30.5** for the Optura 300...59.95

**FS-34** for the Optura 30 and 40...59.95
CANON

GL-2

3-CCD DV Camcorder

Setting the standard for prosumer-type camcorders, the GL-2 offers unmatched optical technology for superior image quality and shooting versatility. Building on Canon’s expertise in 35mm photographic and broadcast TV lenses, the GL-2 is equipped with Canon’s exclusive L-Series Fluorite 20X optical zoom lens for outstanding imaging power in a lightweight, portable design.

Combining the L-Series Fluorite Lens with 3 CCD imaging sensors and Pixel Shift technology, the GL-2 achieves outstanding picture detail, sharper stills, reduced vertical smear, accurate color reproduction and wide dynamic range.

In addition, the GL-2 features a 100x digital zoom, 2.5” LCD color monitor, digital effects, digital photo mode, SD/MMC memory card capability, DV (IEEE1394) and USB interface and a host of other features that give it the functionality of a professional camcorder. Functions such as SMPTE color bars, Zebra Pattern, Clear Scan and picture adjustments—make it ideal for newscasters and independent film makers. By combining the most advanced technologies in lenses and signal processing with manual controls and features, the GL-2 achieves a perfect balance of amazing picture quality and performance versatility.

FEATURES

3-CCD Image Sensor

- The GL2 maximizes the capability of the DV format by assigning a separate CCD to each primary color (red, green, blue). A beam-splitting prism precisely separates the light passing through the lens into individual color components, and each is sent to its own CCD. This process achieves outstanding detail with highly accurate color reproduction suitable for the demands of the high-end production field - wide dynamic range, low color noise, natural color resolution and low aliasing. On top of this, Canon improved a broadcast technology to create a new form of Pixel Shift, producing greater picture quality than that of camcorders using CCDs with almost twice the number of pixels. This allows the GL-2 with 410,000 pixels on each of its CCDs to rival the resolution of camcorders using CCDs with 680,000 pixels.

Pixel Shift Technology

- Pixel Shift is a signal processing method used in broadcast cameras to exceed the overall picture quality achieved by camcorders using nearly twice as many pixels. With the light coming into the camcorder split into three color components, each of the three CCDs then handles one of three primary colors: Red, Green and Blue. The green component of a video signal contains 60% of the picture detail, and the red and blue components only 40%. The green CCD in the GL2 is shifted the equivalent distance of 1/2 pixel from the red and blue CCD. The green signal is then sampled more frequently to extract the maximum picture detail from the video signal. In addition to outstanding clarity and natural color, Pixel Shift provides wider dynamic range, reduced vertical smear from bright light sources and sharper still images.

L-Series Fluorite Lens

- Canon has satisfied the demands of experienced image makers for years through the power, design and quality of their 35mm and broadcast TV lenses. The professional L-Series lenses utilize Fluorite, a material which provides outstanding resolution, contrast and color reproduction, especially in lightweight, high-magnification lenses. Now incorporated into the lens on the GL-2, Fluorite delivers the ultimate clarity and image quality.

- The Fluorite element inside of the lens defeats color aberration - the effect when components of light stray from one another within a lens, causing a reduction in sharpness, contrast and color. The Fluorite lens precisely controls components of light providing an excellent balance of these three critical ingredients of picture quality. This is unobtainable with conventional optical glass.

Optical Image Stabilize

- Canon’s superb optical stabilization system eliminates image shake due to a wide range of movement and/or high wind conditions. It corrects camera shake instantly so even hand-held shots, at full telephoto, and shots taken from a moving car, are smooth and steady. And since it is optical, there is no loss of image quality as with electronic image stabilizers.

- A perfect complement to the high picture quality of DV, the stabilizer employs a unique Vari-Angle Prism within the lens to optically compensate for camera shake before light reaches the image sensor, resulting in smooth, steady video without degradation.
20x Optical Zoom Lens
◆ With a 35mm focal length equivalent of 39.5 to 790mm, the 20x optical zoom transforms distant subjects into crisp, dramatic close-ups.
◆ The GL-2 also offers a digital zoom extending between 40x-100x. At full telephoto it offers a telescopic 35mm equivalent of 79,000mm.
◆ An optional wide converter is also available. Using the WD-58 wide-converter, the field of view will increase by 0.7x (28mm in 35mm focal equivalent) for indoor shots or panoramic views.

16:9 Aspect Ratio
◆ The GL-2 is equipped with two 16:9 aspect ratio methods.
– Uses 16:9 guides which are thin white lines that appear in the display only. They let you view a 16:9 wide screen composition while in the standard 4:3 aspect ratio, which is especially helpful if you’re planning to transfer your DV footage to film.
– The GL2 includes a 16:9 recording mode, which applies an electronic anamorphic stretch allowing you to fill the frame of a 16:9 wide screen TV.

3 SHOOTING MODES
The GL-2 has three shooting modes to accommodate any of your recording needs.

Normal Movie Mode—
By merging Canon’s superior lens quality with 3 CCDs, the GL-2 delivers stunning resolution and color reproduction - some of the best images outside of a TV studio. This mode records video in the standard interlaced fashion similar to conventional camcorders. Normal Movie Mode is ideal for recording video which appears smooth and natural during playback on a TV or video editing computer.

Digital Photo Mode (1.7 Megapixel High Resolution Photos)—
The GL-2 features advanced image processing, for capturing crisp, high-definition photos. Images may be captured in a choice of different image qualities and compression sizes to suit your needs. Capture up to 10 stunning 1.7 megapixel (1488 x 1128 pixel) images onto the included 8MB SD Memory Card.
Images may be also captured at VGA (640 x 480 pixel) in standard or fine compression. For added flexibility, you may take up to 700 still pictures on a Mini DV single tape (in SP mode). The camera records the still pictures for approximately 6 seconds, as well as recording the sound for your verbal notes or narration. You can search through the recorded tape for your photos using the supplied remote control.

Frame Movie Mode—
This mode captures video in a unique non-interlaced method allowing the GL-2 to record 30 frames of video per second. Similar to a motor drive on a 35mm camera, Frame Movie Mode performs like a digital motor drive. You’ll capture every gesture and expression of your subject with spectacular clarity. It’s perfect for users who choose to grab high quality still images from video for making prints, video for website content, or even sending emotionally charged images over the internet. The non-interlaced method has even been acknowledged by users for its cinematic-like appearance.

HIGH-END AUDIO

Microphone Modes
The built-in microphone incorporates two pairs of pick-up elements each for left and right. This arrangement realizes a superior directional ability and fuller, richer stereo sound. In addition, you can change the microphone frequency characteristics to match the recording condition:
• Normal: Use this mode for most recording situations.
• Voice: When shooting dialogue where low-level ambient noise (like air conditioning) may interfere with obtaining high quality sound, switch over to the Voice mode.
• Wind Screen: Prevents wind noise from interfering with the audio. This can be turned off when you want the mic to be as sensitive as possible.

PCM Digital Stereo Sound
◆ The GL-2 is complete with selectable 16-bit and 12-bit modes.
– 16-bit (48kHz), the highest quality, produces CD quality, two channel sound on one track.
– The 12-bit (32kHz) mode divides the audio track into two, recording two channels on one track while leaving two channels (stereo 2) open for post production audio recording (narration, music, etc.)

Audio Control
◆ The GL-2’s automatic level control analyzes sound and adjusts the levels automatically to provide the best possible sound. However, for complete control, the GL-2 offers 2 channel manual audio adjustment. The audio level can be monitored by an external illuminated VU meter or in the viewfinder/LCD view screen.
◆ The GL-2’s omnidirectional microphone is designed to deliver great quality sound: realistic, life-like, and in stereo. Using the GL-2’s Advanced Accessory Shoe you can use the optional DM-50 microphone and MA-300 mic adapter, both of which are powered by the Advanced Accessory Shoe — no cables required.
◆ The optional MA-300 Microphone Adapter is equipped with 2 XLR connectors for use with professional audio equipment and a BNC video connector.
**Shooting Enhancements**

The GL-2 offers many on-camera enhancements that help avoid common shooting errors and make capturing high-quality footage trouble-free. The shooting enhancements also include basic conventional features that are commonly found on broadcast camcorders.

**Clear Scan—**
Usually found on more expensive cameras, this feature allows you to record a computer CRT screen or similar equipment without displaying a black band or flicker on the screen. The GL-2 can adjust shutter speeds from 61.9 Hz to 201.5 Hz in 117 steps.

**AE Shift—**
You may want to slightly adjust the image brightness to compensate for backlighting or for scenes that are being rendered slightly overexposed. When in Auto, TV or Av Modes (selected on the Program Dial), you can engage AE Shift in the camera menu, then turn the menu dial to add or subtract a bit of exposure. There are 13 steps available, from ±2. This is another level of creative control.

**SMPTÉ Color Bars—**
SMPTÉ (Society of Motion Picture and Television Engineers) Color Bars are an electronically generated video pattern consisting of eight equal-width colors, used to establish a proper color reference before recording and playback and for adjustment purposes. A color bars lead-in of between 10-60 seconds is standard in professional video production. The GL-2 can generate color bars on tape, or used during shooting to let you check the adjustment of reference monitors.

**Character Record—**
Character Record is a feature that allows for the superimposition of data -- month, day, hour, minute and second -- on the video. This data is permanently burned on to the video. This is ideal for surveillance and law enforcement use.

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**Exposure Controls**

The GL2 offers both the versatility to meet all exposure challenges and ease of use when you're happy to let the camera make all the choices. Amazingly sophisticated circuitry and computer algorithms analyze the light coming through the lens to deliver proper exposure automatically under almost any lighting condition. You can also easily adjust the exposure system in any one of several creative ways to meet specific needs. By turning the easily accessible Program Dial to select one of seven exposure modes, you control how you want the video to look.

**Programmed AE**
The GL-2's Programmed AE (Auto Exposure) modes provide automated advanced recording techniques ensuring professional results in almost any shooting conditions. There are six AE programs available including Shutter and Aperture Priority, Spotlight, Manual, Full Auto, and Auto Mode. These applications are designed to give you creative freedom while allowing the recording control desired.

**Full Auto (Green Mode)**
Green is for "go". Set the Program Dial to Full Auto Mode and the camera's sophisticated control system takes over. This means you don't have to worry about anything except being there to capture the moment on video. In this mode, your access to manual controls are restricted.

**Auto Mode**
Handles all camera settings while also letting you choose the function or functions you would like to control manually such as focus, exposure and white balance.

**Spotlight**
Nothing can confound a camera's exposure system like a singer spotlighted on a dark stage. The GL2 offers you Spotlight Mode (dark triangle with white body shape on the Program Dial) to overcome this problem. The camera will automatically adjust exposure for the center of the frame (the brighter singer) rather than the darkness of the stage. This will prevent the person from showing up overexposed or blooming against a dark background. The result is a perfect exposure.

**Sand & Snow**
Prevents subjects from being under exposed against a bright background.

**Shutter Priority/ Aperture Priority**
Need to make a crystal clear video of the swing of a golf club or a golf ball in flight? Want to accentuate the motion of a racing car by blurring its motion? Or shoot under very low lighting conditions? These are just three of the things you can do simply by selecting one of 12 shutter speeds, from the slow (1/8 second) to the ultra fast (1/15,000 second) when in Shutter Priority Mode (Tv on the Program Dial). The GL-2's sophisticated exposure circuitry will automatically select the aperture for a proper exposure. If you have selected a shutter speed that is either too high or too low for the light conditions, a warning will flash in the viewfinder. Use of the built-in ND filter may be required.

The ability to adjust the lens opening (aperture) gives you the creative ability to adjust depth of focus. Larger openings increase the amount of the background that’s in focus, and smaller openings increase the focus area. You can select one of 9 apertures from f/1.5 to f/11 on the Exposure Dial by selecting Av on the Program Dial; the GL-2 will automatically select the shutter speed to match the chosen aperture, giving you the proper exposure. If you have selected an aperture that is too large or too small for the lighting conditions, a warning will flash in the viewfinder. Use of the built-in ND filter may be required.

**Manual Mode—**
For the times you want total control of all aspects of the exposure system, the GL2 offers Manual Mode (M on the Program Dial). You control the aperture and shutter speed together - 27 shutter speeds from 1/8 sec to 1/15,000 of a second, and 23 aperture values with half-stop adjustments from f/1.6 to closed for precise brightness and depth of field control.
Picture Adjustments
Attaining the best picture possible is the essence of film making, photography, videography — and Canon. The GL-2 automates and also allows manual control of the essential ingredients that go into capturing great images.

White Balance
The GL-2 features automatic white balance as well as standard presets for indoors (3200ºK) and outdoors (5600ºK) or you can manually set the white balance. Manual settings are useful when shooting subjects with one dominant color such as the sky, close-ups, rapidly changing lighting conditions, and in places lit by certain types of fluorescent or mercury vapor lights.

Setup Level
Adjust the black level of the video signal in 13 (±6) steps for the best shadow detail.

Color Phase
The GL-2 will let you shift the color in 13 (±6) steps towards red or green. The Color Phase feature is particularly useful when shooting under fluorescent lights when skin tones tend towards the green. Using Color Phase, shift the color towards the red.

Top Grip Record Control
Not only does the GL2 have a side hand grip with readily accessible controls, it also features a carrying handle with a duplicate set of recording and zoom controls. This is designed to make mid-to low-angle shooting easier and more comfortable, and to accommodate your individual shooting style. Controls on both the side and top grips let you start and stop recording, take digital still photos, and zoom in and out. The top controls can be locked to prevent accidental operation.

Variable Zoom Speed
The lens zooming rate on the GL-2 is adjustable. The side grip and top grip offer separate controls to adjust the rate of zoom. When using the side grip, a gentle press on the zoom control will give you a slow zoom. Press harder and the zoom speed picks up. The farther you press the zoom control, the faster the zoom speed. If you need a steady, fixed-speed zoom, you can choose one of three zoom speeds in the menu. The top grip zoom control can be set for one of three zoom speeds — low, medium or fast — by selecting the appropriate speed in a menu selection.

Color Gain
Adjust the saturation of the color in 13 (±6) steps, from off to oversaturated. This adjustment allows you to shoot in black and white.

Gain Control
There are times when you may have to shoot in dark locations but cannot add lighting to the scene. Using the Gain Control on the GL-2 will increase the brightness of a recorded scene, although at the expense of some image noise. Available gain values are 0dB, +3dB, +6dB, +9dB, +12dB.

Sharpness
You can adjust the range of picture sharpness on the GL2 from softer to sharper depending on how you want to portray your subject. For example, for bridal scenes you may want to adjust the sharpness towards a slightly blurred image for a softer focus effect.

Index Record—
With Index Record you can "tag" a shot that is good -- or that deserves post-production attention. The notation is placed in the sub-code section of the data code.

Zebra Level—
The GL2’s viewfinder and monitor can be set to show areas of overexposure in the scene being captured -- using a series of diagonal zebra stripes. If you wish, you can adjust either the shutter speed or aperture to eliminate the overexposure.

Viewfinder Display On (partly Off)/Off—
The GL-2 gives you the option of seeing camera data and settings in the viewfinder. The amount of information shown in the viewfinder can be set for: Full Display, Partial Display, or No Display.

Advanced Accessory Shoe—
Canon's Advanced Accessory Shoe lets you attach specific optional video lights and microphones, with the GL-2 exchanging data with them and supplying power directly to them. Simply slide the optional microphone or light into the accessory shoe; no external power or cables are required.

Tally Lamp—
On the GL-2, the tally lamp (signal lamp or LED installed on a video camera that indicates to performers and crew that the camera is recording) can be left on or turned off via the camera menu. Turning the tally lamp off can facilitate capturing mode natural documentary footage.

Shooting Enhancements
The GL-2 offers many on-camera enhancements that help avoid common shooting errors and make capturing high-quality footage trouble-free. The shooting enhancements also include basic conventional features that are commonly found on broadcast camcorders.
Additional Features

**High Resolution Color Viewfinder & LCD Monitor**

Increasing the GL-2's usability is a 2.5˝ color LCD screen with approximately 200,000 pixels. Designed for both shooting and playback functions, the screen will rotate 270 degrees so you can adjust the LCD screen to virtually any viewing angle. Your subject can even watch his or her performance as the video is being recorded. The screen folds neatly against the camera body when not in use. The screen can be used to display essential camera and tape function menus and indicators. Your shooting experience with the GL-2 is also enhanced by a 180,000-pixel high resolution 0.44˝ color viewfinder.

**MultiMediaCard / SD Memory Card Capability**

For the storage of digital still images captured by the GL2, you can use either MultiMediaCards or SD memory cards in the GL2. An 8MB SD Card comes with the camcorder, storing up to 17 fine quality still pictures or 32 standard quality images.

**IEEE1394 DV Terminal**

The GL-2 is equipped with a DV IN/OUT terminal that conforms to IEEE1394. It takes just a single digital cable to transfer or copy your videos in pure digital form to your DV compatible computer or another Canon DV camcorder. Once you've transferred video images to your computer, you can edit your movies, stream them over the Internet, or post them on your Web site. Also, you can print them out on a Canon color printer, transfer them back to your Canon camcorder and archive them on a Mini DV cassette, or create a dubbing master.

**Custom Keys and Presets**

**ONE CUSTOM KEY**

The GL2 offers a Custom Key (one setting for camera mode and one for VCR mode). This lets you create and save your own custom settings so your common shooting modes can be readily duplicated. Select options from either the Camera Menu or the VCR Menu and create a customized setting for each.

**CUSTOM PRESET KEY**

In addition to creating a custom setting for camera and VCR mode via the custom key, you also can establish one preset registration for the following camera features: camera sharpness, color gain, setup level, and color phase.

**Digital Effects and Fades**

The GL-2 offers you a variety of scene transition effects, producing smooth, professional-looking dissolve and wipe transitions between scenes as you record.

**Effects include:**

- **Black & White,** which removes color from the video images;
- **Sepia, Art, Mirror, Trail and Strobe,** for a stop-and-go type of motion effect.
- Use the fader to start or end scenes with a fade to/from black such as the **Fade Trigger, Wipe and Overlap.**
Audio and Video Inputs and Outputs

The GL-2 can handle two types of analog input and output using audio/video cables (composite) or S-Video. Both connections are on the camera back.

Audio and Video Inputs

The GL-2’s analog audio inputs let you perform dubbing or insert editing from conventional audio sources such as CDs, cassettes, microphones or the soundtracks of other videocassettes.

- **Two-Channel Digital Audio**: Because the GL2 offers you audio recording options, you can record live on two channels and leave two channels open for post production audio recording (narration, music, etc.). Manual level controls let you adjust the sound coming in on those two open channels— to match the levels of the live sound, for example.

- **Audio Dub**: Using a recording made in the 12-bit audio mode you also can add (dub in) stereo sound from another audio source or through the internal or external microphone.

- **A/V Insert**: The GL2 gives you the option of adding video and/or audio to an existing SP-recorded DV tape. Input can be digital, or analog video and analog audio.

Audio and Video Outputs

Audio and video on a MiniDV cassette can be output to another camcorder or VCR.

- **Composite / S-Video / Audio Output**: Audio output is accomplished via the same ports used for input. Video outputs include composite and S-video. The audio and video ports are located on the back AV panel. There is also an adjustable Headphone Terminal.

- **Headphone Terminal (Adjustable Level)**: The GL-2’s headphone jack has a 15-level volume adjustment for monitoring sound during shooting, performing sound checks, or listening to the sound through stereo headphones during playback.

- **Analog Line Input with A/D Converter**: What if you have analog video or audio, and want to include it in your DV production? The GL-2 lets you input that analog signal from your TV, VCR, or camcorder and record it onto DV. The GL-2’s A/D converter lets you take any of your analog productions and convert them to digital. It’s great for making copies or preserving precious originals. You can then store the video and/or audio on your computer, a CD, or a DVD with a properly equipped computer.

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**GL-2 Standard Kit Includes:**

- BP-915 Battery Pack
- CA-910 Compact Power Adapter
- DC-905 DC Coupler
- SS-650 Shoulder Strap
- WL-D73 Wireless Controller
- S-150 S-Video Cable
- STV-250N stereo video cable
- DVM-E30 DV Cassette
- Lens Hood

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**Conveniences**

- The GL-2 has a USB connection for transferring still images to a computer. The camcorder comes with the computer software necessary to transfer still images from the GL2 to computer.

- The GL-2 is designed to consume as little power as possible and comes with power saving features such as auto off features (activated after 5 minutes of inactivity) to further extend battery power for field and remote work.

- Whether your aim is a “streaming” background when panning, or brighter recording in low light, you can choose from three slow shutter settings – 1/30, 1/15 and 1/8 of a second.

- The GL-2 has a camera menu and a VCR menu. Both menus are simple toggle and select systems that allow for rapid adjustment of key camera controls — such as audio input levels, tally lamp on/off and activation of zebra pattern.

- The supplied full-function wireless remote control will work at distances up to 16’. The remote can start and stop recordings, zoom the lens, handle all playback (VCR) functions, control audio and video dubbing functions, and more.

- Easily find the still pictures you took in Photo Mode. Using the Remote Control, Easy Photo Search lets you scan through the still pictures, even if they’re recorded between sections of moving footage.

- The GL-2 has two power saving mechanisms built in to reserve power and protect the tape transport.

  - Normal Standby is activated by pressing the “Standby” button on the camera body. This shuts the power down to the camera and VCR sections while maintaining the camera’s settings.

  - Power Save switches the VCR to standby mode from “record pause” mode automatically after staying in any shooting mode for more than 5 minutes. This keeps the camera section live for monitoring or for setting up a shot. Activate this mode at any time by programming this function in one of the custom keys.
3-CCD DV Camcorder with Interchangeable Lenses

The full potential of DV in one extraordinary camcorder. The ultimate digital camcorder system, the XL1S starts with a highly intelligent “open architecture” design, which allows you to customize it with the widest variety of optional accessories available. Plus you have extensive control over picture and sound adjustments to tailor the “look and feel” of each recording to your preference or even your clients’. Whether you define yourself as an imaging enthusiast, professional videographer or digital filmmaker there is a Canon XL1S digital camcorder configuration that’s just right.

The XL-1S combines Canon’s exclusive interchangeable XL Lens Mount System and superior optical technology to offer video producers and semi-pro videographers unmatched image quality and shooting versatility. Combine this with the unprecedented amount of manual control it offers, and you have the widest array of adjustments for a great variety of imaging possibilities. Additionally, the XL-1S was designed to overcome operational limitations and to complement most users’ preferences. Whether your subject is near or far, in a studio, in daylight or low light, the XL-1s delivers outstanding magnification, resolution, color reproduction, and high S/N ratio.

3-CCD System

The XL1s maximizes the capability of the DV format by using a 3-CCD (charge-coupled device) system with a separate CCD for each primary color (red, green, blue). A beam-splitting prism separates light passing through the lens into individual color components and each is sent to its own CCD. Compared to a single CCD, the 3-CCD system achieves outstanding detail with highly accurate color reproduction suitable for the demands of high-end video production - wide dynamic range, low color noise, high-contrast detail, natural color resolution and low-aliasing. The 3-CCD system also makes advanced Pixel Shift (for increased image quality) and Low Light Recording (for increased flexibility) possible.

Pixel Shift

Because human eyes see green more clearly and readily, the green component of a video signal contains 60% of the picture detail whereas the red and blue components together comprise the remaining 40%. With the advanced Pixel Shift on the XL-1S, the green CCD is physically shifted the equivalent distance of 1/2 pixel horizontally from the red and blue CCD, and the green signal is electronically shifted 1/2 pixel vertically. This shifting of the green CCD increases the sampling points, resulting in a system that is comparable to 410,000 pixel CCD systems in terms of resolution. With a larger pixel size and the process of Pixel Shift, the Canon XL-1S gives wider dynamic range, better low light recording, reduced vertical smears, and high quality still images without sacrificing the highest resolution DV available.

Super High Resolution and Super Low Light

The three CCD image sensors in the XL1s, each with 270,000 pixels, were designed to capture as much image detail as possible and for shooting in extremely low light conditions. The size of each pixel is 72 square microns - 150% larger than the pixel-size on comparable DV models. The result is an approximate 4 dB improvement in sensitivity. This improved sensitivity means that each CCD can capture more information at all light ranges. In super low light, the XL-1s still captures crisp and clear digital data. Under extremely bright conditions, the Pixel Shift capabilities of the XL-1s, greatly reduces vertical white streaks and smears, making it a consummate field recording device for all conditions.
**SuperRange Optical Image Stabilization**
Until now, optical image stabilizers have used solely a gyro sensor to detect camcorder vibration. The data collected by the sensor controls a vari-angle prism that continuously corrects the path of the incoming light. SuperRange goes one step further by examining the image after it is received by the CCD, and detecting any low-frequency vibrations missed by the gyro. This data is fed back to accelerate and refine the movement of the vari-angle prism. This greatly improves performance for low-frequency vibration, resulting in the most advanced optical image stabilization available today. This feature is found only on Canon’s optical Image Stabilized 16x zoom lens.

**Three Shooting Modes**
The XL-1s offers three shooting modes so you can meet a variety of shooting environments, from standard recording to digital stills to the specialized frame-by-frame.

**Normal Video:**
The video recording mode for normal use, Normal Movie Mode merges Canon’s unique optics with 3CCD (with Pixel Shift technology) to deliver stunning resolution and color rendition for some of the best video images ever seen.

**Digital Video Mode:**
The Digital Photo Mode distinguishes XL1s by capturing extremely high-resolution still images - more than 700 brilliantly clear still pictures on a single 80-minute tape (in SP Mode). The XL-1s records still pictures for approximately 6 seconds, as well as sound for music, narration or verbal meta data.

**Frame Movie Mode:**
With Normal Movie Mode, video is captured using interlaced frames. In Frame Movie Mode, video is captured in a non-interlaced form at the rate of 30 frames per second. This delivers spectacular clarity, perfect for those who need to grab high-quality images from videos for making prints, adding website content, or sending images over the Internet. This non-interlaced method is acknowledged by users for its cinematic-like appearance.

**Interchangeable Lens System**
Unlike other DV systems available, the XL-1s supports interchangeable lenses, both for video and still imaging, as well as extender zooms. With the XL mounting system, the XL1s offers maximum flexibility and an unbeatable range with potential focal ranges between 24 and 8640mm (35mm photography equivalent). Supported lenses include standard XL lenses and extenders. In addition, via the optional EF adapter, EF camera lenses are also compatible.

**16x Mechanical (Manual) Servo Zoom Lens**
Perfect for video applications that require precise manual lens control, this manual lens gives you the flexibility of calibrated manual focus, zoom and aperture. Even more, it includes a power zoom, automatic iris and two built-in ND filters.

**Optical Image Stabilized 16x IS II Lens**
This lens resolves over 600 vertical lines to record an extraordinarily sharp image. By exceeding the DV standard of 500 TV lines, it delivers greater visual “sharpness” through its higher sensitivity in the all-important 100 to 250 TV line resolution area. It also includes Canon’s “SuperRange” variable angle prism for optical image stabilization, an ND filter, manual focus and zoom rings, and a push AF function.

**3x Wide Angle Lens**
This extra-wide angle 3x zoom lens provides the world’s widest field-of-view on any DV camcorder. The focal length is 3.4mm to 10.2mm (35mm equivalent 24mm to 72mm) and the resolution exceeds 600 TV lines. It also has an ND filter, manual focus and zoom ring.

**1.6x Extender**
You can boost the power of XL lenses, with no loss of image sharpness, by attaching the optional 1.6x Extender (optional) between the XL lens and the XL-1s.

**EF Adapter**
The optional EF Adapter fits onto the XL-1s allowing use of Canon EOS EF lenses for quality still imaging.
**Exposure Modes**

Programmed Auto Exposure (AE) modes provide automated advanced recording techniques ensuring professional results in various shooting conditions. There are six AE programs including Shutter and Aperture Priority, Spotlight, Manual, Full Auto, and Auto Mode. These applications are designed to give you creative freedom while allowing the recording control desired.

**Full Auto Mode:**
Full Auto (Green Mode) automatically controls focus, shutter speed, aperture, gain, white balance, and AE Shift letting you simply point and shoot. Locks all features and options, making them unadjustable.

**Auto Mode:**
The Auto Mode automatically controls camera adjustments allowing you to simply point and shoot, while allowing you to override any of the XL1s’ manual functions.

**Spotlight Mode:**
Adjusts camera exposure to effectively record images and/or subjects lit by a spotlight or other concentrated light source.

**Shutter-Priority:**
Shutter-Priority (TV Mode) allows for the selection of 12 shutter speeds from 1/8 to 1/15,000 of a second that are then automatically matched with appropriate aperture settings. If the selected shutter speed is too high or too low for shooting conditions, an indicator warning flashes in the viewfinder. When manually adjusting shutter speed, aperture automatically adjusts.

**Aperture Priority:**
In Aperture Priority (AV Mode) you select between 9 aperture settings - from f/1.6 to f/16 (or to full iris close) - and the XL1s automatically sets a matching shutter speed. This mode allows for the best control of depth of field.

**Manual Mode:**
The XL1s offers a complete range of manual controls for creative freedom. In Manual Mode you can set the exposure at any combination of shutter speed and aperture levels. There are 30 shutter speed settings, from 1/8 to 1/15000 and 27 aperture values, from f1.6 to full iris close.

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**4:3 and 16:9 Aspect Ratios**

The XL-1s offers both the standard 4:3 aspect ratio and the 16:9 wide screen TV aspect ratio. (The numbers represent the ratio of the screen width to its height). 4:3 is the most commonly used aspect ratio in broadcasting today. While 16:9, more accurately conforming to human peripheral vision and visual perception is the world standard aspect ratio for HDTV.

**4:3 with 16:9**

Electronic Guides on Viewfinder

16:9 guides are white lines that appear only in the viewfinder. With the augmentation of 16:9 electronic guides on the viewfinder, this version of the 4:3 aspect ratio allows for later conversion to 16:9.

**16:9 (Electronic Anamorphic)**

Also available on the XL-1s is the 16:9 aspect ratio, for the playback on widescreen TV’s. This is menu selectable, and electronically squeezes the image being recorded to tape. When played back these images are stretched to fit the wider aspect ratio.

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**SHOOTING ENHANCEMENTS**

**Top Grip with Recording Control:**
The XL-1s camera body was designed for diversity and control. Standard record control devices are accessible from a side grip perspective, as well as from a top grip hold. Top grip controls include stop, start, zoom controls, and photo shot snapping. Using the top grip allows for lower angle shooting, tighter camera locations and enhanced flexibility. There is also a LOCK lever that prevents accidental use of the top grip control.

**Variable Zoom Speed:**
The XL-1s offers several methods by which to zoom into or out of a scene. The Top Grip Zoom offers zoom rates that can be manually set to create a low, medium, or high rate of zoom. The Side Grip Zoom can be set for either variable or low/medium/high zoom. Zoom can also be controlled by the lens zoom ring.

**Zebra Pattern:**
The XL-1s has a zebra pattern feature that, when activated via the camera menu, shows black and white diagonal stripes over any area that is overexposed. The zebra pattern is only displayed in the viewfinder. Use this feature to guide the adjustment of the aperture and shutter speed. Zebra pattern settings are available: 80 IRE, 85 IRE, 90 IRE, 95 IRE, and 100 IRE.

**Character Record:**
Allows you to superimpose data — month, day, hour, minute and second — on the video. This data is permanently burned onto the video. This is ideal for surveillance and law enforcement use.

**Index Write:**
Allows for in-camera tagging in the sub-code section of the data code to indicate a shot that is good — or that deserves post-production attention.

**EVF Display ON/OFF:**
See the camera data and settings via the viewfinder. The amount of information shown in the viewfinder can be set for: Full, Partial or no Display.

**SMPTE Color Bars:**
SMPTE Color Bars are an electronically generated video pattern consisting of eight equal-width colors, used to establish a proper color reference before recording and playback and for adjustment purposes. A color bars lead-in of between 10-60 seconds is standard in professional video production. The XL-1s can generate color bars on tape, or used during shooting to let you check the adjustment of reference monitors.
PICTURE ADJUSTMENTS

Attaining the best picture possible is the essence of film making, photography, videography — and Canon. The XL-1s automates and also allows manual control of the essential ingredients that go into capturing great images.

Setup Level: Adjust the black level of the video signal in 13 (±6) steps for the best shadow detail.

Color Gain: Adjust the saturation of the color in 13 (±6) steps, from off to oversaturated. This adjustment allows you to shoot in black and white.

Gain Control: There are times when you have to shoot in dark locations but cannot add lighting to the scene. Using Gain Control you can increase the brightness of a recorded scene, although at the expense of some image noise. Available gain values are -3dB, Auto, 0dB, +6dB, +12dB, +18dB, +30dB. Use lowest gain levels for lowest noise recording for indoor, low light or low contrast scenes. Zero or balanced gain (0dB) is used for low noise, color reproduction of illuminated scenes. Higher gain settings are used to increase light capture to brighten indoor or low-light scenes when an open iris does not supply sufficient signal. Higher gain settings also enable you to increase the depth of field using a smaller iris aperture.

Color Phase: The XL-1s will let you shift the color in 13 (±6) steps towards red or green. The Color Phase feature is particularly useful when shooting under fluorescent lights when skin tones tend towards the green. Using Color Phase, shift the color towards the red.

Sharpness: You can adjust the range of picture sharpness on the XL-1s from softer to sharper depending on how you want to portray your subject. For example, for bridal scenes you may want to adjust the sharpness towards a slightly blurred image for a softer focus effect.

White Balance: Features automatic white balance as well as standard presets for indoors (3200º K) and outdoors (5600º K). In addition, you can manually set white balance, and save up to three of these for reuse in non-sequential shooting. Manual white balance is best for dominant color or monochromatic scenes and close-ups, in fast changing lighting conditions and when lit by certain fluorescent or mercury vapor lights.

AUDIO ADJUSTMENTS

Canon knows that audio is crucial to professional productions, and the XL-1s provides the highest standards in audio capture available with a 16-bit, 2-channel recording option. The XL-1s also has two additional 12-bit recording channels allowing simultaneous recording on four channels. Audio levels can be controlled manually to further extend sound quality as it is recorded. Controlling audio levels is essential for real-time event capture and the XL-1s permits both automatic and manual audio recording. Manual control allows for setting balance and level.

◆ Records sound in three digital audio modes that can be selected via the camera menu.
  — 16-bit (48kHz) 2-channels:
    For capturing and recording the highest sound quality. Used during simultaneous A/V recording, documentary and news footage.
  — 12-bit ST-1 (32kHz) 2 from 4 channels:
    For recording on two channels (stereo 1), leaving two channels (stereo 2) free for the later addition of audio tracks. Used to capture ambient audio that will be augmented with additional audio tracks.
  — 12 bit ST-1,2 (32kHz) 4 channels:
    For simultaneous recording on four channels (stereo 1 and stereo 2). Used to simultaneously capture a line-in device and/or sets of microphones with ambient audio capture available.

Custom Keys and Presets

◆ The XL-1s allows you to create and save your own custom settings so your common shooting modes can be readily duplicated. Select options from either the Camera Menu or the VCR Menu and create up to two customized settings for each.

◆ In addition to creating custom settings for camera and VCR mode via the custom keys, you can also establish three preset registrations for the following camera features: camera sharpness, color gain, setup level, and color phase.

Camera Mode Custom Setting Option

• Index Rec • Zebra Pattern • VCR STOP
  • ON Screen • Audio 1 In
  • Audio 2 In • Zoom Grip
  • Zoom Handle • Data Code

VCR Mode Custom Setting Option

• ON Screen • Data Code
• Audio 1 In • Audio 2 In

Easy Menu System

The XL-1s has two main menus, a camera menu and a VCR menu. Both menus are simple toggle and select systems that allow for rapid adjustment of key camera controls - such as audio input levels, tally lamp on/off and activation of zebra pattern.

Camera Menu

• Zebra pattern • 16:9 effect
• Movie mode • Remote sensor
• Tally Lamp • Audio mode
• Audio 1 Input • Audio 2 Input
• Recording mode • Date/time set

VCR Menu

• Tally Lamp • Remote sensor
• Recording mode • Mix balance
• Output channel • Data Code
• Date/time select • Date/time set
**Multi-Angle Viewfinder**

The 180,000 pixel, color LCD viewfinder can be adjusted for left or right eye recording and can be swiveled 270°. In addition, the viewfinder can be changed to either “near” or “far” view settings for low or high angle shooting. The brightness of the display can be adjusted by turning the “Bright” screw. By using the menu system, you can adjust the viewfinder color to match the shooting conditions. The focusing ring on the viewfinder can be adjusted from -5 to +2 for accurate focus monitoring.

**Digital Effects**

The XL-1s features two in camera digital effects - a 2x digital zoom and a fade trigger that can be easily activated. Only one digital effect can be used at a time.

- Activating the 2x digital zoom successfully doubles the camera’s zoom range. The zoom control continues to work as usual - the camera automatically switches between optical zooming and digital zooming, though image resolution is slightly lower when the magnification exceeds the optical zoom range.
- The Fade Trigger allows for a smooth and controlled fade in or out from a scene.
- Whether your aim is a "streaming" background when panning, or brighter recording in low light, you can choose from three slow shutter settings –1/30, 1/15 and 1/8 of a second.

**IEEE1394 DV Terminal**

The XL-1s is equipped with a DV I/O terminal that conforms to IEEE1394. It takes just a single digital cable to transfer or copy your videos in pure digital form to your DV compatible computer or another Canon DV camcorder. Once you’ve transferred video images to your computer, you can edit your movies, stream them over the Internet, or post them on your Web site. Also, you can print them out on a Canon color printer, transfer them back to your Canon camcorder and archive them on a Mini DV cassette, or create a dubbing master.

**XL-1s Standard Kit Includes:**

- XL-1s Camcorder Body
- Zoom Lens 16x 5.5-88 mm IS
- BP-930 Battery Pack
- CA-910 Compact Power Adapter
- DC-900 DC Coupler
- S-150 S-Video Cable
- SS-1000 Shoulder Strap
- WL-D3000 Wireless Controller
- SP-100 Shoulder Pad
Audio and Video Inputs and Outputs
The XL-1S offers a plethora of means by which to get audio and video in and out of the camcorder. It is designed to handle two types of analog video input and output: using audio/video cables (composite) or S-video. There are four audio inputs and outputs. All connections are on the camera body.

Audio and Video Inputs
The XL-1S’ analog inputs let you perform dubbing or insert editing from conventional sources such as other camcorders, editing equipment, CDs, cassettes, or microphones.

Four-Channel Digital Audio System
The XL-1S affords the professional sound quality of a four-channel digital audio system using two 12-bit audio input ports. Audio 1 is accessed via the AV panel on the back of the XL-1S body. Audio 2 input jacks are on the right side of the handle casing.

Audio Dub
Audio dubbing has never been easier. With this one touch system, you can record an additional audio track, such as voice over or music onto footage by simply selecting audio dub on the top grip handle controls. (Audio had be recorded in 12-bit mode to do this.)

AV Insert
With AV Insert, you to add source footage onto your videotape from another camcorder or VCR. Simply select the AV Insert option from the top grip handle controls, connect the input device and record.

Audio and Video Outputs
Composite / S-Video / Audio Outputs: Audio output is accomplished via the same ports used for input. Audio 1 ports on the back AV panel and Audio 2 ports on the right side of the handle. Video outputs include composite and S-video. These are located on the back AV panel.

Headphone Terminal (adjustable level): The XL-1S’ headphone jack has a variable volume adjustment for monitoring sound during shooting, performing sound checks, or listening to the sound through stereo headphones during playback.

Optional Microphone Adapter/Shoulder Pads
The optional MA-100 Microphone Adapter/Shoulder Pad has 2 XLR inputs allowing you to use a microphone that has XLR connectors with the XL1S, plus makes shoulder-mounted shooting possible. In addition, use it to attach a wireless microphone receiver or to hold the separately available CH-910 Dual Battery Charger/Holder.

The optional MA-200 Microphone Adapter/Shoulder Pad is equipped with 4 XLR connectors for use with professional audio equipment and a BNC video connector. This unit also allows you to attach an optional commercially available wireless microphone receiver plus it functions as a shoulder pad for advanced handling and control.
### CANON ZR/ELURA/OPTURA-SERIES SPECIFICATIONS

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# CANON

## ZR/ELURA/OPTURA-SERIES SPECIFICATIONS

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**LITHIUM ION BATTERY PACKS**

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<td>BP-915 (supplied)</td>
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<tr>
<td>BP-930</td>
<td>105 min. 4 hr 40 min. 3 hr 55 min.</td>
</tr>
<tr>
<td>BP-945</td>
<td>135 min. 7 hr 3 hr 55 min.</td>
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**Battery Packs**

- **BP-915** ....................................................... 44.99
- **BP-930** ....................................................... 74.99
- **BP-945** ....................................................... 114.99

**CH-910 Dual Battery Charger/Holder**
The CH-910 holds 2 battery packs and can charge them one after the other. Once the batteries are charged, the CH-910, with batteries in place, can be clipped to your belt and then connected to the GL-2; or attached to the MA-100 or MA-200 and then connected directly to the XL-1s. This will give you twice the recording time of just one battery. It can be used with any combination of Canon BP-900 series Lithium-ion batteries ...................... 139.95

**Car Battery Adapter/Charger**
Charges BP-900 series batteries while on the road, or power the camcorder from your car’s cigarette lighter socket.
- **CB-910 (for the XL-1s)** .................................. 94.99
- **CB-920 (for the GL-2)** .............................. 124.99

**Video Lights**
Optional light sources provide extra illumination when shooting either video or still images.

**VL-3 Video Light**
The VL-3 Video Light connects to the GL2’s Advanced Accessory Shoe and is powered directly by the camcorder. Therefore, no cables are required ........................ 41.99

**VL-10Li Battery Video Light**
The VL-10Li is a 10-watt video light for both indoor and outdoor use. It accepts any 900 series Lithium-Ion battery pack for power and is attached to the or XL-1s or GL-2’s accessory shoe .......................... 64.95

**Speedlite Flashes**
(For SLUR-style Photography)

The Canon Speedlite 220EX, 420EX and 550EX flash units can be used for adding light to images shot in Photo Mode. These electronic flash units attach to the GL2’s Advanced Accessory Shoe or to the XL-1s via the optional FA-200 Flash Adapter to provide SLUR-type flash photos.

**Speedlite 220EX**
Compact yet sophisticated, the 220EX offers E-TTL (Evaluative Through the Lens) autoflash, FP flash and FE lock. The flash coverage is effective even with a wide-angle lens. Attaches to XL-1s or GL-2. (XL-1s requires an optional FA-200 Flash Adapter) ...................... 119.95

**Speedlite 420EX**
Provides sophisticated creative controls including the E-TTL six-position autozoom head and more. Attaches to XL-1s or GL-2. (XL-1s requires an optional FA-200 Flash Adapter) ...................... 179.95

**Speedlite 550EX**
Designed to meet strict professional specifications, the 550EX offers E-TTL (Evaluative Through the Lens) exposure readings for natural-looking illumination of subjects and backgrounds. Attaches to XL-1s or GL-2. (XL-1s requires an optional FA-200 Flash Adapter) ...................... 329.95

**FA-200 Flash Adapter**
Enables you to use the Canon Speedlite 220EX, 420EX or 550EX with the XL-1s .......................... 59.95
LENSES AND FILTERS

**WD-58H**
*58mm 0.7x Wide Converter for the GL-2*

The WD-58H wide-angle adapter screws into the front of the GL-2’s zoom lens to provide an even wider angle of coverage (0.7x). This is great for those times when you are shooting in a confined space or shooting scenic.............................174.00

**FS-72U**
*Filter Set for the XL-1s*

Three 72mm filters (UV, Neutral Density and Circular Polarizer) for better image quality under difficult lighting conditions. For the XL-1s standard 16:1 lens..........114.95

**TIFEN FILTERS FOR THE XL-1S**

- **72mm Pro Mist Filter:** This filter is exceptional for creating a mood. Outdoors or indoors, in broad scenes or portraits. It is excellent for toning down excessive sharpness and reducing contrast by moderately lightening shadow areas without detracting from the overall image.

- **72mm BLK Pro Mist Filter:** Similar characteristics to Pro Mist, this filter also is great for toning down sharpness but provides a more subtle effect. Less lightening of shadows and reduction of contrast.

- **72mm Soft FX 2 Filter:** This filter is used for softening unwanted details while retaining overall image clarity. It is the ideal filter for shooting portraits.

- **72mm ND6 Filter:** This filter eliminates overly bright, washed out images. It is excellent for providing balanced exposures and depth-of-field control. Absorbs 2 stops.

- **72mm ND3 Filter:** This filter eliminates overly bright, washed out images. It is excellent for providing balanced exposures and depth-of-field control. Absorbs 1 stop.

**FU-1000 Professional Quality**
*B&W Viewfinder for the XL-1s*

A 1.5” B&W CRT viewfinder, the FU-1000 provides very high image quality. It has a horizontal resolution of approximately 500 TV lines, while the large image facilitates focusing in tough shooting situations.

**KATA Cases for XL-1s/GL-2**

- **CCC-10 Case for the XL-1s**
  
  A durable case designed to hold a fully-assembled XL-1s kit, yet small enough to fit in the overhead storage bin of a commercial airplane. Engineered to embody the perfect balance, this case is lightweight yet highly protective due to thermo-formed laminated foam layers. The streamlined ergonomic shape keeps the center of gravity close to your body and eases the burden when carrying. An aluminum stays embedded in the flap ensures ultimate protection for the viewfinder and microphone.

- **RC-10 Rain Cover for the XL-1s**
  
  Custom designed for the XL-1s, the RC-10 Rain Cover provides excellent protection against rain and dust. It gives you full access to the camera’s controls so operation is smooth and seamless. Crystal clear vinyl panels guarantee easy viewing at all times. The cover slips easily over the camera and is secured by drawstrings around the lens sleeve, microphone and viewfinder sleeves.

- **CCC-101 Case for the GL-2**
  
  Compact and lightweight, the CCC-101 provides excellent protection for the GL-2. The main compartment can be custom fitted with two padded partitions; an internal padded compartment on one side is perfect to store a charger, batteries, cassettes, etc. Two additional flat pockets are available: one internal and one external. Carrying options include a Padded Mesh Grip handle and a SPAD shoulder strap.

- **RC-13 Rain Cover for the GL-2**
  
  Tailored to fit the GL-2, the RC-13 Rain Cover protects against rain and dust. Crystal clear vinyl panels on the camera’s control side, enable you to use the LCD monitor. Easy to use in a hurry, the cover slips quickly over the camera and is secured by drawstrings around the lens sleeve, microphone and viewfinder sleeves.
Cases for GL-2 & XL-1s

HC-3100 System Case for the XL-1s
A solid, lockable case that allows you to protect the XL-1s kit during transportation and storage. Has ample room for accessories. (This is not a shipping case.) ..................................299.00

HC-4100 System Case for the GL-2
Case holds the GL-2 with a lens hood and a battery pack attached. There is also enough room to store additional battery packs, DV cassettes and the WD-58H wide-converter, etc...........249.95

GL-2 Audio Accessories

MA-300 Microphone Adapter
(2 XLR inputs)
The MA-300 lets you use a microphone that has XLR connectors with the GL2.......................................164.99

DM-50 Directional Stereo Microphone
A directional stereo microphone which connects to the GL2’s Advanced Accessory Shoe. Since the Advanced Accessory Shoe provides all the necessary connections, no cables are required....................134.99

EQ-GL1 Wind Equalizer
This equalizer provides excellent dialog recording in all ENG (Electronic News Gathering) and EFP (Electronic Film Production) applications, with no dB loss (dialog) in the mid-range with a fully balanced frequency response curve, and with wind protection up to 40 mph. The EQ-GL1 excels in video/television and motion picture situations where space is tight and the wind is roaring...........120.00

SD (Secure Digital) Card
The SD Card is a highly secure stamp-sized flash memory card that weighs approximately two grams and can be used in a variety of digital products including digital music players, cellular phones, handheld PCs, digital cameras, DV camcorders, smart phones, car navigation systems and electronic books. Available in 16MB, 32MB, 64MB, 128MB, 256MB, 512MB and 1GB sizes.

GGI 7-in-1 Card Reader/Writer
This affordable low-profile reader supports CompactFlash I/II, Microdrives, SD, MMC, Memory Stick (including Duo and PRO) and SmartMedia cards. Support auto detecting slot with card inserted and slot-to-slot read/write operation. Includes USB cable.
USB 1.1..................................................19.95
USB 2.0..................................................24.95

CP-200/CP-300 Portable Dye-Sub Card Photo Printers
The Canon dye-sub CP-200 and CP-300 Card Photo Printers allow you to create extremely high quality color prints directly via USB cable from any Canon DV camcorder in about 85 seconds. They allow you to connect any Pictbridge-compatible camcorder—even other manufacturer’s camcorders directly to these printers as well.

Make different sized bordered or borderless prints, ranging from miniature stickers and wallet-sized prints to 4x6” photo postcards. With their compact size, you can output beautiful color prints quickly and easily from wherever you’re shooting. In fact, the combination of the ZR-85 for example, and a CP-200 or CP-300 takes the entire photographic process and puts it in a briefcase (or into the optional CPB-100 Printer Carrying Bag).

Both printers are compatible with DPOF (Digital Print Order Format) to facilitate batch printing, e-mail transfers, and print ordering through online photo labs. Otherwise identical, the CP-200 runs on AC power, the CP-300 can run on AC or battery power.
**XL-1s Audio Accessories**

**MA-100 Microphone Adapter/Shoulder Pad (2 XLR inputs)**
Allows you to use a microphone that has XLR connectors with the XL-1s. It also converts the XL-1s body into a shoulder mount for more comfortable and steady handheld shooting. And can be used as a mount/support for a wireless mic receiver or the optional CH-910 Dual Battery Charge...........154.95

**MA-200 Microphone Adapter/Shoulder Pad**
(4 XLR inputs, BNC video in/out)
Allows you to use a microphone with XLR connectors with the XL-1s and to have the video signal in BNC connector, plus makes shoulder-mounted shooting possible. In addition, you can attach a wireless microphone receiver or hold the CH-910 Dual Battery Charger/Holder. Unlike the MA-100, the MA-200 lets you use up to 4 XLR microphones simultaneously.........324.95

**EQ-XL1 Equalizer**
A high performance fabric/mesh slip-on windscreen, the EQ-XL1 Equalizer offers far higher wind protection than the common foam sock, along with a sweetened mid-range (to pull in clear, crisp dialogue). Constructed of unbreakable polyethylene, epoxy and nylon, the tough outer acoustical fur is the softest and finest in the world..........................120.00

- Attenuates wind noise 30dB for up to 40 MPH of wind protection.
- Can be boom or fixture mounted, or used hand-held.
- Will physically dampen hard knocks and protect the mic while in transit.
- Can be used in rain and snow, while keeping the microphone dry and acoustically unaffected.
- Won’t crumble and contaminate the microphone. The EQ-XL1 will keep your mic in pristine condition for 15-20 years.

**MM-XL1 Universal Mini-Mount**
A low profile lightweight microphone mount, the MM-XL1 isolates your microphone from incoming noise, lens and mic boom handling noise. Universal modular type enables you to instantly switch mics — up to 30mm in diameter in seconds ..................125.00

**SI-XL1 System Isolator**
The SI-XL1 is a multi-purpose isolator coupler specific to the Canon XL-1s. It provides shock and vibration isolation to the XL-1s viewfinder and microphone mount assembly system of the camera. Distinctly reduces mechanically transmitted motor and operator handling noise, or shock to the microphone. Even the finest mechanisms generate some rumble and whine, producing a variety of high and low frequencies that combine into unwanted harmonics..125.00

**ZR-1000 Zoom Remote Control**
Plugs into any of Canon’s DV camcorders via the Control L (LANC) terminal, and gives you wired remote control of such functions as record start/stop, zoom and focus. Ideal for using while the camcorder is mounted on a tripod ..................175.99

**Steady Stick**
Professional Shoulder Brace
Perfect for professional TV fieldwork and videographers. Walk with a Steady Stick and never worry about arm fatigue or shaky shots again.

- Supports the GL-2 and XL-1s, or any other camcorder up to 30 lbs.
- Removes camera weight from shoulder
- Made from heavy duty aluminum and flexible high strength engineering plastic, yet lightweight, versatile and portable
- Pan low or hold camera over crowd
- Easily holds a 400mm lens and lets you get a steady shot even at 1/4 second shutter speed!
- Guide and control your camera in any position or direction
- Easily disconnects to attach to tripod
JVC

GR-D33/GR-D72

Compact Series DV Camcorders

Stylish go-anywhere camcorders that incorporate all of JVC’s key camcorder technologies, the Compact Series are fun and easy-to-use. The GR-D33 features 16x optical/700x digital zoom, 520 lines of horizontal resolution, 2.5-inch LCD monitor, faders and special effects, LED video light, Night Alive 0 lux function, DV (IEEE1394) input and output, and power linked operation that prepares the camera to record simply by opening the LCD or pulling out the viewfinder. Also comes bundled with ImageMixer software for one-touch creation of video CDs. The GR-D72 steps up with a USB port, audio dub and insert editing, analog input, SD (Secure Digital) memory card slot for digital image storage—it can record high-quality stills at 1024 x 768 resolution, and can capture MPEG-1 video. It also includes a full-function remote control.

FEATURES

High Quality Video

- 680,000 pixel CCD and DV format combine to deliver video with breathtaking colors. But more important is the High Band Processor which calculates and restores the high-band components of the luminance signal that would be lost in conventional processing, thereby ensuring extremely high horizontal resolution of 520 lines.
- To further improve quality, they incorporate 3-Dimensional Noise Reduction (3D NR). This reduces video noise by 30% for a 2 dB improvement in the signal to noise ratio, with an uncanny ability to minimize noise while maintaining high picture quality during low light.

Image Stabilizer

- Advanced electronic picture stabilizer self-adjusts to best match the shake pattern of the user. The stabilizer can recognize your unique camera-shake characteristics and then differentiate between that and intentional pans and tilts.

16x Optical Zoom

- Equipped with a 16x optical and 700x digital zoom that uses spline interpolation technology to smooth out image contours and minimize jagged edges. You can also zoom in (up to 44x) on any portion of the screen during playback—a great way to analyze sports action.

High Quality Audio

- For high quality sound to match the video they offer digital stereo audio in two modes: 16-bit mode produces CD quality on one set of stereo tracks, while 12-bit mode creates two sets of stereo tracks, allowing audio dubbing or narration on the second track.

Color LCD Monitor

- High resolution 110,000 pixel 2.5-inch LCD monitor with clear coating can be viewed in both dark situations and in direct sunlight. Monitor can be rotated outwards by 90° and up/down 180°, so you can tilt it down for high-angle overhead shooting in crowds, or up for low-angle shots. They also offer a high resolution color viewfinder when you can’t use the monitor.

NightAlive—Ultra Low Light Mode

JVC’s NightAlive function makes it possible to shoot video in a whole new light. In situations where low-light shooting is possible but results may vary, NightAlive combines the performance of a high-sensitivity CCD with slow-shutter and digital signal processing to boost low-light image quality to a new level. Easily shoot and enjoy brighter evening and night scenes without turning on any extra lights. And unlike other night-shooting systems that give you a colorless picture, NightAlive delivers a vivid, full color image. Also, where other systems have distance limitations on their effectiveness, NightAlive has no limitations because it relies only on existing ambient illumination.

DV Interface

- IEEE1394 DV (i.LINK) input/output terminal for fast, lossless digital transfer of video and audio to a DV-equipped computer or another DV unit. For easy connection to a TV or VCR, they also offer composite and S-Video output.
**Exposure Control**

- They offer full auto and manual focus, as well as Iris Lock, Backlight Compensation, Auto and Manual White Balance.

**Wipes, Fades and Effects**

- Transitions give your videos a more polished, professional look. They include:
  - White fader, black fader, black & white fader (fades in or out of a color screen to a black and white screen), corner wipe, window wipe, slide wipe, door wipe, scroll wipe and shutter wipe.

**Program Auto Exposure**

- Program auto exposure with different modes provides proper settings for exposure, shutter and depth of field in a variety of shooting environments.
  - Shutter 1/60: Shutter speed is fixed at 1/60 of a second. Black bands that usually appear when shooting a TV become narrower.
  - Shutter 1/100: Shutter speed is fixed at 1/60 of a second. The flickering that occurs when shooting under a fluorescent light is reduced.
  - Sports Mode selects the fastest shutter speed for the lighting conditions to capture fast movements in sports scenes.
  - Beach & Snow Mode compensates for bright reflections, which can cause ‘silhouettes’ when shooting on snow covered mountains or at the beach.
  - Landscape Mode improves focusing and contrast when shooting landscapes through a window or wire netting.
  - Spotlight Mode prevents the saturation of your subject when under strong lighting.
  - Twilight mode makes evening scenes more natural
  - Sepia: Recorded scenes have a brownish tint like old photos
  - Monotone: Footage is shot in black and white
  - Classic Film: Give scenes a strobe effect
  - Strobe: Recordings look like a series of consecutive snapshots

**Conveniences**

- Built-in auto flash provides extra convenience for taking still shots in low light or at night. Modes include Auto, On, Off or Red-Eye Reduction.
- LP mode allows you to record up to 120 minutes on a single cassette
- Tape remaining indicator shows remaining time in hours and minutes. Starts blinking when there is only 2 minutes of tape left.
- For self-recordings, simply open the LCD monitor and tilt it upwards to 180° so that it faces forward, then point the lens towards yourself and start recording.
- With power-linked operation, as soon as you pull out or open the LCD monitor, the camera automatically powers up ready to shoot. And when the monitor or retract the power automatically save battery power.

**Supplied Accessories**

- AC Adapter AP-V14U (On-Camcorder Charger)
- Battery Pack (BN-V408U) 770 mAh
- Shoulder Strap  A/V Cable (Mini-3 RCA)
- Wireless Remote Control (RM-V718U)
- ImageMixer software for Windows and Mac. This is a powerful application with a variety of jobs. It handles image and sound capture, file management (stills, movies, sounds), and easy non-linear MPEG-1 editing with scene transitions. It also features MPEG-1 recording of live camera images onto hard disk, MPEG-1 to MPEG-4 file format conversion, and offers pro-style retouching functions.
The GR-D93 and GR-D230 take up where the GR-D33 and GR-D72 leave off. They feature a 1.3-megapixel CCD for up to 1600 x 1200 pixel still images (although the large CCD does limit the camcorders to 10x optical/500x digital zoom), 540 lines of horizontal resolution, 70x digital playback zoom, and include an 8MB memory card.

The GR-D230 steps up with a mic input, DV Navigation, movable spotlight and backlight compensation, and includes a multi-brand remote control for more editing options.

- Advanced electronic picture stabilizer self-adjusts to best match the shake pattern of the user. The stabilizer can recognize your unique camera-shake characteristics and then differentiate between that and intentional pans and tilts.
- Equipped with a 10x optical and 500x digital zoom that uses spline interpolation technology to minimize jagged edges. You can also zoom in (up to 70x) on any portion of the screen during playback.
- For high quality sound to match the video they offer digital stereo audio in two modes: 16-bit mode produces CD quality on one set of stereo tracks, while 12-bit mode creates two sets of stereo tracks, allowing audio dubbing or narration on the second track.
- High resolution 110,000 pixel 2.5-inch LCD monitor with clear coating can be viewed in both dark situations and in direct sunlight. Monitor can be rotated outwards by 90° and up/down 180°. They also offer a high resolution color viewfinder when you can’t use the monitor.
- IEEE1394 DV (i.LINK) input/output terminal for fast, lossless digital transfer of video and audio to a DV-equipped computer or another DV unit. For easy connection to a TV or VCR, they also offer composite and S-Video output.
Transitions give your videos a more polished, professional look. They include:

- White fader, black fader, black & white fader (fade in or out of a color screen to a black and white screen), corner wipe, window wipe, slide wipe, door wipe, scroll wipe and shutter wipe.

Program auto exposure with different modes provides proper settings for exposure, shutter and depth of field in a variety of shooting environments. They include: Shutter 1/60, Shutter 1/100, Sports Mode, Beach & Snow Mode, Landscape Mode, Spotlight Mode, Twilight, Sepia, Monotone, Classic Film and Strobe.

High-quality digital still cameras function, with storage on removable SD or MMC memory cards. Choose from four images sizes—1600 x 1200, 1280 x 960, 1024 x 768 and 640 x 480—depending on your needs.

They offer full auto and manual focus, as well as Iris Lock, Backlight Compensation, Auto and Manual White Balance.

USB 2.0 interface and bundled ImageMixer software lets you burn video CDs, create email clips or use as a web camera.

**GR-D230 Step-up Features**

- You can select one three metering areas on the LCD monitor/viewfinder, enabling more precise exposure compensation.

- Now you can quickly locate and play back a particular scene from your video footage. DV Navigation automatically indexes pictures of the videos you record, and stores the data on the memory card. You can go directly to any scene simply by selecting its index picture on the navigation screen.

- External mic input lets you use optional zoom or wireless mics if you desire.

- Manual focus ring lets you adjust the camera’s focus for more creativity and/or to control the camera’s focus in difficult shooting situations.

- Multi-brand remote control lets you perform Random Assemble (RA) editing. Select up to 8 scenes at a time and rearrange them in any order on a new tape. You specify which scenes you want by marking the beginning and end of each with the remote control. You can add special effects and transitions.

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<th>GR-D33</th>
<th>GR-D72</th>
<th>GR-D93</th>
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<td>✔</td>
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**Recorder**

- Long Play | ✔ | ✔ | ✔ | ✔ |
- Random Assemble Editing | — | ✔ | ✔ | ✔ |
- Audio Dubbing (SP Mode) | ✔ | ✔ | ✔ | ✔ |
- Timecode | ✔ | ✔ | ✔ | ✔ |

**Function**

- Snapshot Modes | Video Snapshot Mode | ✔ | ✔ | ✔ | ✔ |
- Motor Drive Mode | ✔ | ✔ | ✔ | ✔ |
- Program AE | ✔ | ✔ | ✔ | ✔ |
- Scene Transition (Wipes/Fades) | ✔ | ✔ | ✔ | ✔ |
- Playback Digital Zoom | 44x | 44x | 70x | 50x |
- Web-Camera Function | — | — | — | — |
- MPEG-4 Email Clips | — | — | — | — |
- NightAlive | ✔ | ✔ | ✔ | ✔ |
- Built-In Battery Charger | ✔ | ✔ | ✔ | ✔ |
- Info Shoe | — | — | — | — |
- Auto Flash | ✔ | ✔ | ✔ | ✔ |
- Self-Timer | — | — | — | — |
- Index Search | — | — | — | — |
- DV Navigation | — | — | — | ✔ |

**Connectors**

- DV Input/Output (IEEE 1394 compliant) | ✔ | ✔ | ✔ | ✔ |
- USB Terminal | — | ✔ | ✔ | ✔ |
- S-Video Input/Output | Output only | ✔ | ✔ | ✔ |
- A/V Input/Output | Output only | ✔ | ✔ | ✔ |
- Analog Input | — | ✔ | ✔ | ✔ |
- External Mic Input | — | — | — | ✔ |

**Product Accessories**

- Remote Control | ✔ | ✔ | ✔ | ✔ |
- Memory Card | — | — | 8MB | 8MB |
JVC
GR-DX77/GR-DX97

Celebrity Series DV Camcorders

JVC’s super-slim GR-DX77 and GR-DX97 are high-performance, versatile, and computer-savvy DV camcorders. With an array of picture improvement technologies such as 680,000 pixel CCD and Super High-Band processor, they deliver ultra-high resolution of 520 horizontal lines. Versatile multimedia camcorders, they feature a DSC (Digital Still Camera) function with up to XGA (1024 x 768) capability with storage on SD or MMC cards. They also offer an analog input with A-D converter for archiving your analog VHS and 8mm tapes to DV. Additional features include NightAlive function, Auto Flash, Digital Image Stabilizer, Webcam and MPEG4 Video Clip function, 110,000-pixel 2.5˝ (GR-DX77) or 3˝ color LCD monitor (GR-DX97), a wide variety of special effects and transitions and 58X digital pinpoint playback zoom. Exactly the same except for the difference in monitor size, GR-DX97 also includes an 8mm MMC card.

High Quality Video

- 680,000 pixel CCD and DV format combine to deliver video with breathtaking colors. But more important is the High Band Processor which calculates and restores the high-band components of the luminance signal that would be lost in conventional processing, thereby ensuring extremely high horizontal resolution of 520 lines.
- Advanced electronic picture stabilizer self-adjusts to best match the shake pattern of the user. The stabilizer can recognize your unique camera-shake characteristics and then differentiate between that and intentional pans and tilts.
- Equipped with a 12x optical and 700x digital zoom that uses spline interpolation technology to smooth out image contours and minimize jagged edges. You can also zoom in (up to 58x) on any portion of the screen during playback.

Color LCD Monitor

- High resolution 110,000 pixels 2.5˝ LCD monitor (GR-DX77) or 3-inch (GR-DX97) can be rotated outwards by 90° and up and down 180°, so you can tilt it down for high-angle overhead shooting in crowds, up for low-angle shots, or forward for self-portraits. They also offer a high resolution B&W viewfinder.
- As soon as you pull out the viewfinder or open the LCD monitor, the camcorder automatically powers up so you’re ready to shoot. When you close the monitor or retract the viewfinder, the power automatically shuts off to save battery power.

Wide (16:9) Recording Modes

- Cinema Mode: Inserts black bands at the top and bottom of the screen. During playback on a wide screen TV, the bands are not visible. The bands are visible during playback on the LCD monitor, viewfinder or a 4:3 TV screen, making image appear like a letterboxed movie.
- Squeeze Mode naturally expands image to fit a 16:9 screen without distortion.

Wipes, Fades and Effects

- Transitions give your videos a more polished, professional look. They include:
  – White, black, and black & white fader (fade in or out of a color screen to a black and white screen), corner, window, slide, door, scroll and shutter wipe.

Digital effects make your videos more interesting. Some of the effects can even be applied during playback. They include: Sepia, Monotone, Classic Film and Strobe.
**Editing**

- Random Assemble (RA) editing lets you select up to 8 scenes at a time and rearrange them in any order on a new tape. You specify which scenes you want by marking the beginning and end of each with the remote control. You can even add special effects and transitions.
- DV Insert Editing lets you replace video images without affecting the soundtrack, while Stereo Audio Dubbing lets you add a new soundtrack without interrupting the flow of the video.

**DV Navigation**

- Now you can quickly locate and play back a particular scene from your video footage. DV Navigation automatically indexes pictures of the video you record, and stores the data on the memory card. You can go directly to any scene simply by selecting its index picture on the navigation screen.

**Conveniences**

- Integrated control combines multiple functions including power, selection, recording start/stop, zoom, and playback operations. You can use these using only your thumb, making it easy to operate the camera with one hand.
- Built-in auto flash provides extra convenience for taking still shots in low light or at night. Modes include Auto, On, Off or Red-Eye Reduction.
- With power-linked operation, as soon as you pull out or open the LCD monitor, the camera automatically powers up ready to shoot. And when the monitor or retract the power automatically save battery power.
- Supplied BN-V107 lithium-ion battery provides an hour of continuous recording time with the LCD monitor on. With the optional BN-V114 high-capacity battery pack you get 7 hours of recording time with the LCD on.
- They include multi-brand remote for full control of camera functions and editing, as well as docking station for fast and easy connection to a TV or monitor.
- You can select one three metering areas on the LCD monitor/viewfinder, enabling more precise exposure compensation.

**Dual Still Camera**

In addition to being DV camcorders, the GR-DX77 and GR-DX97 double as high-quality digital still cameras, storing your snapshots on removable SD (Secure Digital) or MMC (Multimedia) memory cards. The cards let you download snapshots from the camcorder to a PC, and also upload graphics from your PC back to the GR-DX77/97 for insertion into your DV footage.

- Choose from two images sizes—VGA (640 x 480) and XGA (1024 x 768)—depending on your needs. VGA is ideal for attaching to e-mail or web pages. When you need higher-quality, more precise images, XGA is the best choice.
- Supplied 8MB Multimedia memory card (GR-DX97 only) can store up to 40 fine-resolution or 130 standard-resolution images in VGA mode, and 20 fine-resolution or 60 standard-resolution images in XGA mode.
- HG Snapshot function emulates the operation of a progressive-scan CCD enabling moving subjects to be captured for high quality stills. Capture non-jittery, detailed full frame stills with 1.5 times the vertical resolution of conventional field stills.
- Dual record mode lets you snap stills while simultaneously recording video to tape. Take a snapshot anytime without stopping recording so you’ll never miss any action, even after you freeze a scene.

**NightAlive—Ultra Low Light Mode**

JVC’s NightAlive function makes it possible to shoot video in a whole new light. In situations where low-light shooting is possible but results may vary, NightAlive combines the performance of a high-sensitivity CCD with slow-shutter and digital signal processing to boost low-light image quality to a new level. Easily shoot and enjoy brighter evening and night scenes without turning on any extra lights. And unlike other night-shooting systems that give you a colorless picture, Night Alive delivers a vivid, full color image. Also, where other systems have distance limitations on their effectiveness, NightAlive has no limitations because it relies only on existing ambient illumination.

**MPEG4 Video Clip (Video e-mail Mode)**

Now you can send video e-mail to friends or family using your DV footage. You simply save the video stream on your PC’s hard drive as MPEG-1 files. These can easily be attached to emails for video messaging. You can also use them as webcams by running a separate application (such as Microsoft NetMeeting) for teleconferencing, video phoning, webcasting or surveillance. (Windows only)

**Bundled Software**

They come supplied with a powerful suite of bundled software. From photo retouching to non-linear video editing complete with special effects and pro-style transitions, this high-value package gives you everything you need to jumpstart your creativity.

**Digital Photo Navigator (Windows)**

For still image transfer, easy image resizing and Web file (HTML) creation, library management, slideshows and movie file (AVI) creation.

**ImageMixer with VCD (Windows /Mac)**

Powerful multi-purpose application that offers image and sound capture, file management (stills, movies, sounds), easy non-linear MPEG-1 editing with scene transitions, MPEG-1 recording of live camera images onto hard disk, authoring of Video CDs, MPEG-1 MPEG-4 file format conversion, and pro-style retouching functions.
GR-DX307

Celebrity Series DV Camcorder

The GR-DX307 steps up from the GR-DX97 with a 1.33-megapixel CCD for superb image quality. It features a slightly smaller zoom (10x optical/500x digital zoom, but offers higher video resolution (540 lines) and still image capture up to 1600 x 1200 pixels. Other features include analog input with A-D converter for archiving your analog VHS and 8mm tapes to DV, NightAlive function, DV navigation, Auto Flash, Digital Image Stabilizer, Webcam and MPEG4 Video Clip function, 3” color LCD monitor and color viewfinder, a wide variety of special effects and transitions and 50X digital pinpoint playback zoom. Also includes ImageMixer software and an 8MB SD memory card.

GR-DVP9 ‘Micro Pocket’ DV Camcorder

The GR-DVP9 is an ultra compact DV camcorder with a sleek, flat surface design that brings a whole new style to digital video. Dubbed the “Micro Pocket DV”, the stylish GR-DVP9 sets the bar for tiny Mini DV camcorders. It packs all the high-performance features found on JVC’s top-of-the-line DV camcorders into an ultra-compact personal video device small enough to slip comfortably into your pocket. Truly ready to go anywhere, anytime, the GR-DVP9 brings a new level of style and convenience to your life. Smaller than most paperback books, it features a 1.33 Super HS megapixel CCD, 540 horizontal lines of resolution and UXGA size HG digital stills (1600 x 1200 pixels). It has a 10x optical and 200x digital zoom with a 2” (200,000-pixel) LCD monitor and includes a 8MB SD card that stores MP3 sound effects as well as digital stills.

Highest Quality

◆ The GR-DVP9 offers the best possible DV imaging performance in a compact design. Combining a 1.3-megapixel CCD with a Super High-Band Processor it delivers an incredible 540 lines of resolution.
◆ High-quality digital still cameras function, with storage on removable SD memory cards. Choose from four images sizes—1600 x 1200, 1280 x 960, 1024 x 768 and 640 x 480—depending on your needs. In addition, the HG Snapshot function captures detailed full frame stills with 1.5x the vertical resolution of conventional field stills.
◆ For clearer, brighter night shots, the GR-DVP9 includes JVC’s powerful NightAlive enhanced low-light sensitivity that lets you capture clear, full-color night images without relying on infrared rays as do other systems. As a result, the image you shoot is always in color and there’s no limit on shooting range.
◆ 10x optical zoom provides superb, high-quality close-in shots. If you’re shooting from a great distance, take advantage of the powerful 200x digital zoom with spline interpolation.
◆ Equipped with JVC’s Digital Image Stabilizer which recognizes the user’s unique camera shake characteristics to eliminate shaky pictures more effectively.
◆ PCM digital stereo audio system offers a choice of either 2-channel (16-bit linear, 48kHz sampling) or 4-channel (12-bit non-linear, 32kHz sampling) recording, enabling two different stereo soundtracks to be recorded for the same footage.
High Performance

- A 2˝ high-resolution color LCD monitor can be freely tilted for accurate shooting. An easy-to-use on-screen menu helps select camera settings and special effects.
- Offers a variety of interfaces including i.LINK (IEEE1394) input/output, and a USB terminal for quick, plug-and-play high-speed transfer of digital stills, sound effects and MPEG4 clips. For additional flexibility, it’s also provided with a removable SD Memory Card (8MB).
- Features a built-in digital still camera that captures digital stills and stores them onto the provided 8MB SD card with resolution up to UXGA (1600 x 1200) or SXGA (1280 x 960 and XGA (1024 x 768) modes).
- Includes a wide range of digital effects and transitions to give your videos a professional-look. These include a variety of fades, wipes, and dissolves for smooth transitions between scenes.
- A variety of digital sound effects (MP3 format) are included on the memory card for insertion at any time during shooting or editing. Effects include Applause, Cheering, Laughter, Explosion, Buzzed, Siren, Fanfare, Doorbell, Race Car, Booming, Jeers and Scream
- At the touch of a button, the camcorder’s MPEG-4 Mode lets you create high quality video clips that can be viewed on most computer systems. Based on today’s most advanced video compression standard, MPEG4’s small file size is ideal for attaching to e-mail or posting on the web.

Conveniences

- JVC’s exclusive Info-Shoe plugs you into a wide range of performance-enhancing accessories that make it easy for you to expand your creative vision.
- Versatile playback and editing capabilities via the supplied multi-brand remote control including Random Assemble Editing. The remote also lets you zoom up a selected portion of a frame during playback with the 10X digital pinpoint zoom.
- Small enough to fit comfortably in your pocket or purse without unsightly bumps or protrusions, the GR-DVP9 integrates a lens cover, and sensible ergonomic button layout with a smooth flat surface that doesn’t even look like a video camera.

---

Camcorder GR-DX77 GR-D97 GR-DX307 GR-DVP9

**Camera Section**

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<thead>
<tr>
<th>Feature</th>
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<th>GR-D97</th>
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ORDER & INFO. (212) 444-5010 • FAX: (212) 239-7770 (800) 947-7008
1-800-947-5525 • www.bhphotovideo.com
JVC
GR-DV4000

DV Camcorder with UXGA Still Image Capability

The GR-DV4000 is based on a simple philosophy—that a better camera produces better images. Using the finest optics, including two multi-coated glass aspherical lenses to reduce ghosts and flares, as well as two independent optical low-pass filters, one optimized for video and the other exclusively for stills, the GR-DV4000 is capable of producing exceptional video with 540-lines of horizontal resolution and ultra high-quality 1600 x 1200 digital stills.

Slim and streamlined, the GR-DV4000 has the look and feel that serious video enthusiasts will love. With the body comfortably gripped for the right hand, the prominent lens (10x optical zoom) barrel has an extended large manual focus ring that you cradle with the left hand for that 35mm SLUR camera feel. The GR-DV4000 is also equipped with a hot shoe that supplies power and information for a host of optional accessories that further extend versatility and performance. Missing nothing, the GR-DV4000 also incorporates a huge 3.5” high-resolution color LCD monitor, color viewfinder and a lens.

FEATURES

Focusing on Quality
The GR-DV4000 incorporates new technologies and precision optics that allow you to capture your target optimally, delivering rich and accurate picture quality with high resolution. The GR-DV4000 integrates an F1.2 Super Bright aspherical lens, 1/3.6˝ Megapixel CCD, and Super High-Band Processor to deliver 540 lines of horizontal resolution that produces crisper and clearer digital video than any comparable camcorder.

- The 1/4˝ CCD is packed with 1,330,000 pixels. High resolution is complemented by the CCD’s large image sensing area, to assure a maximum light intake for bright results with less noise.
- The CCD’s large image sensing area increases brightness, which is complemented by F1.2 lens brightness. The camera’s 1/3.6-inch Megapixel CCD is 130% larger than other manufacturers’ 1/2˝ CCD allowing in more light which translates into larger, brighter pictures. As a result, the GR-DV4000 produces stunning images in dark settings and can even pick up fine details in the shadows of the picture – rich texture all-too-often lost by other camcorders.
- Advanced electronic picture stabilizer self-adjusts to best match the shake pattern of the user. The stabilizer can recognize your unique camera-shake characteristics and then differentiate between that and intentional pans and tilts.
- Super High-Band Processor expands the camera signal’s frequency range to raise the video’s horizontal resolution to 540 lines, taking full advantage of the DV format’s original resolution. The processor intelligently calculates and restores the high-band components of the luminance (black and white) signal that would be lost in conventional processing.
- The Aspherical Super Bright Lens allows the camcorder to obtain twice the light of an f/1.8 lens, for high quality videos and excellent digital stills. Through the usage of an all-glass lens, high contrast images with low color distortion are attained. High-quality optics assure superior results, even when shooting indoors or in dark environments.
- Real Touch Manual Focus operates just like the focus ring on an SLUR camera, letting you fine-tune or shift your focusing at will.

10x Optical Zoom
- Equipped with a 10x optical zoom that lets you close in on your subject with a pure optical quality, and the 300x digital zoom that allows you go all the way out with incredible close-ups. Spline Interpolation technology smooths out image contours to minimize jagged edges. You can also zoom in on any part of an image during playback with the 30x pinpoint zoom.

NightAlive
- NightAlive function boosts light sensitivity for a bright picture even in environments with minimal illumination. And unlike infrared-based systems which turn the image black-and-white and have limitations on their effective distance, NightAlive always gives you full color - whether your subject is close or far away.

i.LINK
- IEEE1394 DV (i.LINK) input/output for fast, lossless digital transfer of video and audio to a DV-equipped computer or other DV unit. Also features analog input/output for archiving your old recordings to digital. A great way to save your VHS/8mm tape collection.

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**High Performance**

- Slim, streamlined design gives the GR-DV4000 the look and feel that serious shooters will love. While basic operation is comfortably handled by the right hand, secondary controls are positioned on the left, encouraging you to cradle the lens barrel with your left hand the way professional photographers use SLR cameras.
- High resolution (123,000-pixel) 3.5” color LCD monitor displays breathtaking high-resolution images while shooting or during playback. Tiltable for high-angle overhead shooting, low-angle shots, or self-portraits. Also equipped with 110,000 pixel color viewfinder for those times the LCD monitor can’t be used.
- Random Assemble (RA) editing lets you select up to 8 scenes at a time and rearrange them in any order on a new tape. You specify which scenes you want by marking the beginning and end of each with the remote control. You can add special effects and transitions.
- DV Insert Editing lets you replace video images without affecting the soundtrack, while Stereo Audio Dubbing lets you add a new soundtrack without interrupting the flow of the video.
- The USB interface enables extremely high-speed transfer of digital image data from camera to computer. Simply hook up the camcorder via cable and it will appear on your computer screen as a drive unit.
- Make MPEG-4 video clips from your recorded video footage in realtime, and use it just like a Web Camera for your applications (req. third party software).

**Supplied Accessories**

- AC Power/Battery Charger (AA-V40U)
- Wireless Remote Control (RM-V717)
- Battery Pack (BN-408U) 800 mAh
- 8MB SD Card
- USB, Editing, and A/V Cables
- Audio Extension Cable (for headphone & microphone) x2
- Shoulder Strap and pro-style lens hood

**Digital Still Capability**

- Stores digital images on MultiMedia or SD Memory Cards (8MB included) where they can then be easily and quickly downloaded to a PC. A USB port, cables and software are also provided for high-speed transfer.
- For digital stills, you can choose from 1600 x 1200 resized image size pixels for optimum results when printing, 1280 x 960 and 1024 x 768 geared toward high-resolution computer monitors, and 640 x 480 for convenient email attachments. By use of a Progressive Shutter, the camera is able to capture HG Digital Stills a frame at a time, resulting in less motion blur and offering 1.5 times the vertical resolution of conventional field stills.

**Digital Effects and Transitions**

- Digital effects include Monotone, Sepia, Classic Film, Strobe, Video Echo, Twilight, Slow Shutter and Variable-Speed Shutter – many of which can be applied to the footage during recording or playback.
- Scene transitions include White Fader, Black Fader, B/W Fader, Shutter Wipe, Slide Wipe, Door Wipe, Corner Wipe, Window Wipe, Scroll Wipe and Dissolve.
- Video Snapshot function lets you record freeze-framed VGA-quality still images onto tape with a shutter-like “click” sound and 6 seconds of live audio, at the touch of a button. In Motor Drive Mode can be taken every second. Stills can be shot in Full Mode (entire screen is filled) or Pin-Up mode (a frame with drop shadows). A single DV tape can hold over 1000 of these snapshots.

**Conveniences**

- When you shoot video, an index picture and counter information are stored on the memory card. So to watch your video footage, just call up the navigation screen and choose the scene you want.
- By pulling out the viewfinder or opening the LCD monitor, the camera automatically powers, and you’re ready to shoot. Close the monitor or retract the viewfinder - the power automatically shuts off to save battery power.
- Equipped with an Info Shoe — a hot shoe that supplies power and information for various optional shooting accessories including the VL-F3 Video Flash, VL-V3 Auto Light and MZ-V3 Stereo Zoom Mic.

**Powerful Software Package**

The camcorder comes with a bundled set of applications that make it easy to process your footage into finished data and communicating it around the world through the Internet.

- **Digital Photo Navigator**
  - For still image transfer, easy image re-sizing and Web file (HTML) creation, library management, slideshows and movie file (AVI) creation, as well as superimpose title creation.
- **DV Title Converter**
  - lets you easily create graphics to insert into DV.
- **ImageMixer**
  - This is a powerful application with a variety of jobs. It handles image and sound capture, file management (stills, movies, sounds), and easy non-linear MPEG-1 editing with scene transitions. It also features MPEG-1 recording of live camera images onto hard disk, MPEG-1 to MPEG-4 file format conversion, and offers pro-style retouching functions.
JVC

GY-DV300U

3-CCD “Streamcoder”

Built to meet the needs of today’s broadband information distribution networks, JVC’s GY-DV300U “Streamcoder” is the ideal choice for “webcasting”. This high-quality 1/3” 3-CCD camera not only boasts powerful 12-bit A/D, 12-bit digital signal processing with 700 lines of horizontal resolution and high-quality MiniDV recording with professional functions, but also comes fully equipped to connect to the Internet. Now you can easily distribute your images in real time over the web or local intranets where they can be viewed on remote PCs. Of course, you’re not restricted to live image distribution only. This camcorder can also save image data simultaneously on MiniDV cassettes while streaming or recording to CF cards, so you also transfer your pictures and sound to a digital editing system for editing and processing. It all adds up to today’s most complete and versatile professional camcorder.

The camera’s innovative design was developed to have everything at your fingertips. The GY-DV300U has control over image including an optical image stabilizer, zoom through a wide-angle adapter and is manually controllable with a 14:1 power zoom lens. The camera has full flexibility of a color matrix where you can change the gamma, manual control of the iris, up to 32 pixels blemish correction, two XLR microphone inputs, SMPTE color bars and adjustable zebra from 75 to 100.

FEATURES

Highest Image Quality

- To ensure the best possible image quality (700 lines of horizontal resolution, the GY-DV300U incorporates three 1/3” 380,000-pixel (effective) CCDs, each equipped with highly advanced circuitry that virtually eliminates vertical smear when shooting bright lights in a dark room.

- Lag and image burn are also reduced to indiscernible levels, while high sensitivity of F11 at 2000 lux assures creative flexibility and simplifies lighting requirements.

- Newly-developed 12-bit A/D converter allows direct digital input to a 12-bit DSP without passing through analog pre-gain and pre-knee circuits, eliminating signal degradation. In addition, the advanced DSP brings out natural details, eliminates spot noise, and accurately reproduces dark areas.

- Achieves a dynamic range of 400% via an ultra-smooth gamma curve calculated with a true log scale algorithm. This allows the camera to accurately reproduce fine details and subtle colors throughout the picture, including shadowed and highlighted areas.

14x Zoom Lens

- Both auto and manual focus and iris control are available. 14x zoom speed can be varied as required and the large diameter focus ring ensures smooth, accurate focusing, allowing you to shoot the intended images. An optical image stabilizer (inner focus) helps stabilize zoom images.

- For telephoto and wide-angle shooting without sacrificing lens performance, optional conversion lenses are available.

- Incorporates an optical image stabilizer to minimize jittery images when shooting with the handheld GY-DV300U.

Cinema Gamma

- Select an S-shape gamma curve mode that gradually changes gradations in the dark and high-brightness areas. This provides film-like color gradations in the images you shoot.

- The screen can be switched between 4:3 and 16:9, allowing you to record signals with the aspect ratio appropriate to the application.

LOLUX Mode

- When activated, the LOLUX mode (2.6 lux) increases sensitivity with almost no increase in noise. LOLUX increases the gain by 16x (+24 dB) so you can capture high-quality video footage with excellent color balance in low-light conditions.

Full Auto Shooting

- When the GY-DV300U is in the Auto mode, iris, shutter speed, gain, white balance, audio rec level and optional image stabilizer are all adjusted automatically according to the shooting conditions.

- Picture quality can be adjusted manually, with individual settings available for master black, detail, DTL frequency, V resolution, auto knee, black and color matrix.

- AE (automatic exposure) function automatically adjusts brightness by combining the gain, shutter speed and iris.

- When the focus or iris switch is set to MANUAL, the Auto Focus mode or Auto Iris mode can be engaged by pressing and holding the PUSH AUTO.
Just attach the KA-DV300U network pack to the GY-DV300U, install the PCMCIA card, and you’re ready to connect the GY-DV300U to an Internet-connected PC (wired or wireless LAN). As the GY-DV300U captures images, it automatically generates MPEG-4 files that can be sent to the Internet in real time. Viewers can see those streams in real time simply by accessing the specified IP address on their PC.

Ideal for any type of live event — weddings, concerts, and even news reports — the GY-DV300U sends your images around the world instantly. Installing the bundled “Streamproducer” streaming software allows you to connect up to four GY-DV300Us to a single PC and switch them as required before streaming.

Create a publishing point for distribution:
◆ Images and sound captured can be streamed as MPEG-4 files via the PCMCIA card to the PC. The MPEG4 files are then processed by Streamproducer and made available for viewing on the internet.
◆ When accessing the publishing point IP address, you can play back the files with the Media Player on your PC. Streams up to 15 fps (352 x 288) are assured.
◆ Economical and easy to set up, the GY-DV300U makes it easy for students to attend lectures via the Internet.

1. **Shooting**

Just start shooting your footage with the GY-DV300U. Audio and video signals are simultaneously recorded on a MiniDV tape and encoded as an MPEG4/ASF file via the KA-DV300U.

2. **Transferring Data to a PC**

GY-DV300U features built-in MPEG4/ASF encoding and can accept three types of PCMCIA cards:
- Wireless LAN card for streaming
- Wired LAN card for streaming
- CF card for ASF file recording

3. **NetCasting**

Distribute your sound and images in realtime over a local network or the web via a PC with Streamproducer streaming software installed.

4. **Viewing**

Images and sound can be watched at the specified website via Internet or Intranet using Windows Media Player and a web browser. Camera setting, VCR control and live image capture are all possible from a remote location using only a web browser. No custom software is necessary.

### APPLICATIONS

**SYSTEM 1**

**Single ENG System**

You can record images simultaneously on a tape and a CF card. With a 256MB CF card, MPEG4/ASF files can be recorded for up to 1 hour at the highest CIF quality. MPEG4/ASF data recording can be triggered simultaneously, or independently from the DV tape.

**SYSTEM 2**

**Self-operated Studio System**

Even if you’re working on your own, you can still present your images in person. While footage is simultaneously being converted to ASF files that can be distributed over the network. Pre-recorded MiniDV tapes can also be converted to ASF files for netcasting or recorded on the CF card for delayed playback. MPEG4/ASF files can be viewed and recorded on a remote PC.

**SYSTEM 3**

**Internet Live Broadcasting System**

You can record live events such as sports, concerts, weddings and lectures on a MiniDV tape, while streaming the same material via the Internet in real time.
Systematic Menu Screens for Easy Control

The convenient menu system lets you quickly set and switch most basic functions while referring to the LCD display, viewfinder or on monitor.

### System 1 Menu

- **System 1/2 Menu**
  - MIC1 INPUT SEL: Selects the built-in microphone or the MIC1 input connector as the audio source.
  - WIND CUT MIC: Eliminates wind noise picked up by the built-in microphone or the MIC1/2 input connector.
  - +48v MIC1/2: Supplies 48v phantom power to the microphone connected to MIC1 or MIC2 inputs.
  - AUDIO MODE: Selects 32 kHz or 48 kHz audio sampling frequency.
  - REC MODE: Sets the recording speed to SP or LP.
  - LONG PAUSE TIME: Sets the maximum Pause/Standby duration to 3 minutes or 30 minutes. After the set time has elapsed, the tape mechanism goes to the Standby mode.
  - FADER: Enables fade from black when recording starts.
  - TALLY: Lights the tally lamp during recording.
  - HANDLE ZOOM SPEED: Sets the zoom speed for the camera handle control. Three speeds are available.
  - DATE REC: Sets Time & Date recording modes.
  - ASPECT: Sets the aspect ratio to 4:3, 16:9 (letterbox), etc.
  - SET UP: Adds 7.5 IRE setup to analog video output signals.

### System 2 Menu

- **Camera Menu**
  - MASTER BLACK: Sets the pedestal level.
  - DETAIL: Sets the thickness of the detail contour lines.
  - DTL. VH BALANCE: Emphasizes vertical or horizontal contour.
  - V. RESOLUTION: Adjusts the vertical resolution.
  - AUTO KNEE: Activates auto knee to obtain balanced intensity.
  - BLACK: Adjusts the amount of detail in the blacks.
  - COLOR MATRIX: Sets the color matrix to improve color reproduction.
  - GAMMA: Selects an S-shaped gamma curve to produce film-like color gradations.

- **Operation Menu**
  - AE: Activates the auto exposure function (Gain: ALC, shutter: EE, iris: auto iris).
  - SHUTTER: Sets the iris mode to Auto or Manual mode.
  - IRIS: Sets the shutter speed to fixed steps values or to variable scan mode.
  - WHITE BALANCE: Sets the white balance to the Auto or Manual mode.
  - OIS: Activates the optical image stabilizer.
  - CH1/2 AUDIO LEVEL: Selects the Auto or Manual mode for audio recording level adjustment.
**Continuous Recording Mode**

Connect the GY-DV300U to one of several JVC VCRs and you can record almost infinitely. Connect via DV (Firewire) cable to either the BR-DV600UA, BR-DV3000U or BR-DV6000U and 5 minutes before the tape ends in the camera, the VCR will be automatically triggered to start recording. And if the camera tape is replaced with a new tape, it too will be triggered 5 minutes before the end of tape in the VCR. This allows continuous shooting without interruption for extended periods.

**Long-time Battery Recording**

Long-time battery recording With low-power consumption design and the BN-V428U high capacity battery, this camcorder can be operated for up to 84 minutes (with VF ON). And since these are consumer-use batteries, replacements are easy to obtain.

**SP/LP Mode DV Recording**

The GY-DV300U combines the convenience and affordability of MiniDV with the high-quality camera performance you need for professional use. Up to 80 minutes (with an M-DV80 tape) of high-quality DV component digital images can be recorded on a single MiniDV tape, assuring you the high-quality, non-degradable images you need for top results in post-production editing.

Impressive horizontal resolution of 500 lines is achieved when signals are played back via DV output. The high-quality SP mode and up to 90-minute recording LP mode are available to choose from depending on your requirements.

**Time/Date Recording**

Time and date can be recorded on the tape. Time and date can even be recorded during the built-in color bar output (in 4:3 mode only).

**SMPTE Time Code Generator**

SMPTE-standard time code can be recorded and read for accurate editing. The time code system is locked to the drop-frame mode, REC RUN mode or re-generation mode. SMPTE time code can be preset at the beginning of the tape.

**High-Quality PCM audio**

- To complement the superior pictures, the GY-DV300U offers outstanding digital PCM sound. You can choose from two 16-bit 48-kHz channels or two 12-bit, 32-kHz channels with a dynamic range of more than 71 dB. Audio recording level can be adjusted to minimize extraneous noise picked up by the microphone. Audio recording levels for channels 1 and 2 can be set either manually or automatically.
- For the working video professional, the camcorder also offers 2 XLR audio inputs as standard equipment. Both channels level control can be set manually or automatically.

**Conveniences**

- Edit points can be quickly accessed in the Standby mode for review or to set the start point for recording.
- In blank search mode, a non-recorded section of the tape, such as the end point of a recording, is detected. The GY-DV300U enters the Stop mode at that point.
- Experienced shooters rely on Zebra exposure markers to keep the video within broadcast standards. On the GY-DV300U, the Zebra display can be selected from 75% to 100% in 4 steps.
- Variable scan shutter eliminates flicker when shooting other screen pictures than NTSC, such as computer monitor screens. Copes with the range from 60.6 Hz to 2084.6 Hz.
- When the shooting conditions are too bright, the built-in ND-filter can be used to reduce the brightness to an appropriate level. The filter can adjust the brightness to about 1/32 of the original.
- The GY-DV300U indicates the accumulated hours of drum running time by means of the Hour Meter displayed on the LCD or viewfinder screens. Hour meter is selected via the VCR menu screen. This is used as yardstick for periodical maintenance.
- SMPTE Color Bars can be selected whether the camera image should be output or whether the color bar of the built-in signal generator should be output during recording-standby and recording.

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**Optional Accessories**

- BN-V428U Rechargeable Battery (replacement) ........................................79.95
- AA-P30U AC Adapter/Battery Charger (replacement) ..................149.95
- KA-33U Shotgun Microphone Holder (for attaching the optional MV-P615U Phantom Microphone)..........................68.95
  - MV-P618U Shotgun Microphone ..........................149.95
  - GL-V0732 52mm Wide Angle Adapter ..................159.95
  - GL-V1432 52mm Telephoto Adapter ..................159.95
  - QR-DV300 Anton Bauer Belt Clip Adapter .............179.95
- M-DV63PRO 63-Minute Professional DV Tape ..................Call
- KA-DV300U Wireless MPEG-4 web streaming Adapter (15fps) for the GY-DV300U. This unobtrusive Adapter attaches to the bottom of the camcorder and offers connections for a LAN or CF card for control from a remote location. The KA-DV300U contains a microprocessor running Linux, enabling communication with a computer running JVC’s Stream Producer software, a companion live camera switcher/streaming server ..................1199.95
- KA-DV300KIT Streaming Kit including KA-DV300U, wireless & wired LAN cards, 64MB CF memory card, CF adapter) ..................Call

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The world’s first affordable high-definition camcorder for professional and amateur videographers, the GR-HD1 lets you shoot and edit real ATSC standard HD content (bundled MPEG Edit Studio Pro LE), record and save that HD content and view the content on a variety of HD digital televisions, including CRT, rear projection, front projection and plasma models.

The GR-HD1 records in both NTSC and U.S. ATSC HDTV Standard video on a standard Mini DV cassette. Recording can be done in 4:3 480i (DV compression) as well as 16:9 480/60p and 16:9 720/30p (MPEG-2 compression). In analog component it plays back in 480i (NTSC) and 480/60p, 720/60p, 1080i (ATSC), making it compatible with virtually all display devices. Its digital i.LINK outputs IEEE 1394-compliant 480i (NTSC) and 480/60p, 720/30p (ATSC) to D-VHS or computers via an i.LINK connection.

Now, with JVC’s Digital Hi-Def Camcorder GR-HD1, people can own and shoot with a thoroughly up-to-date digital camcorder, record and edit hi-def images on their own PC that will stand the test of time, and view and share their personal digital movies on HD D-VHS or DVDs via a wide variety of display devices.

No image can tell a story in all its grand presence, minute detail and sheer reality like digital Hi-Def. Hi-Def transports you into a world of uncompromising quality — where textures and colors come to life with startling and dynamic realism and the subtlest of nuances. You can see the forest, and the trees, see the leaves, feel them move. That’s power. The power of imaging. The unprecedented power of HD.

Now, capture Hi-Def images yourself. With the solid, compact, ergonomically balanced, enormously easy-to-use GR-HD1, you can go where no consumer or HD camera has gone before. And at a fraction of the cost, with a signature look different from anything else. Then, with a multitude of avenues for creating, editing, enjoying and sharing your images, you can easily distribute your works to a worldwide audience by HD or regular DVD. With the GR-HD1 you can make digital movies on a level that until now was only accessible to cinematographers and broadcasters.
**High Definition 10x Optical Zoom**

- The GR-HD1 features a newly designed high definition 10X optical zoom lens. High-precision multi-coated all glass optics ensure low-distortion, ghost-free images with high peripheral resolution and brightness, as well as high edge-to-edge color purity across the entire zoom range.
- With almost no variance in brightness from F1.8 at full wide to F1.9 at full telephoto, it is able to offer the fundamental image-gathering performance a Hi-Def system requires.
- In addition to the stabilized all-glass 10x optical zoom, there is also a 40x/200x digital zoom with spline interpolation to minimize jagged edges—when shooting in SD and DV mode.
- Since Hi-Def images need to be rock solid, the camera incorporates an on-demand optical image stabilizer that provides ample zooming capability coupled with the non-degrading image stabilization. Since it is an optical system, there is no loss of resolution and it allows you to take full control with manual focusing and zoom rings on the lens barrel. It’s a crystal clear entry point for breathtaking Hi-Def images.

**High Definition and DV Recording Modes**

The GR-HD1 can record and play back 1280 x 720/30p digital high definition and 480p progressive wide images using DV tape. To maximize potential in the field, and assure seamless transfer to a variety of post-production environments, the GR-HD1 is equipped with three ATSC compatible shooting modes:

- “HD Mode” that records 720/30p digital high-definition images
- “SD Mode” for 525p progressive wide images
- “DV Mode” to record conventional NTSC 480i DV standard

The ability to record in broadcast data rates on low-cost DV cassettes is invaluable. High efficiency 6 frame group of pictures (GOP) Hi-Def MPEG compression allows the same recording time for HD on DV cassettes as for standard SD DV compression. The GR-HD1’s up-converter converts 720/30p digital HD images and 480p progressive wide images to 1080i for viewing on HD display devices. The down-converter converts images to conventional NTSC 480i, enabling images to be enjoyed on virtually any TV.

**HD Mode MPEG-2**
- **16:9 Image size:** 1280 x 720, 840,000 pixels
  - Recorded Horizontal resolution: 700 16:9 TV lines
  - Vertical resolution: 650 TV lines

**SD Mode MPEG-2**
- **16:9 Image size:** 940 x 480, 460,000 pixels
  - Recorded Horizontal resolution: 400 16:9 TV lines
  - Vertical resolution: 480 TV lines

**DV Mode**
- **16:9 Image size:** 940 x 480 (Anamorphic Squeeze mode) 460,000 pixels
  - Recorded Horizontal resolution: 400 TV lines
- **4:3 Image size:** 720 x 480 standard (360,000 pixels)/940 x 646 wide-angle 30psf (D.Wide) (610,000 pixels)
  - Recorded Horizontal resolution: 540 TV lines
- **Vertical resolution:** 360 TV lines

**Megapixel CCD and Primary Digital Filter**

- Incorporates a newly-developed single 1/3-inch 1.18 million pixel (1.14 million effective pixels) progressive scan CCD with patented progressive color filtering, as well as JVC’s original signal processing circuitry and driving system. All together, this constitutes a system finely tuned to gathering high-resolution, high quality images.
- Designed for a true 16:9 pixel wide array of 1280 x 720 (for moving images) and 4:3 1280 x 960 (for stills), and progressive scanning to sample the entire picture at once, this CCD has an uncanny ability to capture detailed images without interline motion blur resulting from interlace scanning.
- Hi-Def color purity and discrete reproduction allows you to see full detail without being obscured by low resolution color smearing. The Hi-Def standard colorimetric range takes in more colors than NTSC as well. Things simply not possible to see with regular TV, like fine designs on a jersey, are clearly visible. Pictures have texture!
- The GR-HD1 lets you record, preserve and playback high quality 700/650 Horizontal/Vertical-line resolution (close to the achievable limit of the format) component Hi-Def video in a reasonable price range. To those who still believe that the number of CCDs is the factor in determining picture quality, think again: the GR-HD1 is ready to challenge and overwhelm preconceptions.
Digital Audio
- 16-bit digital stereo records wide dynamic range 48kHz digital audio with the camera’s stereo microphone or via external stereo mini-plug mic input. HD and SD modes record at 384 kbps.
- DV mode also records in 2 channel 48kHz or the 32 kHz 4 channel mode for post audio dubbing. Wind cut mode helps cut down wind created noise. Monitor audio via the stereo headphone jack.

Digital Wide
- Shutter speeds range from 1/15 to 1/1000 sec. Iris ranges from f/1.8 through f/22 with an Iris Lock function. In addition to One-touch manual white balance; Halogen, Cloudy and Sunny settings finely tune colors for a more natural look. All are directly accessible by conveniently mounted buttons.
- You have total control over image exposure in ±10 steps using the exposure dial, and can instantly compensate for backlighting via the BLC button. Program Auto Exposure includes Sports, Snow, Spotlight and Twilight to best match the scene.

Pro Style Performance
- The camera’s grip section rotates by up to 90°, with smooth, uninterrupted motion from high- to low-angle for stable shooting at all times—without taking your eyes off the action. Get HD footage in places that bulkier cameras just won’t allow.
- And while your hand remains on the grip, you have fingertip control of zoom and auto/manual focus rings, auto/manual white balance, auto/manual exposure and shutter speed features.
- Removable aluminum die-cast carrying handle for high action mobility
- Two accessory shoes (on camera and handle) let you to add optional accessories like the MV-E100 microphone.
- Individual lens barrel rings let you manually adjust focus and zoom. Auto focus and power zoom can be activated at anytime.

HG Digital Stills
Progressive CCD recording captures digital stills a frame at a time so they have less motion blur and 1.5x the vertical resolution of conventional field stills from an interlace camera. The optical Image Stabilizer also helps shooting without blur from camera motion when zoomed in.
- Four sizes can be captured to SD or MMC memory cards; 640 x 480, Panorama 16:9 848 x 480 or 1280 x 720, and Megapixel 1280 x 960 still pictures.
- Progressive pictures captured from tape to PC also make high quality stills; HD at 1280 x 720, SD 848 x 480. DV 640x 480.
- For Index playback and file viewing, File information includes Folder, File, Date made, Image size, Picture quality, and Protect mode. On screen display is possible.

Auto and Manual Exposure Control
- Shutter speeds range from 1/15 to 1/1000 sec. Iris ranges from f/1.8 through f/22 with an Iris Lock function. In addition to One-touch manual white balance; Halogen, Cloudy and Sunny settings finely tune colors for a more natural look. All are directly accessible by conveniently mounted buttons.
- You have total control over image exposure in ±10 steps using the exposure dial, and can instantly compensate for backlighting via the BLC button. Program Auto Exposure includes Sports, Snow, Spotlight and Twilight to best match the scene.

DV Mode 4:3 Digital Wide and 16:9 Anamorphic Wide
- Digital Wide's broader pixel area (941 x 464) generates a high-resolution wide-angle image equivalent to a 0.7x wide conversion lens. The frame rate is 30 fps output on 60i, with increased sensitivity.
- In DV mode, 16:9 “Squeeze wide” uses a wider view of the CCD (941 x 483 pixels) to create a full 16:9 image. This is then fit into the regular 4:3 NTSC signal to make a natural electrical anamorphic "squeezed" image to play back on a 16:9 TV at 60i.

High Resolution LCD Color Monitor and Color Viewfinder
With the rotating 3.5” high-resolution 200,000-pixel LCD monitor, you can shoot at angles and positions where the viewfinder isn’t comfortable or practical. The LCD monitor can be viewed simultaneously with the viewfinder including comprehensive menu and camera condition information, especially convenient when working with others. The crisp 113,000 pixel color viewfinder also offers diopter adjustment.

Full Digital Interfaces
The GR-HD1 is excellent at getting the images you need to the location where you need them.
- Live HD images at at 720/30p can be monitored digitally via the i.LINK connector. (Analog output is also possible for playback from tape).
- i.LINK (IEEE1394) is primarily for transfer of MPEG-2 and DV video data from a PC or other compatible device like a D-VHS VCR. (Dubbing isn’t possible from analog HD sources). You get lossless digital dubbing of both pictures and sound in one cable. Connected to JVC’s HM-DH30000 or DH40000, it allows 4 hours of dubbing onto a D480 D-VHS tape.
- USB for transfer of digital still images to and from a PC
- SD or MMC Memory Card for storage of digital stills and transfer of data to PC with appropriate slot or external reader.
- Communicate via web-camera by running third-party software such as Windows Messenger for teleconferencing, video phoning, webcasting or surveillance applications.

GR-HD1 Includes....
AA-V40U AC Adapter/Charger, RM-V717U Remote Control, USB and component video cable, Multi-pin S-Video/AV/ editing cable, BN-V428U 2800mAh Battery Pack, 8MB SD memory card, shoulder strap, carrying handle, attached lens hood and editing software CD.
**Effects and Scene Transitions**

- In addition to B&W “Monotone” effect for HD and Digital Still modes, SD and DV modes also have Sepia, Classic Film and Strobe effects and 9 transitions you can apply both in the field shooting or during playback: White/Black and Color fades; Corner, Window, Slide, Door Scroll and Shutter Wipes.
- Blow up a part of a still or DV picture up to 20x in the LCD or connected monitor.
- Playback effects via the camera’s multi-brand compatible remote control include slow speed search, frame-by-frame viewing, Classic Film, B/W Monotone, Sepia and Strobe.

**Conveniences**

- Full Auto Modes let the camera take care of all critical settings.
- Built-on lens hood cuts lens flare for superior results.
- An index picture and counter information are stored on the SD Memory Card when you start shooting video, push the Index button, or at regular intervals.
- To search footage, call up the navigation screen and choose the scene you want. Date, time and timecode are always recorded to tape. Selectable for display on-screen with the LCD, viewfinder or connected TV.
- Record macro shots as close as 2˝.
- 5-Second Recording mode can record events in 5 second clips at intervals of 5, 15, 30 or 60 seconds or manually. Similarly, Animation mode records a few frames.
- DV LP mode provides 1.5x recording time.
- Self Timer; tape remaining time indicator
- Incredibly, you can record 60 minutes of HD signals on a conventional MiniDV cassette. And by using a common cassette mechanism with DV, the GR-HD1 to offer regular DV recording as well.
- Pull out the viewfinder or LCD and the camera automatically powers up so you’re ready to shoot. Close it, and the power automatically shuts off to save energy.
- If needed, beep or melody sounds signify power-on and recording signaled by the tally lamp as well as a beep or melody. A shutter sound can indicate still shooting.

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**MPEG Edit Studio Pro LE—Frame Accurate Hi-Def Editing**

GR-HD1 users don’t just film digital movies, they create them! The bundled MPEG Edit Studio Pro LE MPEG-2 HD editing software package provides frame accurate editing capabilities using short 6 frame GOP HD MPEG compression. The software also allows HD content to be saved on D-VHS, or burned down to 16:9 480/30p progressive DVDs with ImageMixer DVD software for viewing and sharing digital movies on any DVD player for a genuine theater-like experience.

- HD Capture lets you easily transfer Hi-Def footage recorded with the GR-HD1 to your PC’s hard disk using on-screen camera control buttons, via i.LINK (IEEE1394) interface. You can also record MPEG2-TS images back to tape. Automatically stores data in separate files should it detect different data types or unrecorded sections during capture.
- Allows frame-accurate MPEG-2 editing with drag-and-drop operation. Coupled with the search functions accompanied by sound, you’ll be able to make frame-accurate cuts with precise voice timing so you won’t cut off a crucial comment or quote prematurely. Video and audio can be edited separately, and combined from different clips.
- In addition to the incredibly easy drag-and-drop interface, it has numerous features that enable easy project management so you can store and revise your past work whenever necessary. And with the edit spooler function, edits can be done in the background, freeing you and your computer up for other jobs.
- Audio Converter lets you import MP3 files, as well as other audio file formats (WAV, WMA, MP2), with full sound mixing and editing support, for use in your movie soundtrack in the MPEG-1 Audio Layer 2 format used by MPEG Edit Studio Pro LE.
- Editing of both HD and SD material is possible, so you can export edited HD videos back to the GR-HD1 or to a JVC HM-DH40000/DH30000 Digital HDTV recorder in native MPEG2-TS Hi-Def format, as well as convert edited HD videos to MPEG2-PS for authoring to DVD using the provided ImageMixer DVD software.
- Down-converted MPEG-2 files can be authored to DVD by dragging and dropping the files onto the menu. Just choose from the variety of ready-made frames and graphics, and it automatically creates a main menu for DVD playback.

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**New! CineForm Connect HD**

CineForm’s Connect HD is a high-performance high-definition (HD) accelerator for Windows-based video editing applications. A total solution, Connect HD lets you capture content directly from the GR-HD1—and then edit in full HD resolution using any application that supports HD resolution. You can then export to any format your application provides. (See more information in the editing section).
**PANASONIC**

**D-SNAP SERIES**

**4-in-1 Multimedia Devices**

The next generation of portable audio/video entertainment devices, Panasonic’s D-Snap series are 4-in-1 multimedia devices that are actually thinner than your wife’s make-up compact. The versatile SV-AS10, SV-AS25 and SV-AV50 function as a 2-megapixel digital camera, QuickTime (SV-AS10) or MPEG-4 video recorder (SV-AS25 and SV-AV50), MP3 music player and digital voice recorder. Fun, portable, easy to use, they can also network with a wide variety of products. These pocket-sized packages have a footprint not much larger than a business card, measuring a mere 4” long by 2” wide (the AV-AV25 is only 1” wide). They store digital photos, moving images, MP3 music files and voice recordings onto an SD Memory Card about the size of a postage-stamp. The high-capacity SD Memory Card allows you to share content with a wide variety of SD-enabled products, including camcorders, laptop PCs, PDAs, printers, cell phones, DVD recorders and more.

D-Snap 4-in-1 camera are perfect for capturing life’s moments, anytime, anywhere, to share with family and friends. Because they are so portable and unobtrusive, they’re great for capturing audio recordings of meetings or lectures, and for taking quick snap shots and moving images to document events as they happen.

**They All Feature:**

- Equipped with a 2-megapixel CCD they produce high-quality digital still pictures at up to 1600 x 1200 resolution (SV-AS10 Fine or Standard image quality modes).
- All three D-snap models let you play and listen to MP3 and AAC music files non-stop for up to 4 hours via their built-in speakers or supplied earphones. Create a playlist function that will play back songs in any sequence you want.
- Select a song from a CD or Internet, and record it to the SD memory card. Then transfer music files between a D-snap and compatible PC with the bundled SD Jukebox PC Software, which helps organize and save digital music files in one database on the computer.
- Using their built-in microphone and speaker you can create and listen to voice recordings. Record up to 35 hours (18 hours with the SV-AS10) of conversation, lectures, meetings or memos onto a 512MB SD memory card.
- Built-in flash means you’ll never miss a good shot, even at night or indoors. Night View function enhances the lighting effect even when shooting indoors or at nighttime.
- The SV-AV25/SV-AV50 are equipped with a 2.5x digital zoom, the AV-AS10 features a 2x, 3x or 4x digital zoom.
- They can display a multi-thumbnail display of up to six pictures on their built-in LCD screen. This makes it easy to choose the ones you want. On the SV-AS10 (10x) and SV-AV25 (2x) you can then zoom in, crop as desired, or easily create slide shows.
- They each include a set of earphones. On the SV-AS10 and SV-AV50 the headphones come with a remote controller that controls volume, fast forward and tone adjustment. The remote can also be used to operate the shutter when you’re using the SV-AV50 as a digital camera.
SV-AS10 Only

- For added convenience, a 270° rotating lens makes it easy to snap self portraits. You can rotate the lens to the angle that works best for you, and see how easy it is to take snap-shots of yourself and friends or to shoot at creative angles.
- Burst Shooting mode lets you capture fast action by recording up to three consecutive frames per second.
- In addition to Auto White Balance on the SV-AV25 and SV-AV50, the SV-AS10 also features presets for a variety of lighting conditions including Daylight, Cloudy, and Incandescent as well as Manual mode.
- IS0 setting sensitivity (Auto, 100, 200, 400)
- Color effects mode (B&W, Sepia)
- You can record up to 10-seconds of sound together with each still image.
- ±2EV exposure compensation in 1/3 EV steps
- Program AE (Night, Landscape and Macro mode) for different shooting environments
- Records video as QuickTime 320 x240 movies
- Has a 1.5˝ LCD (76,000 pixels)

SV-AV25/SD-AV50 Only

- They have a larger 2˝ LCD (117,000 pixels) flip-out LCD monitor for more versatility when recording and playing back. (The LCD is built-in on the SV-AS10 and doesn’t flip-out.)
- They record full-screen 320 x 240 MPEG-4 movies at 30 frames per second. You get smooth flowing, natural looking moving images without a jerky ‘frame-by-frame’ effect.
- SD-Moviestage software lets you manage the movies and attach them to e-mails.
- The SV-AV25 (only) lets you compose horizontal and vertical shots. It has two recording buttons conveniently positioned to make it easy to shoot either way.
- The SV-AV50 has a USB cradle with an A/V input/output terminal for connection to a TV or VCR. This means you can record a program onto the SD Memory Card and then watch the program anywhere you want on the LCD monitor.

SV-AV100

D-Snap SD Digital Video Camcorder

Destined to change forever what we expect in home video recording, the SV-AV100 delivers DVD video quality from a package about the size of a thick credit card and no mechanical recording media whatsoever. The world’s smallest camcorder, the SV-AV100 records moving pictures in either MPEG-2 for high quality or MPEG-4 for video mail to ultra small SD Memory Cards. It also records still images as JPEGs which are ideal for storing and editing.

- Measuring just 1.25 x 2.125 x 3.5˝ (WxDxH) and weighing 5.5 oz. the SV-AV100 is the world’s smallest high-quality camcorder and literally drops into a pocket, purse, or briefcase for instant on-the-go videos.
- All recordings are captured on a thumbnail-size removable SD memory cards. The card eliminates the need for conventional cassette tapes and mini-DVDs…and all the mechanical components that go with them. Size is drastically reduced while reliability is significantly enhanced.
- Record in both Fine and Normal modes, with images recorded at 30 frames per second. A 512MB SD card holds up to 20 minutes of MPEG-2 video shot in Standard Mode. Larger capacity SD cards for longer recording times are available separately.
- The card can also be placed directly into a Panasonic DVD-RAM video recorder, and your videos can be copied to DVD-RAM or DVD-R discs for permanent archiving. Once copied, the SD card can then be cleared and reused again. The SV-AV100 also includes a recharging base with A/V cable to allow stereo audio and composite video to be played directly onto a TV or a VCR to archive onto VHS tape.
- Record still images and MPEG-4 movies for Internet or e-mail use. Using the included software and cable, the camcorder attaches to any USB 2.0-equipped computer for quick and easy download. Multiple MPEG-4 recording modes let you tailor the file size and speed of the video, while still images are recorded at 640 x 480 pixels
- View images and video on the flip-open 2.5˝ LCD screen that turns 180° for self-shooting. The LCD also displays camcorder settings, which are selected with a single multi-function button for quick, fingertip control.
- For point-and-shoot ease, five Program AE modes automatically adjusting all settings.
- Keeps track of separate scenes (images between pause or start and stop) allowing you to view a Play List to cue, skip or jump nearly instantly to any particular scene.
- 10x variable speed optical zoom and a 25x/100x digital zoom are complemented with Electronic Image Stabilization for jitter-free recording under virtually all conditions.
### PANASONIC

**D-snap SERIES AT A GLANCE**

<table>
<thead>
<tr>
<th>Model</th>
<th>SV-AV10</th>
<th>SV-AV25</th>
<th>SV-AV50</th>
<th>SV-AV100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SHOOTING FUNCTIONS:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Camera</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Still Camera</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Rotating lens</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>2-way Shooting Style</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Image Sensor</td>
<td>1/3.2˝ 2.11 Total MP CCD</td>
<td>1/3.2˝ 2.11 Total MP CCD</td>
<td>1/6˝ CCD Image Sensor</td>
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</tr>
<tr>
<td>Camera Effective Pixels</td>
<td>2 Megapixels</td>
<td>1.95 Megapixels</td>
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</tr>
<tr>
<td>Shutter Speed</td>
<td>2 - 1/2,000 second</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Aperture</td>
<td>—</td>
<td>F4 (Focal Length: 4.5mm)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Lens</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Focusing Area</td>
<td>Normal: 50cm Infinity Macro: 10 cm</td>
<td>50cm - Infinity</td>
<td>50cm - Infinity</td>
<td>—</td>
</tr>
<tr>
<td>Focus</td>
<td>Normal/Macro</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Digital Zoom</td>
<td>1x, 2x, 3x, 4x (Still)</td>
<td>2.5x</td>
<td>2.5x</td>
<td>—</td>
</tr>
<tr>
<td>Image Sensitivity</td>
<td>Auto/100/200/400</td>
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<tr>
<td>White Balance</td>
<td>Auto/Daylight/Cloudy Incandescent/Manual</td>
<td>Auto/White Set</td>
<td>Auto/White Set</td>
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<tr>
<td>Exposure</td>
<td>Programme AE</td>
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<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Exposure Compensation</td>
<td>1/3 EV Step, 1.2EV</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Standard Illumination</td>
<td>—</td>
<td>3000 lux</td>
<td>3000 lux</td>
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</tr>
<tr>
<td>Minimum Required Illumination</td>
<td>—</td>
<td>60</td>
<td>60</td>
<td>10</td>
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<tr>
<td>Still Image Compression</td>
<td>—</td>
<td>JPEG</td>
<td>JPEG</td>
<td>JPEG (VGA)</td>
</tr>
<tr>
<td>Night View</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Light Metering</td>
<td>Multiple</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Backlight Compensation Function</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Still Image Size</td>
<td>1600 x 1200 pixels</td>
<td>1600 x 1200 pixels</td>
<td>1600 x 1200 pixels</td>
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</tr>
<tr>
<td>1280 x 960 pixels</td>
<td>1280 x 960 pixels</td>
<td>1280 x 960 pixels</td>
<td>1280 x 960 pixels</td>
<td>—</td>
</tr>
<tr>
<td>640 x 480 pixels</td>
<td>640 x 480 pixels</td>
<td>640 x 480 pixels</td>
<td>640 x 480 pixels</td>
<td>—</td>
</tr>
<tr>
<td>Image Quality</td>
<td>Fine/Normal</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Self Timer</td>
<td>10 seconds</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Color Create</td>
<td>Black &amp; White, Sepia</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Built-In Flash</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Consecutive Shooting</td>
<td>3 Frames per sec (max. 3)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Still Image Recording with Audio</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>10 seconds</td>
</tr>
<tr>
<td>DPOF Marking</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Video Compression</td>
<td>QuickTime Motion JPEG, 320 x 240 pixels</td>
<td>320 x 240</td>
<td>320 x 240</td>
<td>320 x 240</td>
</tr>
<tr>
<td>VOICE RECORDING FUNCTIONS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice Recorder</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Built-In Microphone</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>VIEWING FUNCTIONS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor</td>
<td>1.5˝ TFD LCD Display (76,800 pixels)</td>
<td>2˝ LCD (117, 000 pixels)</td>
<td>2˝ LCD (117, 000 pixels)</td>
<td>2.5˝ LCD</td>
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<tr>
<td>Playback Zoom</td>
<td>Up to 10x</td>
<td>Up to 2x</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reverse Button</td>
<td>✔</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Playlist Editing</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>✔</td>
</tr>
<tr>
<td>Video Output</td>
<td>—</td>
<td>—</td>
<td>1.0 Vp-p, 75 ohms</td>
<td>1.0 Vp-p, 75 ohms</td>
</tr>
</tbody>
</table>

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**ONE HOUR FREE PARKING**

**AT 349 W. 34th STREET** (with purchase of $100 or more)
Digital Photo Printer

A high quality thermal dye sublimation digital photo printer, the SV-AP10 produces durable, high-quality prints that rival any 35mm print. The compact SV-AP10 features dual card slots, one for an SD Memory Card or MultiMedia Card, the other for a PCMCIA card, so it can accommodate virtually any current memory card format. It features a composite video output terminal making connection to a TV fast and easy. The SV-AP10 can also be positioned horizontally or vertically, for space-saving efficiency. And for connection to a PC, a built-in USB port is also provided.

**FEATURES**

- It has a slot for an SD Memory Card or Multimedia Card and another slot for a PC card. So you print from other memory cards such as CompactFlash. And with double slots, you can copy images between cards, a handy feature when it comes to sharing and storing images.
- With new head and drive technology, the SV-AP10 improves the dark-to-light dynamic range 10% compared to conventional dye-sub printers.
- Up to 36 sheet auto feed
- Supports DPOF (Digital Print Order Format) and Exif 2.2
- Handles up to 25-million (6,144 x 4,096) pixels. Images are reproduced faithfully with smooth 256-step gradation for each color.

◆ Printing the desired picture is easy and one button makes it all happen. Using a high-quality dye sublimation process, the SV-AP10 adds a UV overcoat to photos to protect them from humidity, fingerprints, damage or color fading from sunlight. The result is a high quality, long lasting picture, produced in the comfort and convenience of your own home.

◆ Using the supplied remote control, users can view thumbnails of all the images stored on the memory card. Images are instantly displayed on the screen and can be accessed by the date of the photo. The SV-AP10 is a great way for friends and family to enjoy digital slide shows any time.

**SV-P20**

SD Mobile Printer with LCD Monitor for On-the-Spot Prints

The SV-P20 is compact, mobile printer capable of printing images saved on SD memory cards using digital still cameras or digital video cameras. It features a built-in 1.5” screen that allows you to view images and print various types of card-sized pictures on-site. This SV-P20 is also equipped with a USB terminal, so you can connect to a computer to print, add illustrations or text, and present slide-shows of images stored in the computer.

- Prints 290-dpi 2¼ x 3½” credit-card size prints
- Palm-size dimensions make the SV-P20 easy to carry around. Measures only 4½ x 1½ x 2¼” and weighs only 9.4 oz. The SD/MMC memory card slot lets you easily make direct prints of still images shot by Lumix digital cameras.
- Print mode, number of copies, and other settings can be made using the 1.5” 110,000-pixel LCD screen.
- Operates on either AC power or with the supplied battery, so you can take it with you for on-the-spot printing.
- Continuous printing of up to 24 photos is possible on a fully charged battery.

The SV-AP10 offers an exciting array of creative printing options:

- Print 4 x 6” with or without borders
- Frame photos with 9 unique illustrations
- Choose from twelve wallpaper designs and position one or several photos, adjusting the size and layout to your specifications
- Print several configurations of calendars featuring your favorite photos
- Print multiple images, or copies of one image, on a single sheet
- Zoom in on an image
- Add a date, title or text to a print
- Produce sepia colored print
- Three types of calendars
PANASONIC

PV-L354/PV-L454

VHS-C Camcorders with LCD Monitor

Panasonic’s VHS-C Palmcorders each feature 20x optical/700x digital zoom, Electronic Image Stabilization, built-in video light, one-touch fade, color digital effects and specialized functions like motion sensor and programmed recording. For convenience, they are equipped with a color 2.5” LCD monitor for “on-location” playback, and a full-size video head cylinder to offer complete compatibility with full-size VHS VCRs. Otherwise identical, the PV-L454 steps up with 750x digital zoom, a color viewfinder and includes a 2-hour battery pack (700x digital zoom, B&W viewfinder and 1-hour pack with the PV-L354).

FEATURES

High Picture Quality

◆ Full-size (62mm) VHS head cylinder - the same as used in Panasonic’s VHS VCRs affords more tape-to-tape contact, resulting in a steadier picture. Also ensures complete playback compatibility in VHS VCRs with crisp, clear pictures.

◆ 20x four-speed optical and 700x (PV-L354) or 750x (PV-L454) digital zoom allow a greater range than ever before. Go from the widest angle to telephoto in 2 to 16 seconds. After the highest optical zoom is reached, the digital zoom automatically takes over, magnifying the image by blowing up the pixels to give you an incredibly close shot.

◆ Digital Electronic Image Stabilization (EIS) system compensates for unintentional hand and camcorder movement - even while walking or recording from a moving car.

Specialized Functions

◆ They can be programmed to start and stop recording for 10, 20, or 30 minutes, or until the tape ends. In addition, interval recording function lets you program the camcorder to record 5 seconds or 10 seconds for each minute of actual time that passes.

◆ Motion Sensor function for unattended recording. When set in the Motion Sensor mode, they start recording within seconds of the infrared beam's detection of movement, and stop 30 seconds after motion ceases. Date and time are automatically recorded on the tape. Ideal for simple home security applications.

Digital Effects

◆ Digital Wipe, Still and Strobe for more creativity. Digital Wipe is a horizontal, vertical, or square wipe that can also be frozen at any point, makes for exciting transitions between scenes. Digital Still digitally “freezes” an image, while Digital Strobe digitally “freezes” a series of images.

◆ Built-in color digital filter gives you the duo-tone effect of a color filter without having to attach one to the lens. The filter lets add your choice of sepia, red, yellow, blue or green to the overall picture.

High Performance

◆ Unbelievable low-light sensitive, they can record down to 0.8 lux

◆ High-speed shutter (Auto; 1/60 to 1/10000 of a second) allows you to capture clear, sharp still images of fast-moving subjects.

◆ 2.5” LCD color monitor (112,000 pixels) can rotate 270°, letting you hold the camcorder at different angles while recording. Built-in speaker lets you check recordings “on location” by playing them back on the spot.

◆ For those times when you can’t use the color LCD monitor, the PV-L454 has a color electronic viewfinder to provide a clear view of what you are recording. (The PV-L354 has a B&W viewfinder).

◆ Built-in AccuBrite video light can automatically power on when needed to improve overall picture quality and color rendition in low-light settings.

Conveniences

◆ Tape and battery remaining indicators

◆ Preset Date/Time with Time Zone Select, so you don't have to manually set the time and date. The camcorders also automatically adjust for daylight savings time.

◆ They record on tapes that can be played back in any VHS VCR (using an optional VHS adapter). Incorporating the convenient VHS-C tape format, there are no cables to connect - just pop the tape into the VHS PlayPak adapter, insert into the VCR and hit PLAY - that’s all there is to it.

◆ They both offer a bilingual on-screen display that lets you see the commands in English or Spanish.

◆ 10-second Reminder, Stand-by Release, Self-Demo Mode (ends after 3 months) and removable lens cap

◆ Supplied accessories include: AC Power Battery Charger, DC Cord, 1- or 2-Hour Battery Pack, Audio/Video Cable and Shoulder Strap
Compact DV Camcorders

Blending innovative technologies with easy-to-operate controls, Panasonic’s DV camcorders combine industry-leading optical zoom ratios, in a small form factor that allows use just about anywhere. And with easy-to-access controls and ‘direct select’ features, it is easy to quickly capture the moment in motion video and still images. Up to 24x optical zoom lens, digital effects, i.LINK, 2.5” color LCD monitor, and DSC (Digital Still Camera) capability (except the PV-GS9) are just some of the other features that fits in the palm of your hand. Four camcorders in the series, the PV-GS9 features 20x optical and incredible 800x digital zoom, USB port, Quick Start, Zoom Mic with wind filter MagicPix Images, Soft Skin Detail function and Cinema mode. The PV-GS12 adds image stabilization, SD Memory Card capability for storing digital still images, EfficiBright LED light, and simultaneous motion/still recording. The PV-GS14 steps up with 22x optical zoom and color viewfinder. The top-of-the-line PV-GS15 offers 24x optical zoom and includes a 3-hour battery, remote control, 8MB SD Memory Card and editing software.

FEATURES

High Quality Video

◆ 1/4” CCD with 680,000 pixels combines with DV recording system to deliver superb images. Enables you to capture crisp, clear images in ultra-high resolution.
◆ Equipped with a 20x optical zoom lens that delivers close-up shots with extraordinary clarity. It also offers seven different zoom speeds, so you can go from wide angle to full telephoto zoom in 2 to 22 seconds. A 800x digital zoom is also offered, providing incredible close-up capability.
◆ High-speed shutter up to 1/8000 second.

i.LINK (IEEE1394)

◆ Incorporate industry-standard i.Link (IEEE-1394) digital interface, lets you connect your camcorder to a PC for advanced viewing and editing with virtually no deterioration in picture or sound quality. Also allows lossless copies when dubbing to similarly equipped camcorders or VCRs.
◆ They have a USB port that lets you quickly connect to a PC to transfer your footage for viewing and editing purposes. With optional USB cable you can transfer still images captured on Mini DV tape to your computer for use in e-mail or printed documents.
◆ Composite video output is also available for playback on any television

High Performance

◆ With MagicPix Image function you can shoot full color video and stills even when you’re in extremely low light situations.
◆ Cinema Mode lets you record video in 16:9 aspect ratio, giving your videos a dramatic, cinematic effect during playback.
◆ Soft Skin Detail function detects skin’s different tones and softens the focus to create a realistic blend.

Audio

◆ Two PCM digital stereo modes: 16-bit mode produces CD quality on one set of stereo tracks, while the 12-bit mode creates two sets of stereo tracks, allowing audio dubbing or narration on the second track.
◆ Equipped with a zoom mic the audio zooms in along with the picture, enabling you to pinpoint distant sound emanating from your subject. In addition, Wind Noise filter significantly reduces unwanted wind and mechanical noise pick-up.
◆ Audio dub function lets you record new audio over a pre-recorded track without disturbing the existing video. Audio input from the built-in microphone. (Note: When you insert audio using the 16-bit mode, the original audio will be erased.)

LCD Monitor

◆ 2.5” high-resolution LCD color monitors provide excellent viewing clarity in full vivid colors. The monitor swivels open to a wide 120° angle for easy viewing, and can rotate up to 270° letting you hold the camcorder at many different angles while recording. A speaker is also built-in, so you can check your recordings on the spot.

5-Mode Program Auto Exposure

◆ Program auto exposure provides proper settings for exposure, shutter and depth of field in a variety of shooting environments.
- Portrait mode softens the background focus behind your subject. This emphasizes the subject and provides an overall ‘softer touch’ similar to what a portrait studio would do.
- Sports mode selects the fastest shutter speed for the lighting conditions to capture fast movements in sports scenes.
- Surf & Snow compensates for bright reflections, which cause ‘silhouettes’ when shooting snow or at the beach.
- Spotlight mode prevents the saturation of your subject when under strong lighting.
- Low Light mode provide faithful reproduction when recording sunsets, sunrise, night time/full moon, and fireworks.
Digital Effects

- Add exciting digital effects like Strobe and Trail while recording, and during playback, to really make your videos come to life.
  - Digital Zoom (Playback only) enlarges the center of the playback image by 2x
  - Digital Mirror (Record and Playback) creates a mirror-like, symmetrical image
  - Strobe (Record and Playback) digitally "freezes" a series of images
  - Mosaic (Record and Playback) turns the image into a mosaic pattern
  - Slim Record and Playback) expands the image vertically
  - Stretch (Record and Playback) expands the image horizontally
  - Trail (Record and Playback) forms multiple impressions of all the images in motion, which gradually fade-out to create a "trail" effect
  - Monotone (Playback only) plays the image back in black and white
  - Sepia (Playback only) gives the image an antique looking sepia tone

Conveniences

- Battery and tape remaining time are displayed in the viewfinder
- Multi-image playback allows you to view nine consecutive still images on the LCD monitor or your TV when in Playback mode. This is ideal for analyzing athletic performance such as golf swings.
- LP Mode offers extended tape speed allowing you to record 120-minutes on a 80-minute DV tape, while maintaining the same audio and video quality as SP mode.
- Webcam capability (with optional cable and software) makes them ideal for videoconferencing, or for using a monitoring device when you are away from home.
- Quick Start feature lets you begin recording 1.3-seconds after turning the power on, so you’ll never miss any action.
- A one-touch, side-eject system makes it easy to insert or remove a tape, even when it’s mounted on a tripod.
- A headphone jack is also available so you can monitor the audio while recording, or listen upon playback.

Camera Features

PhotoShot (Digital Still Camera Capability)

Featuring the built-in PhotoShot digital still camera feature, these compact DV Palmcorders give you two ways to capture memories—digital video and digital still photos.
- PhotoShot mode lets you use your camcorder as a digital still camera by capturing six seconds of stills with audio in VGA (640 x 480) resolution. Images can be transferred to your computer and incorporated in e-mails, printed or played back on TV to create your own slide show. Up to 1000 still images can be recorded on a 60-minute tape.
- Picture-in-Picture (PIP) lets you merge still shots with video while recording. PIP allows you to insert images, taken using PhotoShot, onto the LCD screen of the camcorder. The miniaturized digital still image appears to the right of the video that you’re recording, and it’s visible during playback.
- When in digital still camera mode, a Direct Mode Dial lets you quickly select the desired digital camera mode such as Record, Playback, Card Record or Card Playback.

PV-GS12 Step-up Features

- Digital EIS (Electronic Image Stabilization) helps compensate for unintentional hand and/or camcorder movement. It even reduces unwanted jitter from recordings made in a car, or while walking.
- Equipped with the EfficBright LED Light it adds a bright light to your subjects, giving you a better shot while preserving battery life.
- Dual record mode lets you snap stills while simultaneously recording video to tape. Take a snapshot anytime without stopping recording so you’ll never miss any action, even after you freeze a scene.
- Built-in SD Memory card slot lets you use an SD memory card to save and transfer your images to a PC. Plus, you can even create your own images on the computer and transfer them back to the memory card in the camcorder. (The PV-GS12 does not include an SD card).
- RapidFire Consecutive Still Shot mode allows still pictures to be recorded in a 0.07 seconds intervals until the button is released or 16 pictures are recorded.
- Supplied Easy-Grip Strap Belt offers comfort, versatility and convenience when you’re shooting, or just carrying the camcorder.

PV-GS14 Step-up Features

- Equipped with a 22x optical zoom lens that delivers extraordinarily clear close-up shots. It offers seven different zoom speeds, so you can go from wide angle to full telephoto zoom in 2 to 22 seconds. A 800x digital zoom is also offered, providing incredible close-up capability.
- Offers a precision color viewfinder for those times when you can’t use the LCD monitor
- In addition to the composite output, it also offers high quality S-Video output for viewing or dubbing to S-VHS.

PV-GS15 Step-up Features

- The top-of-the-line PV-GS15 is equipped with an incredible 24x optical zoom lens that delivers close-up shots with extraordinary clarity. It also offers seven different zoom speeds, so you can go from wide angle to full telephoto zoom in 2 to 22 seconds. A 800x digital zoom is also offered, providing incredible close-up capability.
- Includes a 3-hour battery, 8MB SD Memory Card and two ArcSoft editing programs.
Ultra-Compact DV Camcorder

An ultra-compact version of Panasonic’s DV camcorder line-up, the PV-GS55 has all the features of the PV-GS15 with a few exceptions. Because it is much smaller, Panasonic was only able to fit it with a 10x optical/700x digital zoom and it does not have a built-in EfficiBright LED Light. However, it does add a MPEG-4 Movie mode, MagicWire Remote Control, Tele/Macro, Power LCD and four ArcSoft editing and image touching programs.

- In MPEG-4 Movie mode you can easily transfer MPEG-4 video clips with audio to a PC to create clip libraries and presentations, or to attach to an e-mail.
- Tele/Macro lens lets you record extreme close-ups—even if you are too far from your subject to obtain a conventional macro shot. It also allows for excellent, soft-focused backgrounds while minimizing the chance of the camcorder casting a shadow on the subject.
- Equipped with a MagicWire Remote Control which gives you the flexibility to shoot from almost any position. That means super-easy, low-angle and high-angle shots or even fixed-position shots while using a tripod. And it keeps all essential functions—Record, Zoom and PhotoShot within reach at all times. It also makes it easy to add commentary to your videos by including a narration mic built right into the remote.
- For added convenience, the PV-GS55 offers a Power LCD with two levels of brightness: normal and 1.8x. If you encounter bright sunlight or other ambient light that makes it difficult to read, simply press the “Power LCD” button and screen brightness will increase by 1.8 times.

SD Memory Cards

The heart of Panasonic’s D-snap and DV camcorders is the SD Memory Card. A high-capacity, high-speed storage medium for the digital age, the incredibly small yet durable, SD Memory Card is about the size of a postage stamp. But this miniature marvel holds an enormous amount of data. A 512MB SD Card can store up to 7,000 JPEG images, up to 3 hours of MPEG-4 Video and up to 11 hours of digital music. With its ultra-compact size, high access speed, high storage capacity and security technology, the SD Memory Card is the ideal storage medium for the digitally networked world of the 21st century. Its applications include not only audio, video, games and personal computers, but also home appliances, mobile telecommunications, navigation and many more.

- SD memory cards keep digital files secure for distribution, and are also easy to reformat, making them ideal for a wide variety of uses.
- The cards are non-volatile, which means they don’t require power to retain the information stored on them.
- They are solid-state devices, so they have no moving parts to skip or break down.
- Designed with advanced features allowing fast data transfer speed up to a quick 10MB per second.
- SD Memory Cards are supported by over 380 companies, in diverse fields, ranging from consumer electronics, computers, telecommunications, to photography.

<table>
<thead>
<tr>
<th>Card</th>
<th>Approx. # of 640 x 480 JPEG Photos</th>
<th>Approx. time MPEG4 Video</th>
<th>Approx. time MPEG2 Video DVD Upgrade</th>
<th>Approx. time MP3 Audio</th>
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<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Fine</td>
<td>384Kbps</td>
<td>4Mbps</td>
</tr>
<tr>
<td>16MB</td>
<td>220</td>
<td>110</td>
<td>5 min.</td>
<td>30 seconds</td>
</tr>
<tr>
<td>32MB</td>
<td>440</td>
<td>220</td>
<td>11 min.</td>
<td>1 min.</td>
</tr>
<tr>
<td>64MB</td>
<td>880</td>
<td>440</td>
<td>22 min.</td>
<td>2 min.</td>
</tr>
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<td>128MB</td>
<td>1760</td>
<td>880</td>
<td>45 min.</td>
<td>4 min.</td>
</tr>
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<td>256MB</td>
<td>3520</td>
<td>1760</td>
<td>90 min.</td>
<td>9 min.</td>
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<td>512MB</td>
<td>7040</td>
<td>3520</td>
<td>180 min</td>
<td>18 min.</td>
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</table>
3-CCD Ultra-Compact Palmcorder/Megapixel Digital Still Cameras

The PV-GS120 and PV-GS200 are designed for those who want the ease-of-use of a consumer camcorder with the high-end features found on Panasonic’s professional models. High-performance, digital camcorder/digital still cameras, they feature 3-CCD technology, a Leica Dicomar lens and a built-in megapixel digital still camera. The legendary Leica Dicomar lens is renowned for its ability to bring out detail and texture, while the 3-CCD system separates the reds, greens and blues that compose an image, resulting in true-to-life color and broadcast-quality clarity. Incredibly small and lightweight, they are ergonomically designed to easily fit in the palm of your hand for convenient operation.

The PV-GS120 (1.2-megapixel) and PV-GS200 (2.3-megapixel) both feature a 10x optical zoom with an incredible 700x digital zoom, a macro function that lets you shoot as close as 40cm, and a Soft Skin Detail function, to faithfully reproduce natural skin tones. The PV-GS200 steps up with MPEG-4 movie recording capability, MagicWire Remote Control, LDC AI Air-Fit Grip, built-in pop-up flash and a manual focus ring.

SAME FEATURES AS THE PV-GS55 (previous page) PLUS—

**3-CCD Image Sensor**
- 3-CCD camera system reproduces color in great fidelity, with a separate CCD for reds, greens and blues. It’s the same technology used in Panasonic professional broadcast equipment, resulting in 540 lines of breathtaking resolution.
- Quad-Density Pixel Distribution technology, originally developed for broadcast-quality cameras help maximize picture quality. Vertical and horizontal pixel shifting yields improved clarity and performance.
- PhotoShot mode lets you use your camcorder as a megapixel digital still camera by capturing six seconds of stills with audio in 640 x 480 or 1280 x 960 resolution with selectable Fine/Normal modes) and then recording them to the SD Memory Card.

**PV-GS200 Step-up Features**
- Air Fit Grip is a soft, molded hand grip ergonomically designed for comfort.
- LCD AI is advanced LCD circuitry that automatically adjusts the contrast, color gain and backlighting according to the incoming signal to optimize contrast and brightness.
- High compression MPEG-4 format lets you record movies that can be used on the web or as e-mail attachments. Choose from three quality modes (SuperFine, Fine or Normal) and record them to an SD memory card.

**Leica Dicomar Lens**
- They incorporate world-class Leica optics—a name known around the world by professional photographers. The Leica Dicomar lens makes possible extremely refined imaging characteristics that have never before been achieved with a camcorder—finely detailed rendering, gentle image obscuring, delicate nuances, and superb shading.
- Leica has developed an exquisite, 7-element, multi-coated 10x optical lens that helps add a high-level of detail and subtlety to your creations, resulting in truly moving images that last. With refinements like a 2-stage neutral density filter for aperture independent adjustment, you’ll appreciate the remarkably crisp, true-to-life color that is a hallmark of Leica Dicomar optics.
<table>
<thead>
<tr>
<th>Camcorder</th>
<th>PV-GS9</th>
<th>PV-GS12</th>
<th>PV-GS14</th>
<th>PV-GS15</th>
<th>PV-GS55</th>
<th>PV-GS120</th>
<th>PV-GS200</th>
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<tr>
<td>CCD</td>
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<td>1/6, 680K</td>
<td>1/6, 680K</td>
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<td>22x</td>
<td>24x</td>
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<td>800x</td>
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<td>700x</td>
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<td>2.5” diag.</td>
<td>2.5” diag.</td>
<td>2.5” diag.</td>
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<td>B&amp;W</td>
<td>Color</td>
<td>Color</td>
<td>Color</td>
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<td>DVD Studio (USB Connection)</td>
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<td>Yes (w/optional USB Cable)</td>
<td>Yes (w/optional USB Cable)</td>
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<td>Card Link</td>
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<td>Yes (w/optional SD Mem. Card)</td>
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<td>RapidFire Consecutive Still Shots</td>
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<td>SD Memory Card included</td>
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<td>n/a</td>
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<td>Digital Effects (Record &amp; Playback)</td>
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<tr>
<td>MagicWire Remote Control (w/narration)</td>
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<td>High Shutter Speed</td>
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<td>SP/LP Record Mode</td>
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<td>S-Video Out</td>
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<td>✔ ✔ ✔ ✔</td>
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<td>External Microphone Input</td>
<td>—</td>
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<tr>
<td>Headphone Jack</td>
<td>—</td>
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<tr>
<td>EffiBright LED Light</td>
<td>—</td>
<td>✔ ✔ ✔ ✔</td>
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<td>MagicPix Images (color rec. in low light)</td>
<td>✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔</td>
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<td>Simultaneous Motion/Still Record Mode</td>
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<td>Megapixel Still Picture Recording</td>
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<td>Wind Noise Reduction</td>
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</tbody>
</table>
FEATURES

High Quality Video and Stills

- The record events and sports, in the same way as with conventional camcorders. They offer two modes when recording video:
  - Standard Mode: MPEG2 (352 x 480, 3Mbps record speed) for 60-minutes per side or two hours total on a DVD-RAM disc.
  - Fine Mode: MPEG2 (704 x 480, 6Mbps record speed) for 30-minutes per side or one hour total on a DVD-RAM disc.
- In addition, you can also record in XTRA mode for the best picture quality possible for the remaining disc space. XTRA mode uses an advanced technology called VBR (variable bit rate) to control the rate of MPEG2 compression. Depending on scene complexity, the rate can vary (up to 10Mbps) enabling more efficient recording.
- High quality digital still can be recorded at up to 640 x 480 (VDR-M50) and 1280 x 960 (VDR-M70) pixel resolution. You can record up to 1998 images on a single DVD-RAM disc (using both sides).

High Quality Audio

- The camcorders record Dolby Digital audio using a high quality stereo microphone. A mic filter is built-in to reduce wind noise, making object sound easy to hear.

Image Stabilizer

- Digital Electronic Image Stabilization compensates for unintentional hand and camcorder movement to stabilize your recordings—even while shooting from a car or walking down the street.

Color LCD Monitor

- 2.5” LCD color monitor can rotate 270°, letting you hold the camcorder at different angles while recording. Built-in speaker lets you check recordings ‘on location’ by playing them back on the spot.
- They also have a high resolution color viewfinder to save battery power, or for those times when the LCD can’t be used.

Program AE

- Program auto exposure with five different modes provides proper settings for exposure, shutter and depth of field in a variety of shooting environments:
  - Sports Mode: This mode reduces blurring when recording rapidly moving subjects, such as in golf or tennis.
  - Portrait Mode: This mode makes a subject, such as a person or an animal, stand out from a blurred background.
  - Spotlight Mode: This mode prevents overexposure of a subject’s face under strong lighting as in a wedding or on stage.
  - Surf and Snow Mode: This mode prevents underexposure of subject portrait face, etc. in a place where reflection of light is intense, such as at the seaside in midsummer or on a ski slope.
  - Full Auto Mode: The camcorder automatically judges the subject and surrounding environment for optimum recording.
Optical and Digital Zoom
- 10x (VDR-M50) and 18x (VDR-M70) optical zoom lens assures close-up shots with extraordinary clarity. And since they feature variable zoom speeds, you can adjust how fast lens moves from wide-angle to full telephoto.
- In addition, a 240x digital zoom produces an incredibly close shot, no matter how far away you shoot from.

SD Memory Card Slot
- They not only record onto DVDs, but you can also record stills onto SD Memory Cards. SD cards are versatile, high-capacity storage cards that are extremely small - about the size of a postage stamp. They let you capture images and then transfer them to a PC, TV, or other SD-equipped device.
- They also offer high-speed USB 2.0 support to transfer video and stills back and forth between camcorder and PC.

Recording on Disc
- Video and audio are stored on an 8cm DVD-R disc capable of holding up to 1.4GB worth of data, or DVD-RAM disc that can hold 2.8 GB using both sides.
- Using the DVD-RAM disc allows you to record without overwriting previous recordings, and to store your valuable recordings for as long as need be while retaining clarity. DVD-RAM discs can be rewritten over 100,000 times making them the ideal choice for repeated recording.
- When beginning a new recording, they automatically find blank space on the disc, so there’s no danger of accidentally recording over previously recorded scenes.
- With the DVD discs you can immediately access recording and playback, in contrast to videotape that must be fast forwarded and rewound.
- In addition to playing back discs on DVD home and computer players, the camcorders can be connected to a TV/monitor via composite or S-Video output.

Supplied Accessories
- AC adapter/charger, battery, A/V and USB cable, Infrared Remote, shoulder strap and Grip Belt, DVD-RAM disc and software.

DVD format-based camcorders are the next logical progression in the move toward digital convergence. The VDR-M50 and VDR-M70 offer all the benefits of the DVD format - exceptional digital picture quality for both moving and still images, space-saving storage, and virtually no degradation of picture quality even when played back thousands of times.

They make disc navigation and editing extremely simple. You will be able to instantly access favorite recorded scenes without searching, fast-forwarding or rewinding. Initial images of video scenes are indexed and displayed as thumbnails. You can also select from multiple playback options: select one or multiple images for selective playback; repeat a range of images; flip through still images every 3 seconds; skip over images. Editing features include delete, rearrange, fade in/out, wipe, monotone effect, divide and splice.

Playback and Editing with Disc Navigation
They include Disc Navigation for editing and playback functions. It allows you to easily attach a title or special video effect to the recorded movie or still. You can arrange the playback order and edit multiple images to play them back continuously. You can create an entire movie on the camcorder alone, without inputting video to a PC for editing.

Display Thumbnails
All recorded scenes can be displayed in thumbnails (all programs). Thumbnails can also be displayed for each recording date.

Playback Functions
Playback functions are available by displaying all or a specific program in thumbnails:
- Select one scene and start playback from that scene. Playback of stills will be displayed for 3 seconds.
- Select multiple scenes that are side by side, and play back only selected scenes
- Play back scenes repeatedly
- Display only stills, by switching them at 3-second intervals (slide play)

Editing Functions
Editing functions are available by displaying all programs or a specific program in thumbnails:
- Delete unnecessary scenes
- Skip scenes you don’t want to show to other people without deleting them
- Attach titles to scenes
- Add special effects (fade, wipe, B/W) to scenes
- Divide movie into two parts
- Combine multiple movies
- Display information on scenes for check (recording date/time and recording length of movie, set memos and special effects of movies, skip setting, etc.)

Create and Edit Play List
- You can display all programs or a specific program in thumbnails, select scenes, and create up to 99 original stories
- You can change the composition of play list any time by adding or deleting scenes to/from the play list. Play list will be played in the order of added scenes: You can compose scenes in a different order from the original by selecting scenes at random and adding them to play list, or you can insert the same scene any number of times you like.
- You can display the playlist of thumbnails, and add titles and special effects to individual scenes. You can also divide or combine scenes in different ways from the original scenes, and delete a part of divided scenes from play list.

Use the playlist for playback, repeat play and slide play. You can set skip to scenes in the list and skip them during playback. Since editing individual scenes in play list will not affect the original scenes at all, you can edit the play list as you like.
Economical Shoulder-Mount DV Proline Camcorder

The AG-DVC7 makes it easy for anybody to produce professional-looking digital videos. Its shoulder-held design, extra-large handle grip and fingertip zoom control provide outstanding stability when shooting, while the large 2.5” LCD panel and color viewfinder for easy viewing. Weighing just 4.62 lbs in full operating condition, it all adds up to stable images with minimal hand shaking, plus the kind of quick, easy subject framing you simply cannot get with a handheld camera.

A variety of automatic functions combine with large control buttons and digital effects to ensure simple operation and extraordinary results. A DV (IEEE1394) I/O terminal facilitate PC video editing and website production. And a full line of optional equipment, including a wide conversion lens, and external stereo mic let the AG-DVC7 serve a variety of high-level uses. Lightweight and easy to use, it is ideal for those demanding professional performance at an entry-level price.

High Quality Video
- The AG-DVC7 is equipped with a next generation 340,000 effective pixel Interline Transfer (IT) CCD imager and a large-diameter 15X optical zoom offering high picture quality, and a minimum illumination of 1 lux.
- The high-quality, high resolution 340,000-pixel (effective) CCD that turns almost any lighting condition into great looking, 500+ lines of video with detail and range beyond what you thought was possible.
- The AG-DVC7 uses the ubiquitous DV format, with an 8-bit digital recording system that delivers high-quality pictures. The 16-bit digital audio system rivals CDs in quality. Choose sound in either a 48-kHz/16-bit, 2-channel, or a 32-kHz/12-bit, 4-channel mode during playback.

15x Optical/750x Digital Zoom
- The AG-DVC7 comes with a powerful 15x zoom lens and adds a digital zoom function that provides ultra-telephoto zooming all the way to 750x. Its large zoom rocker switch is conveniently positioned on the handle grip for easy, responsive zoom operation. The extra zoom power is a great plus for sports applications or whenever the shooter can’t get close to the action.

Manual and Auto Functions
- Depending on the shooting conditions, you can jog between auto and manual focus, iris, shutter, white balance, Gain Up (0 to 18 dB), audio level control. Switch between auto and manual focus according to your shooting needs. In manual mode, the large focus ring provides you the kind of focusing precision you’d expect from a professional camera.

Automatic Settings
- The shoulder mounted AG-DVC7 has an impressive complement of automatic features to help the busy videographer get the most important shots in almost any condition. A digital stabilization circuit helps the shooter get jitter-free video in almost anywhere. Auto tracing white balance lets the shooter go from daylight to tungsten lighting conditions (and back, if you like) without stopping to custom white balance.

Pro-Style Shoulder-Held Design
- The AG-DVC7 DV offers a shoulder-mount body style, which yields steadier images, delivers a more professional-looking appearance and enhances product security compared to consumer-based palm-sized models. Has a handle zoom switch that complements the multi-speed handgrip zoom rocker switch for low-level shooting. The ideal choice for education, event videography, sports, and a wide array of other professional applications.

Digital Effects
- Sometimes the most tasteful effects can be achieved in the camera. The AG-DVC7 has a nice variety of transitions and picture looks to convey a feeling or moment.
- Chose from Wipe, Mix, Strobe, Gain-Up, Trail, Mosaic, Mirror and others, to make a unique statement with your video productions. In addition, its Cinema mode enables wide screen format recording (16:9 letterbox).
Tired of maintaining, transporting and setting up a location monitor? The attached 2.5˝ color LCD monitor gives you the option to leave it home. It is positionable to almost any angle including self-portrait position.

IEEE1394 DV In/Out Terminal
DV (IEEE1394) 4-pin interface makes it easy to upload video and audio to a Mac- or Windows-based PC for non-linear editing with no quality loss. You can also dub with no deterioration between the AG-DV1DC, AG-DV2500 or other DV VCRs.

DV Cassettes
The AG-DVC7 can record for up to 83 minutes of digital video (500 lines of resolution) with 16-bit PCM digital audio on a mini-DV cassette. These cassettes can be played back in all Panasonic DVCPro studio VCRs (using an optional adapter), enhancing the use of DV video in professional applications.

Additional Features
• Very power efficient, the AG-DVC7 operates at only 3.8W (with LCD monitor on).
• Comprehensive functions include conveniently-located VCR controls; DC input for DC operation; backlight compensation; color playback; tally light on/off; headphone input; built-in stereo microphone and external mic input.
• Composite and S-Video inputs and outputs and audio inputs/outputs let you transfer video from your television, VCR, DVD or another camcorder if you like.
• Digital Photo Shot allows you to record a still-frame for six seconds, while audio continues as normal. Great for creating video photo albums or insurance tapes, as over 800 images can be recorded on a 80-minute tape.
• To clear up any confusion as to when a tape was made, date and time is clearly displayed when a previously recorded is inserted.
• For added convenience, the camcorder includes a wireless remote control, shoulder strap and cleaning tape.

Optional Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
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</tr>
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<tbody>
<tr>
<td>Wide Angle Converter Lens</td>
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<tr>
<td>Stereo Microphone AG-MC13P</td>
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<tr>
<td>Hard Carrying Case CCH15</td>
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<td>63-Minute Mini-DV Tape AY-DVM63MQ</td>
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<td>83-Minute Master DV Tape</td>
<td>$11.99</td>
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Professional Options
• An optional accessory kit and a variety of additional options are available. You can add a 0.7x wide conversion lens (AG-LW4307), external stereo mic (AG-MC15P), large-capacity 2.8A battery (CGP-D28), or hard carrying case (CCH15), depending on your needs. (It has a shoe for external mic, and a shoe for video light). It can also accommodate Anton/Bauer batteries and lights.
• Using the optional AJ-CS455P Adapter, mini-DV cassettes can be played back on Panasonic’s DVCPro professional VCRs. This means that you can utilize mini-DV cassettes as media (playback only) in DVCPro production systems. Cannot play back DV tapes recorded in LP mode.
Ultra-Compact, Configurable 3-CCD DV Camcorder

Designed for videographers who demand the very best image quality, combined with absolute mobility, the AG-DVC30 is a highly-versatile, and ultra-compact (2.4 lbs.) 3-CCD DV camcorder that delivers the high picture quality and high sensitivity professionals demand. It also offers a host of innovative features such as infra-red and movie-like recording modes, four shooting styles, and a very economical price that makes it ideal for a broad range of professionals, from law enforcement officers to sports videographers, wedding photographers and video journalists.

The AG-DVC30 is equipped with three 410,000-pixel CCDs, a newly-engineered, wide-angle 16x Leica Dicomar zoom lens with Optical Image Stabilizer (OIS), and digital date and time stamping.

The AG-DVC30 offers full manual control of white balance, shutter speed, focus, zoom, and neutral density. The camcorder includes a simple auto/manual button for switching between the two shooting modes. The AG-DVC30 includes one focus ring, which can be switched to either control zoom, focus or iris. The camcorder also allows you to preset four shooting modes with settings for chroma level, chroma phase, color temperature, master pedestal, AE shift and skin detail.

Built with a rugged, die-cast magnesium alloy construction, it also features easy viewing with an electronic viewfinder and large 3.5˝ color LCD monitor, synchro-scan shutter recording (1/60.3 – 1/250 sec.), a built-in SMPTE time code generator/reader, and SMPTE-compliant color bar display and recording.

OUTSTANDING IMAGE QUALITY

410,000-Pixel 3-CCD System
To assure a level of picture quality suitable for professionals, the AG-DVC30 uses a 3-CCD image system that delivers the highest sensitivity in the class. Its high S/N ratio and extremely low noise in darker areas of a picture combines with high sensitivity to deliver excellent image quality even when shooting indoors under dim lighting. When shooting in sunlight or under bright spotlights, this 3-CCD system offers low smear.

12-bit A/D and RGB Gamma Processor
The AG-DVC30 features an A/D converter that uses the same 12-bit processing as professional broadcast camera-recorders. This, combined with an RGB gamma processor that uses Panasonic’s unique gamma curve function, helps assure high image-quality processing. In fact, the AG-DVC30's A/D converter and RGB gamma processor are the same ones used in our popular AG-DVX100A, which has won acclaim as the industry's highest-image-quality DV camera.

Wide-Angle Leica 16x Zoom Lens
The AG-DVC30’s Leica Dicomar 16x optical zoom lens answers a broad range of shooting needs, delivering superb results from 39.5mm wide angle all the way to 632mm telephoto (35mm lens equivalent). In wide-angle performance — critical in broadcast and other professional applications — this lens is tops in its class. Behind this outstanding performance are the advanced optical technologies and know-how that have made Leica Camera AG one of the most respected names in the camera world. The 16x optical zoom lens uses low-dispersion glass and aspherical lenses to reduce color aberration and boost resolution. Use of a special multi-coating process dramatically reduces flare and ghosts. The result: sharp, crisp, beautifully rendered pictures with vivid colors, delicate nuances, and exceptional shading. For sports applications, the 16x lens takes only one second to transition between wide and telephoto modes or a slow—up to 100 seconds—for drama applications.

A Digital Zoom for Professionals
Engineered for professionals, the AG-DVC30 is equipped with a digital zoom that instantly magnifies the image by any of five fixed values — 1.25x, 1.5x, 2x, 5x or 10x. Use it with the 16x optical zoom lens, and you get super-telephoto magnification equivalent to a 160x zoom. Image degradation during the digital processing is particularly low in the 1.25x magnification mode, so you get superb zoom quality all the way to 20x.
Slow Shutter

- The slow shutter function uses image accumulation to allow shutter speeds with frame rates reduced by half or more. The accumulation method provides bright-color images with less noise than those capture using conventional gain-up, so you get the higher sensitivity needed for nighttime shooting without illumination. The slow shutter function can also be used to obtain movie-like effects.

16:9 Wide Recording

- The aspect ratio can be set to either 4:3 or 16:9 to accommodate wide-image recording. In 16:9 recording you can select either letterbox or squeeze mode, giving you more possibilities in downstream editing and playback.

Optical Image Stabilizer

- Advanced Optical Image Stabilizer (OIS) compensates for any hand shaking that occurs as you shoot. A gyrosensor detects hand-shake and sends signals to a linear motor, which adjusts the lens to compensate. Because this process takes place prior to the CCD image capture (rather than in the downstream electronic processing), it virtually eliminates any effect of hand-shake on resolution and screen angle. The OIS can also be helpful when zooming or shooting in dim lighting.

Professional Audio

- The AG-DVC30 comes equipped with two built-in stereo microphones. Adding the optional XLR adapter (AG-MYA30G) gives you the +48 V phantom mic and line input needed for news gathering. Featuring two XLR audio input terminals and level controls, the adapter lets you independently switch channel 1 or channel 2 to mic or line input, with each having its own level adjustment.

- Two-channel, two-color audio level meters can be displayed in the viewfinder and LCD monitor, making it easy to check the signal as you record.

Multi-Style Performance

With features like time/date superimposition and the No-Light IR mode, the AG-DVC30 is ideal for professional monitoring and surveillance use. Add a slow shutter mode for high-sensitivity color recording, Cine-Like gamma curves, and 30-fps frame recording that gives images a film-like appearance, and you've got multi-performance to meet a host of professional needs.

Movie Simulation Mode

The AG-DVC30 provides a movie-like mode that combines a cine-style gamma curve and a 30-fps frame recording function that electronically interpolates interlaced images to create frames, producing images that are remarkably film-like. The camcorder also offers a Lumi Flick menu item for generating an old-time movie effect. Its slow shutter function uses image accumulation to allow shutter speeds of up to one-fourth the normal frame rate for higher sensitivity in color recording. The slow shutter can also be used to capture artistic motion effects.

No-Light IR Mode

(Super Night Shooting System)

The AG-DVC30 offers Super Night Shooting (SNS) recording in black-and-white using infrared light. This opens the door to a host of new possibilities in nighttime monitoring, surveillance and news gathering—as the camcorder allows professionals to view people or objects in complete darkness.

Its built-in infrared capabilities makes it possible to record at a distance of about 16' supporting near-field acquisition; and with the addition of its optional IR light, recording distance is extended to 98' for remote surveillance applications.

Date/Time Superimpose Function

The AG-DVC30 can superimpose the date and time onto the video signal as you shoot. This is especially useful with surveillance recordings. The date and time cannot be replaced during dubbing or editing operations, as can happen with other cameras. Digital stamping of date and time into the image, an especially useful feature for legal depositions, court reporting, surveillance monitoring and evidence gathering.

3.5" Color LCD Monitor and Tilt-Up Viewfinder

The large 3.5" color LCD monitor rotates 270° making it easy to shoot at difficult angles or to record yourself. The display is bright too, so even outdoors you get good visibility when using the LCD to monitor footage or select settings from the menu. For added ease of use when taking low-angle shots, you also can tilt the viewfinder 70° upward.

IEEE1394 with Synchro Lock

An IEEE 1394-compliant 4-pin DV terminal makes it easy to upload data from the AG-DVC30 to a PC, or to dub footage onto a DV recorder. This terminal also features a new synchro lock function that lets you use the AG-DVC30 to remotely start and stop an external DV device.
Four Scene Files
The AG-DVC30 can save four sets of camera settings as "scene files" for instant recall later in similar shooting conditions. Scene files 1 and 2 are freely settable. Files 3 and 4 are preset but you can change the values as desired:

1 SCENE 1:
User setting (standard values)

2 SCENE 2:
User setting (standard values)

3 B.PRESS:
For sharper contrast in dark portions

4 MOVIE-LIKE:
Movie Simulation Mode

Professional Performance
- Backlighting compensation can be assigned to a user button for instant results
- AE Lock: Locks the subject brightness; can be assigned to a user button
- Zebra pattern displays an overexposure warning on the viewfinder and monitor
- Marker detects and displays the image level
- Mode Check displays the camera settings on the viewfinder and monitor, for easy checking before you shoot.
- Displays the zoom position in the viewfinder
- Built-in SMPTE time code generator/reader.
- Built-in SMPTE color bars - useful for setup.
- Maximum speed of 1/8,000 sec. When the AG-DVC30 is recording a computer display, a synchro scan function matches the shutter speed to the monitor to minimize flicker.
- Start/Stop button positioned toward the top front for easy access
- Index: Insert index points as you shoot - convenient when searching later (can be assigned to a user button).
- User files: Save sets of camera settings for instant recall later.
- Line recording: S-Video In/Out, AV In/Out and mic input terminals provided.

Multi-Style Design
Total mobility? Easy carrying? Advanced audio specs? Or shooting in the dark? With the multi-style handle, the choice is yours. Designed with the professional in mind, the AG-DVC30 introduces a detachable handle that adds versatility by letting you use this compact DV camera four different ways.

Style 1
With handle detached, this super-compact 3-CCD camera offers a simple, sleek configuration (resembling a consumer camcorder) for "no permits required" or undercover shooting that easily fits into a bag or pack for top mobility.

Style 2
With its standard detachable handle in place and large 3.5˝ LCD monitor, the AG-DVC30 is easy to carry and use, even when shooting difficult low- and multi-angle shots.

Style 3
With the addition of the optional XLR adapter and external unidirectional mic mounted to the handle, the AG-DVC30 offers outstanding audio specs for high-level pro audio performance.

Style 4
Add the optional infrared light, and the camera can capture detailed black-and-white images in the dark (at 0 lux).

Three User-Assignable Buttons
The AG-DVC30 provides three user buttons that can be assigned to any of 16 camera functions and three VCR functions. User button 1 is positioned atop the hand grip for easy access when shooting with one hand.

Camera functions include:
- PUSH AF+ZOOM
- BACKLIGHT
- WHITE FADE
- SNS (Super Night Shooting)
- PUSH AF
- SPOTLIGHT
- BLACK FADE
- EVF DTL
- WHITE BAL
- REC CHECK
- PHOTO SHOT
- LUMI-FLICK
- AWB LOCK
- D.ZOOM
- INDEX
- AE LOCK

VCR functions include:
- BLANK SEARCH
- AUDIO DUB
- INDEX
**PANASONIC**

**AG-DVC30**

**Full Auto or Manual Shooting**
- Use in either full auto or manual shooting. The Auto/Manual switch turns the three auto functions - focus, aperture and white balance - on and off as desired.
- Manual focusing is controlled by the large focus ring. You can also switch between manual and autofocus by pushing the Focus button. For convenience, one of the user buttons can be assigned to turn auto focus on and off.
- In Auto Focus, control over either the zoom or the aperture can be allocated to the focus ring, letting you make quick, detailed adjustments manually.
- When a user button is assigned the PUSH AF+ZOOM function and the AG-DVC30 is in Auto Focus, the camera will continue to zoom as long as you hold the button down, then return to the original zoom position when you release it. This helps you zoom and focus more quickly in manual shooting mode.

**Conveniences**
- The grip conforms neatly to the hand and is positioned at the camera's center of gravity for perfect balance. This, plus the AG-DVC30’s light weight – around 2.2 lb - makes it easy to frame shots and shoot without fatigue.
- Designed for professionals, the AG-DVC30 boasts the same tough magnesium alloy diecast chassis as Panasonic’s DVCPRO broadcast models. This rigid casing protects the high-precision components from bumps and jolts, giving the AG-DVC30 the reliability and durability needed for active use in the field.
- The AG-DVC30 provides the same head cleaning function as DVCPRO models. The white roller pad positioned to the right of the head cylinder cleans the head each time you load a tape, helping to minimize dropouts and head clogging.
- Three recording modes help protect against mistakes:
  - Record onto external recorder only
  - Record onto both AG-DVC30 and external recorder
  - Begin external recording when the AG-DVC30 tape ends

**SUPPLIED ACCESSORIES**

The AG-DVC30 is supplied with these accessories:
- Handle
- Lens cap
- Shoulder strap
- Large eyecup
- Wireless remote control
- AC Adapter/Charger
- Battery
- DC cord
- DC cable

**OPTIONAL ACCESSORIES**

- **AG-YRL30G** Infra Red light with Wide/Spot/Dimmer (for extended range) .......... 329.95
- **AG-MYA30G** XLR Mic Adapter with Level Controls and +48 volts ...................... 229.95
- **AG-MC100G** Unidirectional Microphone .......................................................... 159.95
- **AG-LW4307** Wide 0.7x Angle Conversion Lens ............................................. 179.95
- **AG-B15** AC Adapter/Charger (for a second location) ........................................ 158.50
- **AG-YUSC100** Soft Carry Case ...................................................................... 149.95
- **AG-HT30G** Hard “Field” Case ..................................................................... 329.95
- **HOOD100** 3.5” LCD Screen Side Hood ......................................................... 249.95
- **VZDVX100** Wired Remote Zoom/Pause Control .......................................... 189.95
- **CGPD16A/B** 1600mA Snap on Battery. Provides 2-hour playback with EVF .......... 59.95
- **CGPD28A/B** 2800mA Snap on Battery. Provides 3-hour playback with EVF .......... 79.95
- **CGPD54SE/B** 5400mA Snap on Battery. Provides 7-hour playback with EVF .......... 169.00
ULTRA-COMPACT, CONFIGURABLE 3-CCD DV CAMCORDER

Built to meet the demands of fast-moving fieldwork, the AG-DVC80 packs the versatility, imaging and operating ease of bulkier and heavier replaceable-lens cameras into a compact, lightweight, quick-handling unit of outstanding mobility. It offers the highest level of sensitivity in its class, with high S/N and wide-screen versatility, assuring you of superb, broadcast-quality pictures. The rugged diecast magnesium chassis and professional DV mechanism stand up to the challenges of the field to deliver excellent long-term reliability. And when it comes to mobility, the AG-DVC80 truly excels, with a cam-driven zoom and other manual controls, plus a design that enables both low- and high-angle shooting, and a ready-to-roll weight of only 4 lbs. It also provides plenty of system interface functionality, including XLR audio input, SMPTE time code recording and an IEEE1394 interface.

3-CCD Image System

- The AG-DVC80 is designed to deliver the highest sensitivity and picture quality in its class. At its heart is a 3-CCD RGB system comprising three 1/3˝, 410,000-pixel progressive CCDs developed especially for broadcast and professional applications.
- A new on-chip lens design achieves high F11 sensitivity, allowing the AG-DVC80 to record in low light down to 3 lux—ideal for use in nighttime news gathering.
- Picture quality is outstanding, with a high S/N ratio that means less noise in darker parts of the image and low smear that allows shooting in sunlight or under bright spotlights.

Leica Dicomar Lens

- The AG-DVC80’s Leica Dicomar lens incorporates the optical technology of Leica Camera AG, creator of many world-renowned cameras and lenses.
- The lens system employs 15 lens elements in 11 groups, including three aspherical lenses, to render sharp, crisp images with subtle nuances and remarkable shading. A Leica multicoating process is also applied to the lenses to reduce flare and ghosts.
- The lens is manufactured under a quality control process authorized by Leica. It meets strict Leica quality standards for resolution, contrast and other characteristics.

Wide-Angle Zoom Lens

- Most handheld video cameras lack sufficient wide-angle capabilities for professional applications. To make up for this shortcoming, videographers often had to carry a wide-angle conversion lens. The AG-DVC80 eliminates this problem with a zoom lens that also covers the wide-angle range that professionals need most.
- Extending all the way to 4.5mm (equivalent to 32.5mm on a 35mm lens), the lens captures wide-angle shots for news close-ups, recording in small rooms, and self-recorded interviews. And because there’s no need to carry around a wide-angle conversion lens, you get the full benefit of the handheld camera’s outstanding mobility.

Manual/Auto Focus

- Enjoy fast, sharp focusing either manually or automatically. In manual mode, the focus ring provides the same responsive control as conventional professional cameras with interchangeable lenses.
- In auto mode you get the kind of sharp, instant focusing needed in news gathering or when shooting at a high or low angle.
- When set to the infinity position, the focal distance is immediately prepared for the next manual focus. Pressing the Push Auto button while in manual mode temporarily activates auto focus.

Cam-Driven Manual Zoom

- The AG-DVC80 is the first DV handheld camera to be equipped with the cam-driven manual zoom ring found on most professional cameras with interchangeable lenses.
- The AG-DVC80’s knob configuration and tactile sensitivity replicate the familiar look and feel of a professional lens. Its lens provides quick, nimble zooming with a multi-speed servo driven zoom plus three speed handle zoom. Select the zoom method that best suits the task at hand.

Optical Image Stabilizer

- Optical Image Stabilizer (OIS) compensates for the slight hand shaking that occurs when shooting with a handheld camera. A gyrosensor detects hand shake and sends signals to a linear motor, which adjusts the lens to compensate. Because this takes place prior to the CCD image capture rather than in the downstream electronic processing, the OIS virtually eliminates any effect of hand shake on resolution and screen angle.
- The OIS is also extremely effective in dim lighting and when zooming. Because the processing is done in real-time at 480 operations/sec, there are virtually no unnatural after images or visible interpolation effects.
The AG-DVC80 chassis is diecast from a durable magnesium alloy, to protect the mechanism and circuitry from the rigors of the field and ensure optimal reliability.

Developed specifically for the AG-DVC80, the DV mechanism itself is far more advanced and reliable than those used in home DV cameras and recorders. Its sturdy loading system allows quick tape changes. And to minimize dropout and head clogging, it incorporates the same forward cleaning head and automatic head cleaning function found in our DVCPRO models.

Scene Files for Fast Setup
Set this dial for any of a variety of shooting conditions, and later you can instantly retrieve the settings. Six files are provided (F1 to F6). You can freely change any of the six file names and their settings.

User Buttons for Customized Operation
The AG-DVC80 provides two user buttons, each of which can be assigned any one of the nine functions described below. The assigned functions can then be accessed at the touch of a button. This lets you customize the AG-DVC80 for quicker, easier, more versatile operation.

### ASSIGNABLE FUNCTIONS

<table>
<thead>
<tr>
<th>ASSIGNABLE FUNCTIONS</th>
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<tbody>
<tr>
<td>COLOR BAR</td>
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<td>SPOTLIGHT</td>
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<td>BACKLIGHT</td>
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<td>BLACKFADE</td>
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<td>WHITEFADE</td>
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<td>MODECHECK</td>
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<td>ATW</td>
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<tr>
<td>ATWLOCK</td>
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<tr>
<td>GAIN</td>
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3-Position White Balance with Auto Tracking White Function
One press of the AWB button is all it takes to adjust the white balance and black balance. There are three white balance values to select from: one that's preset, and two (A, B) that you can set and save in memory. The auto tracking white balance (ATW) function can also be assigned to any of the three positions. The ATW mode supports fast, active shooting by adjusting the white balance in real-time as lighting conditions change.

Auto Button for Instant, Easy Shooting
Just press the Auto button to turn on Auto Iris, Auto Gain, Auto Tracking White Balance, and Auto Focus — and you're quickly ready to shoot. You can also customize the Auto button by removing functions and setting the gain to any value desired. With this new Auto function, the AG-DVC80 gives you the best of both worlds — the speed and ease of automatic operation, and the precision of manual control.

Large Viewfinder and LCD Monitor
The large-diameter viewfinder tilts upward a full 100°. You can move the viewfinder away from your eye and still see it clearly, making it easy to adopt a comfortable shooting stance with unobstructed forward vision. The 3.5˝ color LCD shows your subject in sharp, vivid detail and greatly simplifies menu settings. It rotates a full 270° for shooting at a wide variety of angles and easy self-recording.

Lightweight Design with Balanced Grip
The AG-DVC80’s design ends the contradiction between a compact, lightweight body and a stable, secure hold. The center of balance is located precisely at the handgrip. The AG-DVC80’s short body and light weight — it weighs just 4 lb (with battery and tape) — means free, easy maneuverability. Plus, the low-center-of-gravity design and new skeleton lens hood greatly improve forward vision.
The AG-DVC80 has the same kind of large microphones. The terminals are positioned low on the camera to minimize the chance of the cables being snagged when a hand mic is in use. Both input 1 and input 2 can be switched between line and mic.

### Gain, Iris, Shutter Speed, ND Filter

- Increases gain up to 18 dB. The selector has three positions: L is fixed at 0 dB; M and H can be set to 0, +3, +6, +9, or +12 dB.
- Allows smooth, gradual manual or auto iris adjustment. The iris dial allows adjustment even when in Auto mode. Either backlight compensation or spotlight compensation can be added to the auto iris adjustment.
- Maximum shutter speed is 1/2,000 sec. When a computer monitor is being recorded, a synchro scan function matches the shutter speed to the monitor to help eliminate the moving bar.
- Two ND filters (1/8 ND, 1/64 ND) are built-in and easily accessible.

### Large Audio Dials and Flexible Input Selection

- The AG-DVC80 has the same kind of large level-adjustment dials as DVCPRO camera-recorders. This practical new design incorporates professional operating features, such as blind touch and easy visibility, that have been refined over years of use on location. A switch lets you select built-in mic, input 1, or input 2 for the audio input of both left and right channels. Input mic level (-50 dB/-60 dB) can be selected from the menu while an ALC circuit helps keep peaks from distorting.

### Recessed Trigger and Zoom Control on Upper Handle Grip

In addition to the lens grip, the upper part of the handle grip contains both the Rec Start/Stop button and a lens zoom control. This design assures easy shooting even at low angles or when using a tripod. The zoom speed can be set to any of three speeds or off.

### Built-In SMPTe Time Code Generator/Reader

The AG-DVC80 records an SMPTe-compliant VTC onto the sub-code area of the tape. Select from DF/NDF and Free Run/Rec Run modes, and use preset or regen. User bits (UB) are also provided, letting you record your choice of date, time, TC value, frame rate, or user data.

### IEEE 1394 DV Interface

The AG-DVC80 comes equipped with an IEEE 1394-compliant 4-pin DV terminal that makes it easy to upload data to a PC and dub onto a DV recorder.

### Support Functions for Greater Convenience

- End search: Automatically searches for the last recorded portion of the tape. Convenient when preparing to start the next recording.
- Zebra display: Shows you an overexposure warning on the EVF and LCD monitor. Select any level from 80%, 85%, 90%, 95% and 100%.
- Rec check: Plays back the last portion of a recorded passage for easy checking.
- Index: Enables marking while recording. Convenient for searching after recording.
- Tally lamps: Provided on the unit’s front and rear menu switchable.
- Audio dubbing: Allows voice-over recording on a recorded tape via an external mic.
- Line recording: Lets you record a video signal input from an external source.
- Unlike consumer DV camcorders, the audio is locked to the video with a PLL circuit.

### Optional Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Price</th>
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<tbody>
<tr>
<td>AG-YUSC100 Soft Carry Case</td>
<td>149.95</td>
</tr>
<tr>
<td>HOOD100 3.5˝ LCD Screen Side Hood</td>
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<td>339.50</td>
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<td>AG-YUC100 Thermodyne Weatherproof Hard Case</td>
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<tr>
<td>AG-YURC100 Camera Rain Cover</td>
<td>104.95</td>
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<tr>
<td>AG-IW7208G Wide Angle Lens</td>
<td>419.95</td>
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<tr>
<td>AG-LA7200G 16 x 9 Anamorphic Lens Adapter</td>
<td>849.95</td>
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<tr>
<td>AG-R15 AC Adapter/Charger (for a second location)</td>
<td>158.50</td>
</tr>
<tr>
<td>CGRD16A 1600mA Snap on Battery</td>
<td>59.95</td>
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<tr>
<td>CGPD28A 2800mA Snap on Battery</td>
<td>79.95</td>
</tr>
<tr>
<td>CGAD54SE 5400mA Snap on Battery</td>
<td>169.00</td>
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</tbody>
</table>
Studio/Portable DV and Mini-DV VCR

Designed for demanding IEEE1394-based non-linear editing applications, the AG-DV2500 offers exceptional compatibility with 1/4” tape based DV compression video formats, and is switchable between NTSC and PAL. Highly affordable and weighing only 5.1 pounds, the AG-DV2500 records on Mini-DV cassettes (as used by Panasonic’s AG-DV7, DVC30, DVC80 and AG-DVX100A) or full-sized DV cassettes (as used by Panasonic’s AG-DVC200 camcorder), without the need for an Adapter. In full-size DV, the maximum record time is an amazing 276 minutes (4.6 hours) on a single cassette, making this format ideal for high-quality digital news, documentary archiving, and event recording. DVCAM format recordings can also be played back on the AG-DV2500. Excelling in the IEEE-1394 based non-linear environment as a high-performance feeder, the AG-DV2500 offers digital component video quality and lossless dubbing of DV video and audio signals with both Mac and PC editing applications.

**FEATURES**

**Multi-format Compatible**
The AG-DV2500 records and plays both standard DV and Mini-DV cassettes in SP mode, and plays both large and small DVCAM tape cassettes. It can record for up to 276 minutes on a standard DV cassette (AY-DV276MQ).

**DV (IEEE1394) Digital I/O**
The AG-DV2500 is equipped with a 4-pin IEEE1394 DV terminal. This makes a host of operations possible, including synchronized recording with a DV camera-recorder, digital dubbing with a DV recorder, uploading to the PC in a nonlinear editing system, and downloading after editing.

**RS-422A Interface**
The AG-DV2500 is equipped with a 9-pin RS-422A interface allowing it to be operated using an AJ-A95 or AG-A850 editing controller. (The AG-DV2500 is not an editor, it is to be used strictly a source machine).

**High-Quality PCM Audio**
Two audio modes are provided: 2-channel (16-bit, 48-kHz sampling) and 4-channel (12-bit, 32-kHz sampling). In 4-channel mode, open channels can be used later to dub in narration or other audio.

**NTSC and PAL Compatible**
The AG-DV2500 automatically detects and plays DV footage recorded in NTSC or PAL, making it easy to upload footage to a non-linear editing system. The AG-DV2500 can also record in either NTSC or PAL mode; simply set the switch on the rear panel to the mode desired. Recording onto standard DV and Mini-DV cassettes is possible in both formats. (Can’t be used as an NTSC/PAL format converter; and NTSC and PAL signals cannot both be input at the same time.)

**Search, Jog & Shuttle**
The AG-DV2500 can search at up to 9x normal speed for quick time-code cueing. Jog & shuttle searches are also possible using the optional 9-pin AJ-A95 Remote Controller.

**Additional Features**
- The AG-DV2500 comes equipped with a time code reader and generator. And it can quickly locate index signals recorded onto the tape and blank sections of tape.
- The space-saving AG-DV2500 is 6 1/6 x 2 1/5 x 10 3/4” (WxHxD) and it can be mounted horizontally or vertically. A vertical stand is included.
- Supplied wireless remote control lets you control basic operations, as well as display menus, show the color bar, select audio output, and search for blank sections of tape.
- Composite and S-Video input/output
- Mic input jack for dubbing in narration
- Internal settings and adjustments can be made via on-screen menu
The AG-DVX100A shattered conventional notions of what a DV camera-recorder could do, delivering image quality, functions and operating ease suitable for professional applications. As the first model in its class to offer the 24p/30p Cinema mode, the AG-DVX100 was particularly well received by filmmakers and image creators. Now, Panasonic introduces the AG-DVX100A. This advanced new model takes the DV camera a big step forward, retaining the popular features of its predecessor while adding enhancements that reflect feedback from professionals who used the AG-DVX100. The AG-DVX100A offers higher image quality and more functions than its predecessor. Even more important, it provides high-level specifications and design improvements that cater to the needs of professional camera operators. Mobile, versatile and easy to use, the Diamond Graphite AG-DVX100A has everything you need for creative content production and active image gathering.

**3-CCD Image System**
- Panasonic designed the AG-DVX100A to deliver the highest sensitivity and picture quality in its class. At its heart is a 3-CCD RGB system comprising three 1/3-inch, 410,000-pixel progressive CCDs developed especially for broadcast and professional applications.
- The new on-chip lens design achieves high F1.1 sensitivity, allowing the AG-DVX100A to record in light as dim as below three lux, for example, in nighttime news gathering. Picture quality is outstanding, with a high S/N ratio that means less noise in darker parts of the image and low smear that allows shooting in sunlight or under bright spotlights.

**High Quality 12-Bit A/D Converter**
- The AG-DVX100A features an A/D converter that uses the same 12-bit processing as broadcast camera-recorders. Precisely digitizing the gradation and colors captured by the progressive CCD, this A/D converter supports gamma switching and other fine downstream image adjustments — one of the keys to achieving rich image expression.

**RGB Gamma Processor Provides Rich, Cine-Like Tones**
Panasonic has greatly expanded the expressive capability of the DV camera by creating unique gamma functions such as Cine-Like gamma curves, which produce images strikingly similar in tone to film images. For each of the RGB signals, the gamma curve settings are processed immediately upstream from the digital signal processing circuit. This helps achieve outstanding image quality. The AG-DVX100A now introduces three new gamma curve settings — Cine-Like-D, Cine-Like-V, and B.Press — giving you a total of seven to work with.

- **CINE-LIKE** Film-like images
- **CINE-LIKE-D** The Cine-Like mode shifted to prioritize dynamic range
- **CINE-LIKE-V** The Cine-Like mode shifted to prioritize contrast
- **LOW** Images with strong black contrast
- **B.PRESS** Images with even stronger black contrast
- **NORM** Standard video gamma
- **HIGH** Bright images with enhanced gradation in dark portions and soft contrast

**Leica Dicomar Lens**
The Leica Dicomar lens featured in the AG-DVX100A incorporates Leica optical technology and know-how. Use of low-dispersion glass reduces color aberration and increases resolution, while a multi-coating process minimizes flare and ghosts. The results are sharp, crisp, beautifully rendered images with delicate nuances and exceptional shading. The lens system features 15 lens elements in 11 groups, including three aspherical lenses. Panasonic’s advanced OIS (Optical Image Stabilizer) drastically cuts the blurring caused by hand shake. Optical processing with an automatic correction function helps assure consistently clear, sharp images.
High-Quality, Native Progressive 24p/30p Mode
Choose from three shooting modes: 24p (24 fps, progressive) for images with the look and motion of film movies, 30p (30 fps, progressive), or standard 60i (60 fps, interlace). Thanks to its progressive CCD, the AG-DVX100A creates native progressive images with outstanding vertical resolution — unlike images produced using conventional electronic interpolation. With its high mobility and low costs, the AG-DVX100A is the ideal tool for producing indies, shorts, or streaming video.

Wide-Angle/Zoom Lens Answers Professional Needs
The AG-DVX100A’s zoom lens extends all the way to 4.5mm (equivalent to 32.5mm on a 35mm lens), covering the full wide-angle range needed in most broadcast and professional shooting. It gives you ample range for close-ups, recording in small rooms, and self-recorded interviews. There’s no need to carry around a bulky wide-angle conversion lens. And with a minimum object distance (MOD) of approximately 1.9’ in telephoto mode, it has the maneuverability of a handheld camera.

Fast, Smooth Cam-Driven Manual Zoom
The cam-driven (mechanical) manual zoom ring provides the same smooth, easy zooming as cameras with interchangeable lenses. Its direct operation gives you fast, precise zooming control. You’ll also notice the AG-DVX100A’s improved operating feel. When you turn the zoom ring, you experience the similar steady resistance as with familiar 35mm lenses. The AG-DVX100A is also equipped with a servo-driven zoom that allows slow zooming at a speed of approximately 50% slower than its predecessor. Slowest zoom has been reduced to a dramatic 30 seconds from 20 seconds.

Focus Assist
Enjoy quick, sharp focusing manually or automatically. In manual mode, the focus ring provides the similar operating feel and responsive control as conventional cameras with interchangeable lenses. In auto mode, you get the quick, sharp focusing needed in news gathering or when shooting at a high or low angle. When set to infinity, the focal distance is immediately prepared for the next manual focus. When in manual mode, pressing the Push Auto button temporarily activates auto focus. Macro Focus can be achieved either manually or automatically when the zoom lens is in the wide angle position.

Scene File Dial Provides Quick, Easy Setup
Set this dial for any particular shooting conditions, and later you can retrieve the settings instantly. Six preset files are provided (F1 to F6, described below); you can change any of the six file names and their settings as desired. The AG-DVX100A also introduces a new design in which a rib protects the scene file dial to prevent unintentional file changes.

Three User Buttons for Customized Operation
The AG-DVX100A provides three user buttons, each of which can be assigned any one of the 11 functions described below. The assigned functions can then be accessed at the touch of a button. This lets you customize the AG-DVX100A for quicker, easier, more versatile operation.

 ASSIGNABLE FUNCTIONS

| COLOR BAR | Display/hide the SMPTE color bar |
| SPOTLIGHT | Auto iris spotlight correction ON/OFF |
| BACKLIGHT | Auto iris backlight correction ON/OFF |
| BLACKFADE | Fade out to a black screen (linked with audio) |
| WHITEFADE | Fade out to a white screen (linked with audio) |
| MODECHECK | Display camera settings in viewfinder/monitor |
| ATW | Auto tracking white balance function ON/OFF |
| ATWLOCK | Lock/unlock white balance in ATW operation |
| GAIN | 18dB Switch the gain to +18 dB |
| INDEX | Write the index signal |
| SLOW SHUT | Slow shutter mode ON/OFF |

FILE DESCRIPTION

| F1: | — Standard settings |
| F2: | FLUO. Indoor shooting under fluorescent lights |
| F3: | SPARK Highlighting subjects at receptions, dinners, and other gatherings |
| F4: | B-STR Enhanced gradations of luminance in low light scenes |
| F5: | 24P 24p mode + Cine-Like-V gamma |
| F6: | ADVANC Advanced 24p mode + Cine-Like-D gamma |
3-Position White Balance with Auto Tracking White Function

One press of the AWB button is all it takes to adjust the white balance and black balance. There are three white balance values to select from: one that's preset, and two (A, B) that you can set and save in memory. The auto tracking white balance (ATW) function can also be assigned to any of the three positions. The ATW mode supports fast, active shooting by adjusting the white balance in real-time as lighting conditions change.

Auto Button for Instant, Easy Shooting

Just press the Auto button to turn on Auto Iris, Auto Gain, Auto Tracking White Balance, and Auto Focus — and you are quickly ready to shoot. You can also customize the Auto button by removing functions and setting the gain to any value desired. With this new Auto function, the AG-DVX100A gives you the best of both worlds — the speed and ease of automatic operation, and the precision of manual control.

Lightweight Design with Balanced Grip

The AG-DVX100A introduces a new design that ends the contradiction between a compact, lightweight body and a stable, secure hold. The center of balance is located precisely at the handgrip. Because there's no need for a wide-angle conversion lens, the weight balance is ideal for comfortable shooting. The AG-DVX100A's short body and light weight — it weighs only 4.189 lb (1.9Kg) in operating condition — means free, easy maneuverability. Plus, the low-center-of-gravity design and new skeleton lens hood greatly improve forward vision.

Magnesium Alloy Chassis— The Rugged Durability Professionals Need

The AG-DVX100A features the same magnesium alloy diecast chassis as our DVCPRO broadcast models. This tough, rigid unit protects the high precision mechanism, giving the AG-DVX100A outstanding reliability and durability. Built for professionals, the AG-DVX100A stands up to the bumps and jolts that occur in the field.

Highly Reliable DV Mechanism

Panasonic chose a DV mechanism for the AG-DVX100A because of its superior mobility, low running costs, extended recording capability, and easy tape availability. However, for the AG-DVX100A we developed a greatly enhanced, vastly more reliable mechanism than the ones used in home DV cameras and recorders. To minimize dropout and head clogging, we incorporated the same forward cleaning head and automatic head cleaning function found in DVCPRO models. The sturdy loading system allows quick tape changes.

XLR Audio Input with +48-V Phantom Power Supply

In addition to built-in stereo microphones, the AG-DVX100A is equipped with two XLR audio input terminals with a 48v phantom power supply for broadcast use. The terminals are positioned low on the camera to minimize the possibility of the cables being snagged when a hand mic is in use. Both input 1 and input 2 can be switched between line and mic, and Audio is locked to the Video unlike consumer DV camcorders.

Large Audio Dials and Flexible Input Selection

The AG-DVX100A has the same kind of large level-adjustment dials as DVCPRO camera-recorders. This practical new design incorporates professional operating features that have been refined over years of use on location. A switch lets you select built-in mic, input 1, or input 2 for the audio input of both left and right channels. Auto gain level control can be turned on and off, and the input mic level (–50 dB/–60 dB) can be selected from the menu.

Three 16:9 Wide Modes, Including the New Squeeze Mode

The AG-DVX100A has three modes for shooting 16:9 wide images. Use the optional 16:9 conversion lens (AG-LA7200G, sold separately) to take full advantage of the higher image quality made possible by using all of the CCD pixels. With the standard lens, you can record in letterbox mode or the newly added squeeze mode. This gives you extra flexibility when using the AG-DVX100A together with equipment from other manufacturers.
**Large Electronic Viewfinder**

The large viewfinder is easy to see through, even with your eye at a slight distance, and it tilts upward 100° for easy low-angle shots. The AG-DVX100A also adds a B/W display mode (with the same high resolution as the color display), detail (PEAKING) function, and image adjustment menu.

**3.5˝ Color LCD Monitor**

The large 3.5˝ color LCD monitor rotates 270°. This improves shooting flexibility by making it easier to monitor high-angle shots or self recordings. The display is bright, too, for easy viewing when monitoring images or selecting the menu settings. The AG-DVX100A also introduces a new detail (PEAKING) function that helps assure a sharp, easy-to-see display.

**Built-In SMPTE Time Code Generator/Reader**

The AG-DVX100A records an SMPTE-compliant VTC onto the sub-code area of the tape. Select from DF/NDF and Free Run/Rec Run modes, and use preset or regen. User bits (UB) are also provided, letting you record your choice of date, time, TC value, frame rate, or user data.

**External Backup with the IEEE 1394 Synchro Lock Function**

The AG-DVX100A comes equipped with an IEEE 1394-compliant 4-pin DV terminal that makes it easy to upload data to a PC and dub onto a DV recorder. This terminal also features a new synchro lock function that allows the AG-DVX100A to remotely start and stop an external DV device connected to it via a DV cable. Three recording modes help protect against mistakes: record only onto the external recorder, record onto both the AG-DVX100A and the external recorder, begin external recording when the AG-DVX100A tape ends.

**Interval Recording and One-Shot Recording**

The AG-DVX100A’s interval recording works much like a time-lapse VTR and offers exceptionally high quality. Use it to observe the growth of a plant, monitor progress at a construction site, or for a frame-by-frame recording effect. Recording times can be set from 0.5 to 2 seconds, at intervals from 15 seconds to 10 minutes. There’s also a One-Shot mode — for animation film making — that records for the set number of seconds each time the Start/Stop button is pressed.

**Recessed Trigger and Zoom Control on Upper Handle Grip**

In addition to the lens grip, the upper part of the handle grip contains both the Rec Start/Stop button and a lens zoom control. This design assures easy shooting even at low angles or when using a tripod. The zoom speed can be set to any of three speed levels or off.

**Gain, Iris, Shutter Speed, ND Filter**

- **Gain:** Increases gain up to 18 dB. The selector has three positions: L is fixed at 0 dB; M and H can be set to +3, +6, +9, or +12 dB. +18dB can also be quickly accessed by the use of USER 1, 2 or 3 switch.
- **Iris:** Allows smooth, gradual manual or auto iris adjustment. The iris dial allows adjustment even when in Auto mode. Either backlight compensation or spotlight compensation can be added to the auto iris adjustment.
- **Shutter:** Maximum shutter speed is 1/2,000 sec. When a computer display is being recorded, a synchro scan function matches the shutter speed to the monitor to help eliminate the moving bar.
- **ND filter:** Two ND filters (1/8 ND, 1/64 ND) are built-in and easily accessible.

**Support Functions for Greater Convenience**

- **End search:** Automatically searches for the last recorded portion of the tape. Convenient when preparing to start the next recording.
- **Mode check:** Displays a list of the camera settings on the viewfinder and monitor. Makes it easy to check settings before recording.
- **2-Pattern zebra:** Displays an overexposure warning on the viewfinder and monitor. Select any two levels from among 80%, 85%, 90%, 95%, 100% and 105%.
- **Rec check:** Plays back the last portion of a recorded passage for easy checking.
- **Index:** Enables marking while recording. Convenient for searching after recording.
- **Tally lamps:** Provided on the unit’s front and rear menu switchable.
- **Audio dubbing:** Allows voice-over recording on a recorded tape via an external mic.
- **Line recording:** Lets you record a video signal input from an external source.
- **Unlike consumer DV camcorders, the audio is locked to the video with a PLL circuit.**
- **Reversible eye cup for left and right eyed shooters.**
- **Built-in SMPTE color bars useful for setup.**

**AG-DVX100A Bundled Accessories**

- Shoulder strap
- Eye cup
- Lens hood
- Wireless remote control unit
- AC adapter
- Master Series tape
- Microphone holder
- Battery
- DC Cable
- AC cable

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SC-D103/SC-D107

DV Camcorders
Extremely stylish, the SC-D103 and SC-D107 offer a compact shooting design —12% smaller than their predecessors and utilize a 680,000-pixel CCD and sophisticated lens system to deliver high-fidelity DV video. They also offer a wide range of features including color slow shutters, built-in video light, Digital Image Stabilization, and an EZ-Dial Navigator for ease of use. They offer FireWire (IEEE1394) and USB terminals for downloading video and stills, and Samsung’s Power Nite Pix technology for capturing video in low-light situations. Both offer a Multi-Language OSD (On-Screen Display) and support MPEG-4 and JPEG formats.

The SC-D103 sports an 18x optical/900x digital zoom, a 2.5˝ LCD, B&W viewfinder and Memory Stick slot. The SC-D107 steps-up with a 20x optical/900x digital zoom, a huge 3.5˝ high-resolution LCD, analog input and a color viewfinder. It also comes with a remote control and features a Multi-Card Memory Slot—accepts Memory Stick, Memory Stick PRO and SD/MMC memory cards.

FEATURES
◆ 18x optical/900x (SC-D103) and 20x optical/900x (SC-D107) variable speed digital power zoom. Variable speed control is activated by automatic sensing of the amount of pressure applied to the zoom tab.
◆ 680,000-pixel CCD delivers high-resolution video images with superior color resolution and detail.
◆ Power Nite Pix lets you shoot up to 10’ away under total darkness of 0 lux by using infrared rays emitted from the camcorder. Even brighter images can be achieved by applying Slow Shutter (three step-down shutter speeds- 1/8, 1/15 and 1/30 second) and Nite Pix at the same time. Built-in video light provides additional lighting.
◆ Digital special effects include Art, Mosaic, Sepia, Negative, Mirror, B&W, Emboss, Make-up and Cinema mode.
◆ 2.5˝ (SC-D103) and 3.5˝ (SC-D107) TFT active-matrix LCD monitor assures the finest, brightest picture available. They rotate 210° for multi-angle shooting, self-recording and playback.
◆ Digital Image Stabilization minimizes unwanted picture shaking caused by hand movement during recording.
◆ Photo Mode Function (Memory Stick Slot) offers easy picture taking and the ability to save still pictures onto Memory Stick. The snap-shot feature can record still images for up to 6 seconds on videotape. They can then be transferred to your PC.
◆ Record MPEG-4 video clips (ideal for video e-mail) which can be stored directly to your Memory Stick or transferred to PC via USB.
◆ High-speed shutter up to 1/10,000 of a sec.
◆ Easy-Q Button guarantees uniformly excellent shots under any conditions.
◆ EZ Dial Navigator allows you to quickly navigate the most commonly used functions by simply rotating the conveniently positioned thumbwheel.
◆ Multi-Language OSD (On Screen Display)

SC-L906 Hi8 Camcorder
One of the world’s last remaining Hi8 camcorders, the SC-L906 offers a host of unique features (and incredible value) such as 22x optical/880x digital zoom, 2.5˝ LCD monitor, Snapshot Mode (freezes the viewfinder image and then records it for 6 seconds on the video tape), external mic input, and built-in video light. For convenience, it offers backlight compensation, includes a wireless remote control, and Easy-Q mode which lets you easily set the camcorder on preset standard shooting mode. It also offers Multi-Language OSD (On Screen Display) and both NTSC and PAL outputs. This enables you to plug your camcorder into almost any TV for viewing while vacationing in other countries.
4.1-Megapixel Still Camera/DV Camcorder

The DuoCam SC-D6040 is a compact, versatile and lightweight “DuoCam” that overcomes the limitations of conventional digital camera/camcorder combinations. The SC-D6040 features two separate lenses that are mounted vertically, creating a uniquely slim design. Enhanced camera features include a button to easily toggle between the two camera functions and a mode dial to choose between manual exposure and shutter speed priority, aperture priority, and auto mode. This enables the DuoCam to achieve maximum performance while still improving form-factor efficiency.

The SC-D6040 supports MPEG-4, which allows for 30 frames per second of VGA video recording, perfect for creating short video clips. A Vision LCD Monitor is provided for optimal viewing in outdoor and bright light, a Power Night Capture and a pop-up flash. The digital camera’s 3x optical /6x digital zoom produces high-quality still image prints up to 2592 x 1944 in resolution.

The DuoCam’s has built-in card slots which are compatible with the MemoryStick Pro and SD/MMC flash memory cards, providing a full range of storage options. Video and media files can be easily transferred via the USB 2.0 at 480 Mbps or IEEE1394/FireWire ports.

**Video Camcorder Features**

- 680k Pixel CCD delivers high-resolution video images with superior color resolution and detail. It surpasses the conventional camcorder with digital quality and its high performance PC interface.
- Pulse Code Modulation (PCM) recording for an incredible 96db dynamic range. The DV camcorders provides two recording modes 12-and 16-bit audio. 12-bit creates two sets of stereo tracks, and 16-bit mode offers one pair of stereo tracks.
- Digital Image Stabilizer compensates for slight hand shaking movements.
- Features a 10x optical zoom, but for those times when you want to get very close-up, the camcorder has a 800x Digital Zoom, which allows you to Zoom in on subjects or pull back for wide shots.
- Power Nite Pix lets you shoot up to 10’ away under total darkness of 0 lux by using infrared rays emitted from the camcorder. Even brighter images can be achieved by applying Slow Shutter (three step-down shutter speeds- 1/8, 1/15 and 1/30 second) and Nite Pix at the same time.
- Digital special effects include Art, Mosaic, Sepia, Nega, Mirror, B/W, Emboss, Cinema and Make-up.
- High-speed shutter up to 1/10,000 of a sec.
- Get great video every time with fully automatic operation of exposure, f-stop and focus. Six preset modes select the optimum settings for you.
- Easy-Q Button guarantees uniformly excellent shots under any conditions.
- EZ Dial Navigator gives quick and easy access to the most commonly used functions by rotating the conveniently positioned thumb wheel.
- i.Link (IEEE-1394) DV In/Out and USB interface provide high-speed digital links between camcorders or VCRs.
- 2.5” active-matrix LCD monitor assures the finest, brightest picture available.
- Multilingual on-screen display with battery and tape remaining indicators
- Record high quality MPEG-4 video clips which take up little memory space. Video can be stored directly to the Memory Stick or transfer it to a PC via USB.

**Still Camera Features**

- Optical 3x and digital 6x zoom
- 4.1-megapixel CCD means razor sharp images suitable for large prints (up to 16 x 20”) and is easily the highest still picture resolution available for a camcorder.
- 2272 x 1704 still image resolution pictures can be produced which far exceeds the capacity of the standard still image.
- Built-in pop-up flash with red-eye reduction makes it easy to shoot the correct exposure when shooting still images in low light.
- Full-featured manual control with 8-step camera function key (Shutter, Iris, Manual, Auto, Night Scene, Custom Set, MPEG rec. Play, etc.)
- PictBridge function allows allowing direct connection to any photo printer (must be PictBridge compatible). No PC required.
- Playback Zoom up to 6.4x gives you an enlarged view of a specific area during playback.
- Multimedia slot for Memory Stick, Memory Stick PRO, SD and MMC memory cards. Includes 16MB MMC card.
Hi8 Vision Series Camcorders

Everything the budding camcorder user needs can be found on Sony’s Hi8 Vision Series camcorders. The CCD-TRV128 includes Hi8 resolution, super-long 20x optical zoom lens, 2.5” SwivelScreen LCD monitor, built-in 3-watt video light and incredible NightShot 0 Lux recording. It also offers worry-free recording with Info lithium-battery and Stamina power management so you can concentrate on capturing the best moments. The CCD-TRV328 steps up with SteadyShot Picture Stabilization to minimize camera shake.

High Picture Quality
- 1/6” 320,000 pixel CCD image sensor provides great detail and clarity, with exceptional analog video performance
- Hi8 system records up to 400 horizontal lines of resolution for amazingly clear, vibrant and detailed images.
- 20x optical zoom brings the action up close from far away. In addition the amazing 990x digital zoom is clearer with less distortion than previous digital zooms.
- Full range auto focus provides fast, accurate focus from as close as 1/2˝ away to infinity. Also offers manual focus.
- Exceptional sensitivity in low light - record down to 1 lux in regular video mode and 0 lux in NightShot mode.
- Digital Noise Reduction (DNR) reduces color noise in low-light by up to 20% when recording in LP mode.
- Built-in TBC (Time Base Corrector) eliminates jitters and color shift during playback for better looking video.
- Optimum Recording Control (ORC) function analyzes the condition of the video heads and the tape and makes adjustments to maximize picture performance.

Battery/Power
- Includes powerful NP-FM30 Lithium-ion battery for up to two hours recording. The NP-FM30 also eliminate memory problems – doesn’t matter if you charge them after short use. Charge the battery at any time because unlike nicad batteries, lithium-ion batteries aren’t subject to life shortening ‘memory effect’.
- The battery is also equipped with Sony’s exclusive AccuPower Meter which displays in the viewfinder (or on the LCD screen) remaining battery time in minutes.
- Never wonder again if your batteries are charging. Battery information is displayed on either the LCD Screen or viewfinder when charging and when the camera is turned off. The display will show how much the battery is charged in 10% increments and the recordable time left using either the LCD screen or the viewfinder.
- Combining low power consumption with the optional NP-QM91D high capacity InfoLithium battery, they can record for up to 15 hours on one complete charge, providing extra long battery life.

High Performance
- AFM Hi-Fi recording (mono) system for almost CD quality audio
- Manual focus allows you to determine the focus of your choosing by adjusting the cameras focus ring— allowing more creativity and/or effects. Manual focusing also lets you control the cameras focus in difficult situations where either the subject or environment does not allow the cameras auto-focus to perform at an optimal level.
- High speed electronic shutter up to 1/4000 of a second
- Built-in 3-watt video light brightens your videos when shooting in low light.
- LP mode slows the tape speed so you can record 50% longer. Record up to 4½ hours on a 180-minute Hi8 tape.
- End Search advances the video tape to the last 5 seconds of the recorded scene. This prevents accidentally recording over previous recorded videos.
- Add professional looking titles to your videos, select from 8 preset or 2 customized titles with up to 22 characters.
- Multi-language menu lets you change the menu display from English to English (simplified), French, Spanish, Portuguese, Chinese (simplified) or Korean.
- The Hi8 cassette shell incorporates a special cover that protects the tape when it’s outside the camcorder. So there’s no chance that the tape will unspool from the cassette and no chance for fingerprint damage. Even dust contamination is reduced to a bare minimum.

NightShot PLUS Infrared System
Both the CCD TRV-128 and CCD-TRV328 include Sony’s new color enhanced NightShot PLUS. In previous versions of NightShot, the video was given a monochrome green tone, NightShot PLUS adds some color to the image and removes the green hue. A color processor inside the camcorder detects the real color even if it’s in a dark situation. However, even with Night Shot PLUS, if you are in total darkness it is impossible to detect the color. It needs some light. With the optional HVL-IRM Infrared Light, images can be recorded in total darkness - up to 100´ away.
**Program Auto Exposure**

- Program auto exposure with six different modes provides proper settings for exposure, shutter and depth of field in a variety of shooting environments.
  - Portrait Mode softens the background focus behind our primary subject. This emphasizes the subject and provides an overall ‘softer touch’ to the image, similar to what a portrait studio would do.
  - Sports Mode selects the fastest shutter speed for the lighting conditions to capture fast movements in sports scenes.
  - Beach & Ski Mode compensates for bright reflections, which can cause ‘silhouettes’ when shooting on snow covered mountains or at the beach.
  - Landscape Mode improves focusing and contrast when shooting landscapes through a window or wire netting.
  - Spotlight Mode prevents the saturation of your subject when under strong lighting.
  - Sunset & Moon provide faithful reproduction when recording sunsets, sunrise, night time/full moon, and fireworks.

**Conveniences**

- Easy to use on-screen menus are grouped by icon for quick, easy access
- Graphic zoom and battery meters conveniently located in the viewfinder
- World time clock quickly adjusts to any time zone
- Easy Dubbing function lets you connect the CCD-TRV128/328 to a VCR deck to make VHS copies of your home videos quickly and easily. The camcorders can control up to 59 brands of VCRs.
- Using a camcorder can be intimidating for some people, so with a press of the Easy Handycam button, most of the advanced functions of the camcorder are “locked out” leaving only the buttons essential for recording operational.
- In addition, a press of the Easy Handycam button resets the camcorder’s settings to automatic mode and adjusts the LCD display to show only the essential icons like power and tape length and enlarges the icons for better viewing.

**SwivelScreen LCD Monitor**

- Colorful (123,000 pixel) 2.5˝ Active Matrix TFT LCD panel uses a transistor for each pixel. The result is a more accurate way to address individual LCD pixels, which produces better color and detail, making it easy to see your subject and surrounding detail.
- The LCD monitor rotates 270° so you can record from various angles including facing forward (mirror mode) so you can see yourself in the viewfinder.
- Mirror Mode allows you to flip the screen 180°, which lets you use the viewfinder to shoot the video, while the subject being taped can monitor themselves on the color LCD screen.
- This is an excellent feature, particularly when shooting children, since most kids enjoy seeing themselves on TV.
- For instant playback, fold the monitor back against the camera, put on the built-in speaker and its “showtime”.
- You can tilt the LCD screen up to 30° for better viewing in playback mode.

**Fades and Effects**

- Get creative when recording or playing back videos with Sony’s Picture Effect modes. Effects available in camera mode: Negative Art, Sepia, Monotone, Slim, Stretch, Pastel and Mosaic. Some effects are also available in playback mode: Negative Art, Sepia, Black & White and Solarize.
- Enhance your personal videos by adding professional looking fader effects. Choose from Black, Mosaic, White, Monotone and Stripe.

**CCD-TRV328 Step-up Features:**

There’s a world of difference between experiences that are moving and the ones that are simply shaky. To encourage the first and prevent the second, Sony invented SteadyShot picture stabilization. It smoothes and steadies your images without degrading picture quality. Sony does it with motion sensors—a more accurate system than many other camcorders on the market.

SteadyShot Picture Stabilization System minimizes unwanted camera motion without changing or degrading image quality. SteadyShot utilizes motion sensors located in the lens assembly area that are designed to sense camcorder motion, not subject motion.

**Supplied Accessories:**

They each include:
- AC-L15 AC Adapter/In-Camera Charger
- NP-FM30 InfoLithium Battery
- Mono A/V Cable, Shoulder Strap and Lens Cap
Digital8 Handycam Camcorders

An evolution of the 8mm format, Digital8 offers digital picture quality, CD-quality sound, digital editing capability, and virtually perfect copies generation after generation. Better yet, they record on Hi8 cassettes, while the DCR-TRV460 can playback your current library of 8mm/Hi8 tapes. Digital8 Handycam camcorders combine a mechanism based on 8mm camcorders with the digital encoding/decoding electronics of MiniDV camcorders. The result is spectacular digital images and digital sound. Digital 8 camcorders were also designed with convergence in mind. For example, they connect to a PC via i.LINK (IEEE1394) interface for digital video editing, while the DCR-TRV460 gives you full digital still camera capability by capturing VGA quality pictures to Sony MemoryStick media for fast and easy download to your computer. Full digital video has never been more affordable than right now and Sony's Digital8 camcorders will get you there easily.

High Picture Quality

- Full range auto focus provides fast, accurate focus from as close as 1/2” away to infinity. Also offers manual focus.
- Optimum Recording Control (ORC) function analyzes the condition of the video heads and the tape and makes adjustments to maximize picture performance.
- Digital Noise Reduction (DNR) reduces color noise in low-light by up to 20% when recording in LP mode.
- TBC (Time Base Corrector) eliminates jitter and color shift during playback for better, more professional looking video.

Digital8 Camcorders — The easy transition to the digital world

- Digital 8 format uses the same video compression system as DV—delivering up to 500 lines of horizontal resolution.
- Enjoy memories from as far back as 1985, because the DCR-TRV460 will play your existing 8mm and Hi8 tapes. In addition, it has analog audio/video inputs, so you can re-record your old analog tapes in the digital domain. Or send them to a PC via the i.LINK interface for digital editing.
- Standard VHS linear (normal) audio sounds like AM radio. Digital8 audio sounds like CD with the same 16-bit PCM sound and 96dB dynamic range.
- Digital 8 camcorders use inexpensive 8mm or Hi8 tapes. In SP recording mode they can capture a full hour of high-resolution video on a standard 120-minute cassette. In LP mode, Digital 8 camcorders can record up to 90 minutes on a standard P6-120 Hi8 cassette.

Audio

- Record in either 12- or 16-bit PCM digital stereo audio. The 16-bit produces CD quality audio on one set of stereo tracks, while the 12-bit mode creates two sets of stereo tracks, allowing audio dubbing or narration on the second track when connected to a compatible DV camcorder or deck.

i.LINK (IEEE1394) DV I/O

- The i.LINK (IEEE1394 DV) input/output connector and PC editing software are now featured in millions of PCs, which means you can shoot, connect, enhance, edit and then copy the results back to tape to share with family and friends! And because it's digital, you can get near perfect copying without the "generation loss" that visibly degrades the image as with analog tapes.

NightShot PLUS Infrared System

- NightShot PLUS lets you record natural color images in very low light conditions, but without the blurring effect common with other low-light recording systems. Stepping up, the TRV460 features Super NightShot PLUS with 16x the sensitivity of the NightShot PLUS. Add the optional HVL-IRM Infrared Light and images can be recorded up to 60-feet away.
**SwivelScreen LCD Monitor**

- Colorful (123,000 pixel) 2.5˝ Active Matrix TFT LCD monitor makes it easy to see your subject and surrounding detail.
- The LCD monitor rotates 270° so you can record from various angles, or you can flip it 180° (Mirror Mode) so the subjects being taped can monitor themselves on the screen.
- For playback, fold the monitor back against the camera and put on the speaker. The screen can be tilted up to 30° for better viewing in playback mode.

**Fades and Effects**

- Add creativity with up to eight image altering effects including: Black & White, Mosaic, Negative Art, Sepia, Pastel, Solarization, Stretch and Slim. Effects including Negative Art, Sepia, B&W and Solarize can also be used in playback.
- Enhance your personal videos by adding professional looking fader effects. Choose from Black, Mosaic, White and Monotone.

**SteadyShot**

- SteadyShot picture stabilization system minimizes unwanted camera motion or “shake” without changing or degrading image quality. SteadyShot utilizes motion sensors located in the lens assembly area that are designed to sense camcorder motion—not subject motion.

**Manual Focusing**

- Manual focus allows you to determine the focus of your choosing by adjusting the cameras focus ring—allowing more creativity and/or effects. Manual focusing also lets you control the cameras focus in difficult situations where either the subject or environment does not allow the cameras auto-focus to perform at an optimal level.

**Editing**

- Digital Program Editing lets you easily select and arrange up to 20 scenes in any order and then the camcorders control dubbing via i.LINK to another digital camcorder, or via infra-red remote to an analog VCR. Controls both Sony and other brand camcorders and VCRs.

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**USB Streaming**

**Are you tired of not being able to stay in touch with family and friends that live far from you? Do you wish you could see them more often instead of just talking to them on the phone? Now you can, and the solution is simple!**

USB Streaming allows Digital8 camcorders to operate as a webcam or video conferencing tool enabling communication among family and friends, around the world, via the Internet. And because this feature is built right into the camcorder you can also share pre-recorded video! USB Streaming delivers high quality pictures at up to 30 fps (frames per second) when using a high speed Internet connection.

- Streaming is easy. All you need is your Handycam camcorder, the supplied USB cable, a Windows-based PC with USB connection, and an Internet connection.
- USB Streaming lets you remain connected to family and friends anywhere in the world by allowing your Digital8 camcorder to act as a web cam for video conferencing by “streaming” live video and audio over the Internet. Go one step further and stream pre-recorded video from the cassette. Now you can share the baby’s first steps with everyone, wherever they are!
- Depending on your connection rate you can “STREAM” video and audio at up to 30 fps (frames per second). If you are familiar with older versions of web- or PC-cams you’ll notice a huge difference in video quality using your Handycam camcorder. Sony Handycam camcorders take the video and audio quality to a higher level by utilizing ALL the functions of the camcorder: the Advanced HAD CCD for better video quality, the built-in microphone for superb audio recording and the VTR mode for playing back pre-recorded video.

**Program Auto Exposure**

- Program auto exposure with six different modes provides proper settings for exposure, shutter and depth of field in a variety of shooting environments.
  - Portrait Mode softens the background focus behind our primary subject. This emphasizes the subject and provides an overall ‘softer touch’ to the image, similar to what a portrait studio would do.
  - Sports Mode selects the fastest shutter speed for the lighting conditions to capture fast movements in sports scenes.
  - Spotlight Mode prevents the saturation of your subject when under strong lighting.
  - Beach & Ski Mode compensates for bright reflections, which cause ‘silhouettes’ when shooting on snow covered mountains or at the beach.
  - Landscape Mode improves focusing and contrast when shooting landscapes through a window or wire netting.
  - Sunset & Moon provide faithful reproduction when recording sunsets, sunrise, night time/full moon, and fireworks.

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**High Performance**
- LP mode slows the tape speed so you can record 50% longer. This allows you to record up to 90 minutes on a standard 120-minute Hi8 tape.
- High speed electronic shutter up to 1/4000 of a second.
- Built-in 3-watt video light brightens your videos when shooting in low light.

**Conveniences**
- Easy to use on-screen menus are grouped by icon for quick, easy access.
- Quick Record function permits instant recording, ensures you never miss a shot.
- Graphic zoom and battery meters conveniently located in the viewfinder.
- In addition to date/time, “Auto Date” can also be set to automatically record the date on your videos at the start of each day’s recordings.
- World clock quickly adjusts to any time zone.
- Add professional looking titles to your videos, select from 8 preset or 2 customized titles with up to 22 characters.
- Multi-language menu lets you change the menu display from English to English (simplified), French, Spanish, Portuguese, Chinese (simplified) or Korean.
- End Search advances the tape to the last 5 seconds of the recorded scene. This prevents you from accidentally recording over previous recorded video.
- In Photo Mode, you can use Sony’s unique Adaptive Frame Interpolation for better image quality and store hundreds of individual still images with 7 seconds of audio on the tape.
- Easy Handycam button locks out most of the advanced functions of the camcorder leaving only the buttons essential for recording operational.
- The DCR-TRV 460 supports PictBridge technology, allowing direct connection to any photo printer or other output device (must be PictBridge compatible) making inter-brand connectivity a reality. PictBridge is independent of a connection and communications protocol, and employs existing connections such as USB.

**DCR-TRV460 STEP-UP FEATURES**

**8mm/Hi8 Compatibility**
Dual-speed tape drive and head drum assembly allows the DCR-TRV460 to playback all types of 8mm and Hi8 recordings. This backward compatibility lets you enjoy the numerous benefits of digital recording, while continuing to enjoy playback of your analog tapes.

**Touch Panel LCD**
The DCR-TRV460’s LCD monitor has as an “on-screen” touch panel system that allows you to navigate through the camera’s menu system at the touch of the screen.

**Analog-Digital (A/D) Conversion with Pass Through**
Analog inputs on the DCR-TRV460 (composite and S-Video) feature A/D converters that convert your analog video and audio to digital. Convert your analog library, such as 8mm, Hi8 or VHS to Digital8 for archiving, dubbing, and non-linear editing to your PC via the i.LINK interface.
But it doesn’t stop there. With exclusive “Pass Through” feature, you get one-step, real-time conversion of analog sources to digital for PC based, non-linear editing. This eliminates the need to first record to tape and then playback the tape via a digital output (i.LINK) like other camcorders.

**MPEG Movie EX Mode**
Perfect for emailing to friends and family, MPEG Movie EX allows you to record uninterrupted 320 x 240 (Presentation mode) or 160 x 112 (E-mail mode) resolution MPEG-1 movies and audio directly to Memory Stick media, up to the capacity of the media.
For example, you can record up to 90 minutes of MPEG-1 video to a 128MB Memory Stick, or over 11 hours on a 1GB Memory Stick PRO media.

**Battery Power**
- Includes powerful NP-FM30 Lithium-ion battery for up to two hours recording. The NP-FM30 eliminates memory problems – so you charge them after a short use. Charge the battery at any time because unlike nicad batteries, lithium-ion batteries aren’t subject to life shortening ‘memory effect’.
- The battery is also equipped with Sony’s exclusive AccuPower Meter which displays in the viewfinder (or on the LCD screen) remaining battery time in minutes.
- Never wonder again if your batteries are charging. Battery information is displayed on either the LCD Screen or viewfinder when charging and when the camera is turned off. The display will show how much the battery is charged in 10% increments and the recordable time left using either the LCD screen or the viewfinder.
- Combining low power consumption with the optional NP-QM91D high capacity InfoLithium battery, they can record for up to 15 hours on one complete charge, providing extra long battery life.
SONY
DCR-TRV260/TRV460

**Memory Stick**

Memory Stick media is a compact, durable way to store and manage your still images and MPEG-1 video. Memory Stick media is usable in over 20 million devices worldwide, making it convenient as well as flexible in its uses. A special 10 pin recessed connector ensures high reliability in connection with devices, helping to prevent transfer problems and errors.

**Memory Stick PRO**

The next-generation, Memory Stick PRO media is a high volume storage media available in 256MB, 512MB, and 1GB capacities. It enables the storage of digital still images, real-time recording of high resolution video and other data for quick, convenient transfer to PC’s and other Memory Stick PRO devices. Store literally thousands of images or hours of MPEG movies on a 1GB Memory Stick PRO.

With a theoretical maximum capacity of 32GB, Memory Stick PRO in the future will record rich broadband content—including real-time recording of high resolution video and other data for quick, convenient transfer to PCs and other Memory Stick PRO devices. Store literally thousands of images or hours of MPEG movies on a 1GB Memory Stick PRO.

**They each include:**

- AC-L15 AC Adapter/In-Camera Charger,
- NP-FM30 InfoLithium Battery,
- Mono A/V Cable, USB Cable, Shoulder Strap and Lens Cap
- Picture Package Software:

Picture Package Software comes pre-installed with a powerful on-line photo album with tons of great features. Easy to use, you can create an unlimited number of albums; albums can hold sub-albums, pictures, and movies. Easily add captions via the online interface. Visitors can leave comments on individual items. Highlight a photo to be the ‘cover’ of an album. Reorder photos in an album, or sort based on popularity, title, number of comments, or photo date. Delete or hide photos etc.

**Memory Mix Effects**

Memory Mix function allows images stored on the optional Memory Stick to be mixed with live video from the camcorder to create interesting and exciting effects. On-screen controls let you choose from four Memory Mix modes:

- **Memory Chroma Key:** Substitutes live camera image for blue part of the still picture from the optional Memory Stick. Memory Stick media includes images such as picture frames surrounding a blue background allowing you to insert images you shoot.
- **Memory Overlap:** Fades from still image on optional Memory Stick to live video.
- **Memory Luminance Key:** Substitutes live camera image for the high luminance part of the still picture, great for adding custom titles.
- **Camera Chroma Key:** Subject is shot in front of blue background. Still image from the Memory Stick is substituted for blue background. Sample backgrounds are included with the optional Memory Stick.

**Supplied Accessories:**

- AC-L15 AC Adapter/In-Camera Charger,
- NP-FM30 InfoLithium Battery,
- Mono A/V Cable, USB Cable, Shoulder Strap and Lens Cap
- Picture Package Software:
SONY

DCR-HC20/30/40/65/85

CCD DV Handycam Camcorders

Next generation, ultra compact DV camcorders, the DCR-HC20, DCR-HC30, DCR-HC40, DCR-HC65 and DCR-HC85 offer powerful digital video and audio capabilities, as well sophisticated features for those who want to take the next step in digital imaging. They feature 500 lines of horizontal resolution, 10x optical zoom lens with professional-quality Carl Zeiss optics, large SwivelScreen LCD monitors, Progressive Shutter System, Program Editing, Super SteadyShot and USB Streaming which turns them into webcams, and NightShot PLUS infra-red system that allows for recording in darkness while delivering more natural color to video.

For added convenience, they have an Easy Handycam operation button on the outside. When pressed, the button resets the camcorder’s settings to automatic mode and adjusts the LCD display to show only the essential icons like power and tape length, while enlarging the icons for better viewing. And for those who thought editing home videos was only a fantasy, the supplied PicturePackage software opens the door to creativity. In three simple steps, video fans can quickly create personalized music videos from their footage or engaging slideshow movies from still images with this easy-to-use software.

Starting the line-up is the DCR-HC20 with the above mentioned features and a 2.5˝ SwivelScreen hybrid LCD display with a start/stop record button on the LCD frame. The DCR-HC30 steps up with Memory Stick DUO slot for still image and MPEG-1 capture up to the capacity of the media, plus an active 3D-menu system that uses bit-map technology for animation and special effects to enhance user-friendliness.

The DCR-HC40 incorporates a one-megapixel imager to yield video and digital still images with crisp definition, and offers an Intelligent Accessory Shoe. And for those looking for more of a view, the DCR-HC65 unit sports a huge 3.5˝ SwivelScreen hybrid LCD display, as well as a headphone jack to monitor the audio, and manual sharpness settings.

The top-of-the-line DCR-HC85 features a 2-megapixel imager to deliver 1600 x 1200 digital still images and increased video quality up to 530 lines of horizontal resolution. It also offers the advanced multi-layer coating of a Carl Zeiss T* lens, and intelligent pop-up flash with red-eye reduction.

FEATURES

- **High-Quality Video**: They incorporate Advanced 680,000-pixel (340,000 effective pixels) HAD CCD image sensors for reduced noise in the video signal and up to 6dB better signal-to-noise ratio—twice as high as a conventional CCD sensor. The result is stunning detail and clarity, with exceptional video (up to 500 lines of resolution) and still image performance—especially when shooting dark objects, or shooting in dark situations.

- **World-Class Zeiss Optics**: Equipped with 10x (43-430mm equivalent in 35mm) Carl Zeiss optical lens. Known the world over for their professional quality and uncompromised clarity, the patented Zeiss multi-layer lens coating allows more light to reach the CCD with less flare and glare while significantly improving image contrast. Result is vivid image brilliance, true-to-life color saturation, and perfect renditions of subtle tones.

For Any Inquiries Regarding Your Order, Call Our Customer Service:
(800) 221-5743 • (212) 239-7765 • FAX: (800) 947-2215 • (212) 239-7549
**Fades & Effects**
- Digital audio/video fader with different modes for transitioning between scenes: including Fade to Black, Mosaic, Overlap, Bounce, and Monotone. Also offers picture effects like Slim, Stretch, Solarization, Monotone, Sepia, and Negative Art.

**Audio**
- They record in either 12- or 16-bit PCM digital stereo audio. 16-bit mode produces CD quality audio on one set of stereo tracks, while the 12-bit mode creates two sets of stereo tracks, allowing dubbing or narration on the second track.
- They have a built-in external mic for adding optional shotgun or wireless mics.

**NightShot PLUS Infrared System**
- NightShot PLUS lets you record natural color images in very low light conditions, but without the blurring effect common with other low-light recording systems.
- With the optional HVL-IRM Infrared Light, the NightShot system can be extended to 60-feet away. Utilizing their Intelligent Accessory Shoe, the DCR-HC40, 65 and 85 can use the HVL-IRH2 to extend NightShot PLUS to 100-ft.

**SteadyShot**
- SteadyShot picture stabilization system minimizes unwanted camera motion or “shake” without changing or degrading image quality. SteadyShot utilizes motion sensors located in the lens assembly area that are designed to sense camcorder motion—not subject motion.

**i.LINK & LANC Interface**
- Control L interface and drop frame time code for frame accurate editing.
- IEEE1394 DV (i.LINK) input/output terminal for fast, lossless digital transfer of video and audio to another DV camcorder or VCR, or DV-equipped PC.

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**2.5” Hybrid SwivelScreen Touch Panel LCD**

- The 2.5” SwivelScreen touch panel LCD display provides excellent viewing clarity with improved resolution. The 123,000-pixel display rotates up to 270° for multiple viewing angles makes images sharp and detailed during playback or when monitoring recording.
- “On Screen” touch panel system allows you to navigate through the camera’s menu system at the touch of the LCD screen.
- The Hybrid Reflective-Transmissive LCD Screen provides accurate viewing in sunlight or bright light, virtually eliminating the “wash-out” common with traditional LCD Screens.
- For even more convenience, there is a start/stop record button on the LCD frame.
- A precision B&W viewfinder is available for times when the LCD monitor can’t be used.

---

**USB Streaming**
Are you tired of not being able to stay in touch with family and friends that live far from you? Do you wish you could see them more often instead of just talking to them on the phone? Now you can, and the solution is simple! USB Streaming allows DV Handycam camcorders to operate as a webcam or video conferencing tool enabling communication among family and friends, around the world, via the Internet. And because this feature is built right into the camcorder you can also share pre-recorded video! USB Streaming delivers high quality pictures at up to 30 fps (frames per second) when using a high speed Internet connection. (See page 87 for complete information)

---

**Battery Power**
- They include the powerful NP-FP50 Lithium-ion battery for up to two hours recording. These batteries eliminate memory problems, because unlike nicad batteries, lithium-ion batteries aren’t subject to life shortening “memory effect”.
- The battery is also equipped with Sony's exclusive AccuPower Meter which displays in the viewfinder (or on the LCD screen) remaining battery time in minutes.
- Never wonder again if your batteries are charging. Battery information is displayed on either the LCD Screen or viewfinder when charging and when the camera is turned off. The display will show how much the battery is charged in 10% increments and the recordable time left using either the LCD screen or the viewfinder.
- Combining low power consumption with the optional NP-FP90 high capacity InfoLithium battery, they can record for up to 8 hours on one complete charge.
SONY

DCR-HC20/30/40/65/85

Editing

◆ Index titler offers custom titles (22 characters), 8 pre-set titles, 2 sizes, 9 positions using 4k cassette memory found in select Sony Mini DV cassettes. Add or change titles at any time.

◆ Digital Program Editing lets you select a sequence of up to 20 scenes and then have the camcorder control dubbing (assembly editing) to another DV camcorder or VCR, or via infra-red remote to an analog VCR.

High Performance

◆ LP recording mode allows you to record and playback 90 minutes of digital video on a 60 minute DV cassette.

◆ 120x digital zoom with interpolation technology for extreme digital zooming that is clearer with less distortion.

◆ High speed electronic shutter up to 1/4000 of a second.

◆ Shoot in low light situations, down to 5 lux (0 lux) in with NightShot PLUS.

◆ They incorporate a USB terminal to make the transfer of MPEG Movie and Mega-pixel images fast and easy. (As well as for the USB Streaming function).

◆ Program AE with seven different modes provides proper settings for exposure, shutter and depth of field in a variety of shooting environments. They include: Portrait, Beach and Ski, Sports Lesson, Landscape, Spotlight, Sunset & Moon and Low Lux.

◆ Photo Mode uses Sony’s unique Adaptive Frame Interpolation for better image quality. Store up to 700 still photos on a 60 minute cassette in the LP Mode.

◆ Multi-language menu lets you change the menu display from English to English (simplified), French, Spanish, Portuguese, Chinese (simplified) or Korean.

◆ Record video in the same 16:9 aspect ratio.

◆ Choose from four different color temperature settings, so your video will always be properly white-balanced. Settings include Auto, Indoors (Tungsten), Outdoors (Daylight) and Manual (One-Push).

◆ Manual focus and manual 24-step exposure control via the LCD touch panel.

DCR-HC30 Step-up Features

DSC (Digital Still Camera) Functions

◆ Capture high quality 640 x 480 VGA digital still images and store them on a Memory Stick Duo media (supplied with 8MB Memory Stick Duo) for easy transfer into a variety of applications. Images can also be captured from videotape onto a Memory Stick Duo, or vice versa (images from a Memory Stick Duo can be copied to tape in the camcorder).

◆ Progressive Shutter System captures sharp, clear still images without “jagged edges”. Uses a mechanical shutter system to provide progressive scan performance while using an interlace scanning system.

◆ Memory Mix function allows images stored on Memory Stick to be mixed with live video from the camcorder to create interesting and exciting effects. Choose from four Memory Mix modes.

Analog-Digital (A/D) Conversion with Pass Through

◆ Analog inputs (composite and S-Video) feature A/D converters that convert your analog video and audio to digital. Convert your analog library, such as 8mm, Hi8 or VHS to DV for archiving, dubbing, and non-linear editing to your PC via the i.LINK interface.

◆ With exclusive “Pass Through” feature, you get one-step, real-time conversion of analog sources to digital for PC based, non-linear editing. This eliminates the need to first record to tape and then playback the tape via a digital output (i.LINK) like other camcorders.

MPEG Movie EX Mode

◆ Perfect for emailing to friends and family, MPEG Movie EX allows you to record uninterrupted 320 x 240 (Presentation mode) or 160 x 112 (E-mail mode) resolution MPEG-1 movies and audio directly to Memory Stick media, up to the capacity of the media. For example, you can record up to 90 minutes of MPEG-1 video to a 128MB Memory Stick, or over 11 hours on a 1GB Memory Stick PRO media.

Additional Step-Up Features

◆ Six digital effects allow you to get creative with your shots: Still, Flash Motion, Slow Shutter, Luminance Key, Trail, and Old Movie. You can also vary the intensity levels of the effects.

◆ Super SteadyShot, an advanced version of Sony’s acclaimed SteadyShot system, controls an even higher range of shake and vibration frequencies. It achieves an incredible level of smoothness—without degrading the quality of video like other systems.

◆ Features Super NightShot PLUS with 16x the sensitivity of the standard NightShot PLUS.

◆ A precision 123,000-pixel color viewfinder can be used for those times when the LCD monitor can’t be used.

◆ 3-D user menu is customizable into a Personal Menu. Once favorite features are assembled, it takes just one touch on the LCD to facilitate a personal shooting style.
SONY

DCR-HC20/30/40/65/85

Conveniences

◆ World time clock quickly adjusts to any time zone
◆ Auto lens cover protects the lens when camera is off, opens automatically when camera mode is selected.
◆ Standard Accessory Shoe allows a position on the camcorder in which to place optional accessories such as external microphone or video light. The DCR-HC40 and up feature Sony’s Intelligent Accessory Shoe.
◆ Using a camcorder can be intimidating for some people, so with a press of the Easy Handycam button, most of the advanced functions of the camcorder are “locked out” leaving only the buttons essential for recording operational.
◆ In addition, a press of the Easy Handycam button resets the camcorder’s settings to automatic mode and adjusts the LCD display to show only the essential icons like power and tape length and enlarges the icons for better viewing.

DCR-HC40 Step-up Features
◆ Advanced 14-Bit DXP (Digital Extended Processor) provides more life-like realistic reproductions by quantifying the subject’s brightness into 16,384 (14-bit) possible values. Images also appear to be more three-dimensional and have more depth than images processed with 12-bit D/A processors. The 14-bit DXP increases the levels of brightness resolution to 4 times that of a conventional 12-bit D/A
◆ The DCR-HC40 features a 1.0-Megapixel Advanced HAD CCD (1.07 million pixels) to capture digital still images at up to 1152 x 864 pixels and motion video with 520 lines of horizontal resolution—unprecedented performance from a camcorder in this price range.
◆ Intelligent Accessory Shoe provides synchronized operation to Sony Intelligent accessories like video lights and microphones, without the need for additional batteries or cables.

DCR-HC65 Step-up Features
◆ With the DCR-HC65, you’ll see a sizeable difference. It features a huge 3.5˝ Touch Panel LCD screen that makes shooting easier, and helps in focusing and reviewing your video and still images. Also enhances the USB Streaming feature that turns your camcorder into video conferencing system.
◆ A headphone jack is available to monitor the audio (with optional headphones)
◆ The DCR-HC65 adds a shoulder strap

DCR-HC85 Step-up Features
◆ The DCR-HC85 is equipped with a 2-megapixel Advanced HAD CCD to capture digital still images at up to 1600 x 1200 pixels and motion video with 530 lines of horizontal resolution—unprecedented performance from a camcorder in this price range.
◆ Professional quality Zeiss Vario-Sonnar T* lens with an even more advanced multi-layer coating system results in increased contrast with even less glare and flare. You get vivid image brilliance, true-to-life color saturation and perfect renditions of subtle tones.

Supplied Accessories:
◆ The DCR-HC20 includes: AC-L25 AC Adapter/In-Camera Charger, NP-FP50 InfoLithium Battery, Wireless Remote Control, Multi A/V Cable, USB Cable, LCD cleaning cloth and Picture Package Software.
◆ The DCR-HC30 and HC40 add a MSG-M8A (8MB) Memory Stick Duo and MSAC-M2 Memory Stick Duo Adapter
◆ The DCR-HC65 and DCR-HC85 add a shoulder strap
◆ Picture Package Software comes pre-installed with a powerful on-line photo album with tons of great features. Easy to use, you can create an unlimited number of albums; albums can hold sub-albums, pictures, and movies. Easily add captions via the online interface. Visitors can leave comments on individual items. Highlight a photo to be the ‘cover’ of an album. Reorder photos in an album, or sort based on popularity, title, number of comments, or photo date. Delete or hide photos etc.

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DCR-PC109/DCR-PC330

Ultra-Compact DV Camcorders

Sony's smallest DV camcorders, the DCR-PC109 and DCR-PC330 take quality digital video to new extremes in portability. The palm-sized DCR-PC109 measures 2 x 3 3⁄4 x 3 3⁄8˝ (WHD), and weighs less than one pound (13 ounces), while the DCR-PC330 measures 2 3⁄8 x 4 3⁄4 x 4 1⁄2˝ and weighs slightly over a pound (20 ounces). They have all the features of the DCR-HC40 including a 10x optical zoom and 120x digital zoom with world-class Carl Zeiss optics, Super NightShot PLUS, Progressive Shutter System, 2.5” Hybrid Touch Panel LCD Monitor, MPEG Movie EX Mode, Intelligent Accessory Shoe, Digital Program Editing and Super SteadyShot—however, their vertical design fits comfortably in your hand making them even easier to hold and more portable.

The DCR-PC109 also features a 1.0-megapixel CCD and includes a Handycam Docking Station for quick and easy connection between the camcorder and a TV/VCR or USB/i.Link-equipped computer. The DCR-PC330 has no Docking Station, but steps up with 3.3-megapixel CCD for higher-quality still image and video capture, 3D Active Menu, Hologram AF, Intelligent Pop-Up Flash and Interval Recording Function.

Same Features as the DCR-HC40 (page 90-93) including:

- 1-megapixel CCD for up to 520 lines of horizontal resolution (video) and 1152 x 864 pixel resolution (stills)
- 10x optical zoom, 120x digital zoom using Carl Zeiss optics
- Digital Still Camera (DSC) functions with 1152 x 864 or 640 x 480 resolution capture to Memory Stick Duo media
- 2.5” Hybrid SwivelScreen Touch Panel (123,000 pixel) LCD, and 123,000 pixel color viewfinder
- Analog to Digital conversion with Pass-Through
- InfoLithium Battery with AccuPower meter system and battery info button
- Super SteadyShot Image Stabilization and Super NightShot PLUS system
- MPEG EX Movie Mode
- i.LINK, USB and LANC interface

Click to DVD Software Connectivity

By connecting the DCR-PC109 or DCR-PC330 to a Sony VAIO computer, via i.LINK interface and pressing the “Burn DVD button in the menu system, you can automatically burn a copy of your personal video to DVD. This feature is compatible with newer versions of Click to DVD software found exclusively on select VAIO notebook and desktop computers.

Handycam Docking Station

What really sets the DCR-PC109 apart from the competition is its innovative Handycam Docking Station, which provides quick and easy connection between the camcorder and your TV, VCR, or computer. Now, viewing your footage is easier than ever before. Plus, it provides power to the camcorder and charges the battery while you wait, assuring you a full charge whenever you use it.

Like a cell phone or handheld cradle, the Handycam Docking Station charges the camcorder and connects it to a TV or PC, while keeping it easily accessible. It comes fully loaded with all the necessary inputs, including S-Video and an audio/video terminal for hooking it up to playback video on a TV. It also has a USB 1.1 port and an i.LINK (IEEE1394) interface for connection to compatible PCs. And when not at home, you can take advantage of both the power and the A/V connections that have been incorporated directly into the unit.
The Hologram AF focus system, which 3-megapixel technology enhances DV's 530 lines of horizontal resolution. The 1/3" Advanced HAD CCD imager has 2.048k effective video pixels to deliver excellent detail and clarity for exceptional DV performance. It also realizes unprecedented digital still images with 3.040k effective pixels.

- Digital Still Memory (Digital Camera) Mode captures high-quality 3-megapixel still images at up to 2016 x 1512 resolution directly to Memory Stick media. Unlike the Memory Stick Duo, the original Memory Stick media is available in 1GB capacities.

Low-Light Shooting
The DCR-PC330 is equipped with a host of features for shooting crisp clear pictures in poor lighting conditions. These include:

- The Hologram AF focus system, which projects a laser grid across the subject to maximize contrast even with smooth surfaces and assist in accurate focusing in dark conditions.
- Super NightShot allows you to capture video up to 10’ away even when shooting in total darkness (0 lux). It automatically adjusts the shutter speed to increase picture brightness and clarity.
- Color Slow Shutter mode lets you record in low-light situations with full color detail, by slowing down the shutter speed.
- Built-in Intelligent Pop-Up Flash with Red-Eye reduction to help capture sharp, crisp still images in difficult lighting situations. In Digital Still Memory Mode, the flash communicates with the camera for the optimum exposure, virtually eliminating overexposed or underexposed digital still images.
- To determine the precise exposure level appropriate for your shot, based on the actual angle and subject to be captured, it fires a pre-flash sequence which is reflected back and detected by the CCD, before the main flash fires. There are four modes to accommodate different shooting environments: automatic, automatic with red-eye reduction, forced flash or no flash.

Carl Zeiss T* Optics
- T* lens offers the most advanced multi-layer coating system, resulting in even less glare and lens flare compared to other systems. The result is vivid image brilliance with outstanding contrast and accurate color rendition across the spectrum.
- A new three-color filter that uses proprietary technology to quadruple the area for each primary color—resulting in more true-to-life photographs and video. Just like the human eye distinguishes color through red, green and blue photo receptors, this new primary color filter utilizes the same colors to deliver vibrant and color-rich video and still images.

Additional Step-up Features
- For added focusing convenience, the DCR-PC330 has an Expanded Focus Indicator. While using the manual focus ring, the camera automatically adjusts to 2x magnification, allowing for extremely accurate focus adjustment.
- Interval Record function allows for extremely smooth, time elapsed video. Various recording intervals and recording time can be specified to suit the type of situation being recorded.
- While in video recording mode, you can easily take a snapshot with the press of a button.
- Along with a 2.5" Hybrid SwivelScreen hybrid touch panel LCD for an easy-access, easy-to-see menu, the DCR-PC330 has a 3-D user menu that is customizable into a Personal Menu. Once users assemble their favorite features into their own Personal Menu, it takes just one touch on the LCD to facilitate a personal shooting style.

LCD Monitor and Viewfinder
- 2.5" Hybrid SwivelScreen Touch Panel (211,000 pixel) LCD for excellent viewing clarity with improved resolution.
- 180,000 pixel precision color viewfinder for more detail and clarity when viewing

Manual Focus Ring
- Allows the user to adjust the camera's focus for more creativity and/or effects. Manual focusing also allows the user to control the camera's focus in difficult shooting situations.

Low-Light Shooting
- For added focusing convenience, the DCR-PC330 has an Expanded Focus Indicator. While using the manual focus ring, the camera automatically adjusts to 2x magnification, allowing for extremely accurate focus adjustment.
- Interval Record function allows for extremely smooth, time elapsed video. Various recording intervals and recording time can be specified to suit the type of situation being recorded.
- While in video recording mode, you can easily take a snapshot with the press of a button.
- Along with a 2.5” Hybrid SwivelScreen hybrid touch panel LCD for an easy-access, easy-to-see menu, the DCR-PC330 has a 3-D user menu that is customizable into a Personal Menu. Once users assemble their favorite features into their own Personal Menu, it takes just one touch on the LCD to facilitate a personal shooting style.

Supplied Accessories
DCR-PC109 Includes: AC-L15 AC Adapter/In-Camera Charger, NP-FF51 InfoLithium Rechargeable Battery, RMT-830 Wireless Remote Control, USB cable, HandyCam Docking Station, MSG-M8A (8MB) Memory Stick Duo Media, MSAC-M2 Memory Stick Duo Adapter, Multi A/V Cable, LCD cleaning cloth, and Picture Package Software. Picture Package Software comes pre-installed with a powerful on-line photo album with tons of great features. Easy to use, you can create an unlimited number of albums; albums can hold sub-albums, pictures, and movies. Easily add captions via the online interface. Visitors can leave comments on individual items. Highlight a photo to be the ‘cover’ of an album. Reorder photos in an album, or sort based on popularity, title, number of comments, or photo date. Delete or hide photos etc.

DCR-PC330 Includes: AC-L15 AC Adapter, NP-FM30 InfoLithium Rechargeable Battery, RMT-831 Wireless Remote Control, 16MB Memory Stick, A/V and USB cable, lens hood, LCD cleaning cloth and Pixela ImageMixer Software. Pixela is an easy-to-use application that allows you to create and edit video CD’s, organize movies, still images and sound files on your PC, create disc labels, and place your still images into a slide show that can be burned onto a Video CD.

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3-CCD DV Camcorder

The DCR-TRV950 is the industry's first 3-CCD camcorder with one million pixels per CCD imager for high quality video recordings. The ultimate “prosumer” camcorder, the DCR-TRV950 uses Sony's Advanced HAD 3-CCD system to create professional-quality video with unbeatable color clarity, detail and performance. Complementing the quality of the DCR-TRV950 is a bevy of optional manual controls for greater creative control. Choose to override the camcorder’s automatic features with options such as a manual focus ring, 12x optical and 150x digital zoom, zebra pattern, color bars, spotlight compensation and spot focus. It also features Sony's Optical Super SteadyShot picture stabilization system to compensate for camera shake, as well as the ability to stream live and recorded video.

Features

Camera Section

- 12x optical and 150x digital zoom lens brings the action close-up from far away for greater creativity, performance and convenience.
- Super SteadyShot Stabilization system uses motion sensors to compensate for camera "shake" without compromising picture quality. Also eliminates high frequency vibration for smooth video.
- Manual focus and exposure, as well as manual shutter speed, white balance and gain control.
- Zebra pattern indicator for over-exposure, and built-in color bar generator to assist in properly adjusting your monitor.
- 5-mode program AE assures proper exposure in a variety of situations. You also have full manual exposure control.

Audio

- Records either 12- or 16-bit PCM digital stereo audio. 16-bit mode produces CD quality audio on one set of stereo tracks, while the 12-bit mode creates two sets of stereo tracks, allowing audio dubbing or narration on the second track.
- Built-in external mic jack and headphone jack for monitoring audio.

Editing

- Control L interface and drop frame time code for frame accurate editing.
- IEEE1394 DV (i.LINK) input/output terminal for fast, lossless digital transfer of video and audio to another DV camcorder or VCR, or DV-equipped PC.
- Index Titling gives you the ability to create professional looking text for any video shot and store them on Sony DV cassettes. These are stored on either the 4K or 64K memory chips, respectively, not on the tape. Titles can be entered after recording. You can title each event with the option to change or erase without altering the video.
- Digital Program Editing lets you select a sequence of up to 20 scenes and then have the camcorder control dubbing (assemble editing) via i.LINK or to another DV camcorder or VCR, or via infra-red remote to an analog VCR.

3-CCD Imaging System

The DCR-TRV950 utilizes the same advanced optical system as those used in professional cameras. It features a dichroic prism that divides the image into its separate light components and directs them to one of three megapixel CCDs.

- Each of the megapixel (690,000 active) Advanced HAD CCD imagers are dedicated to a primary color (red, green and blue) and separate the light that passes through the lens into individual color components for noticeably sharper color and superb signal-to-noise ratio. Provides excellent detail and clarity, with exceptional DV performance (530 lines of horizontal resolution).

Advanced HAD technology allows more light to reach the imager in order to reduce common video noise that would otherwise affect video quality.

Progressive Scan CCD provides high quality still images by reading all of the pixels with a single pass over the imager. Delivers clean edges and an overall sharper picture for still images.
Digital Effects

- Six digital effects allows you to get creative with your shots: Still, Flash Motion, Luminance Key, Slow Shutter, Trail, and Old Movie. You can also vary the levels of the effects.
- Fade to Black, Overlap and Monotone. Also offers picture effects like Slim, Stretch, Sepia, B&W, Solarization, and Negative Art.
- Photo Mode lets you shoot and store up to 700 individual still photos on a 60-minute cassette in LP mode.

MPEG Movie EX Mode

- This mode allows recording of uninterrupted MPEG-1 movie clips to the full capacity of the Memory Stick card. For example, the 128MB Memory Stick media will record up to 85 minutes of non-stop MPEG-1 video.

Digital Still Memory Mode

- The DCR-TRV950 not only records video, but also offers the dual functionality of capturing stunning digital still images of up to 1152 X 864 resolution using its megapixel CCD imager. JPEG images are stored directly onto Memory Stick media cards for transfer to PCs and other devices for printing, use in e-mail, or the web.

High Performance

- Analog inputs let you record from Hi8 and S-VHS and master onto DV cassettes. The DCR-TRV950 can also playback DV tapes that were recorded in PAL.
- Advanced 14-Bit DXP (Digital Extended Processor) dramatically increases the relative brightness levels for more life-like, realistic reproductions.
- With time lapse or interval recording, you can set the "record time" to 0.5, 1, 1.5, or 2 seconds, and the "delay time" between recordings to 30 seconds, 1m, 5m, or 10 minutes.
- Frame Record mode actually records 4 frames on the tape each time you press the record button. It’s not quite single-frame animation but you can use this to put together a kaleidoscopic rush of images for effect.

Super SteadyShot Optical Stabilization System

- Using a proprietary motion sensing system, Sony’s optical Super SteadyShot reduces high frequency camera shake without compromising image quality. SteadyShot uses horizontal and vertical motion sensors that allow it to work accurately while zooming, moving (even shooting from a car), and shooting in low light conditions.
- And because Super SteadyShot uses an active prism and precision CCD imagers, your pictures remain superb – with no loss of detail or reduction in size. In fact, the effect from Super SteadyShot is so subtle, yet so critical to the quality of your video, you will never want to shut it off.

Touch Panel LCD Monitor and Color Viewfinder

- Huge 3½” 246,000 pixel SwivelScreen LCD provides excellent viewing clarity with improved resolution. The LCD swivels up to 270° and can be adjusted to the popular ‘Mirror’ mode. Anti-glare and anti-finger-print treatments prevent smudging.
- The “on-screen” touch panel LCD system allows you to navigate through the camera’s menu system by touching the LCD screen using the supplied stylus.
- The touch panel compliments a spot focus mode that ensure complete accuracy in focusing the most challenging shots. While the camcorder is in spot focus mode, almost any subject can be brought into focus with a touch of the screen.
- Offers a precision 180,000-pixel color viewfinder as well, for excellent viewing when the LCD monitor cannot be used.

Network Capabilities and USB Streaming

The DCR-TRV950 has the ability to stream live and recorded video via a USB connection and the use of video conferencing software such as the Microsoft Windows NetMeeting application. It can also provide access to the Internet without a PC. Network Function connects the camcorder, wirelessly, via Blue Tooth technology, to the Internet. Allows wireless transfer of still images and MPEG-1 movies captured on Memory Stick media, via the optional BTA-NW1 modem adapter.
- Using a compatible Internet Service Provider, the DCR-TRV950 can send and receive e-mail messages with MPEG-1 movie and JPEG images attached. The camcorder can also be used for Web browsing by using the LCD display. Web pages can be downloaded to the supplied 8MB Memory Stick media card for quick, easy access when off-line.
- Bluetooth is a wireless connectivity standard designed for portable devices such as cell phones, laptop computers, PDAs and other AV/IT products. Bluetooth enabled Sony camcorders are able to send and receive email with still images or MPEG-1 movies attached, and browse the Internet by wirelessly connecting them to a compatible Bluetooth mobile phone or modem (BTA-NW1A) from up to 30 feet away.

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DCR-TRV950

Intelligent Flash and Accessory Shoe

◆ Intelligent automatic pop-up flash with red-eye reduction provides the appropriate amount of flash for optimum brightness and color accuracy in virtually any lighting condition.

◆ Intelligent Accessory Shoe provides synchronized operation with Sony Intelligent accessories like video lights and microphones, without the need for additional batteries or cables.

Conveniences

◆ LP Mode lets you record 90 minutes on a 60-minute DV cassette.

◆ With the optional NP-FM91 or NP-QM91D InfoLithium battery, you can record for up to eight hours. The batteries also offer AccuPower power management, which provides you with continuous "remaining operating time" – in minutes – on the LCD or in the viewfinder.

◆ 7-Program AE: Portrait, Beach and Ski, Sports Lesson, Landscape, Spotlight, Sunset & Moon and Low Lux.

◆ Hologram AF for photographing a smooth beach on a moonless night. Hologram AF is a Sony laser focusing system designed to achieve accurate focus on subjects with little contrast in dark conditions. It projects a visible Class 1 laser hologram pattern directly on the subject so the camera can detect the contrast between the edge of the laser pattern and the subject itself.

Still Image Printing

◆ The DCR-TRV950 and your printer can speak the same language. Print Image Matching (PIM) technology ensures that your camcorder and printer work together to produce the best possible prints.

Through PIM technology, the printer is able to identify print specific information for each image captured, to provide superior color, quality and detail in every print.

◆ Save time when printing your images by pre-selecting them in the camera. When it comes time to print, insert the Memory Stick with the Print Marked image into the printer and press PRINT. Images that are print marked will print without having to select each image individually.

---

Memory Stick Digital Still Images Storage Capacity

For DCR-TRV460, DCR-HC30/40/65/85, DCR-PC109/330, DCR-TRV950, DCR-VX2100

<table>
<thead>
<tr>
<th>Memory Stick Size</th>
<th>DCR-TRV460</th>
<th>DCR-HC30/40/65</th>
<th>DCR-PC109</th>
<th>DCR-TRV950</th>
<th>DCR-VX2100</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

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MPEG MOVIE MODE

Memory Stick Storage Capacity (MPEG Movie Mode)

For DCR-TRV460, DCR-HC30/40/65/85, DCR-PC109/330, DCR-TRV950, DCR-VX2100

Using MPEG Movie Mode, you can attach video to e-mails, inserting into Web pages and presentation materials. Capture up to 60 seconds of video and audio in the Video e-mail mode (160 x 112 resolution), or up to 15 seconds in the Presentation mode (320 x 240 resolution).

<table>
<thead>
<tr>
<th>Memory Stick Size</th>
<th>Video E-Mail Mode (160x112)</th>
<th>Presentation Mode (320x240)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8MB</td>
<td>5 minutes, 20 seconds</td>
<td>1 minute, 20 seconds</td>
</tr>
<tr>
<td>16MB</td>
<td>10 minutes, 40 seconds</td>
<td>2 minutes, 40 seconds</td>
</tr>
<tr>
<td>32MB</td>
<td>21 minutes, 20 seconds</td>
<td>5 minutes, 20 seconds</td>
</tr>
<tr>
<td>64MB</td>
<td>42 minutes, 40 seconds</td>
<td>10 minutes, 40 seconds</td>
</tr>
<tr>
<td>128MB</td>
<td>1 hour, 25 minutes</td>
<td>21 minutes, 20 seconds</td>
</tr>
<tr>
<td>256MB</td>
<td>2 hours, 50 minutes</td>
<td>42 minutes</td>
</tr>
<tr>
<td>512MB</td>
<td>5 hour 40 minutes</td>
<td>1 hour, 25 minutes</td>
</tr>
<tr>
<td>1GB</td>
<td>11 hours</td>
<td>2 hours, 50 minutes</td>
</tr>
</tbody>
</table>

---

EQUIPMENT LEASING AVAILABLE
3-CCD DVCAM Camcorder

The DSR-PDX10 is a compact 3-CCD camcorder that although it looks very much like the DCR-TRV950, it utilizes the DVCAM format and adds several key features, to make it the ideal camcorder for a wide variety of professional applications. Like the DCR-TRV950, the DSR-PDX10 features a 3-CCD megapixel camera system that provides superb picture quality in both 4:3 and 16:9 aspect ratios. It also features 12x optical and 48x digital zoom, Optical Super SteadyShot, USB Streaming function, huge 3.5” TouchPanel LCD Monitor and megapixel digital still camera recording. However, it also offers Zebra pattern indicator with two settings, Guide Frame, Date Stamping, XLR audio inputs, Color Bars, Custom Presets, and an hour meter.

XLR Audio Inputs

The DSR-PDX10 comes equipped with two XLR audio input connectors for connecting professional microphones. The input level can be selected from Mic/Line/Mic Attenuator positions. Both channels offer low-cut filter ON/OFF selection as well as +48v DC mic power. Input 1 audio can be recorded on either CH-1, or both CH-1 and CH-2 audio tracks (selected by a switch). The recording level of CH-1 and CH-2 can be controlled independently when the XLR Adapter is used.

Switchable 4:3 and 16:9 Recording Modes

The DSR-PDX10 captures images in both 4:3 and 16:9 aspect ratios. This function is easily selected from the menu. However, use of the Megapixel CCD especially contributes to providing high resolution pictures in the 16:9 aspect ratio and enables an even wider angle of view in the 16:9 mode.

Custom Presets

The DSR-PDX10 offers a Custom Preset function, allowing you to store and later recall the desired camera settings. The following camera parameters can be preset: Color Level, Sharpness, White Balance Shift, AE Shift and AGC Limit (+6dB or +12dB).

Recording/Playback of the DVCAM/DV (SP mode) Format

The DSR-PDX10 uses the DVCAM format to offer professional video and audio quality as well as professional reliability. Like DV, the DVCAM format uses 8-bit digital component recording with a 5:1 compression ratio and a sampling rate of 4:1:1. The unique compression algorithm provides excellent picture quality and superb multi-generation performance. The main difference though, is the wider 15 µm track pitch, as compared to the 10 µm track pitch for the DV format, to provide much higher reliability for professional editing results. The DVCAM format also incorporates an Audio Lock function to provide professional audio-editing capabilities. The DSR-PDX10 is capable of recording and playing back DV-format tapes (SP mode only) if a longer operating time is required. (Up to 60 minutes with a mini-size cassette).

Additional Step-up Features

- Built-in color bar generator assists you in properly adjusting your monitor.
- Offers a “guide frame” allowing you to make the picture be on a horizontal line.
- Zebra pattern indicator with two settings (100% or 70%), places black and white lines in the viewfinder where portions of the picture exceed certain brightness levels—just like professional cameras. Zebra pattern is an excellent guide for adjusting shutter speed and exposure.
- Time code can be preset using any number in H/M/S/F (hours, minutes, seconds, frames), for accurate tape-position information. The time-code mode can be selected between “rec-run” or “free-run”. User bits can also be set.
- In addition to a backlight function, a spotlight function prevents people’s faces, for example, from appearing white when shooting subjects lit by strong light.
- When a cassette memory-equipped DVCAM/DV tape is used, an Index can be marked while recording with the camera or recording from an external video source, allowing quick access to the marked tape position in subsequent operations.
- Date stamping function superimposes the date onto the image (menu selectable)
- Auto drum stop, Hour meter
- Unlike the DCR-TRV950, it offers a precision 180,000-pixel B&W viewfinder for excellent viewing when the LCD monitor cannot be used.

To see the difference between DV and DVCAM turn to page 102
3-CCD DV Camcorder

A successor to the best-selling DCR-VX2000, the DCR-VX2100 incorporates many of the fundamental features that made its predecessor the most popular camcorders in its class, while adding a host of optical and audio enhancements. With its new Advanced HAD progressive scan CCD technology, the camera improves the minimum illumination, delivering the ultimate in low-light performance without the use of infrared technology. And by increasing the sensitivity to light of its three, state-of-the-art Progressive Scan HAD CCDs, the DCR-VX2100 produces clearer, brighter video with more lifelike color reproduction, even when it has been recorded in dimly lit environments.

Additional features include 12x optical zoom, Super SteadyShot, color bar generator, zebra pattern indicator, interval recording, 2-position ND filter, Intelligent Accessory Shoe, high-quality 2.5” LCD screen enabling instant playback, and the ability to capture 640 x 480 (VGA) still images directly to a Memory Stick.

High Quality Digital Video

- Equipped with a 3-CCD imaging system (380,000 pixels each), the VX-2100 records up to 530 lines of horizontal resolution and outstanding digital video quality.
- In addition, Super HAD progressive scan CCD technology delivers sharp picture and natural, lifelike color reproduction – even flesh tones.
- Progressive Scan CCDs capture a complete frame of video rather than interlacing two separate fields to produce a video frame. This high performance system eliminates the stair stepping effect that can be seen in standard interlaced systems when capturing still images. Images are sharp and clear with excellent definition.
- Advanced HAD CCD sensor reduces noise in the video signal to improve the S/N ratio by up to 6dB —twice conventional CCD sensors. The result is exceptional performance when shooting dark objects, or while shooting in dark situations.
- Large 58mm diameter allows more light to strike the Advanced HAD CCD for greater detail and clarity, while the aspherical lens minimizes the distortions that usually occur around the edges of video shot by a standard spherical lens and provides better corner to corner focus.
- 12x (43.2-518.4mm in 35mm equivalent) 58-millimeter aspherical glass zoom lens provides exceptional detail and clarity with none of the geometric distortion associated with large spherical lenses. Square lens hood reduces external light flare effect.
- 16:9 widescreen recording mode lets you record in a true ‘widescreen’ or anamorphic aspect ratio
- Provides automatic or manual control for all aspects of exposure, shutter speed (1/4 to 1/10,000 of a second) and depth of field, so the budding hobbyist as well as the seasoned videographer can control as much or as little as they want to achieve professional results. A manual focus ring and a manual zoom ring further control and flexibility.
- Equipped with digital and picture effects for enhanced creativity. They include: Slim, Stretch, Solarization, B&W, Sepia, Negative Art, Old Movie, Luminance Key, Flash Motion, Still, and Trail. The DCR-VX2100 also offers fade in/out to black, and overlap, wipe and dot fades.
- Built-in color bar generator assists you in properly adjusting your monitor while a “guide frame” allows you to make the picture be on a horizontal line.
- Interval recording mode allows you to record video in preset intervals (30 sec, 1, 5, 10 minutes) for selectable lengths of .5, 1, 1.5 or 2 seconds.
- Frame recording modes allows recording of any individual frame of the 30 frames that make up one second of video.
- 2-position ND filter cuts down the amount of light, letting you work in the middle of the camcorder’s f-stop range, even under studio lights or direct sunlight. (ND#1 corresponds to 1/4 of the quantity of light, ND#2 corresponds to 1/32).
- In addition to a backlight function, a spotlight function prevents people’s faces, for example, from appearing white when shooting subjects lit by strong light.
- Zebra pattern indicator with two settings, places black and white lines in the viewfinder where portions of the picture exceed certain brightness levels—just like professional cameras. Zebra pattern is an excellent guide for adjusting shutter speed and exposure.
- Intelligent Accessory Shoe provides synchronized operation with Sony accessories like video lights and microphones, without the need for additional batteries or cables.
Sony DCR-VX2100

Digital Audio
- Records PCM digital stereo audio in two modes: 16-bit modes offer CD-quality stereo sound on one track, while the 12-bit mode records stereo on two tracks so you can add background music or voice-overs later without disturbing the original soundtracks.
- Manual mic level control allows you to achieve optimum sound quality. Monitor the audio with headphones, or from the LCD panel.
- Built-in external mic jack and headphone jack for monitoring audio.

Editing Functions
- Digital Program Editing lets you select a sequence of up to 20 scenes and then have the camcorder control dubbing (assemble editing) via i.LINK or to another DV camcorder or VCR, or via infra-red remote to an analog VCR.
- IEEE1394 DV (i.LINK) input/output terminal for fast, lossless digital transfer of video and audio to another DV camcorder or VCR, or DV-equipped PC.

Digital Still Memory Mode
- Capture high quality 640 x 480 VGA digital still images and store them on a Memory Stick for easy transfer to your computer—no need for capture cards or conversions. Images can also be captured from video tape onto a Memory Stick, or vice versa (images from a Memory Stick can be copied to tape in the camcorder).
- Mechanical shutter system that provides Progressive Scan performance while utilizing an interface scanning system. Digital still images will be sharp and clear with excellent definition.
- Memory Mix function allows images stored on Memory Stick to be mixed with live video from the camcorder to create interesting and exciting effects. Choose from four Memory Mix modes: Memory Chroma Key, Memory Luminance Key, Camera Chroma Key, Memory Overlay.
- Photo Mode uses Sony’s unique Adaptive Frame Interpolation for better image quality. Store up to 700 still photos on a 60 minute cassette in the LP Mode.

Super SteadyShot Optical Stabilization System
- Using a proprietary motion sensing system, Sony’s optical Super SteadyShot reduces high frequency camera shake without compromising image quality. SteadyShot uses horizontal and vertical motion sensors that allow it to work accurately while zooming, moving (even shooting from a car), and shooting in low light conditions.
- And because Super SteadyShot uses an active prism and precision CCD imagers, your pictures remain superb – with no loss of detail or reduction in size. In fact, the effect from Super SteadyShot is so subtle, yet so critical to the quality of your video, you will never want to shut it off.

2.5” LCD Monitor and Color Viewfinder
- 2.5” precision SwivelScreen (200,000-pixel) color LCD monitor provides excellent viewing clarity with improved resolution, making images sharp and detailed during playback or recording. Also has a precision 180,000-pixel color viewfinder.

Battery Power
- Incorporating Sony’s Stamina Power Management System, the DCR-VX2100 can record for up to 13 hours with the optional NP-F960 InfoLithium battery.
- InfoLithium battery with AccuPower meter continuously displays the battery time remaining in minutes, in the viewfinder or LCD screen.

Conveniences
- You can preset color intensity, sharpness, White Balance (bluish → reddish), brightness and AGC limit (6dB/12dB/Off) with a desired picture quality.
- Offers an over-sized handle lined with zoom and record start/stop buttons, ergonomically designed for the one-handed operation of a filmmaker who needs mobility and control when recording at challenging angles.
- By adding zoom and record/stop buttons directly to the handle (identical to the ones on the body) the DCR-VX2100 is effective for capturing low-angled shots and is easy to work with in tight shooting spaces.

Supplied and Optional Accessories
Includes AC-L15 AC Adapter/In-Camera Charger, NP-F330 InfoLithium Battery, RMT-811 Wireless Remote, 8MB Memory Stick, Stereo A/V cable, lens hood and shoulder strap.

LCH-VX2000 Case: Silver hard carrying case with compartments for batteries, tapes and assorted accessories……………………………………269.95
VCL-HG0758 High Grade Wide Angle Lens: 58mm ultra-high quality 0.7x wide angle lens…………299.95
VCL-HG1758 Deluxe Telephoto Lens: 58mm ultra-high quality 1.7x telephoto lens…………299.95
LSF-H58A Lens Hood: This 4-petal rigid lens hood prevents halation and flare when shooting in bright sunlight. (Must be used with the VCL-HG0758) …..49.95

ORDER & INFO. (212) 444-5010 • FAX: (212) 239-7770 (800) 947-7008
1-800-947-5525 • www.bhphotovideo.com
The DSR-PD170 is a 3-CCD camcorder that although, physically identical to the DCR-VX2100, utilizes the DVCAM format and adds several key features, to make it the ideal camcorder for event videography, news acquisition, corporate video, independent filmmakers and production. Like the DCR-VX2100, the DSR-PD170 incorporates state-of-the-art Progressive Scan HAD CCDs to deliver 530 lines of horizontal resolution, offers a high-quality 2.5” LCD screen enabling instant playback, and can capture still images directly to a Memory Stick. It also features the same high-quality 12x optical zoom, Super SteadyShot, color bar generator, zebra pattern indicator, interval recording and a 2-position ND filter. The main differences though are the recording format, DVCAM is much more robust format, better suited to the rigors of editing. The DSR-PD170 also offers more durable magnesium alloy die-cast construction, XLR audio inputs and independent 2-channel audio control, time code preset, Digital Program Editing via i.LINK (not infra-red), and a Title Date Stamp for legal video applications.

**Professional Features**

- The DVCAM format offers excellent video and audio quality for broadcast and professional use. Accepts mini size DVCAM cassettes for a maximum of 40 minutes recording time. Also capable of recording and playing back Mini DV tapes (SP mode only) allowing a maximum of 60 minutes of recording time.
- Two XLR audio input connectors allow you to connect professional microphones. Input level can be selected from Mic/Line/ Mic Attenuator positions. +48v phantom power can also be supplied. Audio level of each channel can be manually, independently adjusted. The camcorder includes one monaural electret condenser mic.
- In DVCAM mode, timecode can be preset by using any number in H/M/S/F (Hours/Minutes/Seconds/Frames), which can be selected from Rec run or Free run. Drop Frame /Non-Drop Frame can be selected. User bits can also be preset, or the actual time can be used as user bits.
- Connect the PD-170 to a Sony VCR via an i.LINK cable and set IN and OUT points for up to 20 programs. The camcorder and VCR will automatically edit the selected portions. The camera controls the VCR through the i.LINK interface for editing accuracy of five frames.

**DVCAM vs. Mini DV**

Thanks to their common roots and Sony’s choice of 15 micron-wide track pitch, DVCAM and DV equipment are broadly compatible. This is a real advantage for those who wish to play back DVCAM recorded tapes in consumer DV machines and DV recorded tapes in Sony’s DVCAM machines. (However, while possible to record professional DVCAM programming onto consumer DV tape, Sony advises against it.)

DVCAM tape uses an optimized Diamond Like Carbon (DLC) protective layer and surface roughness pattern, tightly controlled for long-term use. As a result, DVCAM tape is better prepared for the rigors of editing and archiving, with half the dropouts of consumer DV tape. Better edge slitting for DVCAM tape also makes for more reliable machine-to-machine tape interchange and reduced off-tracking. Finally, DVCAM tape has four times the cassette memory of Sony DV tape.

**Audio Lock and DV Dubbing**

Like DV, DVCAM allows you to record in 2-channel mode (48kHz, 16-bit) and 4-channel mode (32kHz, 12-bit). Because professionals demand absolute synchronization between audio and video, DVCAM records in the Audio Lock mode. Using Audio Lock, you can perform insert edits, secure in the knowledge that audio will follow video with absolute precision.

The locked versus unlocked distinction may seem slight, but it has an important side-effect. You cannot make digital dubs from consumer DV equipment to professional DVCAM VCRs. Even when both machines have the same interface, the structure of the audio bits is incompatible. For the same reason, you cannot “work around” the limitation by inserting the DV tape into a DVCAM player and then digitally dubbing onto another DVCAM VCR.

The Audio Lock mode specifies a precise number of audio samples to be associated with each video frame. Consumer DV machines use the less precise audio unlock mode, which allows the sample number to vary slightly, according to the precision of the recorder’s internal oscillator.
**High Quality Digital Video**

- Equipped with a new 3-CCD imaging system (380,000 pixels each), the DSR-PD170 records up to 530 lines of horizontal resolution and outstanding digital video quality.
- Advanced HAD CCD image sensor reduces noise in the video signal to improve the S/N ratio by up to 6dB – twice as high as a conventional CCD sensor. The result is exceptional performance when shooting in dark situations.
- Optical Super SteadyShot stabilization system uses motion sensors and optical lenses to eliminate high frequency shake and vibration—without compromising picture quality.

**Digital Still Function**

- Capture high quality 640 x 480 VGA digital still images and store them on a Memory Stick for easy transfer into a variety of applications—no need for capture cards or conversions. Images can be captured from tape onto a Memory Stick, or vice versa (images from a Memory Stick can be copied to tape in the camcorder).
- You can record four separate still images continuously to Memory Stick, or shoot nine consecutive still images on one photo (multi-screen mode).
- Memory Mix function allows images stored on Memory Stick to be mixed with live video from the camcorder to create interesting and exciting effects. Choose from four Memory Mix modes.

**Conveniences**

- 2.5” precision SwivelScreen color LCD (200,000 pixels) provides excellent viewing clarity. Also has a precision color viewfinder with 180,000 pixels.
- Incorporating Sony's Stamina Power Management System, the DSR-PD170 can record for up to 9 hours with the optional NP-F960 InfoLithium battery.
- Analog composite and S-Video inputs let you convert or record any NTSC analog video source to DV for archiving.
- You can preset the camcorder to record with a desired picture quality. You can preset color intensity, sharpness.

**High Performance Features (Same as the DCR-VX2100)**

- Interval and frame recording modes
- Built-in 2-position ND filter, color bar generator and Zebra pattern indicator
- Digital effects (no picture effects) for enhanced creativity. They include: Still, Flash Motion, Luminance Key, Trail, Old Movie. Also offers five fade modes.

**Supplied Accessories**: Includes AC-L10 AC Adapter, NP-F330 InfoLithium Battery, RMT-811 Wireless Remote, Stereo A/V cable, 4MB Memory Stick, MSAC-US1 Memory Stick USB reader/writer and PictureGear 4.1 Lite software.

**Optional Accessories**: The DSR-PD170 uses the same accessories as the DCR-VX2100 except it takes different tapes. You must use DVCAM tapes:

- **PDVM-32N 32-Minute Tape** .............................................................. 10.99
- **PDVM-40N 40-Minute Tape** .............................................................. 12.99
- **PDVM-32ME 32-Minute Tape with 16kB IC Memory Chip** ................. 14.99
- **PDVM-40ME 40-Minute Tape with 16kB IC Memory Chip** ................. 16.99

### DSR-PD170 vs. DCR-VX2100

<table>
<thead>
<tr>
<th>Feature</th>
<th>DSR-PD170P</th>
<th>DCR-VX2100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recording Format</strong></td>
<td>DVCAM/DV (SP only)</td>
<td>DV (SP/LP)</td>
</tr>
<tr>
<td><strong>Body and Color</strong></td>
<td>Gun metal gray (Magnesium Alloy Die Cast Durable Body)</td>
<td>Silver</td>
</tr>
<tr>
<td><strong>Manual Exposure</strong></td>
<td>Iris, Gain, Shutter speed, AE shift button, Spotlight button, Backlight correction button (Setting will be held after removing the battery)</td>
<td>“Brightness” Button/dial (Iris/Gain) Program AE, Shutter speed, AE shift (custom preset), Spotlight button Backlight correction button (Setting will be reset in 5 minutes after removing the battery)</td>
</tr>
<tr>
<td><strong>Viewfinder</strong></td>
<td>180,000 dot black/white precision LCD viewfinder</td>
<td>180,000 dot precision color viewfinder</td>
</tr>
<tr>
<td><strong>Microphone</strong></td>
<td>1 detachable mono microphone, included</td>
<td>One-point stereo internal viewfinder</td>
</tr>
<tr>
<td><strong>Audio Input</strong></td>
<td>XLR connector x2 (+48V power supply (with mike attenuator)</td>
<td>Mike input (stereo mini, plug-in power) (with mike/line switch) pin jack x2 (LR)</td>
</tr>
<tr>
<td><strong>Audio Control</strong></td>
<td>2 channels adjustable independently</td>
<td>Simultaneous control of both stereo channels</td>
</tr>
<tr>
<td><strong>Accessory Shoe</strong></td>
<td>Yes</td>
<td>Yes (intelligent accessory shoe)</td>
</tr>
<tr>
<td><strong>Time Code Preset</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>DATE REC</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Picture Effect</strong></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>After 5 min of Standby</strong></td>
<td>Auto Drum stop</td>
<td>Auto power off</td>
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<tr>
<td><strong>Digital Program Edit</strong></td>
<td>Yes (i.Link only)</td>
<td>No (infrared controller ready)</td>
</tr>
<tr>
<td><strong>Continuous Filming</strong></td>
<td>8 hrs. (NP-F960)</td>
<td>9 hrs. 35 min. (NP-F960)</td>
</tr>
</tbody>
</table>
SONY

DCR-IP1

MICROMV Digital Camcorder

The DCR-IP1 is unlike any other camcorder you’ve seen before. New and unique styling adds to an incredibly feature-packed camcorder making MICROMV the format to get. The DCR-IP1 puts high quality digital video and still images into the palm of your hand. It offers convenient scene access, titling capabilities and superb still and video resolution, all combined in an exceptionally styled package. Even with it’s small size, the DCR-IP1 is incredibly easy to operate and capture life’s precious memories.

FEATURES

Megapixel CCD

- Advanced HAD CCD imager with 690K effective video pixels provides excellent detail and clarity, for exceptional digital video performance. Realize great looking digital still images with 1000K (effective) pixels.
- Megapixel technology enhances digital videos (up to 520 lines of resolution) and digital photography performance.

MICROMV Format

- The MICROMV recording format delivers digital picture and sound quality comparable to that of MiniDV, but on tapes that are 70% smaller. Also, with a standard 64K memory in each cassette, you get features not available on any other tape format such as thumbnail images of recorded scenes, scene searching and electronic scene titling.
- Utilizes MPEG-2 format for compression. A technology that is PC friendly and provides video quality comparable to DV, MPEG-2 compression is widely used in digital satellite broadcasting and DVD players.

Carl Zeiss Vario-Sonnar Lens

- Carl Zeiss lenses have an advanced optical multi-layer coating offering less glare and flare with increased contrast. This results in vivid image brilliance, true-to-life color saturation, and accurate renditions of subtle tones.

Super SteadyShot Picture Stabilization System

- An advanced version of Sony’s SteadyShot system that controls an even higher range of shake and vibration frequencies, to achieve an even higher level of smoothness without degradation of video like some other image stabilization systems.

10x Optical 120x Digital Zoom

- The 10x optical zoom helps to bring the action up close from far away. In addition, the 120x digital zoom interpolation means that extreme digital zooming is clearer, with less distortion than previous types of digital zooms.
- For added convenience, a protective lens cover on the DCR-IP1 automatically opens when the power is turned on in the recording mode. This eliminates the need for an external lens cover and also allows the camcorder to be completely self-contained.

Great Things DO Come in Small Packages

In its day, 8mm was the small size champion. Then DV took the honors. Now it is Sony’s MICROMV DCR-IP1 Digital Handycam Camcorder—hands down. The ultra-compact DCR-IP1 easily fits in a pocket, purse, and most importantly, your lifestyle. New design technology makes it even easier to use than previous models—just pick it up and see how comfortably it fits in your hand.

But don’t let the small size fool you, this new MICROMV camcorder has picture quality equivalent to that recorded by MiniDV and Digital8 camcorders. Up to 530 lines of resolution means crisp, clean high resolution images, all on a cassette which is 70% smaller than MiniDV. This is done by using MPEG2 compression, the same type of compression as used with satellite dishes and DVD players—and everyone knows how good the picture looks on those. And digital stereo sound too. Just as the MICROMV cassette holds MPEG-2 digital video, it also captures MPEG-1 Audio Layer 2 sound. You’ll hear superb fidelity with extended frequency response and rich, impressive dynamic range.

2” SwivelScreen Hybrid LCD

- The 211,000-pixel LCD provides excellent viewing clarity with improved resolution. The Hybrid system consist of a transmissive LCD combined with a reflective LCD. By turning off the LCD backlight, it will capture more ambient light virtually eliminating LCD “wash-out.” Images will be visible in the LCD even in the most challenging outdoor lighting conditions.

- The “On Screen” touch panel system allows you to navigate through the camera's menu system at the touch of the LCD screen using the supplied stylus.

- Also offers a 180,000-pixel precision color viewfinder with pixels with backlight control to provide excellent viewing clarity in a variety of lighting environments.

Color Slow Shutter

- Color Slow Shutter mode allows you to record and view subjects in color—in low light situations. Capture full detailed color images by slowing down the shutter speed. It offers a substantial improvement in picture quality and color renditions.

EQUIPMENT LEASING AVAILABLE
USB Streaming
- Stay connected to family and friends by broadcasting live video with audio, via the internet with the USB interface. You can even playback your favorite recorded scenes stored on tape. It's like having your own web camera and video conferencing system. The USB interface also allows easy transfer of still images and MPEG-1 movies stored on Memory Stick Duo media to the computer.

Digital Still Memory Mode
- Digital Still Memory Mode captures high quality megapixel still images at 1152 x 864 or 640 x 480 resolution directly to Memory Stick Duo Media. Images are stored in a JPEG format providing easy transfer to compatible PCs for emailing, printing, or sharing with family and friends. A 16MB Memory Stick Duo media is supplied.
- With Memory Stick Duo being 1/3 the size of the standard-sized Memory Stick media, the Memory Stick Duo media offers the same benefits and capabilities, but in a smaller size, perfect for an ultra compact camcorder like this.

Color Slow Shutter
- Color Slow Shutter mode lets you record in low light situations with full color detail by slowing down the shutter speed.

Handycam Station
- Place the DCR-IP1 on the supplied Handycam Station provides a quick and easy connection between the camcorder and an i.LINK supported TV/VCR for viewing, or a computer for video and still image editing. It also supplies power to the camcorder for charging the battery.

Ultra-Compact MICROMV Cassette
When you compare the size of videocassettes, you can see that MICROMV cassettes are light years ahead of standard VHS tapes, not only just in regards to size, but also picture quality. MICROMV camcorders are capable of recording up to 530 lines of resolution; as good as the best DV camcorders. Exclusive to the MICROMV cassettes is the ability to provide thumbnail images of all recorded scenes, allowing quick and easy access to your favorite video memories.
- All MICROMV cassettes feature a standard 64K IC Memory Chip. This expanded capacity memory gives you a host of features, most of which are unavailable on other digital camcorders.
  - Index Search— Each time you press Record, the memory chip saves an index picture of that scene. You can use these index pictures like a DVD chapter menu. Just click on a scene to access it directly.
  - Index Titling— You can assign an electronic label to each cassette, which can be viewed automatically by just inserting the tape into the camera. You can also assign a custom or preset title to any scene on the cassette.
  - Cassette Info Screen— The cassette title, available space, and first and last recording dates are all automatically displayed for 5 seconds just by inserting the tape into the camera.

MPEG Movie AX Mode
- MPEG Movie AX mode captures high quality 352 x 240 (30 frames per second) resolution MPEG-1 movies uninterrupted up to the capacity of the Memory Stick Duo media. For example, a 128MB Memory Stick Duo can record up to 20 minutes of non-stop MPEG-1 video with audio. These clips are ideal for web sites or emailing to family and friends via the web. Perfect for when you need high quality compressed video files.
- You can shoot MPEG AX movies in four modes:

<table>
<thead>
<tr>
<th>Memory Stick Duo</th>
<th>Light</th>
<th>Standard</th>
<th>Fine</th>
<th>Super Fine</th>
</tr>
</thead>
<tbody>
<tr>
<td>16MB</td>
<td>10m 00s</td>
<td>5m 00s</td>
<td>2m 30s</td>
<td>1m 30s</td>
</tr>
<tr>
<td>32MB</td>
<td>20m 00s</td>
<td>10m 00s</td>
<td>5m 20s</td>
<td>3m 20s</td>
</tr>
<tr>
<td>64MB</td>
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<td>20m 00s</td>
<td>11m 00s</td>
<td>6m 50s</td>
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<tr>
<td>128MB</td>
<td>1h 20m 00s</td>
<td>41m 00s</td>
<td>22m 00s</td>
<td>13m 00s</td>
</tr>
<tr>
<td>256MB</td>
<td>2h 30m 00s</td>
<td>1h1 5m 00s</td>
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<tr>
<td>512MB</td>
<td>5h 05m 00s</td>
<td>2h 30m 00s</td>
<td>1h 20m 00s</td>
<td>51m 00s</td>
</tr>
</tbody>
</table>

Above times are approximate. (h=hour, m=minute, s=second)

Bundled MovieShaker Software
With the bundled MovieShaker software, it’s easy to re-arrange clips, add special effects, edit in smooth transitions or integrate background music and text. What’s more, MovieShaker even lets you select one of the pre-set moods - for example, adventure music and special pacing for added effect - and the user-friendly software does the rest. Simply connect the camcorder to your compatible PC or notebook with a i.LINK cable and start personalizing your movies.
SONY

DCR-DVD101/201

DVD Handycam Camcorders
The DCR-DVD101 (680,000 pixels) and DCR-DVD201 (megapixel) do much to advance the simplicity of making and sharing videos. They produce DVD recordings that play back in most current home and PC-DVD players, as well as most later releases of PlayStation 2 game consoles. In fact, recording on 3”, DVD-R and DVD-RW media, they are compatible with over 100 million products. In addition to their incredible compatibility, DVDs also present one of the easiest ways to shoot, play and share video memories. The disc-based recording system allows for quick access to favorite scenes and pictures without the fuss of rewinding and fast-forwarding. Thumbnail images of video are created from the start of every recorded scene. You never have to worry about recording over their irreplaceable memories as the camcorder intuitively only records on empty areas of the disc.

FEATURES
◆ The DVD recording format delivers digital video and sound quality comparable to that of MiniDV. DVD playback is simple and convenient. After finalizing the disc in the camcorder, the DVD disc will playback in most compatible DVD Players, computers and even later releases of PlayStation 2 video game consoles.
◆ Disc-based recording system allows for quick access to favorite scenes and pictures without having to rewind and fast-forward. Thumbnail images of video are created from the start of every recorded scene.
◆ You never have to worry about recording over their irreplaceable memories as the camcorder intuitively only records on empty areas of the disc.
◆ To further enhance the experience, discs can be titled with customized descriptions, so your “Holiday Party” footage is easily distinguishable from “Skiing in Vail”.

DVD Format Video Recording
◆ When recording on a DVD-RW disc, there is the flexibility to do some simple in-camera editing. For example, if the last recorded scene didn’t turn out perfectly, just erase the last video excerpt and shoot the desired scene in its place. In addition, when in VR (video recording) mode, you can design a playlist of your video clips, and rearrange the order of the scenes and images for a more customized finished product without modifying the video.
◆ Records Dolby Digital AC-3 (2 Channel) Stereo Audio. This is an advanced form of digital audio recording, with sophisticated noise reduction technology, that provides outstanding, lifelike sound quality in almost any situation.
◆ Multiple quality recordings options include: HQ mode (up to 20 minutes), SP mode (up to 30 minutes) and LP mode (60 minutes) on a single sided disc.

Advanced HAD CCD Imager
◆ Advanced HAD CCD with 340K (effective) video pixels provides excellent detail and clarity, with beautiful digital video (up to 500 lines of resolution) and still image performance. Realize great looking digital still images utilizing 340K (effective) pixels.

10x Optical/120x Digital Zoom
◆ They have a Carl Zeiss Vario-Sonnar lens that produces more true-to-life color clarity in videos and still images and 10x optical, 120x precision digital zoom that brings the action up close.

Super SteadyShot
◆ An advanced version of Sony’s SteadyShot optical stabilization system, Super SteadyShot uses motion sensors to compensate for an even higher range of shake and vibration frequencies. This allows it to achieve an even higher level of smoothness without degradation of video like some other image stabilization systems.

Progressive Shutter System
◆ A mechanical shutter system provides progressive scan performance, while utilizing an interlaced scanning system. Makes digital still images sharp and clear with excellent definition.

DVD-R and DVD-RW—What’s the Difference?
DVD-R discs can be recorded only one time. They are suitable for permanent records and for making a backup copy. DVD-R disc finalization is required
DVD-RW discs can be overwritten repeatedly. They are suitable for source gathering and temporary recordings. DVD-RW disc finalization may be required.
Digital Still Memory Mode

- The DCR-DVD101 captures 640 x 480 resolution images, ideal size for e-mail attachment, while the DCR-DVD201 incorporates a one-megapixel imager to produce higher resolution video and still image resolution (1152 x 864).
- Burst Mode (DCR-DVD201 only) lets you consecutively capture up to 4 images at 1152 x 864 or 12 images at 640 x 480
- Images are stored as JPEGs providing easy transfer to PCs for emailing, printing or sharing with family and friends.
- Both models can take thousands of still shots on a single 3-inch disc, which can be viewed on a TV or PC.

USB 2.0 Interface

- For users without a DVD drive in their PC, Sony’s DVD camcorders have a USB 2.0 interface for fast and uncomplicated transfer of video and still data to a compatible PC (Windows ME/2000 and later) with the supplied USB cable and driver, for editing.
- Since USB 2.0 on the camcorder is backward compatible, it will work seamlessly with the popular USB 1.1 interface as well.
- Both can also be used as external DVD burners, convenient for making copies of your DVDs or burning edited movies.

Conveniences

- Record any analog NTSC source to digital video via the analog inputs. Ideal for archiving analog tape recordings, the video can then be edited on your computer.
- Intelligent Accessory shoe gives you the option of adding accessories such as lights, flashes and microphones to the camera, which can communicate with the camera and also draw power from the camera.
- The camcorders conveniently indicate the remaining minutes of battery life on the LCD or viewfinder display, allowing users to keep an accurate and constant reading of remaining battery power.
- The DCR-DVD101 and DCR-DVD201 camcorders weigh just over a pound and are small enough to fit into a jacket pocket.
- For added convenience, both models have a mini joystick controller on the outside of the units to easily navigate through the camcorders’ menu systems.

In-Camera Editing

The DCR-DVD101 and DCR-DVD201 provide simple in-camera editing functions that help you organize your scenes and still images.

Playlists can be created on DVD-RW discs that you recorded in DVD-VR mode. By creating a playlist, you can re-arrange your recorded scenes, cut and divide scenes, and create the playback order that tells your story in the most effective way.

Thumbnail Display

A visual index screen shows thumbnail images of movies and still images when playing back on your camcorder or DVD player, making scene selection easier. Six images per screen, the thumbnails are automatically created when you finalize your disc. Unlike systems that only identify movies or images by time and date, these images give you a visual record of what each scene or still image shows.

Before finalizing, you can always use your DVD camcorder as your playback device using the LCD screen or by connecting the supplied A/V cable to your TV. After finalizing a recorded disc, you can view dated thumbnails on your TV using a standard DVD player, or your PC. You can also display the title of your finalized DVD recording.

2.5” SwivelScreen LCD Display

- They have a 2.5” SwivelScreen hybrid LCD display with a start/stop record button on the frame. The 123,000-pixel LCD rotates up to 270° for multiple viewing angles providing sharp detailed images for monitoring or playback.
- The additional record button offers added flexibility when you are trying to capture a challenging angle like a low shot of a child crawling on the floor or when you flip the screen to record yourself.
- And when bright sunlight is the day’s biggest challenge, hybrid technology prevents LCD washout so the viewing display can be employed.
- Also offers a precision color viewfinder for a clear, color view of subjects and makes spotting and/or following subjects easier.

Bundled Software

To round out the DVD Handycam camcorder experience, video and still editing software is supplied. With Pixela ImageMixer software for Sony, you can spice up your home movies by adding smooth transitions or funky music. The software also allows for making copies of your latest home movie to share with friends.
InfoLithium Battery Packs

Small and lightweight, Sony’s Lithium Ion batteries can be charged or discharged at anytime without developing “memory effect”. This means they never lose their ability to hold a full charge. They also have a built-in microprocessor that accurately calculates remaining battery life in minutes and can display it on the LCD as well as in the viewfinder by continuously communicating with the camcorder.

NP-FM50

NP-QM71D/NP-QM91D

InfoLithium M Series Battery Packs


NP-FM50: 8.5WH (1180mAh). Provides up to 3 hours recording time............45.95

NP-QM71D: Super quick charge battery with display. Charges up to 70% faster when used with AC-SQ950D charger. 3.3x more powerful than the supplied NP-FM30 battery. 19.9Wh (2760 mAh) provides up to 5.5 hours recording time .........................79.95

NP-QM91D: Same as the NP-QM71D except 5.9x more powerful than the supplied NP-FM30 battery. 29.8Wh (4140 mAh) provides up to 10 hours recording time .............................................109.95

NP-FP50/70/90

InfoLithium P Series Battery Packs

Ultra-high capacity rechargeable batteries designed for Sony’s compact DCR-HC20, DCR-HC30, DCR-HC40, DCR-HC65 and DCR-HC85, yet still provide maximum battery life and unbeatable reliability.

NP-FP50 4.9Wh (680 mAh) ..........49.95
NP-FP70 9.8Wh (1360 mAh) ..........79.95
NP-FP90 17.7Wh (2460 mAh) ..........119.95

Battery Chargers & Power Adapter for M Series Batteries

AC-SQ950D

AC/DC Adapter and Quick Battery Charger

- Can be used as an AC/DC Adapter (DC via cigarette lighter socket) with Sony camcorders that use ‘M’ Series batteries
- Charges 70% faster than supplied charger when using NP-QM71D or QM91D InfoLithium batteries. Dual battery slots for consecutive charging.
- LCD panel shows time left to full charge and remaining battery life in minutes.
- Buzzer notifies you when charging is complete.

DCC-L50B Car Battery Adapter Cable

It’s time to take a road trip and you want to capture the whole event with your camcorder but you know the battery isn’t going to last the whole trip. The DCC-L50B DC Adapter allows you to power your camcorder directly from your car’s cigarette lighter socket and record your adventure non-stop .........................44.95

AC-VQ50

AC Adapter and Quick Battery Charger

Charging 70% faster than the supplied charger when using NP-QM71D and QM91D, this InfoLithium charger offers a built-in LCD panel that displays the time remaining to full charge and remaining battery life in minutes for ‘M’ Series batteries. Can also be used as an AC adapter with Sony camcorders that use ‘M’ Series batteries ............67.95

BC-TRM ‘M’ Series Portable Battery Charger

There is no easier way to charge your InfoLithium M Series battery than with the BC-TRM battery charger. It’s as simple as plugging the unit in to the wall and inserting a battery. The BC-TRM features charging times as fast as 125 minutes (with the NP-FM50 battery pack), yet is small enough to take anywhere.................................38.95

BC-VM50

‘M’ Series Portable Battery Charger

Portable battery charger for the Sony NP-FM50, QM-71D and QM-91D ‘M’ Series InfoLithium batteries. Lightweight and economical, it is a perfect addition to your Sony camcorder ......38.95
### Battery Chargers & Power Adapters for P, F, and L Series Batteries

#### AC-VQP10
**AC Adapter and Dual Battery Charger for ‘P’ Series Batteries**
The AC-VQP10 Battery Charger provides quick recharging to your InfoLithium P Series camcorder batteries. It features an AC Adapter, LCD readout panel, and the capacity to charge two batteries simultaneously. **69.00**

#### BC-TRP ‘P’ Series Portable Battery Charger
The easiest way to charge your InfoLithium M Series battery. It’s as simple as plugging the unit in to the wall and insert a battery. The BC-TRP features charging times as fast as 125 minutes (with the NP-FP50 battery pack), yet is small enough to take anywhere. **49.95**

#### AC-VF50
**AC Adapter and Battery Charger for ‘F’ Series Batteries**
The lightweight and portable Sony AC-VF50 AC Adapter/Charger is perfect for charging InfoLithium F series batteries without the camcorder. It can also be used to provide a direct power supply worldwide (100-240v) **66.99**

#### BC-TRF ‘F’ Series Portable Battery Charger
The easiest way to charge your InfoLithium F Series battery. All you have to do is plug the charger into the wall and insert the battery. The BC-TRF features lightning fast charge times and is small enough to take with you wherever you go. **49.95**

#### AC-V700A
**AC/DC Adapter and Battery Charger for ‘L’ Series Batteries**
Lightweight and portable AC/DC quick charger. Simply connect to a wall socket to enable superfast charging or direct power supply. Displays both the time remaining to full charge as well as the amount of time the battery can be used. Compatible with the DCR-VX2100 and NP-F550/750/960 batteries **94.00**

#### BC-V500
**Portable Dual Battery Charger for ‘L’ Series**
With this small, lightweight and portable charger for L Series batteries, you can put the power back into your Mavica camera or HandyCam camcorder by charging up to two batteries at once. **85.99**

#### BC-V615
**Economical Portable Charger**
Economical, portable, single battery charger for NP-F550/750/960 batteries **38.95**

### InfoLithium Battery Packs

#### InfoLithium F Series Battery Packs
Small and lightweight, Sony’s Lithium Ion batteries can be charged or discharged at anytime without developing “memory effect”. This means they never lose their ability to hold a full charge. They also have a built-in microprocessor that accurately calculates remaining battery life in minutes and can display it on the LCD as well as in the viewfinder by continuously communicating with the camcorder.

#### NP-FF51/71
**InfoLithium F Series Battery Packs**
Compact, lightweight flat-type batteries for the DCR-PC109 and DCR-IP1.
- **NP-FF51**: 5.6WH (780mAh) **49.95**
- **NP-FF71**: 11.2WH (1560mAh) **79.95**

#### NP-F550/750/960
**InfoLithium L Series Battery Packs**
Highly efficient, compact and lightweight rechargeable Lithium-ion battery packs for the DCR-VX2100 and DSR-PD170.
- **NP-F550**: 10.8 WH (1500mAh), provides up to 4 hours continuous recording time **49.95**
- **NP-F750**: 21.6WH (3000mAh), provides up to eight hours recording time **79.95**
- **NP-F960**: 38.8WH (5400mAh), provides up to 15 hours recording time **109.95**

#### AC-VQP10
Battery Charger provides quick recharging to your InfoLithium P Series camcorder batteries. It features an AC Adapter, LCD readout panel, and the capacity to charge two batteries simultaneously. **69.00**

#### BC-TRP
‘P’ Series Portable Battery Charger
The easiest way to charge your InfoLithium M Series battery. It’s as simple as plugging the unit in to the wall and insert a battery. The BC-TRP features charging times as fast as 125 minutes (with the NP-FP50 battery pack), yet is small enough to take anywhere. **49.95**

#### AC-VF50
AC Adapter and Battery Charger for ‘F’ Series Batteries
The lightweight and portable Sony AC-VF50 AC Adapter/Charger is perfect for charging InfoLithium F series batteries without the camcorder. It can also be used to provide a direct power supply worldwide (100-240v) **66.99**

#### BC-TRF
‘F’ Series Portable Battery Charger
The easiest way to charge your InfoLithium F Series battery. All you have to do is plug the charger into the wall and insert the battery. The BC-TRF features lightning fast charge times and is small enough to take with you wherever you go. **49.95**

#### AC-V700A
AC/DC Adapter and Battery Charger for ‘L’ Series Batteries
Lightweight and portable AC/DC quick charger. Simply connect to a wall socket to enable superfast charging or direct power supply. Displays both the time remaining to full charge as well as the amount of time the battery can be used. Compatible with the DCR-VX2100 and NP-F550/750/960 batteries **94.00**

#### BC-V500
Portable Dual Battery Charger for ‘L’ Series
With this small, lightweight and portable charger for L Series batteries, you can put the power back into your Mavica camera or HandyCam camcorder by charging up to two batteries at once **85.99**

#### BC-V615
Economical Portable Charger
Economical, portable, single battery charger for NP-F550/750/960 batteries **38.95**
**SONY CAMCORDER ACCESSORIES**

### Lens Filter Kits

**Polarizing Filter Kits**
Bring out the colors in your video with the Polarizing filter kit. It features a polarizing filter that helps bring out colors and intensify contrast and multi-coat lens protector to prevent dust and scratches. Both are constructed of high-quality aluminum and glass for maximum durability. The kits even include a handy case to protect the filters while on the road.

- **VF-25CPKS:**
  - 30mm Polarizing Filter Kit .................. $59.95

- **VF-30CPKS:**
  - 30mm Polarizing Filter Kit .................. $44.95

- **VF-37CPKS:**
  - 37mm Polarizing Filter Kit .................. $49.95

- **VF-58CPKS:**
  - 58mm Polarizing Filter Kit (with soft carrying case) .................. $54.99

### Special Effects Filter Kit
This kit includes a Soft Focus Filter for subtle diffusing of your portrait images, a Cross Filter to add 4-point star effects to enhance your images and a hard carrying case for protection.

- **VF-30SC:**
  - 30mm Special Effects Filter Kit ............ $34.95

### 25mm Wide Angle & Telephoto Lenses for the DCR-HC20/30/40, DCR-PC109, DCR-DVD101/201

- **VCL-0625S (0.6x)**
  - Now you can fit everyone in the shot thanks to the VCL-0625S wide angle lens. It's a 0.6x magnification for picture perfect wide angle shots .................. $34.95

- **VCL-2025S (2x)**
  - With the VCL-2025S you get 2x magnification—brining the action to you. Ideal accessory for sporting events, weddings, and family trips .................. $59.99

- **VCL-HG0725 (0.7x)**
  - Capture the widest vistas with the VCL-HG0725. It features a 0.7x magnification that allows you to bring everything into frame. Constructed of high grade aluminum and glass, and precision engineered to provide the finest possible optics .................. $149.00

- **VCL-HG2025 (2x)**
  - The VCL-HG2025 offers 2x magnification that allows your camcorder to record subjects at a distance with striking clarity. Built from high grade glass and aluminum, it is designed to resist wear and deliver consistent visuals over time .................. $149.99

### 30mm Wide Angle & Tele Lenses for DCR-HC65

- **VCL-0630S (0.6x)**
  - 0.6x wide angle lens broadens the point of view so you get a wider field of vision .................. $54.99

- **VCL-HG0730 (0.7x)**
  - Broaden your field of view with this high-grade lens. It offers unmatched ease of use, making it the accessory of choice for reducing distortion and boosting image detail in a wide-angle format .................. $134.95

- **VCL-2030S (2x)**
  - Create better videos of outdoor action, recitals, and other activities at a distance. 2.0x magnification brings your subject closer while you stay where you are .................. $67.95

- **VCL-HG2030 (2x)**
  - Get astounding detail in a telephoto view. This high-grade lens can be used throughout the entire zoom range to deliver twice the detail at the edges of an image .................. $134.95
Taking pictures at the beach or park but worried that the bright sunlight may ruin your pictures? No problem!
With Neutral Density Filters you have control over improving contrast and detail in even the brightest sunlight, and the Multi Coat Filter protects your lens from dust and scratches. You even get a protective carrying case to tote these fabulous kits!

**VF-R25NK:**
25mm Neutral Density Filter Kit ............... 24.95

**VF-30NK:**
30mm Neutral Density Filter Kit ............... 23.99

**VF-R37:**
37mm Neutral Density Filter Kit ............... 24.99

**VF-58M:**
58mm Neutral Density Filter Kit (with soft case) .......................................................... 44.95

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**Special Effects Filter Kit**
Add creativity to your photos - diffuse images by using the Soft Focus Filter or add 4-point star effects to brighten them up. With a custom soft carrying case, this kit makes it easy to add fun effects to picture taking.

**VF-58SC:**
58mm Special Effects Filter Kit ............... 49.95
### Starter & Accessory Kits

<table>
<thead>
<tr>
<th>Kit Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-FM50A</td>
<td>Accessory Kit for DCR-PC330/1R950 and DCR-TRV128/328/260/626</td>
<td>59.95</td>
</tr>
<tr>
<td>ACC-DVF</td>
<td>Accessory Kit for the DCR-HC20/30/40/65/85</td>
<td>28.95</td>
</tr>
<tr>
<td>ACC-MVF7</td>
<td>Starter Kit for the DCR-IP1 Includes MICROMV compact carrying case (LCM-PCM), InfoLithium rechargeable battery (NP-FF70), and a 60-minute premium Sony MICROMV tape</td>
<td>109.95</td>
</tr>
<tr>
<td>ACC-DVM</td>
<td>Starter Kit for the DCR-PC330 Includes compact LCS-DVM carrying case, NP-FM50 InfoLithium battery, and a 60-minute Sony Mini DV tape</td>
<td>59.95</td>
</tr>
<tr>
<td>ACC-DVDM</td>
<td>Starter Kit for the DCR-DVD101/201 Includes DVD Handycam carrying case (LCS-DVDM), a unique 8cm DVD media wallet for extra protection of your videos, NP-FM50 InfoLithium battery and a premium DVD-RW 8cm re-writable disc</td>
<td>34.95</td>
</tr>
</tbody>
</table>

### ACC-FM50A

The kit includes the LCS-VA30 case and NP-FM50 rechargeable battery pack.

### ACC-DVF

The kit includes an NP-FP50 InfoLithium P series rechargeable battery pack and the LCS-DVF 3-way carrying case for your camcorder and all of its accessories. Also includes a 60-minute MiniDV tape.

### ACC-MVF7

Includes MICROMV compact carrying case (LCM-PCM), InfoLithium rechargeable battery (NP-FF70), and a 60-minute premium Sony MICROMV tape.

### ACC-DVM

Includes compact LCS-DVM carrying case, NP-FM50 InfoLithium battery, and a 60-minute Sony Mini DV tape.

### ACC-DVDM

Includes DVD Handycam carrying case (LCS-DVDM), a unique 8cm DVD media wallet for extra protection of your videos, NP-FM50 InfoLithium battery and a premium DVD-RW 8cm re-writable disc.

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### Camcorder Cases

<table>
<thead>
<tr>
<th>Case Type</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
</table>
| LCS-HCB   | Nylon Carrying Case
Now you can take your DCR-HC20/30/40 camcorder everywhere in this stylish carrying case. It features a waist mount and a shoulder strap. Plus, its sturdy nylon construction protects your camcorder from even the toughest environments.                          | 28.95  |
| LCS-HCA   | Hard Carrying Case
Protect your DCR-HC20/30/40 wherever you go in this stylish hard carrying case. Featuring a tough plastic shell, the LCS-HCA is designed to keep your camcorder safe in even the roughest environments. It includes a convenient shoulder strap and a handy battery pouch that makes travel easy and worry free.              | 28.95  |
| LCS-VA30  | Soft Carrying Case
With the VA30 case, you can take your camcorder wherever you go. Featuring a two-way strap, it can be carried either by hand or over your shoulder. Despite its lightweight design, it is incredibly durable and helps protect your camcorder from those occasional bumps in the road. Includes front and side pockets, plus an upper mesh pocket. For all Sony camcorders. | 29.99  |
| LCS-VA40  | Deluxe Soft Carrying Case
Durability and style come together with this deluxe carrying case. Featuring extra-tough nylon construction and all metal fittings, the LCS-VA40 protects your camera wherever you go. It includes a comfortable padded strap and a number of different storage options for your accessories, including a false bottom for your valuables. For all Sony camcorders. | 39.99  |
| LCS-VA5   | Premium Carrying Case
Manufactured from 680 Ballistic Nylon, this durable, yet sophisticated premium carrying case is built to last. Metal fittings, an extremely well padded strap and compartments that feature their own mesh lining, highlight this must have accessory case. Also has ID holder. For all Sony camcorders. | 39.95  |

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Call for special pricing on all Kits.
**SONY CAMCORDER ACCESSORIES**

### VIDEO LIGHTS

**HVL-S3D Intelligent Video Light**
A small and lightweight video light, the HVL-S3D works with Sony’s Intelligent Accessory Shoe and automatically switches on when needed. It is powered by the camcorder - no separate batteries necessary. **$28.99**

**HVL-FDH4 3-Watt Flash/Video Light**
A small and compact 3-watt video light, the HVL-FDH3 also has a built-in flash for still pictures. The light automatically switches on when needed and the flash automatically regulates light output. For convenience, it works with Sony’s Intelligent Accessory Shoe and is powered by the camcorder - no separate batteries necessary. **$94.99**

**HVL-20DM Switchable 10-Watt/20-Watt Video Light**
Designed for camcorders without the Sony Intelligent Shoe (VCT-S30L required), the HVL-20DM provides 10-watt operation when used with NP-FM battery, and 20-watt operation when used with NP-QM71D and NP-QM91D batteries. Displays remaining battery life. **$109.95**

**HVL-FH1100 High Quality Intelligent Shoe Flash**
This high quality hinged flash helps you shoot still photos in low light, giving you great exposure every time. Powered by Sony’s Accessory Shoe, this flash draws power straight from the camcorder battery, so there’s no need for extra batteries or cables. **$79.95**

**HVL-IRM Infrared Light**
When shooting with the NightShot function, this light enables strong definition over a great distance. Recommended shooting range 3-20m. Can be powered by either InfoLithium M series battery or two AA batteries. Includes VCT-S30L accessory shoe Adapter. **$44.95**

**HVL-IRH2 3-Watt Video Light**
A combination infrared and video light, the HVL-IRH2 emits an infrared beam to extend the range of your camcorder’s NightShot operation from 10’ to an unbelievable 100’ for shooting in total darkness. In addition, it has a 3-watt video light with rotating head and adjustable light output. For convenience, it works with Sony’s Intelligent Accessory Shoe and is powered by the camcorder – no separate batteries necessary. **$57.95**

### Tripods

**VCT-D580RM Remote Control Tripod**
Sony tripods provide a rock steady support for your camcorder, with remote control operation for a truly professional feel and function. **$58.95**

The VCT-580RM offers remote operation of your camcorder directly from the tripod grip (zoom, start/stop and lock/standby). Expands from 17½” to 45”.

**VCT-D680RM Remote Control Tripod**
**$74.95**

The VCT-680RM is a unique tripod that offers remote operation of your camcorder directly from the tripod grip (zoom, start/stop and lock/standby). Also ideal for portrait and landscape still photography. Expands from 19” to 57”.

**VCT-870RM Remote Control Tripod**
**$134.95**

The VCT-870RM is a unique tripod that offers remote operation of your camcorder directly from the tripod grip (zoom, start/stop, lock/standby and Photo mode on/off). Also ideal for portrait and landscape still photography. Expands from 26” to 64”.

---

**ORDER & INFO. (212) 444-5010 • FAX: (212) 239-7770 (800) 947-7008 1-800-947-5525 • www.bhphotovideo.com**
The smallest dye-sublimation printer to date, the DPP-MP1 allows you to make photo quality prints from your camcorder—anywhere, anytime you like. Just imagine being able to carry a high quality photo printer with you on vacation, to a sporting event, or on a business trip and be able to instantly share photos. A “palm” size mobile printer, the DPP-MP1 fits anywhere—even in a shirt pocket! Delivers high quality 3 1/4 x 2” borderless card-sized print in just 90 seconds. And Sony’s dye-sublimation print technology ensures a 307 dpi continuous tone photo quality print. A clear lamination seals the color dye into your print for longevity that rivals chemically-processed photographs. Ready to print out of the box, it includes 24 sheets of the SuperCoat 2 media, tray and printer ribbon.

- Super compact, just 4 3/8 x 1 1/2 x 2 5/8” (W x H x D) and weighs 10 oz!
- Prints borderless 2 x 3 1/8” card size prints in just 90 seconds
- Lamination layer seals color dye into the print to resist color shift and fading
- Select images for printing by file number or Digital Print Order Format (DPOF)
- Print from 1–24 prints compose 1, 2, 4, or 8 frames per sheet (Multi Print)
- Simple editing allows control of sharpness, brightness, fit (4:3 aspect ratio)
- Print from a PC or Mac via USB port

**VCT-TK1 Table Top Tripod**
Convert this tripod into a plate the size of your palm to make it conveniently portable and easy to store. Angling positions are adjustable and stability is assured with nonskid stoppers $39.95

**VCT-MTK Tripod Travel Kit**
A portable tripod kit that contains a compact tripod, cleaning cloth and an exclusive pouch. The tripod’s height is adjustable in two steps $18.99

**DVD-R Recordable DVD Camcorder Media (1.4GB) 2-Pack**
Create, edit and archive home movies and digital photos, while storing and accessing data from one disc. DVD-R discs capture all digital data brilliantly, and are large enough to hold oversized digital movie files. Take the disc from your DCR-DVD101/201 DVD camcorder directly to a DVD Player for sharing images with friends and family.

**VCT-S30L Cold Shoe Arm**
An accessory shoe adapter that lets you use cold shoe accessories on camcorders with no accessory shoe as well as on camcorders with the Intelligent Accessory Shoe.

**RM-VD1 Multi-Function Wired Remote Control for DSC-V1**
This Sony wired remote control for LANC-equipped camcorders puts control within your reach. This precision remote gives you the ability to zoom, record, and control shutter release functions from up to 5’ away $39.95

**VMC-20FR AV/LANC Cable:** This 6’ cable allows you to easily connect your Handycam camcorder to a TV or VCR. High performance metal plated terminals $17.99

**VMC-IL4415** 5’ 4-pin to 4-pin cable $27.95
**VMC-IL4615** 5’ 4-pin to 6-pin cable $27.95
**VMC-IL4435** 12’ 4-pin to 4-pin cable $44.95

**i.LINK Digital Interface Cables**

- i.LINK DV In/Out Interface (IEEE-1394) provides a high-speed, bi-directional digital link between camcorders, a camcorder and editing deck, or a camcorder and computer with i.LINK capability. So you can transfer data digitally, then edit it multiple times with no deterioration of picture or sound quality.

**VMC-14UMB2 USB Cable:** Replacement USB cable for your USB-enabled camcorder. USB 2.0 Hi-Speed certified $19.95

**Miscellaneous Accessories**

- **RM-VD1**
- **VCT-TK1**
- **VCT-MTK**
- **DVD-R**
- **VCT-S30L**
- **VMC-20FR**
- **VMC-IL4415**
- **VMC-IL4615**
- **VMC-IL4435**
- **i.LINK**
- **USB**
- **Cold Shoe Arm**
All-in-One Digital Photo Lab

Why go out to process your pictures when you could have the DPP-EX50 as your all-in-one photo lab? Featuring built-in photo editing features such as red-eye reduction and automatic color correction via Sony’s new Photo Quality Processor, the DPP-EX50 makes printing the perfect picture easier than ever before. And what beautiful prints they are, thanks to the high-quality dye-sublimation printing and the colorfast resistant SuperCoat2 laminated photo paper. Connecting the DPP-EX50 is a snap. It includes both Memory Stick and CompactFlash media ports, so you’re assured maximum compatibility. It also features a USB 1.1 port for PC connection and a video port for previewing your photos in a slideshow on your television.

◆ Produce beautiful high-quality prints in the convenience of your home or office. Print images directly from Memory Stick or CompactFlash memory cards (as well as SD and SmartMedia with adapter).

◆ Or connect your PictBridge compatible camcorder directly to the printer via USB cable for a simple photo printing method without having to connect to the computer. You can even connect the DPP-EX50 to your TV for easy image preview and editing.

◆ Image Optimization functions through Sony’s Photo Quality Process helps to improve picture quality including sharpness and automatic color correction.

◆ Dye-sublimation technology uses layers of color-dye to create continuous tone images with color richness that rivals traditional photo prints. Prints images with up to 16.7 million colors at 403 dpi resolution

◆ Print borderless 4 x 6” postcard, economical 3½ x 5” or compact 3½ x 4” sizes with a simple click of a button. Prints a 4 x 6” photo in 80 seconds.

◆ Sony’s unique Super Coat 2 laminate is applied during the printing process, protecting photos from color-shift and fading. Pictures produced with the DPP-EX50 have better picture permanence compared to traditional film-based photo processing.

◆ LCD display panel offers easy stand alone operation, and printer status when not connected to a computer or monitor.

◆ Core function are displayed on a TV via video output for ease of use and improved functionality. The on-screen graphical interface menu system makes editing easy. Create personalized greeting cards and calendars with the printer’s built-in editor.

◆ Whether next to a TV or PC, the DPP-EX50’s small size fits within your lifestyle. Measures only 2½ x 8 x 11” (WxHxD)

◆ Supplied auto-feed tray holds up to 30 sheets (of three different paper sizes).

Optional Print Media

| SVM-25LS: 4 x 6” Paper w/snap-off edges (25 sheets) | SVM-30LS: 3½ x 5” compact paper w/snap-off edges (30 sheets) |
| SVM-45LS: 4 x 6” Paper w/snap-off edges (25 sheets) | SVM-30SS: 3½ x 4” compact papers (30 sheets) |
| SVM-25SW: 4 x 6” Paper with adhesive backing (25 sheets) | SVM-30SW: 3½ x 4” paper with adhesive backing (30 sheets) |
| SVM-30SW: 3½ x 4” paper with adhesive backing, 9 sticker die-cut for 9-print per sheet mini-prints (30 sheets) | SVM-30SS: 3½ x 4” compact paper w/snap-off edges (30 sheets) |

DPP-EX7 Digital Photo Printer

The DPP-EX7 has many of the same features as the DPP-EX50 (no PictBridge technology) but adds a Touch Panel LCD screen with stylus. You can view your images on the large, built-in 3.8” Color LCD screen and use the supplied Stylus to control the printer’s functions, edit images, add freehand drawings or even a signature for personalized prints. It also adds Multiple Frame and Index Printing. These functions allow you to print 1, 2, 4, or 9 images on a single sheet of paper. Images can be printed as multiples of the same image or a combination of different images in creative print mode. It also features Image enlargement/reduction/movement (rotation in 90° increments/180° rotation).
SONY

MEMORY STICK

Media Storage Cards for DV Camcorders

Ultra-compact, light, reliable and easy to handle, Memory Stick lets you record different types of digital content and share and exchange them among the widest possible variety of products.

A wide variety of digital content, from photos and computer data to music and moving images, can be stored on a single stick. Memory Stick also offers a reliable copyright protection environment so that users can securely record copyrighted content and at the same time, the rights of copyright holders are protected. Versatile, compatible and user-friendly – Memory Stick is the portable memory of choice for anyone for enjoying digital content anywhere, any time. And with the flexibility to readily allow data sharing and exchange among an extensive range of hardware, Memory Stick networks are expanding throughout the world.

And with rapid advancement towards the broadband era and fast-evolving hardware/software bringing us advanced applications such as real-time recording of high-resolution moving images on memory cards, Memory Stick is already there. Taking advantage of its expandability and benefiting from technical innovations, Memory Stick continues to evolve and diversify its lineup to open a new world of possibilities.

Inside the Memory Stick’s elegant plastic housing, a tiny microcontroller connects to a flash memory chip on one end, while on the other end, a 10-pin flat-contact connector with guide grooves on the Memory Stick’s underside ensures reliable data exchange up to a million times. Because data is contained on a silicon chip, no magnetic head or optical pickup is necessary. This allows them to be smaller, lighter and more efficient. Memory Stick’s RAM holds data for an indefinite period and withstands heat, dust and rough handling. Memory Stick provides instant data transfer, and data can be recorded, erased and re-recorded.

The Memory Stick Advantage:

Perfect Size and Shape
Similar in appearance to a stick of gum, its length is about the same as that of an AA battery used in small portable devices such as headphone players. The shape of Memory Stick is ergonomically designed for easy handling. And, unlike other flash memory cards, it is easy to distinguish the front from the back and the top from the bottom of a Memory Stick to prevent misuse or accidental loss of data. Its small size also allows development of compatible products such as readers, writers and adapters that are compact and portable.

By attaching an adapter, the compact Memory Stick Duo media designed especially for mobile products becomes the same size as a standard Memory Stick.

High Reliability
Memory Stick is highly resistant to shock and vibration due to its solid-state construction with no moving parts. The connector unit and pins have special features that ensure highly reliable exchange of data while the shape of Memory Stick makes it easy to insert into other products.

• Has only 10 pins with longer lengths to ensure more reliable exchange of data.
• Thanks to the slanted guide grooves, dust is automatically removed when a Memory Stick is inserted into the slot.
• By simply sliding the erasure prevention switch on the back of each Memory Stick (not on Memory Stick Duo and PRO Duo), users can prevent accidental loss of important content and data.

Content Versatility
Memory Stick defines a variety of application formats to allow seamless sharing and exchange of data among compatible products of different manufacturers.

When recording data to a Memory Stick media using a compatible device, a folder is automatically created in accordance with the data type and format. That’s why various types of digital content can be stored on a single media, without the user having to pay attention to file format or folder structure.

As Memory Stick applications expand to a wider variety of areas, automatically recordable data categories are also increasing. They are recorded so as not to affect the data already stored on the media.
Memory Stick Line-up

**Memory Stick**
The original Memory Stick, it provides a convenient way to store personal data and content. It can be used widely for digital images, MPEG movies, audio data, in-car applications and business data.

- MSA-32A 32MB Memory Stick
- MSA-64A 64MB Memory Stick
- MSA-128A 128MB Memory Stick
- MSA-256A 256MB Memory Stick

**Memory Stick (with Media Select Function)**
Developed to provide a higher capacity solution, while maintaining a high level of compatibility with a wide range of products. Incorporates multiple memory units to allow data categorization. For personal content and data only.

- MSA-128S2 256MB (2 x 128MB) Memory Stick

**Memory Stick PRO**
Memory Stick PRO offers high capacity and fast data transfer. For example, Memory Stick PRO media enables real-time recording of high-resolution video. It also enables many other progressive solutions for the broadband era in a reliable and secure environment.

- MSX-256 256MB Memory Stick PRO
- MSX-512 512MB Memory Stick PRO
- MSX-1G 1GB Memory Stick PRO

**Memory Stick PRO Duo**
Compact media designed for mobile applications in the broadband era. Provides the great features and expandability of the Memory Stick PRO format, including the ability to record high-resolution moving images in real time. Via adapter, it can also be used in products compatible with standard-size Memory Stick media.

- MSX-M256A 256MB Memory Stick PRO Duo
- MSX-M512A 256MB Memory Stick PRO Duo

**MEMORY STICK READER / WRITERS**

**MSAC-PC3 Memory Stick PC Card Adapter**
The MSAC-PC3 allows you to read and write Memory Stick media from a standard PC card slot allowing use in millions of Windows and Macintosh laptop computers. File transfer rate of up to 6.4 MB per second .......................................................... 59.95

**MSAC-US20 Memory Stick /Reader/Writer**
Writes and reads Memory Stick to a USB port, allowing you to transfer data between Memory Stick and USB-equipped computers. USB 1.1 and USB 2.0 compatible. Supports Memory Stick, Memory Stick Pro, and Memory Stick PRO Duo media. Includes SonicStage software (Windows) and 2 USB cables (1 meter cable and 10 cm cable) .......................................................... 49.95

**MSAC-US30 Dual-Slot Memory Stick /Reader/Writer**
The MSAC-US30 features a dual slot that accepts both standard-size Memory Stick and Memory Stick Duo. When used with a USB 2.0-enabled PC, the device can read Memory Stick PRO media at speeds of up to approximately 4.4MBps .......................................................... Call

**MSAC-US70 Memory Stick /Reader/Writer**
Now you can enjoy the benefits of a high precision optical mouse and read/write Memory Stick capability! Features a unique new design, precise clicking, longer durability and the ability to read and write Memory Stick media to a USB Port. It even has Magic Gate compatibility, allowing you Atrac3 support to access secure music files. USB 1.1 and USB 2.0 compatible. Includes SonicStage software (Windows) .......................................................... 59.95
Digital8 Video Walkman VCRs

The GV-D200 and GV-D800 are compact and portable Digital8 Video Walkmen for playing, recording and editing your Digital8 tapes. Both offer 20-segment assemble editing, without the need for a PC or a professional studio. In addition they offer analog input (composite and S-Video) with analog-to-digital conversion and pass through—as well backward compatibility with 8mm/Hi8 tapes. They also feature i.LINK (IEEE1394) input and output, 16-bit or 12-bit PCM audio with audio dubbing, frame advance, crystal-clear Still and Slow Motion and 2x playback/2x playback zoom. For added convenience they incorporate Sony’s Super LaserLink Wireless Transmitter System. Identical in every respect, the GV-D800 adds a 4” 123,000 pixel active matrix color LCD monitor and built-in stereo speakers for on-the-spot, on-the-go viewing.

Features

High Quality Video
- Digital8 format offers up to 500 lines of horizontal resolution and high S/N ratio to provide stunning video performance.
- Digital Noise Reduction circuit reduces video noise by up to 20 percent.
- Digital TBC (Time Base Corrector) eliminates jitter and distortion for high quality, playback with natural colors.

Audio
- Record either 12- or 16-bit PCM digital stereo audio. 16-bit mode produces CD quality audio on one set of stereo tracks, while the 12-bit mode creates two sets of stereo tracks, allowing audio dubbing or narration on the second track.

Editing
- Built-in Assemble Editor lets you mark cut-in and cut-out points for up to 20 separate scenes. Use the Walkman as your source VCR, while controlling almost any remote capable VCR, via Infrared as your recorder.
- Crystal clear still/slow motion and frame-by-frame advance, make it easy to find the perfect frame on the fly.
- Index Titler lets you create custom titles (22 characters), 2 sizes, 7 colors, 9 positions, or choose from eight preset titles.
- LANC terminal for using them as source players in an editing setup.

Inputs and Outputs
- i.LINK (IEEE1394) input/output lets you edit or dub between another Digital8 or DV Walkman, DV or Digital8 camcorder, DV VCR or DV-equipped PC, with virtually no generational loss.
- In addition to DV interface, they feature composite (RCA) and S-Video input and output for compatibility with analog equipment.
- Analog input with digital conversion and pass through means you can input an analog composite or S-Video signal through the decks and they will instantly convert it to i.LINK (IEEE1394) for downloading, for example, to a DV-equipped computer.

Playback Modes
- Various playback modes include:
  - Picture Search: To locate a scene while searching the picture
  - Skip Scan: To monitor the high speed picture at high speed while advancing or rewinding the tape.
  - 2X Playback: To view the picture at double speed (in forward and reverse)
  - Frame Advance: Frame by frame playback in forward or reverse.
  - Playback Zoom: You can enlarge (up to 2X) moving and still images played back on tape. Zoom into selected areas for a superb editing option.

Conveniences
- Backward compatible allows for Hi8 and 8mm tape playback.
- They are fully functional VCRs, so videos can be viewed and enjoyed with any TV.
- Headphone jack for private listening capability.
- Three Search modes: by Index, Date or Photo.
- Super LaserLink lets you beam video to the TV from up to 26’ away for easy playback (requires optional IFT-R20 receiver).
- For true portability, they can run for up to 13 hours on a single optional NP-F960 Lithium-ion battery. Exclusive AccuPower meter continually displays the battery time remaining, in minutes.
- You can apply special effects (Neg. Art, Sepia, Monotone, Flash Motion, Trail and Luminance Key) on playback.
- You can also playback a still image and superimpose it on a moving image. (Note you cannot then record images digitally processed images onto another VCR.

GV-D800 Step-up Features

The GV-D800 incorporates a 4” color active matrix LCD screen and built-in stereo speakers, providing outstanding images and sounds that can be enjoyed in the palm of your hand.
DV Video Walkman/VCR

The GVD-1000 is a compact and portable DV Video Walkman for playing, recording and edit your DV footage. Use mini DV cassettes and Memory Stick images or MPEG videos to put together a visual story. You can edit or playback movies anywhere, any time - even through your PC. Edit your still or moving videos with USB Image Capture and ImageMixer software, one of Sony’s latest digital editing functions. The GVD-1000 makes it easier than ever to edit as a side-by-side companion to your mini DV camcorder. Or you can use the GVD-1000 as a VCR and connect to any television to playback your videos. Incorporates a 4” LCD monitor for clear, crisp color images, with a built in stereo speaker.

FEATURES

• 4” LCD display provides excellent viewing clarity with improved resolution. The 123,000 pixel LCD rotates for multiple viewing angles providing sharp detailed images for monitoring or playback.

• Capture 640 x 480 still images from videotapes, analog inputs or digital video i.LINK input, directly onto Memory Stick media. The images can be easily transferred to PCs for emailing, printing or sharing with family and friends.

• Capture MPEG1 video with audio directly to Memory Stick media. Shoot an MPEG1 Movie “on location” or select up to 60 seconds from your recorded videotapes.

• Video Email mail mode (160 x 112) is ideal for sharing videos via the Internet.

• Use the Presentation Mode (320 x 240), to increase the resolution for greater detail.

• Stay connected with family and friends by broadcasting prerecorded videos with audio, via the Internet with the USB interface. It’s like having your own video conferencing system.

• Standard composite video inputs allows you to record previous recorded video on MiniDV tape.

• Convert and/or record any analog NTSC video source to digital video via the analog inputs. Analog NTSC video can also be passed-through the digital Handycam camcorder directly into a PC via the i.LINK interface in real time for easy PC editing of your analog footage.

• 16-Bit PCM Digital Stereo offers the same, outstanding sound quality as CD. 12-bit recording enables you to add an additional audio track with compatible audio dubbing equipment or i.LINK interface/connector compatible computers.

• Standard Play offers up to 60 minutes of digital recording, or Long Play for up to 90 minutes, on one MiniDV cassette.

• Digital Program Editing allows you to select a sequence of 20 scenes and then control dubbing via i.LINK interface to another i.LINK camcorder, via infrared remote to an analog VCR. Controls both Sony and other brand camcorders and VCRs.

• USB interface is an easy way to connect the GVD-1000 to computers for fast transfer of digital images and MPEG1 movies.

• While playing back your images you can them by zooming in (up to 2x) and cropping your picture (up, down, left, right). You can save the new image as a separate file. Resize lets you save a copy of an image to a smaller or larger file size.

• Digital video provides noise free playback in slow motion and in the pause mod for detailed playback.

• Index Titler allows an updateable title to be stored on a DV cassette IC chip and accessed using the GVD-1000 data code.

DSRM-E1

Edit Controller for GV-D800/GV-D1000

Use the GV-D800 or GV-D1000 with the optional DSRM-E1 Edit Controller and a Sony DV camcorder, and you can configure an editing system to perform simple edits in the field, or while in transit between locations.

• Built-in jog/shuttle dial

• Assemble editing with up to 99 events x 4 programs

• Connects directly to the GV-D800 or GV-D1000 via 20-pin connector
Section 2
Camcorder Accessories

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**VARIZOOM**

**VZ-TFT SERIES**

**Active Matrix LCD Video Monitors**

VariZoom’s VZ-TFT series monitors serve two purposes. First, they function as an external video display, allowing you to step back from the camera while recording (no more bending over to peek through a tiny viewfinder). Second, combined with a tripod-mounted camera and a VariZoom lens controller, they can emulate a studio-style rig costing thousands of dollars. Used on a hand-held camera, a VZ-TFT monitor lets you walk around with ease while accurately framing shots. Additionally, it is a highly compact and affordable alternative to bringing a conventional CRT video monitor into the field for video playback. Use them to review footage on an airplane or any other small space. Mounted on or near the camera, they provide instant playback of footage for small groups. For those who want audio monitoring and playback, the VZ-TFT-4 has a built-in speaker.

- Large, bright active matrix display has wide viewing angle
- TFT Technology means no blurring/strobing of the video image as commonly found on conventional Dual-Scan displays
- Controls to adjust color, and brightness
- Optional swivel-mount threads into monitor’s bottom side, attaches to camera accessory shoe position at any angle
- Clean body style on all four sides of the VZ-TFT allows use of the optional VZ-HD-56 sun hood.

**VZ-TFT SERIES PRICING**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>VZ-TFT-4</td>
<td>4” TFT Monitor with A/V cables and power supply</td>
<td>199.95</td>
</tr>
<tr>
<td>VZ-TFT-CB4</td>
<td>Same as above plus case, straps and VZ-702M Li-ion battery kit</td>
<td>274.95</td>
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<tr>
<td>VZ-TFT-4</td>
<td>4” TFT ‘PAL’ Monitor with A/V cables and power supply</td>
<td>209.95</td>
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<tr>
<td>VZ-TFT-CB4P</td>
<td>Same as above plus case, straps and VZ-702M Li-ion battery kit</td>
<td>284.95</td>
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<tr>
<td>VZ-TFT-5.6</td>
<td>5.6” TFT Monitor (NTSC/PAL with video cable and power supply)</td>
<td>274.95</td>
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<tr>
<td>VZ-TFT-CB</td>
<td>Same as above plus case, straps and VZ-702M Li-ion battery kit</td>
<td>329.95</td>
</tr>
<tr>
<td>VZ-TFT</td>
<td>Same as above plus swivel shoe camera mount and VZ-HD-56 hood</td>
<td>349.95</td>
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</tbody>
</table>

**EXTENDED PROTECTION PLAN**

**COVERS ALL PARTS AND LABOR PAST MANUFACTURER’S WARRANTY**

B&H Photo-Video offers the Mack warranty – an extension of the manufacturer’s normal warranty on the equipment for an additional period of up to four years. Your video equipment will be guaranteed to operate properly according to manufacturer’s specifications or it will be repaired at no charge to you (this includes parts and labor and head replacement when necessary).

**DV Camcorders**

<table>
<thead>
<tr>
<th>Warranty Level</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>2 Year</td>
<td>$44.95</td>
</tr>
<tr>
<td>4 Year</td>
<td>$59.95</td>
</tr>
</tbody>
</table>

Dropped, misused, water, sand, or impact damaged equipment not covered.

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**ONE HOUR FREE PARKING**

AT 349 W. 34th STREET (with purchase of $100 or more)
### POWER 2000

#### LITHIUM-ION BATTERIES

**Power 2000 Batteries and Accessories**

Vidpro has a 50-year history of manufacturing superior quality and reliable batteries and accessories for the video industry. Power 2000 batteries are meticulously crafted and assembled using the highest quality components in state-of-the-art facilities. The batteries use only top-grade matched cells and are triple tested under the most stringent standards. This assures you of long-lasting and unsurpassed performance. All Power 2000 Li-ion Batteries have a two-year warranty.

#### Replacement Lithium-Ion (Li-ion) Batteries for Sony

<table>
<thead>
<tr>
<th>Battery Code</th>
<th>Description</th>
<th>Price</th>
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<tr>
<td>ACD-601L</td>
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<td>ACD-602L</td>
<td>Replaces NP-F750L</td>
<td>$49.95</td>
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<td>ACD-607L</td>
<td>Replaces NP-F60L</td>
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<td>ACD-701L</td>
<td>Replaces NP-FM50</td>
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<td>ACD-702L</td>
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<td>ACD-703L</td>
<td>Replaces NP-QM91</td>
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<tr>
<td>AC-7000</td>
<td>AC/DC Fast Charger for ACD-600/700 series batteries</td>
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<td>ACD-690L</td>
<td>Replaces NP-FF70</td>
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<td>QC-103</td>
<td>AC/DC Fast Charger for ACD-690</td>
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<tr>
<td>DAC-SONY</td>
<td>AC Adapter for Sony cameras using NP-F or NP-QM batteries</td>
<td>$29.95</td>
</tr>
</tbody>
</table>

#### Canon Replacement Lithium-Ion (Li-ion) Batteries

<table>
<thead>
<tr>
<th>Battery Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACD-605</td>
<td>Replaces BP-915</td>
<td>$29.95</td>
</tr>
<tr>
<td>ACD-606</td>
<td>Replaces BP-930</td>
<td>$49.95</td>
</tr>
<tr>
<td>ACD-625</td>
<td>Replaces BP-945</td>
<td>$59.95</td>
</tr>
<tr>
<td>AC-7000</td>
<td>AC/DC Fast Charger for above</td>
<td>$34.95</td>
</tr>
<tr>
<td>ACD-674</td>
<td>Replaces BP-511</td>
<td>$34.95</td>
</tr>
<tr>
<td>ACD-675</td>
<td>Replaces BP-522</td>
<td>$49.95</td>
</tr>
<tr>
<td>ACD-685</td>
<td>Replaces BP-535</td>
<td>$69.95</td>
</tr>
<tr>
<td>QP-7600</td>
<td>AC/DC Fast Charger for above</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-676</td>
<td>Replaces BP-408</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-677</td>
<td>Replaces BP-412</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-678</td>
<td>Replaces BP-422</td>
<td>$59.95</td>
</tr>
<tr>
<td>QP-8300</td>
<td>AC/DC Fast Charger for above</td>
<td>$29.95</td>
</tr>
<tr>
<td>ACD-693</td>
<td>Replaces BP-2L12</td>
<td>$49.95</td>
</tr>
<tr>
<td>QC-9100</td>
<td>AC/DC Fast Charger for ACD-693</td>
<td>$39.95</td>
</tr>
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</table>

#### Panasonic Replacement Lithium-Ion (Li-ion) Batteries

<table>
<thead>
<tr>
<th>Battery Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACD-628</td>
<td>Replaces CGR-D08</td>
<td>$34.95</td>
</tr>
<tr>
<td>ACD-629</td>
<td>Replaces CGR-D16</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-682</td>
<td>Replaces CGR-D28</td>
<td>$59.95</td>
</tr>
<tr>
<td>QP-8700</td>
<td>AC/DC Fast Charger (for the above batteries)</td>
<td>$29.95</td>
</tr>
<tr>
<td>AC-7000</td>
<td>AC/DC Fast Charger for ACD-600/700 series batteries</td>
<td>$34.95</td>
</tr>
<tr>
<td>ACD-697</td>
<td>Replaces CGR-DU07(800 mAh)</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-695</td>
<td>Replaces CGR-DU14 (1600 mAh)</td>
<td>$59.95</td>
</tr>
<tr>
<td>ACD-696</td>
<td>Replaces CGA-DU21 (2400 mAh)</td>
<td>$79.95</td>
</tr>
<tr>
<td>QC-107</td>
<td>AC/DC Rapid Charger (for the above batteries)</td>
<td>$29.95</td>
</tr>
</tbody>
</table>

#### JVC Replacement Lithium-Ion (Li-ion) Batteries

<table>
<thead>
<tr>
<th>Battery Code</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACD-668</td>
<td>Replaces BN-V408U</td>
<td>$34.95</td>
</tr>
<tr>
<td>ACD-669</td>
<td>Replaces BN-V416U</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-670</td>
<td>Replaces BN-V428U</td>
<td>$59.95</td>
</tr>
<tr>
<td>QP-8600</td>
<td>AC/DC Rapid Charger (for the above batteries)</td>
<td>$29.95</td>
</tr>
<tr>
<td>AC-7000</td>
<td>AC/DC Fast Charger for ACD-600/700 series batteries</td>
<td>$34.95</td>
</tr>
<tr>
<td>ACD-684</td>
<td>Replaces BN-V114, (2000 mAh)</td>
<td>$59.95</td>
</tr>
<tr>
<td>ACD-628</td>
<td>Replaces BN-V507U</td>
<td>$39.95</td>
</tr>
<tr>
<td>ACD-621</td>
<td>Replaces BN- V514 (2400 mAh)</td>
<td>$54.95</td>
</tr>
<tr>
<td>QP-8400</td>
<td>AC/DC Rapid Charger (for the above batteries)</td>
<td>$29.95</td>
</tr>
<tr>
<td>ACD-683</td>
<td>Replaces BN-V107 (1000 mAh)</td>
<td>$49.95</td>
</tr>
</tbody>
</table>
20 & 40-watt Switchable Light with Compact Battery

A neat little light set up ideal for general purpose lighting. Runs for 35 minutes at 40 watts and 75 minutes at 20 watts on the supplied 6v rechargeable lead acid battery. Battery recharges in 8 hours with BC-665 overnight charger. Two slide switches are located on the light for easy control. Two barn doors and universal shoe mount also included.

KLK-624 light with battery, charger and two 20 watt bulbs ...........................................69.95
KLK-624D same as above plus adds a diffusion filter to reduce unwanted glare ............79.95

PT-104 12-Volt Battery Tester
Digital read out with LED range indicator, Swivel display head. Accurate to within 1/10 volt. Use Y-21 to hook up in-line with your 12v battery ..........................14.95

NMH-54 Compact Clip-on 12v NiMH Battery Packs

A memory and maintenance-free NiMH (Nickel Metal Hydride) battery, the NMH-54 uses environmentally-friendly Panasonic cells for consistently long run times over the life of the battery. The ultimate answer in lightweight comfort, the NMH54 "Sidekick" is also available in a 4-pin XLR version, making it ideal for the MPL-635 and MPL-645 lights.

◆ Size: 3.9 x 3 x 1.7”
◆ Run Time:
  - 10w: 5+ hours
  - 50w: 1 hour
◆ Weight: 1.2 lbs.
◆ Capacity: 4.5 amp hours
◆ Charge Time: 14 hours
NMH-54 ..................................................139.95
NMH-54XLR ............................................149.95

SLM-5 12v Slim Line Battery Packs

One of the smallest and most lightweight batteries, it can power a 50 watt light for almost an hour. Mounts on your waist via a military clip mounted on the backside.

Weight: 3.2 pounds.
Dimensions: 4.7 x 4 x 2”.
Capacity: 4.2ah 50 WH
Includes: Automatic Shut-Off Charger

SLM-5ATM with cigarette lighter socket ..........79.95
SLM-5XLRATM with 4-pin XLR connector ..........99.95

SLM-10/18 12v Slim Line Battery Belts

These easy-to-wear batteries are very comfortable, yet supply long lasting power. High rate Panasonic Starved Electrolyte cells, the same used in the 14v series, are used in the SLM series. Includes the ATM-PRB Automatic Shut-Off Charger. The charger is rated at 1 amp with LED indicator.

SLM-10ATM with cigarette lighter socket ..................159.95
SLM-10XLRATM with 4-pin XLR connector ............179.95
SLM-18ATM with cigarette lighter socket ...............239.95
SLM-18XLRATM with 4-pin XLR connector .............249.95

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Weight</th>
<th>Capacity</th>
<th>Charge Time</th>
<th>Run Time at 100W</th>
<th>Run Time at 50W</th>
<th>Run Time at 10W</th>
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</thead>
<tbody>
<tr>
<td>SLM-5ATM</td>
<td>4.7” x 4” x 2”</td>
<td>3.2 lbs.</td>
<td>4.3 amp hours</td>
<td>5 hours</td>
<td>35 min</td>
<td>50 min</td>
<td>5 hours</td>
</tr>
<tr>
<td>SLM-10ATM</td>
<td>2” x 2” x 26”</td>
<td>7.3 lbs.</td>
<td>8.6 amp hours</td>
<td>10 hrs.</td>
<td>1 hour</td>
<td>2 hours</td>
<td>10 hours</td>
</tr>
<tr>
<td>SLM-18ATM</td>
<td>4” x 4” x 26”</td>
<td>14 lbs.</td>
<td>17.2 amp hours</td>
<td>19 hours</td>
<td>2 hours</td>
<td>4 hours</td>
<td>25 hours</td>
</tr>
</tbody>
</table>
Bescor's Portable 12v Battery Packs are ideal for powering lights, camcorders, phones, computers, power tools or any device that will run from an automobile cigarette lighter. There are five portable shoulder battery packs including: the Half-Pint, the Mainstream, the ECO Pack, and the Excalibur. Each one includes a cigarette lighter output, an overnight charger, and each can be charged up to 1500 times.

### PRB-Series  Professional 12v Battery Belt
Similar to the 12v Shoulder Packs series (above), Bescor’s PRB-series provides premium power for heavy-duty draw applications like lighting. Each belt has a cigarette lighter output and is available with XLR output as well. Each belt also includes an overnight charger and can be charged up to 600 times.

<table>
<thead>
<tr>
<th>Model</th>
<th>AMPS</th>
<th>Weight</th>
<th>Dimensions (W x H x D)</th>
<th>Run-Time @10w</th>
<th>Run-Time @50w</th>
<th>Run-Time @100w</th>
<th>Charge Time</th>
<th>Price (with XLR, add $20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRB-7</td>
<td>7,200</td>
<td>5 lbs.</td>
<td>4” x 13 x 1.25”</td>
<td>6 hrs.</td>
<td>1 hr.</td>
<td>15 hrs.</td>
<td>74.95</td>
<td>129.95</td>
</tr>
<tr>
<td>PRB-9</td>
<td>9 amps</td>
<td>6 lbs.</td>
<td>4” x 6” x 2.5”</td>
<td>9 hrs.</td>
<td>1.8 hrs.</td>
<td>11 hrs.</td>
<td>64.95</td>
<td>99.95</td>
</tr>
<tr>
<td>PRB-12</td>
<td>12 amps</td>
<td>8.5 lbs.</td>
<td>4.5” x 13” x 2”</td>
<td>14 hrs.</td>
<td>2.4 hrs.</td>
<td>13 hrs.</td>
<td>89.95</td>
<td>129.95</td>
</tr>
<tr>
<td>PRB-15</td>
<td>14,400</td>
<td>11 lbs.</td>
<td>4.5” x 13 x 2.5”</td>
<td>13 hrs.</td>
<td>2-1/2 hrs.</td>
<td>1-1/4 hrs.</td>
<td>99.95</td>
<td>129.95</td>
</tr>
<tr>
<td>PRB-154</td>
<td>14,400</td>
<td>11 lbs.</td>
<td>4.5” x 26 x 1.25”</td>
<td>13 hrs.</td>
<td>2-1/2 hrs.</td>
<td>2 hrs.</td>
<td>129.95</td>
<td>129.95</td>
</tr>
<tr>
<td>PRB-20</td>
<td>20,000</td>
<td>16 lbs.</td>
<td>4.5” x 26 x 2”</td>
<td>20 hrs.</td>
<td>4 hrs.</td>
<td>20 hrs.</td>
<td>149.95</td>
<td>149.95</td>
</tr>
</tbody>
</table>

### NMH-90  Lightweight 12v NiMH Battery Belt for Lighting and Camera Power
A memory and maintenance-free NiMH (Nickel Metal Hydride) battery belt, the NMH-90 uses environmentally-friendly Panasonic cells for consistently long run times over the life of the battery. The ultimate answer in lightweight comfort, the NMH-90 is both low-profiled and comfortably lightweight. Also available in XLR version with a 4-pin XLR on a 6’ multiflex lead as well as cigarette socket (dual output) making it ideal for the MPL-635 and MPL-645 lights. It weighs 4 lbs., powers a 100 w light for 50 minutes, and a 50 w light for 2 hours. It charges in 8 hours.

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions (W x H x D)</th>
<th>Run-Time @10w</th>
<th>Run-Time @50w</th>
<th>Run-Time @100w</th>
<th>Charge Time</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMH-90</td>
<td>6.5 x 4.5 x 2.5”</td>
<td>6 hrs.</td>
<td>1 hr.</td>
<td>1/2 hr.</td>
<td>15 hrs.</td>
<td>259.95</td>
</tr>
<tr>
<td>NMH-90XLR</td>
<td>7.4 x 6 x 2”</td>
<td>9 hrs.</td>
<td>1.8 hrs.</td>
<td>45 min.</td>
<td>18 hrs.</td>
<td>269.95</td>
</tr>
</tbody>
</table>
Luxmen Studio
Broadcast DC Lights

The MPL-635 and MPL-645 are contemporary-styled lights that include an integrated universal shoe mount adapter and improved topside venting. They include a 5600°K dichroic filter for perfect daylight illumination. The hinged filter can be flipped down for normal 3200°K lighting and it also makes bulb replacement a snap. They include a 4-leaf barn door set that is completely adjustable and 6’ coiled power cable with 4-pin XLR connector.

▶ To satisfy most lighting conditions, the MPL-635 includes 2 bulbs, a 100 watt (FCR), and a 50 watt (BRL). An optional 35 watt bulb (JC12V35) is also available.

▶ For even more versatility, the MPL-645 adds a variable control that lets you adjust the light from 0 all the way to 50 watts. This also lets you conserve battery power by lowering your lights wattage requirement. A high pulse circuit helps maintain the bulb’s color temperature.

**MPL-635 Battery and Light Combo Kits**

- MK-7 MPL-635 Light and MM-7XLR Battery .................. 194.95
- MK-12 MPL-635 Light and PRB-12XLR Battery .......... 239.95
- MK-7ATM MPL-635 Light and MM-7XLRATM Battery .... 224.95
- MK-12ATM MPL-635 Light and PRB-12XLRATM Battery ...... 259.95
- MK-54 MPL-635 Light and NMH54XLR Battery .......... 269.95
- MK-10ATM MPL-635 Light and SLM10XLRATM Battery ..... 299.95

**MPL-645 Battery and Light Combo Kits**

- AK-7 MPL-645 Light and MM-7XLR Battery .................. 234.95
- AK-12 MPL-645 Light and PRB-12XLR Battery .......... 279.95
- AK-7ATM MPL-645 Light and MM-7XLRATM Battery .... 264.95
- AK-12ATM MPL-635 Light and PRB-12XLRATM Battery ...... 299.95
- AK-54 MPL-635 Light and NMH54XLR Battery .......... 309.95
- AK-10ATM MPL-635 Light and SLM10XLRATM Battery ..... 359.95

**A/C and D/C Lighting with Soft Diffuser**

- Compact precision molded light
- Twin vertical barn doors
- Soft Diffuser Filter

 VS-100AC Includes 100 watt A/C bulb ............ 39.95
 VS-150AC Includes 150 watt A/C bulb ............ 42.95
 VS-50 Includes DC adaptor and 50 watt 12v D/C bulb .......... 39.95

 VS-65 Includes 100 watt A/C bulb, 50 watt D/C bulb and adaptor .......... 49.95

**A/C and D/C Commercial Flood Light**

- Front housing snaps off easily for quick bulb changes
- Adjustable 4-way barn doors
- Glass heat shield

 VL-203: Includes DC adapter and 12v 35w DC bulb .......................................................... 54.95
 VL-205: Includes DC adapter and 12v 50 watt DC bulb ......................................................... 59.95
 VL-210: Includes DC adapter and 12v 100 watt DC bulb ....................................................... 62.95

- Surface mounted on/off switch
- Excellent for ceiling bounce lighting
- 6’ straight cord with 120v AC plug

 VL-205AC: 100 watt AC and 50 watt 12v DC combo light. Includes - AC bulb - DC adapter - DC bulb .............................................................. 69.95
 VL-210AC: 100 watt AC and 100 watt 12v DC combo light. Includes - AC bulb - DC adapter - DC bulb .............................................................. 74.95
Vima Compact 12v DC Light

This light has all the features you would expect from a more expensive light—but at half the price. The reflector’s diameter has been increased 20% but the light itself measures only 3 x 3 x 3”. The front housing has 4 adjustable barn doors and removes easily with two tightening screws. Includes a 5600°K dichroic filter for perfect daylight illumination. To satisfy most lighting conditions, you can select from either a 35-, 50- or 100-watt bulb. The power cable is a 6’ coiled cord with 120v AC plug end.

MPL-325J:  
MPL-325 Light with 35-watt bulb and 12v DC Adapter plug...........$109.00

MPL-325B:  
MPL-325 Light with 50-watt bulb and 12v DC Adapter plug...........$104.00

MPL-325F:  
MPL-325 Light with 100-watt bulb and 12v DC Adapter plug...........$109.00

MPL-325BAC:  
MPL-325 Light with 50-watt bulb, 12v DC Adapter plug, and 100-watt 120v AC bulb ...................................................................................$119.00

MPL-325AC1:  
MPL-325 Light with 100-watt 120v AC bulb.................................$104.00

MPL-325AC2:  
MPL-325 Light with 150-watt 120v AC bulb ...............................$109.00

Self-Contained Lighting Solutions

KLK-35/KL-36
20-watt Lights with On-board Battery Pack

Consisting of the compact VL-30 20-watt light, the lightweight (14 oz.) KLK-35 accepts BP-975XT rechargeable nicad batteries which mount on the light and powers it for up to 22 minutes. Includes 20-watt bulb, BP-975XT battery and 7-hour battery charger..............$39.95

The KLK-36 is the same as above except it uses the rechargeable BP-98NMH (Nickel Metal Hydride) battery which mounts on the light and powers it for up to 60 minutes. Includes 20-watt bulb, BP-98NMH battery and 14-hour overnight battery charger ..........$64.95

KLK-10/KL-20
Compact 10- and 20-watt Lights with Integrated Battery

The KLK-10 is a compact and lightweight 7.4 oz. 10-watt light that has a 900 mAh 6v NiMH internal fit battery that allows it to run for up to 30 minutes. Includes a 10-watt halogen bulb and 4-hour charger..........................................................$34.95

The KLK-20 is the same as above except it comes with a 20-watt bulb which runs for up to 15 minutes on a charge. Also includes 4-hour charger..................................................$39.95

KLK-3
3-watt Miniature Light with Rechargeable AAA Batteries

2.5” tall and weighing only 2.3 oz., the KLK-3 runs for up to 30 minutes on two rechargeable 800 mAh NiMH AAA batteries. Includes 3-watt bulb, 2 AAA rechargeable NiMH batteries and 4-hour charger ..............................................$19.95
Founded in 1938, Tiffen is the world's leading manufacturer of glass filters for Still, Video and Motion Picture/Television photography. Tiffen filters are the choice of movie and television producers around the world, and they are the only filter manufacturer honored with two Academy Awards for Technical Achievement, and an Emmy for Engineering Excellence. Tiffen filters are also unique in that they surpass U.S. Military standards and are used by NASA for space photography.

Tiffen filters are made by a unique laminate process developed and patented by Tiffen. The process is a result of two sheets of clear optical glass “fused” together with the use of a special bonding material, which incorporates an exact amount of color. Application of color in this manner is extremely controllable and is not affected by thickness of glass. The inner layer is extremely thin and has a similar refractive index as glass, thus producing similar optical properties as solid glass.

**UV Protector Filters**
Best lens protection against scratches, dust, dirt, moisture and fingerprints while reducing unwanted ultra-violet light.

**Circular Polarizing Filters**
Create dramatic color for high visual impact. Darken blue skies, saturate colors, reduce glare and reflections from water or glass by using a Tiffen rotating polarizer. Simply look through your viewfinder as you rotate the filter and stop when you see the desired effect.

**Fluorescent FL-D Filters**
Improve color and skin tones by eliminating the harsh green cast created by fluorescent light.

**Soft/FX Filters**
Make people look their best. Soft/FX #3 filters do a powerful job of diminishing fine details, smoothing out wrinkles and blemishes - yet the overall appearance remains sharp, even the eyes. They are also available in other densities. Ideal for people pictures.

**812 Filters**
Create flattering portraits through improved skin tones. 812 filters are warm tone filters designed to enhance skin tones without substantially affecting other colors in your scene. Ideal when using video lights, the 812 produces skin tones that are less pale and more attractive.

**Contrast Filters**
Create the look of film on video. Contrast filters reduce the harsh look of high contrast video, giving it more of the look of film. Available in several densities and two types, e.g. Low Contrast Medium #3 lightens shadow areas using the light in the scene.

**Neutral Density Filters**
Eliminate overly bright, washed out images. Neutral Density filters reduce the amount of light entering your lens without affecting contrast or color. ND.6 will reduce amount of light by 2 f-stops. They are also available in other densities which enable you to create properly exposed images regardless of setting or location.

<table>
<thead>
<tr>
<th>Filter Size:</th>
<th>30</th>
<th>30.5</th>
<th>37</th>
<th>43</th>
<th>46</th>
<th>49</th>
<th>52</th>
<th>58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circular Polarizer:</td>
<td>–</td>
<td>34.95</td>
<td>34.95</td>
<td>34.95</td>
<td>34.95</td>
<td>34.95</td>
<td>34.95</td>
<td>36.95</td>
</tr>
<tr>
<td>Fluorescent FLD:</td>
<td>14.50</td>
<td>14.50</td>
<td>14.50</td>
<td>14.50</td>
<td>14.50</td>
<td>14.50</td>
<td>14.50</td>
<td>18.15</td>
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<tr>
<td>Low contrast #3:</td>
<td>27.95</td>
<td>27.95</td>
<td>27.95</td>
<td>27.95</td>
<td>27.95</td>
<td>27.95</td>
<td>27.95</td>
<td>34.95</td>
</tr>
<tr>
<td>Soft FX #3:</td>
<td>–</td>
<td>–</td>
<td>30.95</td>
<td>30.95</td>
<td>30.95</td>
<td>30.95</td>
<td>30.95</td>
<td>39.50</td>
</tr>
<tr>
<td>Star Effect 4pt, 2mm:</td>
<td>–</td>
<td>–</td>
<td>19.50</td>
<td>19.50</td>
<td>19.50</td>
<td>19.50</td>
<td>19.50</td>
<td>23.50</td>
</tr>
</tbody>
</table>
Hoya manufactures a full line of filters for video and photo. The difference between Hoya and other manufacturers is that Hoya filters have one layer of anti-reflective coating applied to each surface of the glass. Other manufacturers’ filters are bare glass, and bare glass can reflect as much as 9% of the light hitting it. This greatly increases the risks of flare and ghosting.

Each Hoya filter is the result of research, know-how and complete precision facilities backed by full quality control. Before production starts, controls are first programmed into a computer. Then the finest materials are carefully mixed by an automatic V-blender for absolute uniformity. After being molded with highly sophisticated equipment, this material is then precision molded with automatic direct pressing equipment. The pressed blanks are next slowly and continuously cooled to remove strain, and are then polished by high-speed, double-surface polishing machines that assure precise surface quality.

Next is the coating process which improves the filter’s light transmission ability. And the transmission characteristics are checked by Spectro-Phometer, after which an ultrasonic cleaner removes all foreign matter from the surface. Only after passing all of Hoya’s quality tests are the filters assembled, finished and made ready for shipment throughout the world.

<table>
<thead>
<tr>
<th>Filter Size:</th>
<th>30</th>
<th>30.5</th>
<th>37</th>
<th>43</th>
<th>46</th>
<th>49</th>
<th>52</th>
<th>58</th>
</tr>
</thead>
<tbody>
<tr>
<td>UV Haze:</td>
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<td>–</td>
<td>19.95</td>
<td>19.95</td>
<td>19.95</td>
<td>9.95</td>
<td>9.95</td>
<td>11.95</td>
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<tr>
<td>Circular Polarizer:</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>28.95</td>
<td>29.95</td>
<td>29.95</td>
<td>34.50</td>
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<tr>
<td>Fluorescent FLD:</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>14.95</td>
<td>14.95</td>
<td>14.95</td>
<td>17.95</td>
</tr>
<tr>
<td>Neutral Density ND 4x:</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>20.95</td>
<td>14.95</td>
<td>14.95</td>
<td>14.95</td>
<td>17.95</td>
</tr>
<tr>
<td>Soft A:</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>25.50</td>
<td>25.50</td>
<td>28.50</td>
</tr>
<tr>
<td>Soft B:</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>25.50</td>
<td>25.50</td>
<td>28.50</td>
</tr>
<tr>
<td>Star 6/8:</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>20.95</td>
<td>20.95</td>
<td>23.95</td>
</tr>
</tbody>
</table>

Today, filters are an integral part of the multifaceted photographic process. They can alter light to create desired moods, give colors a new vibrancy, enhance contrast, balance light to film, and make visible that which is invisible to the eye. Special effect filters become creative tools which allow full expression of the photographer’s imagination.

Filters fulfill the diverse needs of the most demanding professional photographers and meet the high standards of still-photography, video and precision technology. B&W filters use German Schott optical glass and brass mounting rings.

B&W, a division of of Schneider Optics, benefits the photographer and videographer with a half century of experience in the high quality filter manufacturing field.

<table>
<thead>
<tr>
<th>Filter Size:</th>
<th>30</th>
<th>30.5</th>
<th>37</th>
<th>43</th>
<th>46</th>
<th>49</th>
<th>52</th>
<th>58</th>
</tr>
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<tbody>
<tr>
<td>UV Haze:</td>
<td>24.95</td>
<td>24.95</td>
<td>24.95</td>
<td>24.95</td>
<td>19.50</td>
<td>15.50</td>
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<td>Circular Polarizer:</td>
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<td>67.10</td>
<td>81.40</td>
<td>75.90</td>
<td>70.50</td>
<td>59.50</td>
<td>59.95</td>
<td>59.50</td>
</tr>
<tr>
<td>Fluorescent FLD:</td>
<td>–</td>
<td>36.95</td>
<td>46.20</td>
<td>37.40</td>
<td>29.95</td>
<td>29.75</td>
<td>34.25</td>
<td>38.50</td>
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<tr>
<td>Neutral Density .6 (102):</td>
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<td>24.20</td>
<td>20.90</td>
<td>19.95</td>
<td>17.50</td>
<td>18.75</td>
<td>20.95</td>
</tr>
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<td>–</td>
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<td>33.00</td>
<td>30.95</td>
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<td>33.00</td>
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<tr>
<td>Cross Screen 8x:</td>
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<td>–</td>
<td>–</td>
<td>38.50</td>
<td>35.25</td>
<td>33.00</td>
<td>30.95</td>
<td>38.50</td>
</tr>
</tbody>
</table>
Wide Angle and Telephoto Video Lenses

The smaller size and higher resolution of today’s camcorders demand the highest quality optics. Part of the THK family (Tokina, Hoya, Kenko), Kenko incorporates optical technology and manufacturing techniques from two giants of the photo industry—Tokina lenses and Hoya filters—to deliver that quality. So when you purchase a Kenko lens, you can be assured it was made with the most advanced design and fabrication technologies available today. All Kenko lenses are manufactured to precise standards and have been subject to stringent quality control inspections throughout the manufacturing process.

STANDARD SERIES

Made with all glass optics and either metal or polycarbonate barrel material, the Standard Series is designed to give you quality optics for your video camera at the lowest possible price.

<table>
<thead>
<tr>
<th></th>
<th>KUW-042</th>
<th>SGW-043</th>
<th>SGW-05</th>
<th>SGT-20</th>
<th>KNW-038</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification</td>
<td>0.42x</td>
<td>0.43x</td>
<td>0.5x</td>
<td>2.0x</td>
<td>0.38x</td>
</tr>
<tr>
<td>Lens Construction</td>
<td>3E/3G</td>
<td>3E/3G</td>
<td>2E/2G</td>
<td>2E/2G</td>
<td>3E/3G</td>
</tr>
<tr>
<td>Mount Thread</td>
<td>46mm</td>
<td>37mm</td>
<td>37mm</td>
<td>37mm</td>
<td>58mm</td>
</tr>
<tr>
<td>Adapter Rings included</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Front Filter Thread</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Length</td>
<td>2”</td>
<td>1.4”</td>
<td>1.25”</td>
<td>1.2”</td>
<td>1.8”</td>
</tr>
<tr>
<td>Weight</td>
<td>4.9 oz.</td>
<td>4.1 oz.</td>
<td>2.5 oz.</td>
<td>2 oz. (54g)</td>
<td>7 oz. (140g)</td>
</tr>
</tbody>
</table>
KENKO CAMCORDER LENSES

**KNW-038**

KNW-038 can more than double your camera's widest zoom setting, get more than twice as much area in your video. Get much more of the room in interior shots, capture more of the view in scenic shots. The KNW-038 uses optical glass elements for great picture quality. This lens has a 52mm mount.

KNW-038 ................................................................. 79.95

**KVC-20**

A telephoto converter magnifies the focal length of the camera to bring everything closer. The KVC-20 increases the focal length of your camcorder's lens by 2X, bringing things twice as close, throughout the zoom range.

KVC-20 ................................................................. 64.95

**KVC-05**

The KVC-05 widens the angle of view by multiplying the focal length of the video camera by 0.5 times. This will double the angle of view, making it an excellent lens for group or wedding videotaping.

KVC-05 ................................................................. 64.95

**KRW-075**

This 0.75x wide lens is a hi-grade, wide-angle converter that attaches easily and directly to any camcorder with 58mm filter thread. A stepping ring allows this lens to work DV camcorders having 52mm filter threads. It increases the angle of view by 33%, allowing the video digital camera to take in far more of a scene than normal. This lens is especially suitable for shooting interiors and large groups ................................. 84.95

**KNT-20**

This 2x telephoto lens features all glass optics that are coated to reduce reflections and flare. Elements are housed in an all-metal barrel that will stand up to years of use. The 52mm mount thread makes it well suited to bigger-sized camcorders, but it can be used with smaller ones when used with the appropriate step-up ring ................................. 84.95

**KUT-500**

A telephoto converter brings everything closer without using the camera's digital zoom feature which "pixelates" the image, making it less sharp. The 5x telephoto extends the focal length of camcorder by five times. Should be used at the upper end of the camera's optical zoom. If used at the wide-angle end, severe vignetting will occur ................................. 114.95

**MD205s**

This economical two-lens set is made up of the MD-05W 0.5x wide-angle lens and MD-20T 2.0x telephoto lens. The wide-angle lens allows you to get twice as much in your picture while the telephoto lens can bring distance subjects twice as close as the camera's zoom. Both use high quality optical glass elements and all-metal lens barrels for year of excellent quality video. The two lenses have 37mm mount thread and include 30.5mm and 30mm step-down rings. Silver finished aluminum barrels and high quality glass optics that are coated to guard against reflections and flare.

<table>
<thead>
<tr>
<th></th>
<th>KRW-075</th>
<th>KNT-20</th>
<th>KVC-20</th>
<th>KVC-05</th>
<th>KUT-500</th>
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<tr>
<td>Magnification</td>
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<td>2x</td>
<td>2.0x</td>
<td>0.5x</td>
<td>5x</td>
</tr>
<tr>
<td>Lens Construction</td>
<td>2E/2G</td>
<td>3E/3G</td>
<td>3E/3G</td>
<td>3E/3G</td>
<td>8E/5G</td>
</tr>
<tr>
<td>Mount Thread</td>
<td>58mm</td>
<td>52mm</td>
<td>clip-on mount ring w/46mm</td>
<td>37mm</td>
<td></td>
</tr>
<tr>
<td>Adapter Rings include</td>
<td>none</td>
<td>none</td>
<td>49mm/52mm</td>
<td>49mm/52mm</td>
<td>49mm/52mm</td>
</tr>
<tr>
<td>Front Filter Thread</td>
<td>67mm</td>
<td>67mm</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
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</tr>
<tr>
<td>Weight</td>
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<td>6 oz.</td>
<td>5.3 oz.</td>
<td>5.1 oz.</td>
<td>3.8 oz. (105g)</td>
</tr>
</tbody>
</table>
KENKO CAMCORDER LENSES

PRO SERIES

Designed for the advanced amateur or freelancer, or aspiring documentary videographer, the Kenko PRO series feature all multi-coated glass optics, durable all aluminum lens barrels including metal mount threads and front filter treads. This series encompasses lenses for the Sony DCR-VX2100 and Canon GL-2.

KUW 042 PRO
The KUW-042 PRO wide-angle conversion lens is designed for higher resolution DV camcorders. It widens the angle of view by multiplying the focal length of the video camera by 0.42X. This greatly increases the angle of view, making it ideal for group or wedding videotaping...........................................89.95

KRT-20 PRO
A 2.0x telephoto lens for full-sized digital video cameras. The KRT-20 PRO uses multi-coated optical glass for a sharp picture. A lightweight aluminum barrel makes the lens convenient to carry but able to hold up to frequent use.................................................................49.95

SGT-20 PRO
The 2.0x telephoto magnification brings things in twice as close as your camera's normal zoom! A super quality telephoto lens for compact video and digital video cameras having a 37mm mount thread. The SGT-20 PRO has crystal clear optical glass elements, which are multi-coated to reduce the chance of image ruining reflections...........................................84.95

VC-200 PRO
A tele converter brings everything closer. The VC-200 PRO telephoto extends the focal length of your camcorder's lens 2X, bringing things twice as close, throughout the zoom range .................................................................129.95

KAT-300 PRO
A super telephoto 3.0x lens designed for today's ultra-compact digital video cameras. Its high quality glass optics are coated to reduce reflections and yield improve video image. All metal lens barrels insure years for precise performance. .................................................................99.95

<table>
<thead>
<tr>
<th></th>
<th>KUW-042 PRO</th>
<th>KRT-20 PRO</th>
<th>SGT-20 PRO</th>
<th>VC-200 PRO</th>
<th>KAT-300 PRO</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.5x</td>
<td>2x</td>
<td>2x</td>
<td>3x</td>
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<tr>
<td>Lens Construction</td>
<td>3E/3G</td>
<td>5E/4G</td>
<td>3E/3G</td>
<td>3E/3G</td>
<td>3E/3G</td>
</tr>
<tr>
<td>Mount Thread</td>
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<td>58mm</td>
<td>37mm</td>
<td>49mm</td>
<td>30.5mm</td>
</tr>
<tr>
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<td>none</td>
<td>none</td>
<td>none</td>
<td>28mm/30mm</td>
</tr>
<tr>
<td>Front Filter Thread</td>
<td>none</td>
<td>none</td>
<td>52mm</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Length</td>
<td>1.8”</td>
<td>2.7”</td>
<td>1.5”</td>
<td>2.7”</td>
<td>2.0”</td>
</tr>
<tr>
<td>Weight</td>
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<td>10.0 oz.</td>
<td>3.1 oz.</td>
<td>7.7 oz.</td>
<td>4.1 oz.</td>
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</table>
Designed for the advanced amateur or freelancer, or aspiring documentary videographer, the Kenko PRO series feature all multi-coated glass optics, durable all aluminum lens barrels including metal mount threads and front filter treads. This series encompasses lenses for the Sony DCR-VX2100 and Canon GL-2.

**SGW-05 PRO**
Kenko SGW-05 Pro wide-angle video conversion lens is designed to be used with compact digital/video cameras that have higher resolution recording ability such as DV formats. The SGW-05 Pro widens the angle of view by multiplying the focal length of the video camera by 0.5 times. This doubles the angle of view, making it an excellent lens for group or wedding videotaping.

This lens features multi-coated optical glass lens elements. This reduces the possibility of flare and ghosting caused by light reflecting off the surfaces of the elements and reflecting back into the camera. The inner barrels have a matte-black finish to further reduce the chance of any internal reflections. All barrels and filter threads are made of molded and precision-milled aluminum for long life and lightweight.

**KNW-05 PRO II**
This top-quality 0.5x wide-angle video conversion lens is designed for cameras with higher resolution recording ability such as DV camcorders. This lens' high quality will match the optical performance of higher resolution formats. It has a wide, 52mm front filter thread for the addition of protective, color correction, special effects filters, or a wide-angle lens hood. All barrels and filter threads are made of molded and precision-milled aluminum for long life and lightweight.

**KRW-065 PRO II**
This top-quality 0.65x wide lens is a professional-grade, wide-angle converter that when attached, increases the angle of view by 70%, allowing the camera to take in far more of a scene than normal. Even with this wide angle of view, the KRW-065 PRO II has very little barrel distortion, so this lens is especially suitable for shooting interiors and large groups.

The KRW-065 PRO II attaches easily and directly to any camcorder with 58mm filter thread like the Canon GL-2 and Sony DCR-VX2100. A Kenko stepping ring allows this lens to work perfectly with digital video cameras having 52mm filter threads. All barrels and filter threads are made of molded and precision-milled aluminum for long life and lightweight.

<table>
<thead>
<tr>
<th>SGW-05 PRO</th>
<th>KNW-05 PRO II</th>
<th>KRW-065 PRO II</th>
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</thead>
<tbody>
<tr>
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<td>0.5x</td>
</tr>
<tr>
<td>Lens Construction</td>
<td>2E/2G</td>
<td>3E/3G</td>
</tr>
<tr>
<td>Mount Thread</td>
<td>37mm</td>
<td>52mm</td>
</tr>
<tr>
<td>Adapter Rings include</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Front Filter Thread</td>
<td>55mm</td>
<td>3.4˝ (85mm)</td>
</tr>
<tr>
<td>Length</td>
<td>1.25˝</td>
<td>2.1˝</td>
</tr>
<tr>
<td>Weight</td>
<td>2.5 oz.</td>
<td>8.8 oz.</td>
</tr>
</tbody>
</table>
Lens Accessories for Camcorders with 27-37mm Lens Fronts

Pros and advanced amateurs alike are discovering the convenience and capabilities of today's ultra-compact DV camcorders. Yet their adaptability to a wide range of difficult shooting situations is limited by the need for wide options in situations from extreme sports to crowded circumstances. Miniscule yet serious, Century's accessories extend the capabilities of these ultra-compact camcorders without straining your back or your back pocket. Unlike other adapters, these are high-quality optics with the quality you expect from Century. From high-performance glass coatings to durable alloy housings, they are built to the demanding expectations of pros. And pros are finding these cameras useful in difficult shooting circumstances where a full-size camera is impractical for getting that difficult shot.

Designed for the Sony DCR-PC Series, DCR-TRV950 and DSR-PDX10, Canon Elura, Optura and ZR series, and other DV camcorders with 27-37mm lens fronts, these add-ons lenses attach directly to the front of 37mm threaded camcorders, or attach via the supplied 27mm, 30mm & 30.5mm step-up rings. Optional 28mm & 34mm adapter rings are available as well.

**.55X Wide Angle Adapter**

**45% wider with partial zooming**

The .55X Wide Angle Adapter offers a lightweight single-element design that allows you to go substantially wider without noticeable distortion. This adapter nearly doubles the angle of view and it allows close focusing — right up to the lens front — on many camcorders. When this adapter is attached, angle of view is increased by 45%. Although technically a fixed wide angle adapter, the ability of many cameras to autofocus in macro mode allows this adapter to partially zoom at the wide angle end of the lens.

**.65X HR Wide Angle Converter**

**High resolution with full zoom capability**

A professional high resolution converter for camcorders with 37mm front threads like Sony DCR-PDX10 and TRV950. To get a wideangle of view with complete zoom-through capabilities, shooters can simply add the .65X HR Wide Angle Converter to the camera lens front, realizing about 35% wider angle of view across the zoom range, wide angle, telephoto, or anywhere in between.

Century offers creative solutions for all your DV camera needs. From wide angle adapters to dioptrers, fisheyes to matteboxes, they have attachments that will help you get the shot you’re looking for. All of their attachments are designed and manufactured to the highest possible standard of quality, using only the best components.
**16:9 Widescreen Adapter**

16:9 image without pixel loss

The promise of widescreen video is here — but it wasn’t for DV shooters using their in-camera DV widescreen switching. That’s because most switchable DV camcorders work by effectively masking the top and bottom of the chip — utilizing only 75% of the original scan lines — resulting in lost resolution and lost angle of view!

- Some switchable camcorders work by effectively masking the top and bottom of the chip, utilizing only 75% of the original scan lines which results in resolution loss. The anamorphic Wide Screen Adapter instead squeezes the 16:9 image onto the 4:3 chip, utilizing every pixel—for a higher resolution image. When viewed on a 16:9 monitor, the resulting image automatically spreads out to fill the frame.
- In-camera switching from 4:3 to 16:9 works by cropping into the existing frame (top and bottom), so the resulting widescreen view simply isn’t very wide. But Century’s anamorphic attachment can reach wider than the lens alone for a considerably more widescreen angle of view. The attachment is used with the camera in 4:3 mode. The resulting images appears vertically stretched in the viewfinder or on a 4:3 monitor. Yet when displayed on a 16:9 monitor, the image automatically spreads out to fill the frame.
- The 16:9 Widescreen Adapter permits partial zoom range on most camcorders

<table>
<thead>
<tr>
<th>Digital Series Lenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>DS-55WA-37</td>
</tr>
<tr>
<td>DS-HR65-37</td>
</tr>
<tr>
<td>DS-FEWA-37</td>
</tr>
<tr>
<td>DS-1609-37</td>
</tr>
<tr>
<td>DS-HR20-37</td>
</tr>
</tbody>
</table>

**New! Manual Focus System for the Panasonic AG-DVX100 and AG-DVX100A**

A precision manual focus system for the AG-DVX100 or DVX100A, this smart accessory features a user-markable white Delrin focus scale and witness mark that facilitates accurate and repeatable focusing. The unit simply clamp mounts over the 4.5-45mm lens’ existing focus scales. There is no lens modification required. The effective lock-out mechanism limits the lens’ focus range to 3’ to infinity with hard limit stops. Also includes and industry-standard pitch follow-focus gear to facilitate integration with popular professional cine-style follow-focus systems.
**CENTURY OPTICS**

**DIGITAL SERIES**

**Lenses for Standard-Size DV Camcorders**

The Digital Series is a family of high quality lenses designed for use on digital camcorders with smaller lens front diameters, like the Canon GL-1/2, JVC GY-DV300/GY-HD1, Sony DCR-TRV900, DCR-VX2000/2100, and the pro versions DSR-PD100/150/170. Also the DSR-200, DSR-200A, DSR-250. The lenses easily attach to the front of these camera’s non-interchangeable lenses via bayonet-style mount. Just disengage the factory lens shade, and with a quick twist, the lenses are locked on ready for action. 43-58mm step-up rings to accommodate smaller front lens diameters are also available.

**ACCESSORIES**

**.55X Wide Angle Adapter**

*45% wider with partial zooming*

Here’s a low-cost, high-quality wide angle solution. The .55X WA offers a single-element design of negligible size and weight. This adapter nearly doubles the angle of view and it allows close focusing – right up to the lens front – on many camcorders. When this adapter is attached, angle of view is increased by 45%. Although technically a fixed wide angle adapter, the ability of many cameras to autofocus in macro mode allows this adapter to partially zoom at the wide angle end of the lens.

**.55x Reversible Wide-Angle Adapter**

*Wide Angle Adapter & Fisheye in one*

The .55x Reversible Wide-Angle Adapter is a dual purpose lens accessory. When attached to the lens front in one direction, the .55x performs like Century’s other high quality wide-angle adapters, offering a significantly wider angle of view, with minimal distortion. When you want to go “wow-em” wide with a fisheye effect, simply remove the .55x optical element, flip it around, and thread it on the other way. Voila! It becomes a fisheye adapter. Oriented this way, the .55x provides a wider angle pronounced barrel distortion.

**.65x Lightweight Wide-Angle Converter**

*35% wider with full zoom capability*

A tool for capturing a wider angle of view while maintaining full zoom capabilities. The .65x Wide-Angle Converter attaches to the front of your zoom lens for 35% more coverage when set to wide-angle, telephoto, or anywhere in between. Available in popular bayonet and 58mm screw mount.

**2x Tele-Converter**

The 2X Tele-Converter is a front-mounting accessory that provides greater telephoto reach. Available in popular bayonet and 58mm screw mount, the 2X Tele-Converter instantly shifts the focal length range in the telephoto direction. Unlike typical rear-mounted telephoto extenders, the Century Tele Converter provides doubling of the indicated focal length (through the higher end of the zoom range) without light loss, along with front-mounting convenience.

**3x Ultra Fisheye Adapter MKII**

*Extreme wide angle with barrel distortion*

Available in popular bayonet and 58mm screw mount, this high-performance optic features dramatically improved optics and a lens-saving front shade/protector assembly.

The .3X Ultra Fisheye Adapter offers an extreme fisheye effect and a high degree of barrel distortion. It exaggerates depth by pulling nearby objects closer and causing distant objects to recede into the background. On the Canon GL-2 for example, the .3X Ultra Fisheye Adapter yields a horizontal viewing angle of 125° (180°, measured diagonally). The 35mm focal length equivalent is 13mm.

With small digital cameras and the Fisheye, capturing extreme action shots is dramatic and practical. With its almost total depth of field and unmistakable style, this adapter is a must for action sports shooters.
16:9 Widescreen Adapter for Professional Mini DV Cameras

The promise of widescreen video is here — but it wasn’t for DV shooters using their in-camera DV widescreen switching. That’s because most switchable DV camcorders work by effectively masking the top and bottom of the chip — utilizing only 75% of the original scan lines — resulting in lost resolution and lost angle of view! In-camera switching from 4:3 to 16:9 works by cropping into the existing frame (top & bottom), so the resulting widescreen view is only as wide as the 4:3 image. Century’s adapter can reach to a full 33% wider angle of view, delivering true widescreen.

◆ Some switchable camcorders work by effectively masking the top and bottom of the chip, utilizing only 75% of the original scan lines which results in resolution loss. The anamorphic Wide Screen Adapter instead squeezes the 16:9 image onto the 4:3 chip, utilizing every pixel — for a higher resolution image. When viewed on a 16:9 monitor, the resulting image automatically spreads out to fill the frame.

◆ In-camera switching from 4:3 to 16:9 works by cropping into the existing frame (top and bottom), so the resulting widescreen view simply isn’t very wide. But Century’s anamorphic attachment can reach wider than the lens alone for a considerably more widescreen angle of view. The attachment is used with the camera in 4:3 mode. The resulting images appears vertically stretched in the viewfinder or on a 4:3 monitor. Yet when displayed on a 16:9 monitor, the image automatically spreads out to fill the frame.

◆ Available in popular bayonet and 58mm screw mount, the Century 16:9 Widescreen Adapter allows for partial zooming — one-half to two-thirds of the range (from wide toward telephoto) depending on available light.

Achromatic Diopters (Macro Zoom Attachments) for 58mm Lenses (+2.0, +4.0, +7.0)

For maximum magnification and image clarity, these Macro Zoom Attachments give your lenses more close-up range, while preserving zoom capabilities. Available in +2.0, +4.0, and +7.0 magnifications, Century Achromatic Diopters are essential whenever you need to focus tightly on a small object in tabletop, miniature, and flat field videography. Integral 58mm threads make it easy to connect the diopters to the front of your small diameter video zoom. Two or more diopters can be stacked on the front of the lens for even more magnification. Step-up rings are available to adapt the Macro Zoom Attachments to lens fronts smaller than 58mm.

Edge-to-Edge Sharpness:
Common single element diopters permit focusing at close camera-to-subject distances at the expense of image clarity. Instead, Achromatic Diopters feature two highly corrected glass elements which minimize chromatic aberration and distortion.

Dramatically Shorter MOD:
An Achromatic Diopter is essential whenever it is necessary to focus tightly on a small subject with a long lens - in tabletop, miniature and flat field photography.

A Closer Look:
Reduced working distance offers a range of shooting possibilities. Exceptionally crisp videography of small objects like jewelry or computer chips is now possible. A variety of industrial applications are made simpler, including remote, high-magnification visual inspection of hard-to-reach objects and manufacturing processes. For example, a camera and lens equipped with an Achromatic Diopter might be used to get an extremely accurate close-up view of signatures moving through a printing press.

1.33X Anamorphic Focusable Converter for Professional Mini DV Cameras

Capture 16:9 images with 4:3 cameras without sacrificing resolution. A focusable anamorphic attachment squeezes the 16:9 image onto the high resolution camera chip. The innovative focusing design allows use of the camera lens’ full telephoto range. The new front-mounted attachment also reaches wider than the lens alone for a considerably more widescreen angle of view. Now also available for Canon XL1S with 16X manual lens.

DS-WS13 ..............................................1249
Century’s Pro DV Series offers quality professional lens accessories designed to help you go wider, reach further, and move in closer than the lens alone allows. Century’s superb optics provide the finest professional images. These state-of-the-art accessories minimize chromatic aberrations and unwanted distortion & produces images that are ultra sharp edge-to-edge.

Mounting and removing accessories is quick and easy. Pro DV adapters and converters interface directly with the bayonet mount at the front of the lens, locking & unlocking with a simple twist. There’s no threading and no jamming.

**ACCESSORIES**

**1.6X Tele-Converter**

Add the 1.6X Tele-Converter to the front of your zoom lens to shift its focal range in the telephoto direction. The perfect tool when it’s inconvenient, dangerous, or even impossible to move as close to the subject as you’d like.

On the XL-1/XL-1s, the 1.6X converter alters your zoom’s focal length range from 5.5-88mm to 56-140mm — with no appreciable light loss.

On the AG-DVX100/AG-DVX100A the 1.6X converter alters your zoom’s focal length range from 4.5-45mm to 36-72mm — with no appreciable light loss.

The 1.6x is specially effective in “run-and-gun” shooting situations because it attaches quickly to the front of the existing lens on the AG-DVX100/AG-DVX100A; attaches more quickly than rear-mount tele-extenders, and doesn’t require exposure of the XL1’s delicate electronics.

Need even more telephoto range? Add the Century 1.6X Tele-Converter to the front of your lens and Canon’s 1.6X Tele-Extender to the rear, for the widest possible range —17.6-225mm, with no vignetting.

**.6X Wide Angle Adapter**

Ideal for shooting situations in which zooming isn’t needed. The .6X attaches to the front of your video zoom lens for 40% wider angle of view and minimal distortion.

On the DVX-100’s 10x lens it allows partial zooming up to mid-range while in Auto Focus (loses focus beyond 5X). The resulting focal length is 2.7-13.5mm with a 84-21° horizontal angle of view).

On the XL-1/XL-1s it allows partial zooming up to 8X while in Auto Focus (loses focus beyond 8X). The resulting focal length is 3.3-26mm with a 72°-10.33° horizontal angle of view).

**.7X Wide Angle Converter**

Century’s .7X Wide Angle Converter attaches quickly to the front of your zoom, offering a 30% wider angle of view and full zoom-thru capabilities.

The converter slips onto the front of the XL-1/XL-1s 16X zoom with a one-handed twist resulting in an effective focal length nearly as wide as the Canon 3x (within half a millimeter) and zooms six times as far. It shifts the focal length range from 5.5–88mm to 3.85-61.6mm — with no appreciable light loss.

On the DVX100’s 10:1 zoom the .7X shifts the focal length range from 4.5–45mm to 3.1-31.5mm — with no appreciable light loss.

**Fisheye Adapter**

When you’re shooting for an exaggerated point of view, twist on the Pro DV Series Fisheye Adapter. The Fisheye gets you a wider view with pronounced barrel distortion and no vignetting.

The fisheye exaggerates depth, pulling nearby objects closer, and causing distant objects to recede into the background. A fixed adapter, the Fisheye doesn’t allow for zooming — but you’ll want to stay at the wide end of the range anyway, for the most pronounced effect.

On the DVX-100 this non-zoom-thru add-on provides approximately 2.3mm focal length, 92° horizontal angle of view and weighs only 7.6 oz.

Century makes the Fisheye adapter for Canon’s 16X lenses and another for 3X lenses. Starting with the already wide angle 3:1 makes for even more impressive coverage. So while the 16X version offers an approximate effective focal length of 2.7mm (an 85° angle of view), the Fisheye for Canon’s 3X lens achieves an approximate effective focal length of just 1.5mm (a 116° angle of view).
## Digital Series Lenses — What they do for you

<table>
<thead>
<tr>
<th>Description</th>
<th>Focal Length</th>
<th>Aperture</th>
<th>Horiz. Angle of View</th>
<th>35mm Equivalent</th>
<th>Zoom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DS-55W-GL</strong></td>
<td>.55X Wide Angle Adapter</td>
<td>2.3-23mm</td>
<td>f/1.6</td>
<td>77º-92º</td>
<td>Partial</td>
</tr>
<tr>
<td><strong>DS-65C-GL</strong></td>
<td>.65X Wide Angle Converter</td>
<td>2.7-54.5mm</td>
<td>f/1.6-f/2.9</td>
<td>67.5º-3.8º</td>
<td>26-523mm</td>
</tr>
<tr>
<td><strong>DS-FWGL-00</strong></td>
<td>.3X Ultra Fisheye Adapter</td>
<td>1.26mm</td>
<td>f/1.6</td>
<td>125º</td>
<td>12mm</td>
</tr>
<tr>
<td><strong>DS-1609-GL</strong></td>
<td>16:9 Widescreen Adapter</td>
<td>4.7-37.5mm</td>
<td>f/1.6</td>
<td>54º-7.3º</td>
<td>35.2-281.2mm</td>
</tr>
<tr>
<td><strong>DS-20TC-GL</strong></td>
<td>2X Tele-Converter</td>
<td>36-168mm</td>
<td>f/1.6-f/2.9</td>
<td>3.7º-1.3º</td>
<td>537-1612mm</td>
</tr>
<tr>
<td><strong>DS-55W-GL</strong></td>
<td>.55X Rev. Wide Angle Adapter</td>
<td>3.3-19.8mm</td>
<td>f/1.6</td>
<td>72º-13.8º</td>
<td>24.8-148.5mm</td>
</tr>
<tr>
<td><strong>DS-65C-GL</strong></td>
<td>.65X Wide Angle Converter</td>
<td>3.9-46.8mm</td>
<td>f/1.6-f/2.4</td>
<td>63.2º-5.9º</td>
<td>29.25-351mm</td>
</tr>
<tr>
<td><strong>DS-FWGL-00</strong></td>
<td>.3X Ultra Fisheye Adapter</td>
<td>1.8mm</td>
<td>f/1.6</td>
<td>125º</td>
<td>13.5mm</td>
</tr>
<tr>
<td><strong>DS-1609-GL</strong></td>
<td>16:9 Widescreen Adapter</td>
<td>5.1-25mm</td>
<td>f/1.6</td>
<td>50.4º-11º</td>
<td>38.4-192mm</td>
</tr>
<tr>
<td><strong>DS-20TC-00</strong></td>
<td>2X Tele-Converter</td>
<td>39-114mm</td>
<td>f/1.6</td>
<td>7.4º-2.3º</td>
<td>290-880mm</td>
</tr>
<tr>
<td><strong>VS-06WA-XL2</strong></td>
<td>.6X Wide Angle Adapter</td>
<td>3.3-26mm</td>
<td>f/1.6-f/2.6</td>
<td>72º-10.33º</td>
<td>24-188mm</td>
</tr>
<tr>
<td><strong>VS-07CV-XL</strong></td>
<td>.7X Wide Angle Converter</td>
<td>3.8-38mm</td>
<td>f/1.6</td>
<td>64º-10º</td>
<td>28-286mm</td>
</tr>
<tr>
<td><strong>VS-FWGL-XL</strong></td>
<td>Fisheye</td>
<td>Approx. 2.7mm</td>
<td>f/1.6-f/2.6</td>
<td>64º-4.5º</td>
<td>28-458mm</td>
</tr>
<tr>
<td><strong>VS-16TC-XL</strong></td>
<td>1.6X Tele-Converter</td>
<td>56-140mm</td>
<td>f/1.6-f/2.6</td>
<td>4.5º-1.57º</td>
<td>404-1010mm</td>
</tr>
<tr>
<td><strong>VS-16TC-XL</strong></td>
<td>1.6X Tele-Converter and 17.6-225mm</td>
<td>f/1.6</td>
<td>72º-10.33º</td>
<td>24-188mm</td>
<td>Partial</td>
</tr>
<tr>
<td><strong>VS-FWGL-XL</strong></td>
<td>Fisheye Adapter</td>
<td>Approx. 2.7mm</td>
<td>f/1.6-f/2.6</td>
<td>64º-4.5º</td>
<td>28-458mm</td>
</tr>
<tr>
<td><strong>VS-16TC-XL</strong></td>
<td>1.6X Tele-Converter and 17.6-225mm</td>
<td>f/1.6-f/2.6</td>
<td>64º-4.5º</td>
<td>28-458mm</td>
<td>Full</td>
</tr>
<tr>
<td><strong>VS-06WA-MXL</strong></td>
<td>.6X Wide Angle Adapter</td>
<td>3.3-26mm</td>
<td>f/1.6-f/2.6</td>
<td>72º-10.33º</td>
<td>24-188mm</td>
</tr>
<tr>
<td><strong>VS-07CV-MXL</strong></td>
<td>.7X Wide Angle Converter</td>
<td>3.8-60.5mm</td>
<td>f/1.6-f/2.6</td>
<td>64º-4.5º</td>
<td>28-458mm</td>
</tr>
<tr>
<td><strong>VS-FWGL-MXL</strong></td>
<td>Fisheye</td>
<td>Approx. 2.7mm</td>
<td>f/1.6-f/2.6</td>
<td>64º-4.5º</td>
<td>28-458mm</td>
</tr>
<tr>
<td><strong>VS-16TC-MXL</strong></td>
<td>1.6X Tele-Converter and 17.6-225mm</td>
<td>f/1.6-f/2.6</td>
<td>64º-4.5º</td>
<td>28-458mm</td>
<td>Full</td>
</tr>
</tbody>
</table>

### 58 mm Threaded Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Origin lens x .55</th>
<th>No light loss</th>
<th>45% wider than orig</th>
<th>Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DS-55W-58</strong></td>
<td>.55X Wide Angle Adapter</td>
<td>2.7-13.5mm</td>
<td>f/1.6</td>
<td>84º-21º</td>
</tr>
<tr>
<td><strong>DS-65C-58</strong></td>
<td>.65X Wide Angle Converter</td>
<td>3.1-31.5mm</td>
<td>f/1.6</td>
<td>75º-9º</td>
</tr>
<tr>
<td><strong>DS-FEW-58</strong></td>
<td>.3X Ultra Fisheye Adapter</td>
<td>1.4mm</td>
<td>f/1.6</td>
<td>130º</td>
</tr>
<tr>
<td><strong>DS-20TC-58</strong></td>
<td>2X Tele-Converter</td>
<td>36-72mm</td>
<td>f/1.6</td>
<td>7.5º-3.8º</td>
</tr>
</tbody>
</table>

*These camera models require a 52-58mm Step-up Ring. Request a FA-5258-00 at time of order.*
CENTURY OPTICS

LCD MAGNIFIER

Ideal Tools for Viewing LCD Screens

An exciting accessory for DV cameras, the LCD Magnifier alleviates many of the problems associated with today's LCD screens. The LCD Magnifier slips over existing flip-out 2.5” diagonal LCD screens on the Sony DSR-PD150/170, DCR-VX2000/VX2100, Canon GL-1 & GL-2, JVC GY-DV300 and similar camcorders. Offering 1.8-2X magnification, it incorporates superior quality multi-layer coated glass elements for minimized refraction and crisp viewing even in bright sunlight. Weighing just 2 oz. it readily slides on and off in seconds. Comes in a handsome leatherette pouch.

◆ For those who have trouble figuring out what it is that we’re looking at on those tiny LCD screens, the LCD Magnifier is the perfect solution. A factor of 1.8-2x magnification will let you see everything you need to from a comfortable distance. No more having to get right up against the screen to frame your shot.

◆ You don’t always want to be looking through the eye-piece while you’re shooting. That’s why you got a camera with an LCD in the first place! But you know that with the small low resolution screens of many popular consumer cameras, finding focus or even just seeing the image can be next to impossible.

◆ The larger image of the LCD Magnifier, its anti-reflective coating, and a 2-inch “neck” combine to give you a larger, clearer view of the LCD free from glare and reflections even in bright sunlight.

◆ Sturdily constructed out of polystyrene that will stand up to rigorous use, the LCD Magnifier is designed for ease of use and optimum effectiveness. It has two parts: a mount/sunshade assembly that slips onto the LCD screen and a detachable housing for the magnification optic. The housing is secured by two thumbscrews and can be moved up and down to adjust magnification level or removed completely, allowing it to function as an exceptional sunshade whose 2-inch depth blocks out most of the sun’s rays.

DS-LCDM-00: LCD Magnifier for 2.5” flip-out LCD ..................169.95
DS-LCWS-00: LCD Widescreen Converter for 2.5” flip-out LCD monitors when using the Century 16:9 Widescreen Adapter ..................199.95

DIGITAL SERIES SUNSHADE/FILTER HOLDERS

Protect your Camera Lens, Enhance your Creativity

There’s more to Century’s family of light control solutions. Century’s rectangular Sunshade/Filter holders are designed for use on the Canon GL-1/GL-2, Sony DSR-PD150/170, DCR-VX2000, DCR-VX2100 and similar size camcorders. They easily slip onto the front of any Century DV product (except for the fisheye) and are secured by tightening a single lock screw. Available in two versions, depending on your needs and budget.

DS-FA82: This affordable rectangular Digital Series Sunshade/Filterholder slips onto most lenses and Century accessories; accepts one 82mm screw-in filter ..................159.95
DS-FH44-00: This rectangular Sunshade/Filterholder holds one or two 4” x 4” glass filters. Perfect for precise control with grads and soft-focus filters..........339.95
VS-FH44-00: Rectangular Sunshade/Filterholder for Pro DV accessories (0.6x Wide Angle Adapter and 0.7x Wide Angle Converter for Canon XL-1/XL-1s); holds one or two 4” x 4” glass filters ..........339.95
DS-RPOL-44: Schneider rotating 4x4 Tru-Polarizer for use in the DS-FH44-00 and VS-FH44-00 ..................199.95
FA-5880-00: 58mm to 80mm step-up shade adapter (required when using non-Century lenses) ..........34.95
VS-FA90-00: Sunshade/Filterholder 4.5”, 90mm ..........159.95
VS-FA95-00: Sunshade/Filterholder 4.5”, 95mm ..........159.95
VS-FA00-00: Sunshade/Filterholder 4.5”, 105mm ..........189.95

Sunshade/Filterholder fits some Pro DV lenses. Accepts one 4.5” drop-in filter.

BH Video
VSI
MotorCity
TechPro
ExtendedWarranty
Light Filtration and Management System

Packed with features that protect your camera and enhance your creativity, the Century DV Matte Box mounts directly to most DV cameras — only a soft rubber lens ring contacts your lens barrel, so you don’t have to worry about your lens during the bumps and grinds of capturing exciting footage. Precision engineered and manufactured with the finest materials, the Century DV Matte Box comes fully equipped with everything needed for typical operation, plus accessories for special applications.

The well designed camera mounting system is easily adjusted to fit both vertical and horizontal requirements of your camera body and lenses. Best of all, the Century DV Matte Box is ideal for use with your Century DV accessories (except Fisheye) up to 95mm in diameter. The system comes with 6 rubber lens rings to fit most cameras.

◆ Patented, movable eyebrows provide extra flare reduction; adjustable to the zoom position of the operating lens.
◆ An accessory shoe for fast and simple attachment of a light or microphone holder.
◆ Cine-style rails provide solid, quick adjusting support.
◆ Rotating filter stages accept holders for 4” x 4” filters; perfect for polarizers and effects filters.
◆ Soft rubber lens rings keep light from entering the rear of the Matte Box. Five sizes to fit virtually any lens are included.

DV Matte Box 4x4 (12mm Rod) Systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-MB44-00:</td>
<td>With two 4x4 holders, 12mm rods and matte box support. Off-lens mounting for universal fit and lens safety, adjustable eyebrow. Fits the Canon GL-1/GL-2 and XL-1/XL-1s, Sony DCR-TRV900/950, DCR-VX2000/VX-2100, DSR-PD100A/150/170 and DSR-PDX10...</td>
<td>$699.00</td>
</tr>
<tr>
<td>DS-MB44-DVX:</td>
<td>With two each 4x4 holders, 12mm rods and matte box support. Off-lens mounting for universal fit and lens safety, adjustable eyebrow. Exclusively for the Panasonic DVX-100 and DVX-100A...</td>
<td>$769.00</td>
</tr>
<tr>
<td>DS-MBFF-00:</td>
<td>French Flag...</td>
<td>$799.00</td>
</tr>
<tr>
<td>DS-MBTS-00:</td>
<td>Tripod Spacer...</td>
<td>$49.95</td>
</tr>
</tbody>
</table>

DV Matte Box 4x4 (15mm Rod) Systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-MB44-S0:</td>
<td>With two 4x4 holders, heavy duty 15mm rods and matte box support. Off-lens mounting for universal fit and lens safety, adjustable eyebrow. For the Sony DSR-250/300/500 and JVC DV-5000U...</td>
<td>$899.00</td>
</tr>
<tr>
<td>DS-MB44-JV:</td>
<td>Same as above, for the JVC DV-500...</td>
<td>$999.00</td>
</tr>
<tr>
<td>DS-MB44-XL:</td>
<td>Same as above, for the XL-1/XL-1s...</td>
<td>$999.00</td>
</tr>
<tr>
<td>DS-MB44-D15:</td>
<td>Same as above, for the DVX-100/DVX-100A...</td>
<td>$1099.00</td>
</tr>
<tr>
<td>DS-MBFF-00:</td>
<td>French Flag...</td>
<td>$79.95</td>
</tr>
</tbody>
</table>
**VIDEO INNOVATORS**

**S-800**

**Camcorder Shoulder Rest**

Now you can hold your camcorder steady with less fatigue and enjoy the mobility it was designed for when “shooting on-the-shoulder.” Available in three styles, there is a S800 Shoulder Rest model to help you produce smooth, professional looking videos.

The S-800 Standard can be used with most Hi8, Digital8 and DV camcorders, while the PRO model is the same, plus offers an extra-wide shoulder cushion. The S-800 Super-Pro’s camera platform is hinged from the shoulder cushion, so it can be moved laterally for different eyepieces, and a pivot-hinge, mounted in a 3” long slot for length adjustments. With the mounting screw in a 3½” slot, the S-800 Super Pro has a total adjustment of 6½”, accommodating almost any Hi8, Digital8 and DV camcorder.

**S-800 Standard (103)**
- Handle design lets you use your other hand for further steadying, while giving you control of all camera functions.
- Use with either hand and either shoulder
- Adjustable for proper eyepiece spacing
- Threaded hole for direct tripod mounting
- Thick foam rubber shoulder padding
- Black urethane finish and welded construction for long lasting beauty.

S-800 Standard ........................................... 44.95

**S-800 Pro (106)**
- The S-800 Pro has all the features of the S-800 Standard, plus it offers a 3” wide shoulder cushion with more supple padding. The extra-wide cushion provides maximum comfort and stability for longer shoots. Simulated leather cushion gives it a more professional appearance.
- Includes an accessory bar to accommodate an LCD monitor or video light.

S-800 Pro .................................................. 69.95

**S-800 Super-Pro (125)**
- The shoulder cushion features a contour that conforms more comfortably to the slope of the shoulder - it is thinner on the inside and thicker on the outside.
- Can accommodate two accessories, such as LCD monitor or video light.
- Folds to less than 12” for easy storage.
- Adjustable length of 6½” and lateral adjustment of over 90°.

S-800 Super-Pro ......................................... 84.95

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**TS-1000 Camcorder Table Stand**

The TS-1000 is a table stand that provides a safe, stable platform for your camcorder while playing, editing or dubbing. The TS-1000 attaches to your camcorder in seconds and easily folds out of the way when not in use. Its large platform securely holds all sizes of camcorders weighing up to 5 lbs.

- Made of solid aluminum construction, the TS-1000 supports camcorders up to 5 lbs.
- Makes it easier to connect cables and keeps them out of the way.
- Snaps open and attaches in seconds. Folds up and locks flat when not in use.

**CH-1000 Camcorder Handle**

Designed for small Digital8 and DV camcorders, the CH-1000 provides a solid, comfortable grip while stabilizing the camera for skillful taping. Attaching in seconds, the CH-1000 can be used with either hand and makes taping easier, less fatiguing.

- Specially designed handle bracket locks in three positions:
  - Locks straight down for camcorders having sports viewfinders.
  - Locks at a 45° angle for taping with direct eye-to-viewfinder contact
  - Locks flat for easy storage and carrying in a camera bag
- Small and lightweight, it can be left on all the time. Measures 5” long by 1½” in diameter.
- Molded foam rubber handle provides all-day comfort
**Classic**

Need to steady your shot? Or need a place to mount accessories like mics, lights, radios? The Mighty Wondercam Classic is a unique shoulder pod system for small camcorders that has been used by Discovery Channel, PBS, CBS News, schools, and wedding and event videographers around the world.

A rugged, comfortable, lightweight aluminum shoulder pod, the Classic has five axes of adjustment, to comfortably fit most camcorders and camera people. And it has seven mounting points for accessories such as external mics, batteries and radio receivers. The rotating, cushioned handgrip comes with a removable stainless-steel foot. Mounts easily to a tripod and weighs just 2.5 pounds (1.1kg).

And if you need extra support with the Classic, just add the optional Ab Pad. A virtual belly brace, the Ab Pad is an adjustable, machined-aluminum pole that attaches to the nose of the Classic.

<table>
<thead>
<tr>
<th>CLASSIC</th>
<th>With Ab Pad</th>
</tr>
</thead>
<tbody>
<tr>
<td>179.95</td>
<td>239.95</td>
</tr>
</tbody>
</table>

**Mini-Rover**

A unique compact, lightweight and sturdy all-metal “L-shaped” bracket, the Mini-Rover is ideal for mounting accessories such as mics or lights in the shoe above the cushioned handgrip. The versatile padded camera platform has anti-twist pins to keep the camera stable, plus standard tripod mounting holes.

| MINI-ROVER | 49.95 |

**Rover**

Tired of dangling cables and pockets crammed with accessories? In one compact package, the Rover brings a unique flexibility to DV camcorders and greatly expands your audio capability. The box beneath the camera holds a radio mic receiver, while the arm provides a mounting shoe for an external ambient mic. The box also mounts to a tripod or monopod. Built entirely of machined aluminum, the Rover is light (1 lb.), comfortable to use and extremely versatile.

| ROVER | 179.95 |

**Ultimate Rover**

Same as the Rover, the Ultimate Rover adds a built-in Beachtek DXA dual XLR adapter to give you precise control over two balanced audio inputs (switchable between mike and line level) and individual channel pots. Using the optional Roverlink XLR-XLR cable, you’ll yield a powerful video production tool in a rig not much larger than the camera itself—with better handling. Built entirely of machined aluminum, the Ultimate Rover is light, comfortable to use and extremely versatile.

| ULTIMATE ROVER | 369.95 |

**Mighty WonderCam Accessories**

**ROVERPOD:** Lightweight monopod, extends from 20 to 60”.............69.95

**AUXBOX:** Auxiliary box mounts below Rover or the Ultimate Rover, so you can add a radio mike or a battery.........................79.95

**ROVERSTOCK:** Shoulder brace for extra support when shooting with the Ultimate Rover..........................19.95

**SCREWIT:** 1/4-inch to standard 5/8” thread adapter, mounts to top of either Rover..........................7.95

**ROVERLINK:** 18-inch XLR-XLR cable...................22.95

**GUERRILLA BOOK:** 3x3 gel swatches to help fine-tune white balance settings..........................14.95

**VARIMOUNT:** Adapter for attaching Varizoom grip handles directly to the Mighty WonderCam Classic..................19.95
One of the biggest drawbacks of DV camcorders is their lack of a proper shoulder mount. With the VariZoom VZ-LSP this problem is a thing of the past. The VZ-LSP is the ultimate shoulder brace, providing no less than ten adjustable fittings for an endless variety of shooting configurations—while eliminating arm fatigue caused while holding the camera and support system. Shoot fatigue free all day with camcorders up to 8 lbs. with cameras such as the Canon XL-1s on your shoulder.

Separating this brace from its competitors is the fully ab support (included), giving you three points of contact with the brace (hand, shoulder and body) for maximum camera support and control. The camera mounting platform can be positioned exactly as desired, raising the viewfinder right to your eye.

Precision crafted from machined aluminum, the VZ-LSP is tough, lightweight and built to last. And it can be customized by adding a VariZoom VZ-PG-L, VZ-Pro-L or StealthZoom lens controller giving you the perfect combination for getting the best looking video with comfortable hand-held shooting.
**VARIZOOM**

**STEALTHPOD**

**High Quality Monopod for Compact DV Camcorders**

VariZoom's StealthPod allows for unbelievably smooth jitter free shots like that of similar more expensive steady systems. Videographers can now sit on a bench and wait for a shot with the telescoping pod adjusted at eye level and the bottom resting on the ground. Be relaxed and ready for the next shot, whatever it might be. When “the shot” comes, quickly adjust the telescopic leg to length and hurry in with no shaking or mic noise, which has plagued videographers for years. When used with the VariZoom StealthZoom, you get a high quality monopod and control of your camcorder!

- The StealthPod is a super sleek pod designed specifically for the popular “prosumer” one-piece Digital8 and DV camcorders, including the Sony DCR-VX2000/VX-2100, DCR-TRV900/TRV950, DSR-PD-150/170, PC-109/330; and Canon’s GL-1/2, Optura and Elura series. It is designed to aid in getting that steady, shake-free shot that everyone wants!
- The StealthPod can be used to balance and steady a small to medium size camcorder by adjusting the telescoping leg. The leg can be extended from 23” to over 5½’. quick enough to get that rock solid shot at a moments notice.
- To connect, just screw the supplied quick release plate to the bottom of your camcorder, slide the plate on top of the StealthPod’s docking station and it locks in place, thats it!

**FLOWPOD**

**The Ideal Stabilizer — Three Tools in One!**

A uniquely styled device, the FlowPod is the most versatile piece of support gear on the market. Designed to work perfectly with or without a VariZoom control, the FlowPod merges the popular StealthPod monopod with a new patent-pending stabilizing system. The key is the patent-pending locking pivoting foam handle grip. This unique multi-purpose handle features a telescoping pin that can either be locked in-line for use as a monopod or unlocked to allow free floating action shots. The slim design allows for ease of use in the tightest of shooting situations. But the FlowPod’s versatility does not stop there. There is also an optional LowMode kit allowing for low mode shots that until now have only been available in rigs costing thousands.

For too long, users of stabilizing devices have had to balance their stabilizer while holding it, causing unnecessary fatigue and poor balance. To solve this problem, the FlowPod is equipped with the VZ-FPB balancing plate and clamp. Now, FlowPod users can easily and accurately balance their FlowPod without the need to purchase extra accessories.
**VARIZOOM**

**VZ-Pro-L/VZ-PG-L**

**Remote Zoom & Focus Controllers for LANC-equipped Camcorders**

A true variable speed and manual focus controller, the VZ-Pro-L and VZ-PG-L use the Control-L (LANC) terminal to control any Sony or Canon DV camcorder. The combination zoom rocker and speed control dial allows you to vary speeds in a single movement — smoothly from a slow crawl to fast and then slow again. Users can “set and forget” any single speed zoom as well as manually ramp up and down the speeds while zooming. The VZ-Pro-L will allow full control over all speeds of any camera it is connected. Also features manual focus control, a “wake-up from standby” switch, a recording light indicator, and a universal tripod/crane mounting clamp. Ideal for use with VariZoom’s VZ-LSP and VZ-1 shoulder support systems. The VZ-PG-L is the same as the VZ-Pro-L but with a body style to accommodate users with smaller hands.

### ACCESSORIES

- **Zoom and Focus Controls**
  - **VZ-Pro-L**: Professional control for DV camcorders with LANC jack ........................................... 349.95
  - **VZ-PG-L**: Pistol grip professional control for DV camcorders with LANC jack ............................ 359.95
  - **VZ-Stealth**: Economical miniature control for DV camcorders with LANC jack .................. 259.95
  - **VZ-StealthLX**: Full-featured control for DV camcorders with LANC jack .............................. 219.95
  - **VZ-Rock**: Full-featured variable rocker control for DV camcorders with LANC jack ............. 319.95
  - **VZ-Rock-DVX**: Full-featured variable rocker control for Panasonic AG-DVC30, AG-DVC80, DVX100/DVX100A ............................................................... 269.95
  - **VZ-Stealth-DVX**: Full-featured variable rocker control for Panasonic for AG-DVC30, AG-DVC80, DVX100/DVX100A ............................................................... 189.95

### FEATURES

- The VZ-Pro-L and VZ-PG-L send zoom and focus commands through the camcorder’s built-in LANC protocol, which is standard in all Canon and Sony Digital8 and DV camcorders on the market today.
- Precision variable-speed control over camera zooms. Ramp up from slow to fast and then slower again in a single move.
- Push-button manual focus is conveniently at your fingertips so you can precisely adjust the focal plane within a shot.
- Wake-up from standby mode: when the camera automatically powers down into sleep mode, you can push a button on the VZ-Pro-L and VZ-PG-L and be ready to shoot immediately.
- LED light indicates recording, low battery power, tape out and other signals.
- The VZ-Pro-L and VZ-PG-L are compact remote lens controllers designed specifically for today’s popular “prosumer” one-piece DV camcorders, including the Sony DCR-VX-2000/VX2100, DSR-200/250, DSR-PD100A/PD150/PD170, DCR-TRV900/TRV950 and Canon GL-1/GL-2, XL-1/XL-1s, Optura and Elura (with docking station).
- 40” LANC cable is built in to the unit
- Tripod handle configuration with rubberized foam grip for maximum operator comfort.
- Heavy-duty clamping system allows operator exceptional control over tripod and camera functions simultaneously with one hand.
- Precisioned machined from high grade aluminum with a beautiful brushed finish.
- Run your camcorder without having to touch it. No more undesired noise from fingers bumping the mic and lens, etc.
- To connect, just plug the controller cable into your camcorder’s Control-L (LANC) jack. That’s all there is to it! Does not require any modification or alteration to your camera. Use them hand-held, or clamp the controller to your tripod pan handle.
Compact Zoom & Focus Controllers for LANC-equipped Camcorders

A high quality yet economical alternative to VariZoom’s Pro-L and PG-L professional line of controls, the StealthZoom is a “must have control” for all videographers when low price and/or small size is a factor. The StealthZoom is an affordable and versatile controller. It’s lightweight and compact size with a thumb-style rocker throttle on top allow this controller to fit nearly anywhere and on nearly any device such as stabilizers, monopods, and even on the handle of the camera itself.

The StealthZoom allows for slow crawls to medium high speeds but will not do the fastest zooms on some 3-CCD camcorders. Great for small to large hands. It is easy for anyone to use and has all the necessary functions for control.

- Unique variable speed zoom thumb control lets you maintain the slowest crawl or gradually ramp up speed and then decrease speed gradually all in one smooth motion! Because your thumb never leaves the speed control you have quick response time and smooth actions to zoom in/out, faster/slower. Simply push forward to zoom in (telephoto) and pull back to zoom out (wide). No shaking the camera or time lost fumbling to find the right button to zoom in or zoom out.
- The intuitive rocker focus control provides you with smooth ergonomic control. Place your thumb in center of the rocker and move thumb forward to focus near or shift your thumb back to focus far. This is the only rocker control of it’s kind that doesn’t share the rocker for both zoom and focus. Separate controls for zoom and focus is essential for quick active response times. No time will be lost switching back and forth with a shared control.
- A low profile record button avoids accidental activation
- LED indicates recording, low battery, tape out and other signals.
- 40” LANC cable is built in to the unit
- Power-On from Stand-by mode: when the camera automatically powers down into sleep mode, you can push a button on the StealthZoom and be ready to shoot immediately.

StealthLX Step-up Features

All the features of the StealthZoom, the StealthLX adds an autofocus button, shuttle search control and on-screen data control.

- Shuttle search control lets you surf through your tape with Frame Forward (F+) and Frame Reverse (F-) shuttle buttons. Press this button once and it surfs through your tape one frame at a time. Or, jog through your tape by pressing and holding the button down.
- On-Screen Data button (DATA) turns the on-screen data in your viewfinder on and off. Works much like your “display” button on your camcorder.
- Auto Focus button (A) turns your focus control from autofocus to manual and back again (not available on all camera models)

VZ-Rock

Similar to the StealthLX, the VZ-Rock has a precision-machined, industrial strength, all aluminum rocker and body (not plastic) which makes it more expensive to manufacture. Ideal for tripod use, the VZ-Rock utilizes a wide rear-mounted rocker that allows for a wide zoom ‘swing’ which enables you to easily control all zoom speeds in the camera. The VZ-Rock will allow full control over all zoom speeds of any camera it is connected. Great for small to large hands, allows for easy, friendly control over all functions. Also available for Panasonic DV camcorders

Same as StealthLX Except: Unique variable speed Rocker Zoom thumb control allows user to maintain the slowest crawl or gradually ramp up speed and then decrease speed gradually all in one smooth motion! Because your thumb never leaves the speed control you have quick response time and smooth actions to zoom in, zoom out, zoom faster or zoom slower. Simply push to the left of rocker to zoom out (wide) or to the right to zoom in (telephoto). No shaking the camera or time lost fumbling to find the right button to zoom in or zoom out.
CAMERA SUPPORT

STEADICAM JR

The ‘Personal’ Steadicam
The invention that won Academy and Emmy awards for technical achievement is available for your camcorder. Incorporating the same techniques for isolation, spreading camera mass and manipulating the center of gravity as the professional Steadicams, the JR works with small DV camcorders to yield images that are just as smooth and jitter-free. Produce smooth, hand-held moving shots with image steadiness never before achieved—even while walking, running or riding.

◆ Three-axis gimbal reduces rotary jarring. The gimbal, located at the top of the handle, is the most sophisticated engineering in the JR, intercepting unwanted rotation before it reaches the camera.
◆ Folding up the bottom arm and folding out a “Whale’s Tail” (a small, “Y”-shaped piece of metal) converts it into a shoulder mount. If both arms are folded flat, the JR attaches to a tripod with standard screws. In all positions, the LCD monitor is still usable.
◆ Spreads the weight of the camera, increasing the resistance of the rig to unwanted tilt and roll and pulling the center of gravity into your hands.
◆ With the larger rigs, taking a shot that needs a tripod means removing the camera from the Steadicam. The JR however, doesn’t have to be removed to get those shots.
◆ Available with or without a specially treated 3.5” LCD monitor that minimize reflections, freeing your eyes from the camera viewfinder.

STICKY POD

Sticky Pod is a go anywhere, stick-to-almost-anything camera mount that can go over 110 MPH on the outside of a car and still take outstanding videos. The Sticky Pod can replace any tripod or monopod, and will stick to any car, truck, boat, plane or motorcycle. The industrial grade suction cups are soft, yet conform to almost any curved surface, and absorb much of the vibration, which makes for clear and stable video. There are no messy glues or residue. Simply push it onto a clean surface, tether and go. Not only can it stick to any glass, metal or plastic, but it works great on a fence, on a tree or on top of a rock. The base is constructed from a high grade heavy aluminum and the steel black camera base is fastened with steel rivets. Even the extensions and knuckles are solid aluminum. The camera mount knuckle rotates a full 360º and tilts side-to-side a total of 210º. A short tether is also included to secure your camera nearby.

◆ Folds and stores in a layer 2” high beneath your camcorder. Weighs 2 lbs.
Steadicam JR (w/o LCD monitor) ..........449.95
Steadicam JRM (with LCD monitor) ........699.95
Steadicam JRM Kit (includes Steadicam JRM, carrying case and “Obie Light”) ..........749.95

Original Sticky Pod
Heavy duty full throttle action. Video at just about any speed and be sure to apply plenty of G-loads because there’s no stopping this one.
◆ Knuckle
◆ 3” Solid aluminum extension
◆ Short camera tether
◆ Rubber cushion for knuckle
◆ Computer video instructions

My Sticky Pod
◆ Same as Original Sticky Pod, but with a smaller triangular base

Sticky Pod Pro Pak
All the benefits of the Original and no compromises. This is the setup the pros are buying
◆ 2- Knuckles
◆ 3” Solid aluminum extension post
◆ 6” Solid aluminum extension post
◆ Long camera tether
◆ Short camera tether
◆ 2- Rubber cushions for knuckles
◆ Suction cup with mounting bolt
◆ Computer video instructions

ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)
Camera Stabilization Systems

Imagine a world in balance. Imagine smoothness, freedom and grace. With the Glidecam 2000 PRO and 4000 Pro your camcorder floats, always balanced, isolated from your hand’s undesirable motions. Now you are free to move with your camera – panning, tilting, booming or running – without any camera instability or shake. Lightweight, hand-held camcorder stabilizing systems allow you to shoot incredibly smooth and graceful shots, even while running up and down stairs or traveling over rugged terrain. And when it comes to normal shooting, like walking or moving the camera slowly around someone, the results are equally magical. Shot after shot, move after move, they deliver beautifully smooth and professional results. No more need for a tripod or a Dolly — now all you need is your imagination!

- The 2000 Pro is 14” tall and supports any camcorder weighing up to 6 pounds. The 4000 Pro is 18” tall and supports any camcorder weighing from 4-10 pounds.
- Easy to set up and balance, they allow unrestricted booming and 360° panning.
- Offset handle grip is attached to a free-floating precision Gimbal, allowing hand movement up and down and side to side, thereby isolating unwanted hand interference from the camera. The up and down movement alleviates the bouncing pogo-type action associated with other systems whose handles can’t move up and down.
- You can shoot upside-down, sideways, low near the ground, overhead and angled, as in a Dutch shot.
- The system’s free floating, precision gimbal includes integrally shielded bearings, two of which are housed in the unique Offset Handlegrip. These precision bearings create the super-smooth and pivotable connection between your arm and the unit’s Central Support Post.
- The counterweights on the Base Platform can be quickly attached or adjusted while the system is resting in an upright position on its base.
- The camera platform moves back and forth and side to side, allowing quick adjustment of your camera’s horizontal balance. Camera’s vertical balance is adjusted by varying the amount of counterweight disks on the base platform.
- Camera mounting platform (x-y motion table) measures 4” x 6” on the 2000 and 5.25” x 8” on the 4000. The 2000 has 1/4” mounting holes, the 4000 1/4” and 3/8” in the head plate for camera mounting.
- For remote viewing, an optional LCD monitor can be attached to the mounting holes on the base platform.

2000 PRO .................................................. 299.95
4000 PRO .................................................. 389.95

Body-Pod

A lightweight rigid support system which when used with the either the 2000 or 4000 Pro, allows all the weight of the system to be supported by your body, allowing you to shoot in cushioned comfort for indefinite periods of time. By taking the stabilizers weight out of your hands and arms and putting in on your waist and shoulders, stress and fatigue are virtually eliminated. The Body-Pod allows you to quickly slide the handle of either the 2000 or 4000 on and off its rigid support, so you can quickly switch back and forth between hand-held stabilization shooting and body mounted shooting. Since the support of the Body-Pod is rigid and for the most part inflexible, it will not absorb and smooth out camera movements as well as a stabilizer which is being held in just your hands. However, shooting with stabilizer attached to the Body-Pod will still yield results that are far better than un-stabilize, hand-held shooting.

Body Pod .......................................................... 169.95

Forearm Support Brace

Distribute the weight of the system over your entire forearm. The weight of the system is supported evenly by Glidecam’s exclusive and unique, exoskeletal forearm support brace. The brace not only provides you with cushioned comfort while shooting, but also eliminates torque, which would otherwise cause stress on your wrist. With the forearm brace, the Glidecam system becomes an extension of the human body for smooth and natural shooting.

Forearm Support Brace ................................ 149.95
Handheld Stabilizer for Camcorders up to 4 lbs.

With the VS-1 you can shoot video while walking, running, going up and down the stairs or travelling on uneven terrain. Whether shooting industrials, documentaries, commercials, weddings, news, or feature motion pictures, the VS-1 will bring the fluidity and grace you always wanted—elevating your footage to a whole new creative level. The most maneuverable and robust hand held stabilizer of its kind, the VS-1 is specially designed to bring an extra touch of magic to your DV camcorder (up to 4 lbs). Extremely affordable, the VS-1 will easily fit into your budget and quickly become one of your most valuable tools.

- The platform (stage) is precision-manufactured so you can quickly and easily adjust the side/side and the fore/aft.
- Unique base allows you to retract the legs, which in turn enables you to use it as a tripod.
- Patented gimbal allows you to rotate and tilt the VS-1 using just your finger tips.
- Systems are manufactured with the weights at the base for counter balance. You can add, adjust or remove depending on your needs. Extra weights are provided for convenience.
- Manufactured from aircraft aluminum, the VS-1 will last a lifetime.

Hollywood Lite Stabilizers are primarily designed to eliminate all unwanted motions as you’re working with all types of moving shots. These professional stabilizers allow you to walk, run, go up and down stairs and even travel on all uneven terrains. “Video Artists” can easily and affordably stabilize their videos while taking their footage to a whole new creative dimension. Whether you’re shooting industrials, documentaries, commercials, weddings, news, or feature motion pictures, a Hollywood Lite system will bring the fluidity and grace you always wanted.

ULTRA-LITE
Handheld Stabilizer for Camcorders up to 7 lbs

With a higher weight capacity and longer upward or downward range than the VS-1, the Ultra-Lite is still easy-to-use, yet will capture those perfect video shots with ease and perfection. The Ultra-Lite is capable of comfortably holding any camcorder weighing up to 7 lbs. Yet you can hold it in your hand while walking and running and still get the smoothness you desire for your videos.

- Quickly and easily mount and dismount your camera using the Quick-release feature. The best part is, once you balance your camera, you’ll never have to balance again!
- Expandable post allows you to adjust the weight capacity. (No tools necessary).
- Single-hand use Gimbal allows rotating and tilting in just about any direction and still gives a sense of floating. Rotating the camera to view your image is alot smoother.
- Counter-balance is achieved by rotating the weight at the bottom of the system. The 6.5 ounce weight will allow you to balance the Ultra-Lite with the touch of a knob, allowing for side to side and for/aft movement.
- Light enough to carry, yet sturdy enough for a camera up to 7 lbs. Achieving your perfect video has never been easier in a hand-held system.

- No tools are required to assemble the Ultra-Lite. Screw in the expandable post to the lower strut, and do the same with the counter weight. Screw in the quick release plate onto your camera, and lock it onto the Ultra-Lite and you’re all done.
Fully Supported Stabilizers with Vest, Arm and Monitor

These state-of-the-art stabilizers are the most solid and robust of its kind. Made out of lightweight, T6 aluminum, all parts are machined to precise dimensions to ensure dynamic balance of the sled, fluid motion of the arm, and a snug fit of the vest. The dynamically balanced sled is fully adjustable and comes with a 5˝ TFT, color LCD monitor. It's easy tilt makes viewing more convenient. An expandable post and sliding gimbal gives you many configurations on the height you desire for your camera. With the G.T. Series, Hollywood Lite now offers the most affordable and versatile line of stabilizers in the world. This system comes with all the accessories you need to dramatically improve your video shoots.

The Sled: The Sled is the most important section of the balancing phase. The lower section (monitor and battery) are the counter weights from the stage and your camera, separated with a free floating precision three axis gimbal. With the help of 6 precision bearings, you can tilt, rotate or swing your camera in any direction needed. This sub assembly can be moved up or down depending on the weight of your camera. The precision aluminium stage features fine tune side/side and fore/aft adjustments for horizontal balance, and 24” expandable post for vertical balance.

Complete System:

Every G.T. Series is completely enclosed in a Black Cordora case on wheels, with the following items: Padded vest, single articulated arm, dynamically balanced sled, 5˝ LCD, TFT monitor, battery, battery charger, video cable, allen wrench, dovetail plate, instruction manual, and an easy to follow video tap, and a 6 months warranty card.

The Arm: The arm is a single articulated, double spring loaded. Depending on the weight of your camera, you can adjust the capacity with a thumb screw located on the front of the arm. All parts are black anodized. Has two chrome plated springs. Easy swing from left to right hand users. Interchangeable post link for different heights.

The Vest: This is the portion of the system that distributes the weight to the operators body and can be adjusted to fit a wide range of operators. It is comfortable, lightweight and fully padded (high endurance closed FVA padding and light weight aluminum). The vest distributes the weight evenly across your shoulders, back, and hips. Quick release buckles allows the vest to be removed in seconds.

Accessories included with each G.T Series:
- Dovetail plate to mount your camera onto.
- Lenmar battery and charger.
- Video cable, allen wrench, light stand post.
- This complete system comes in a black cordora suit case on wheels.

The optional Low Mode bracket allows you to shoot at ground level and still remain as stable as if you were on a moving tripod.
VELBON

VIDEOMATE 404/504/507/607

Lightweight and compact, the VIDEOMATE 404 and 504 feature a unique 3-way panhead ideal for use with compact Digital8 and DV camcorders. The VIDEOMATE 507 and 607 are more full-featured with a deluxe fluid panhead.

**VIDEOMATE 404**
- 3-way panhead (PH-349Q) features a sure-grip pan/tilt control handle positioned on the left side for more positive panhead control.
- The right-tilting camera platform offers vertical as well as horizontal composition.
- Geared center column with preset friction control system for quick and easy vertical camera or camcorder positioning.
- Panhead incorporates a large 2-position quick-release camera platform with retractable camcorder alignment pin.
- Quick side-lever leg locks for easy leg adjustments and non-slip rubber tipped feet.
- Radial leg braces for maximum stability and easy setup.

**504 Step-up Features**
- Leveling bubble for more precise tripod leveling.

**VIDEOMATE 504**
- Deluxe 2-way fluid panhead is designed for fluid smooth pans and tilts. Position the sure-grip control handle in any one of four positions for maximum camcorder control.
- Panhead features an "Auto-Lock" system for the quick-release camera platform with retractable camcorder alignment pin.
- Steel ground spikes with adjustable rubber feet for no-slip setups.

**V507 Step-up Features**
- Deluxe 2-way fluid panhead incorporates separate pan and tilt tension knobs for smooth pans and tilts.

**VIDEOMATE 507**
- Deluxe 2-way fluid panhead incorporates separate pan and tilt tension knobs for smooth pans and tilts.

**607 Step-up Features**
- Deluxe 2-way fluid panhead incorporates separate pan and tilt tension knobs for smooth pans and tilts.

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**DAVIS & SANFORD**

**ProVista Tripod with FM18 Fluid Head**

The ProVista is a rugged tripod with all the key features that serious amateurs and working professionals demand. It’s perfect for the classroom also. Metal-alloy construction stands up to the most demanding use, without being heavy or bulky. Plus, there’s the FM18 fluid head and unbeatable Davis & Sanford 10-year warranty.

- Handles DV and all camcorders up to 25 lbs.
- FM18 fluid head ensures satin-smooth pan and tilt action
- 3-section tripod, double-strut top section for stability
- Geared 11˝ center post with 3/8-16 mounting stud
- Air-cushioned center post prevents rundown
- Rubber-sleeved metal leg locks; for fast setup, locks open/close with 1/2 twist
- Rubber/spike balljoint feet grab any surface
- Center brace with lock adds extra stability
- Includes padded carrying bag
- Minimum/Max Height: 31/64˝, 31˝ folded, weighs 7 lbs.

**ProVista Tripod/FM18 Fluid Head**

..................229.95
Tiltall

**Professional Tripods with 3-Way Pan-Head**

Includes what is probably the most unique panhead ever designed. The multi-position panhead tilts 90° to the left, 45° to the right, 90° forward and 45° backward. The center post rotates a full 360°. The tripod is complemented with all metal locking knobs, pan handles and all terrain legs featuring both rubber and spiked feet. You also get the bonus of one leg that screw off and become a full length monopod. Available in black, silver and gold.

- 53”/60” maximum height (70” with center post extended)
- 20”/30” folded up • Weighs 3/6 lbs.
  
  **Tiltall Black**.................................................................109.95
  **Tiltall Silver**.................................................................99.95
  **Tiltall Gold**.................................................................119.95
  **Tiltall JR Black**.............................................................99.95
  **Tiltall JR Silver**.............................................................89.95

Sachtler DV-1

**DV-1 Fluid Head features:**

- Frictionless leak proof fluid damping with one level of drag, for perfect pictures while panning, without jerks and vibrations. Operates without friction from -40°F to +140°F
- Quick Release/Automatic Locking System for quick set up.
- Sliding camera mount and plate with a 3.5” sliding range, makes a fast balancing system and ensures perfect balance across the horizontal plane. Most importantly, once adjusted, the settings cannot be lost.
- Dynamic counterbalancing prevents the camera from inadvertently tipping, and ensures that it is positioned securely at any tilt angle.
- Vibrationless vertical / horizontal brakes • Built-in leveling bubble

**DA-75L Tripod features:**

- Dural aluminum construction with 16mm tube diameter
- 75mm / 3” bowl base • Single extension design • Weighs 9.9 lbs.
- Maximum height of 54.3”(not including head) • Supports up 4.4 lbs.

**DV-1 Aluminum Tripod System:** DV-1 Fluid Head, DA-75L 1-Stage Tripod, On-Ground Spreader and Petrol PTB-3 Soft Bag ..............................................599.95

Impact

**Favorit III #820**

- 3-section, 3-way fluid head with bubble level
- 23mm square channel legged tripod with radial leg braces, rubber spiked feet
- Geared elevator with friction; fast lever lock; center brace with lockable collar, spiked legs with rubber feet
- Tension adjustment locking geared center column with quick release camera platform
- Maximum height: 59”, 23.5” folded, weighs 3.2 lbs.
- Covered with a 5-year warranty

**MP-101**

*Motorized Pan Hand for Camcorders (up to 6 lb.)*

Fastens between any tripod head and camcorder. Two motors allow independent smooth remote adjustment of vertical and horizontal panning motion. Auto Pan Mode, allows continuous horizontal panning motion.

- Switch selector for either a 30, 60 or 90° movement.
- Maximum horizontal angle ±90°, maximum vertical angle ±15°.
- Runs on 4 AA batteries or optional PS-260 AC power supply
- Panning speed adjustable via the supplied remote control.
- Measures 5.75 x 4.5 x 4” (WxHxD). Weighs 27 oz.

**MP-101 Pan Hand**.........................................................89.95

Order & Info. (212) 444-5010 • Fax: (212) 239-7770 (800) 947-7008

1-800-947-5525 • www.bhphotovideo.com
**LIBEC**

**LS-35 Video Tripod**

Supplied with the H-35 fluid head, the LS-35 provides smooth pans and tilts, with no backlash or bumps, and rapid secure camera counterbalance, with -80° to +90° tilt angle. Also includes the T-57 aluminum single-stage tripod, offering superb strength and stability, with precisely spaced fastening to prevent tripod pinching when closing system.

**H-35 Fluid Head:**
- 75mm claw ball
- Quick release plate
- Weighs 11 lbs.

**T-57 Tripod Legs**
- Aluminum alloy construction
- Single extension design
- Maximum height of 57.2” (not including head)
- Positive locking leg knob, for fast accurate setups stability, and comes complete with carrying case and shoulder strap.

---

**SLIK VIDEO TRIPODS**

**U Series Tripods**

Designed for use with today’s lightweight camcorders, Slik’s U Series combine modern design with ultra-smooth controls. They have a distinctive looking, dual-tone titanium finish with rounded contours and oversized leg locks for quick, responsive leveling adjustments. The fluid effect panheads assure you of professional looking videos without annoying jumps and jitters. They give you the necessary stability for consistent focusing and the sharpest video images.

---

**SLIK TRIPODS**

<table>
<thead>
<tr>
<th>Model</th>
<th>U 6600</th>
<th>U 8000</th>
<th>U 9000</th>
<th>504QFII</th>
<th>505QF</th>
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<tbody>
<tr>
<td>Weight</td>
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<td>3 lb. 5 oz.</td>
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<td>$39.95</td>
<td>$44.95</td>
<td>$119.95</td>
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</tr>
</tbody>
</table>

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**U 6600**
- 3-way video/photo fluid effect panhead with locking handle
- Oversize, single-action leg locks
- Extends to a comfortable 56.3”
- Rubber leg tips for non-skid stability indoors or outdoors
- Geared center column with tension adjustment
- Torsion resisting leg braces

**U 8000**
- Same as the U 6600 Plus —
  - Dual-purpose quick-release platform
  - Extends to 59”

**U 9000**
- Same as the U 8000 Plus —
  - Built-in bubble level
  - Two-way rubber or spike leg tips for non-skid stability

---

**SLIK TRIPODS**

U 6600 U 8000 U 9000 504QFII 505QF

Weigh 2 lb. 7 oz. 3 lb. 5 oz. 3 lb. 8 oz. 5 lb. 11 oz. 8 lb.

Maximum Height 56.3” 59” 59” 60.6” 64.5”

Minimum Height 21” 22” 22” 18.5” 20.5”

Center Column Extended 11” 12” 12” 10.4” 7”

Length Folded 22.9” 23.2” 23.2” 27.4” 29.5”

Leg Sections 3 3 3 3 3

Load Capacity 3 lb. 5 oz. 4 lb. 6 oz. 4 lb. 6 oz. 11 lb. 11 lb.

Catalog # 617060 617800 617900 615504 617505

Price $29.95 $39.95 $44.95 $119.95 $169.95

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**SLIK TRIPODS**

U 6600 U 8000 U 9000 504QFII 505QF

Weigh 2 lb. 7 oz. 3 lb. 5 oz. 3 lb. 8 oz. 5 lb. 11 oz. 8 lb.

Maximum Height 56.3” 59” 59” 60.6” 64.5”

Minimum Height 21” 22” 22” 18.5” 20.5”

Center Column Extended 11” 12” 12” 10.4” 7”

Length Folded 22.9” 23.2” 23.2” 27.4” 29.5”

Leg Sections 3 3 3 3 3

Load Capacity 3 lb. 5 oz. 4 lb. 6 oz. 4 lb. 6 oz. 11 lb. 11 lb.

Catalog # 617060 617800 617900 615504 617505

Price $29.95 $39.95 $44.95 $119.95 $169.95
SLIK VIDEO TRIPODS

**504QF II**

Video tripod for use with compact and full-size camcorders
- Video panhead with extra long, adjustable control handle that provides ultra-smooth fluid effect
- Separate vertical control with locking knob permits tripod use with 35mm camera
- Professional, black anodized finish for years of use
- Omni-directional quick release with video indexing pin for instant camcorder mounting or removal
- “Lift-n-lock” center column for fast setups
- D-shaped closed leg extension design provides maximum strength with “Zero Twist”
- Rubber leg tips for traction outdoors and protection to surfaces when setup indoors
- Maximum height 60.6”

**505QF**

- Ultra heavy-duty construction to handle the weight and size of both compact and full-size camcorders.
- Specially designed positive-action fluid head has separate pan and tilt control locks so you can follow the action and set up for a shot in an instant.
- Pan head handle adjusts for individual comfort and control.
- Built-in bubble level assures accurate balancing.
- Quick release camera shoe lets you set and remove your camcorder easily.
- Precise geared elevation control and center column tension control to compensate for different camera weights.
- Center leg braces which lock and tubular leg design provide maximum stability, while rubber leg tips add traction.
- Maximum height 64.5”

**E-Z POD JR**

This unique tripod was specifically created to be compatible with today’s popular, lightweight camcorders. Weighing just over a pound, it’s deal for sports events and for travel. So compact when folded, just 20 1/4”, you can take it anywhere. Ready to set up? The quick release, rubber padded platform is perfect for instant camera mounting and removal. Panheads adjust for desired tilt movement to let you keep up with the action. The sturdy, 5 section, rigid tubular leg extends to a full 63”. And set up and fold down are made easy with self-aligning, single action, speed release locks. For comfort, there’s a soft leather grip, and a convenient wrist strap.

**E-Z POD**

With it’s retracting video indexing pin, rubberized quick release camera platform, and unique floating height adjustment, the EZ-Pod gives you easy, precise, push button, eye-level camera height control, as well as fast mounting of your camcorder. Maximum operating height is 62 1/4”, and it folds down to a compact 18 1/2”. Additional features include an adjustable tilt movement and single-action, speed-release leg locks for fast set-up and fold-down.

**SLIM POD**

Sturdy, tubular leg design with single-action speed release leg locks for maximum rigidity and fast set-up. Four leg sections give you true eye-level operation. An adjustable panhead provides vertical tilt and horizontal panning action.
3405 Junior Tripod and Head

Lightweight and compact, this 4-section tripod provides a stable platform for rock steady shots. The legs are constructed of sturdy multifaceted tubular aluminum featuring quick acting twist lock adjustment. The shoulder of the tripod is made of cast aluminum to increase rigidity and the 12.5” center column is reversible for low angle shots. The integrated 3-way head is also made of cast aluminum and features a quick release plate. Pan and tilt movements are extremely smooth.

Now you can afford to support your camera in style. Designed with the needs of cameramen, industrial and educational film makers in mind, Bogen video tripods incorporate many features found only in equipment costing much more. They are truly professional performers that do not sacrifice innovative engineering or dependability for low cost. Now you can be confident knowing that every movement of your camcorder will be smooth, steady and shake-free.

3001N

Lightweight, compact and sturdy, this tripod is ideal for camcorders, especially when you’re on the move. It features 4-position leg angle settings (26°, 45°, 75°, 87°) for ease of leveling. A low-angle adapter is built into the center column for ground level shots. A variable height, reversible center column with innovative three-faceted design eliminates column rotation. Adjustable 3-section telescopic legs come with sure grip wing knob locks for secure locking.

3001D

Same as 3001N plus speedy setup coupled with added security when it’s quick-action, lever-type legs lock into position.

3001PRO

This tripod has an easily removed center column that can be used horizontally or vertically. The column converts to an arm in seconds, providing tabletop and overhead camera positions that are impossible with standard tripods. Also includes a built-in spirit level.

3011N

Lightweight, sturdy and portable, this up-to-date basic tripod is one of the easiest to handle. Offers a long reversible center column for extra high adjustment with an innovative three faceted design that eliminates the problem of column rotation. Also features a one position leg spread, and leg collars with double wing locking knob.

3021N

One of Bogen’s most popular and versatile tripods, the 3021N is lightweight and portable enough to take in the field, yet strong enough for the latest generation of DV camcorders like the DCR-VX2100.

- Rapid action lever leg locks with just 45° movement
- Variable height, reversible center column with innovative three-faceted design that eliminates column rotation.
- Low-angle adapter for ground level shots
- 4-position leg angle settings (26°, 45°, 75°, 90°) allow you to go from 68.8” to only 3.1” from ground level
- Quick-action, lever-type leg locks for fast setup and added security

<table>
<thead>
<tr>
<th></th>
<th>3001N</th>
<th>3011N</th>
<th>3001D</th>
<th>3001PRO</th>
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</table>
3126
MICRO FLUID HEAD

The smooth movement of the 3126 Micro fluid head (only 2 1/4 lbs. including an adjustable handle) will amaze you. It is perfect for just about any of the new lightweight cameras. It pans a full 360° smoothly and can be tilted up or down 90°. Has pan and tilt locks, a continuously adjustable positioning slot for best camera balance and is designed so that the handle can be on either the left or right side.

3126 ...........................................................................61.00

700RC2
MINI VIDEO HEAD

The 700RC2 is a compact and lightweight 2-movement head designed to support the latest digital video equipment. The 700RC2 has a fixed length pan bar with a soft handle and separate locking mechanisms for 360° pan and +90°/-75° tilt. It comes equipped with a quick-release video plate system with VHS pin and secondary safety catch. Smooth and constant movements on both axis are assured by a fixed system of fluid cartridges with this video head.

700RC2 with RC2 Rapid Connect ........................................................70.50

521
Basic Remote Control for Sony and Canon

Built onto a small clamp, the 521 controls Sony and Canon camcorder functions including Power On/Standby, Record/Stop, zoom and focus—via Control-L (LANC). The Zoom wheel direction can also be reversed. Easily mounts to a huge range of supports, such as pipes, bars, tubes, and flat surfaces. The 521 is supplied with a 9.8˝ coiled cord cable (extendable to 19.7˝).

521 ......................................................................................52.00

522C LANC Camcorder Remote Control

Transfer the DV control to the panhandle and minimize the vibration associated with zooming in and out by hand with the 522C LANC Remote Control. This versatile command center puts the essential controls for most Mini DV cameras, such as focus, record, zoom, backlight, and fader, right at your fingertips. Now, you can operate both camera movement and recording controls with the same hand — without having to worry about how to reach the camera buttons, follow the subject, and keep movements smooth all at the same time. Functions include switching between on and standby mode, starting and stopping recording, zooming (using a professional variable speed zoom wheel for finer control), manual focusing or switching to auto focus, accounting for backlit subjects, fading in or out and taking a still photograph. It has a LED power indicator and comes supplied with a 35˝ connecting cable.

Fitted to a standard pan bar for quick and easy fitting to the 501. Also available with a pan bar and fitting suitable for the 700RC2 and 3130 video heads (522A)

3433
501 PRO VIDEO HEAD

Supporting payloads up to 13.2 lbs., the 501 offers the best price and performance for a head of this size. Light but positive fluid movement provides exceptionally smooth control through 360° Pan and +90 to -60° Tilt. It also has Teflon friction adjustment to increase drag, and separate Pan and Tilt locks. Pan bar can be located left or right, an optional second pan bar can also be used.

3433 (501) ...............................................................................135.00
SONY

CAMCORDER MICROPHONES

ECM-MS908C Stereo Camcorder Mic

Ideal for advanced amateur use, the stereo capability of the ECM-MS908C takes full advantage of the two-channel sound tracks on many of today's top Digital8 and DV camcorders.

- Video camera shoe attachment fits beautifully on most camcorders
- Extension arm holds the ECM-908C away from the camcorder body, reducing the transmission of mechanical noise
- Compact design for easy portability
- One-point stereo design - a single mic for stereo recording is like having two microphones in one
- Mid/Side (MS) capsules for natural stereo panorama; the mid capsule picks up monophonic sound while the side capsule picks up left/right difference sound; subtracting and adding the two capsule signals yield separate. Left and right channels also permit electronic adjustment of pickup angle
- Mid/Side switch lets you select the "spread" between left and right channels by camera zoom, environment and shooting situations; choose 90° for close-ups and noisy environments; 120° for wide shots and quieter environments
- Oxygen-Free Copper (OFC) Litz cord for minimum loss, minimum noise
- L-shaped stereo mini-plug fits portable recorders
- Gold-plated plug for maximum conductivity, minimum noise
- Triangular shape fits comfortably in the hand
- Supplied accessories include windscreen, microphone holder with camera shoe, extension arm and pouch

ECM-MS908C ........................................... 89.95

WCS-999 Wireless Mic System

Record voices up to 150’ away depending on conditions. Ideal for capturing family members on vacation, at recitals, birthdays and weddings.

- Supplied lavalier mic is tiny and unobtrusive, clips onto shirt or tie
- Built-in windscreen reduces wind noise
- Electret condenser design for high quality and small size
- Omni-directional mic pattern picks up sound from all directions
- Pocket-sized wireless transmitter is easy to hide, clips onto clothing for unobtrusive use
- Three transmission channels enable you to choose another channel if you have interference
- Earphone to monitor what's being recorded

WCS-999 ........................................... 99.95

ECM-S930C Stereo Microphone

A high quality stereo mic with wide frequency response and dynamic range, the ECM-S930C is ideal for today's DV camcorders.

- One-point stereo pickup with separate capsules for left side and right side pickup, allows overlapping voices to be reproduced.
- Directional angle switch (90/120°) lets you change directivity characteristics according to the recording environment and source. 90° position when the source is a fixed location, 120° when sources are in a wide area.
- OFC Litz mic cord and gold-plated plug for maximum conductivity, minimum noise
- L-Shaped stereo mini-plug allows for versatile connections

ECM-S930C ........................................... 109.95

ECM-Z37C Uni-Directional Microphone

- Super uni-directional pickup sharply focuses on sound directly in front of the microphone and eliminates extraneous sounds.
- Phase-Tube Noise Reduction System further reduces sound pickup from the side and rear to help avoid noise interference.
- One-point stereo pickup with separate capsules for left side and right side pickup, allows overlapping voices to be reproduced.
- OFC Litz mic cord and gold-plated plug for maximum conductivity, minimum noise
- 2-way power supply, supplied with pouch, extension arm and windscreen

ECM-Z37C ........................................... 109.95

EQUIPMENT LEASING AVAILABLE
ECM-MS957
One-Point Stereo Mic
Incorporating a sensitive electret condenser mic, a rotating mid-capsule and Mid/Side switch, the ECM-MS957 is designed for high-quality instrument recording. Also ideal for use with field recorders, it also features a wide frequency response, superb dynamic range, and an XLR connector.
- Mid/Side (MS) capsules for natural stereo panorama; the Mid capsule picks up monophonic sound while the Side capsule picks up left/right difference sound; subtracting and adding the two capsule signals yield separate.
- The mid-capsule rotates to adjust the stereo pick-up pattern for the widest range of recording situations.
- Mid/Side (MS) switch selects pickup angle between left and right channel; choose 90° for a single voice or instrument or 120° to pick up many voices and instruments, arranged across the stage.
- XLR connector for secure and reliable, low-noise connection.
- Supplied accessories include detachable cable, stand, holder, windscreen and carrying case.
ECM-MS957 ................................................................. 194.95

ECM-MSD1
Electret Condenser Microphone
A small stereo microphone that can be used on models equipped with external mic terminals. Offering dedicated audio mode selection featuring wide area pickup for groups or narrow pick up for individuals, this mic is ideal for use during weddings, reunions and parties.
- Equipped with MS system for even more realistic sounds.
- Super quality audio sensitivity.
- User-selectable audio coverage: Select 90° for concentrating on a single speaker, or 120° for picking up ground conversation.
ECM-MSD1 ................................................................. 79.95

ECM-T6
Tie-Clip Lavalier Mic
One-piece mic with clip makes recording inconspicuous and more natural. Lavalier design allows hands-free recording.
- Unique power On/Off switch.
- 100 hour battery life with optional CR2025 lithium battery.
- L-shaped mini-plug fits portable recorders.
ECM-T6 ................................................................. 14.95

ECM-C10/ECM-CS10/ECM-C115
Clip-Style Omni-Directional Mics
Clip style omni-directional microphones with integrated stand, these mics are ideal for recording meetings and lectures.
- Lavaliery styling with supplied clip to attach to clothing permits convenient, hands-free recording.
- Small, inconspicuous format makes the recording process more natural and less obtrusive.
- Omni-directional pattern picks up voices from all directions.
- Oxygen-free copper litz cord for minimal noise and signal loss.
- Gold-plated L-shaped mini-plug for maximum conductivity and minimum noise, fits portable recorders.
- 2-way power supply: plug-in power with select Sony portable recorders; battery power for use with all other recorders.
ECM-C10 Omni-directional mono microphone ...................... Call
ECM-CS10 Omni-directional stereo microphone .................... Call
ECM-C115 Omni-directional mono microphone with windscreen..... Call

ECM-MSD1
Electret Condenser Microphone
A small stereo microphone that can be used on models equipped with external mic terminals. Offering dedicated audio mode selection featuring wide area pickup for groups or narrow pick up for individuals, this mic is ideal for use during weddings, reunions and parties.
- Equipped with MS system for even more realistic sounds.
- Super quality audio sensitivity.
- User-selectable audio coverage: Select 90° for concentrating on a single speaker, or 120° for picking up ground conversation.
ECM-MSD1 ................................................................. 79.95

ECM-F01
Boundary Effect Mic
Compact and credit-card sized, the ECM-F01 has an omni-directional pick-up and flat design that makes it ideal for recording meetings and lectures in a conference or seminar room.
- Flat mic with Boundary Effect design enhances voice recording and reduces background noise when placed on a flat surface. Makes voices clearer than surrounding noise.
- Credit-card size makes recording more natural and less obtrusive.
- Mid-boost switch selectively makes the voice frequencies louder if the speaker far from the microphone.
- Omni-directional pattern picks up voices from all directions.
ECM-F01 ................................................................. 54.95
SONY/SHURE

LAVALIER MICROPHONES

SONY ECM-44B
Omni-directional Electret Condenser Lavalier Mic

The ECM-44B makes the exceptional quality of Sony's electret condenser mics available for budget conscious productions, and a variety of sound reinforcement requirements, such as lectures and demonstrations. Measuring 8.5 x 14.5mm, it delivers clean, bright, yet natural reproduction. Complete with in-line battery for 2-way powering (battery or 48v phantom power). Operates on a single AA battery for over 5000 hours. Supplied with urethane windscreen and clip.

SONY ECM-77B
Omni-directional Condenser Lavalier Microphone

At only 1/4” x 1/2”, and a mere 0.04 oz. the ECM-77B is microscopic. Increased mechanical impedance using a metal vaporized, fine ceramic backplate provides exceptional 40Hz to 20 kHz frequency response. Combined with advanced techniques for sealing the capsule, it delivers sound that is auditorily superior and more pleasing than any other lavalier mic. Ideal for TV broadcasting and stage applications where the mic must be inconspicuous, the ECM-77B enables unobtrusive mic-ing and minimizes glare.

SHURE MX-183/184/185
Lavalier Microphones

Three wired lavalier microphones from Shure, no larger than a paper clip. Optional interchangeable mic cartridges let you tailor the microphones to any audio environment. The mics attach to the supplied power supply with the Shure Tini Q-G connector. When the power supply is removed, the mics can be used with any Shure wireless transmitters. Well suited for all levels of location video work, recording and live applications.

- Condenser lavalier microphones
- Frequency Response 60 - 20 kHz
- Includes both a pivoting single and dual microphone tie clip
- Black, snap-fit foam windscreen
- Interchangeable cartridges for omni-directional, cardioid and super-cardioid polar patterns
- Available with belt-clip phantom power only preamp and MX1BP battery/phantom power preamp
- Attached 4’ cable with Tini Q-G connector

MX183:
Omni-directional condenser lavalier, belt-clip preamp, rotatable tie clip, dual tie clip, snap-fit windscreen..................167.50

MX184:
Super-cardioid version of above ........186.50

MX185:
Cardioid version of above ............179.95

MX183BP:
Omni-directional condenser lavalier microphone with 4’ attached cable, MX1BP preamplifier......................179.95

MX184BP:
Super-cardioid version of above ......194.95

MX185BP:
Cardioid version of above ............192.50

SHURE SM93
Miniature Lavalier Mic

An economical, sub-miniature omni-directional lavalier condenser mic designed for use in speech applications. Despite its small size, the SM93 mic element provides full, clear sound comparable to much larger mics. Its smooth frequency response is specially tailored for chest-worn microphone operation, while controlled low-frequency rolloff reduces clothing and room noise. Runs on 11-52v DC phantom power.

- Ideal size for film/video/TV, theater, broadcasting and sound reinforcement
- Preamp assembly with XLR connectors can be pocketed, strapped to the body, or clipped to belt or waistband
- Supplied mounting hardware includes a sew-on mounting bracket, a mounting block with attached tie bar, and an acoustic windscreen to minimize wind noise

SM93.............................................................146.50
Miniature Condenser Microphones

Designed to be worn on the clothing of performers, Audio-Technica’s miniature condenser microphones provide excellent yet unobtrusive sound pickup. Their mic element is enclosed in a rugged housing with low-reflectance finish and internal construction minimizes handling and clothing noise. The wide-range capability of these mics ensure clean, accurate reproduction with high intelligibility for lecturers, singers, stage and TV performers, as well as musical instruments.

**AT803b**
Omnidirectional Condenser Microphone

The AT803b provides excellent yet unobtrusive sound pickup. The wide-range capability of the AT803b ensures clean, accurate reproduction with high intelligibility for lecturers, singers, stage and TV performers.

- Powered by AA battery (up to 1200 hours) or 9-52v phantom power
- 6’ (1.8 m) cable is provided between the mic and power module
- A built-in 3-position switch on the power module allows selection of off, on/flat response, or on/low-roll-off
- Includes AT8417 clothing clip, AT8116 windscreen and carrying case

**AT831b/AT831R**
Cardioid Condenser Microphone

Cardioid versions of the AT803b, the miniature AT831b and AT831R (phantom power only) are designed for hands-free applications in sound reinforcement systems, and for use by musicians, especially for pickup of acoustic guitar. Cardioid pattern provides improved gain before feedback. Close-up voice and instrument pickup are crisp and clean, yet full sounding. Suppression of background noise is significantly better than that of full-size microphones. Same features and accessories as the AT803b plus they adds the AT8444 guitar adapter.

**AT899**
Subminiature Omnidirectional Condenser Mic

Designed for high-quality, unobtrusive operation, the AT899 provides maximum intelligibility and clean, accurate reproduction for vocalists, lecturers, stage and television talent, and houses of worship.

- A mere 5mm in diameter the AT899 is ideal for applications requiring minimum visibility. The omni element is enclosed in a rugged, low-profile housing to minimize handling and wind noise.
- Supplied accessory kit includes single and double mounts, clothing clip, viper clip, magnetic clip, two open-pore foam windscreens, and two metal mesh element covers to protect the condenser element from moisture, makeup, and other contaminants. Also includes a convenient carrying case to hold the microphone and accessories.

AT899: Wired model with TA3F connection to the supplied AT8537 battery/phantom power module. The module features battery/phantom power operation, low-frequency roll-off switch, and an XLR3M connector supplying a low-impedance balanced output.................................199.95

**TRAM TR50**
Lavalier Microphone

The TR50 is a miniature professional electret-condenser microphone designed to provide high sound quality with low, or even no-visibility. The tiny omni capsule features minimum sound coloration and is therefore easily combined with boom-mics during post production. A variety of accessories makes mounting the mic on or under clothing easy and reliable. The TR50 is available with the TR79 power supply for direct connection to a mixer, or with any of a large range of connectors for direct connection to virtually any wireless transmitter including Sennheiser, Lectrosonic and many more.

TR50 with XLR Connector
Includes Cable Holder (CH), Clip On Holder (COH), Tie Bar (TB), Windscren (WS), Carrying Case (CC), Tape Down (TD), Tie Tack (TT)...............................294.95
**AT815b**

**Shotgun Condenser Microphone**
The 18” AT815b is a wide-range condenser mic with a line + gradient polar pattern specifically designed to provide the narrow acceptance angle desirable for long distance sound pickup. Ideal for use in professional recording, broadcasting, film/TV/video production, high-quality sound reinforcement and other demanding applications requiring excellent sound rejection from the sides and rear.

- Rugged housing with a low-reflectance matte satin nickel finish
- Recessed switch lets you choose either flat or a bass roll-off of 180 Hz at 12dB/octave
- Powered by a single AA battery or 9-52v DC phantom power
- Includes AA battery, foam windscreen, mic stand adapter with 5/8”-27 threads, and a compartment carrying case

**AT897**

**Short Shotgun Condenser Microphone**
The AT897 is a short condenser shotgun microphone. Unobtrusive length of 11” ensures that the microphone remains out of the frame when mounted on compact camcorders. The mic’s narrow pick up pattern is desirable for capturing audio signals at long range. Excellent off-axis sound rejection minimizes noise and ambiance, emphasizing the desired signal. A wide frequency response provides accurate sound reproduction of signals registering at various frequencies. A low-cut frequency switch eliminates noise and hum registering at the low frequency range. Operates on a single AA battery or 11-52v phantom power.

**AT-4073a**

**Shotgun Condenser Microphone**
The AT4073a is a transformerless line + gradient condenser microphone designed to meet the critical long-distance pickup demands of broadcasting, film/TV sound, professional recording and theater sound reinforcement. It features a broad-band, linear on-axis frequency response, with maximum rejection of sounds from their sides and the rear. It’s lack of sound coloration on- and off-axis makes it particularly suited for miking dynamic action in film/TV audio as well as in “spot” miking techniques in the music studio or theater.

- Provides extremely high output and a noise floor that is hardly measurable, much less audible. Use it with confidence in distant miking applications and with digital recording systems.
- Through an advanced design, both the diaphragm and the side ports are exposed to the same acoustic environment. This makes it less sensitive to wind noise or the “encounter” noise of panning action. And there is a marked reduction in proximity effect. Recordings made at varying distances remain more consistent in response, making both production and editing quicker, easier and less costly.
- Exceptionally resistant to mechanical or handling noise. An integral 150 Hz hi-pass filter is available to “roll-off” the low-frequency response, thereby attenuating unwanted low-frequency ambient noise (such as air conditioning). The switch is recessed to prevent accidental activation. Powered with any remote “phantom” or “simplex” power source supplying from 11 to 52v DC.
- Sets a new standards in small size and light weight. Overall length is 9.13” and at 4 oz. adds practically no noticeable weight to the end of a fish pole or the top of a minicam.
Professional Shotgun Microphone

Designed for pro-sound and broadcast applications, the SGM-2X comes with two barrels, an omni (8.11” long) or, by adding the extension barrel, a supercardioid (15.75” long). Either configuration provides a sensitive (-50dB), low-noise, wide bandwidth signal (40Hz - 20kHz) through its balanced, low-impedance XLR output. Comes complete with an integrated shock-mount, both camera shoe-mount and mic stand-mount, and two foam windscreens.

SGM-1X • SGM-X

Following up on the success of the SGM-2X, Azden offers two shorter versions—the SGM-1X and SGM-X—specifically designed for today’s smaller DV camcorders.

- Ideal for the Canon GL-2, Sony DCR-VX2100 and other similar type camcorders, the 8.5” SGM-X is a complete system, including windsheen, shoe-mount holder and mini cable. Has a mini output.
- At 11.75” the SGM-1X is designed for camcorders like the Canon XL-1s and Sony PD-170. It features an XLR output and comes supplied with Azden’s unique shockmount holder with integrated shoe mount.

SONY ECM-672
Shotgun Microphone

Compact and lightweight, the 12” ECM-672 is a high-performance, electret condenser supercardioid shotgun microphone designed for use on camcorders like the Sony DSR-PD170. Tailor-made for ENG applications, it also offers versatility in applications such as interviews, sound reinforcement and speech. Superb controlled directivity assures rejection of ambient and camera noise, while the supplied windsheen reduces wind noise and provides pop protection during extra close miking.

- 2-position low-cut switch further contributes to the mic’s low noise level and emphasizes desired sound sources by eliminating boominess in the low range.
- Powered by 12-48v DC power supply or via AA battery (up to 3000 hours of operation).
- Includes a windsheen

SANKEN CS-1
Short Shotgun Mic

Sharp directivity delivers targeted sound while eliminating background noise. Measuring only 7” in length, the CS-1 is ideal for mounting on video and film cameras, and with a weight of only 3.5 ounces, it is also easy to maneuver on boom poles. Utilizing Sanken’s original square condenser capsule, the CS-1 has a flat frequency response beyond 20 kHz and accepts sound levels up to 137 dB. Includes windsheen and case; shockmount is optional.
Modular Electret Condenser Microphones

The ME66 and ME67 are modular condenser microphones that combine with the K6 power supply to bring a system of uncompromised studio quality sound and ruggedness to the broadcast and field recording markets. The K6 is the backend of the multimike system and accommodates a balanced, low impedance 3-pin XLR output connector. The modular design of the K6 power supply allows you to quickly convert from the ME66 and ME67 as well as four other microphone capsules simply by unscrewing the current capsule from the K6 and replacing it with another.

**K6 Powering Module**

The heart of the system, the K6 Module supplies power to any capsule in the series. It can run for 150 hours on a single AA battery, or can be used with 12 to 48v phantom power (AA battery doesn’t drain while phantom-powering). The K6 features an on/off switch with LED battery status indicator; and a bass roll-off switch which will compensate for proximity effect in close miking, or for wind rumble in field recording.

**ME-66 Short Shotgun Capsule**

The ME66 offers classic Sennheiser shotgun mic sound, extremely high sensitivity and very low self-noise, resulting in unprecedented ‘reach’ characteristics for a mic that can be powered by AA batteries. Smooth frequency response (50Hz - 20kHz ± 2.5 dB) provides for neutral, uncolored sound in the low- and mid-range frequencies and a gentle boost in high frequencies, for increased intelligibility. Great for interviews in crowded situations and as a camera microphone for ENG.

**ME-67 Long Shotgun Capsule**

The ME-67 is a long shotgun mic capsule whose extremely directional design brings distant sound sources into close range, with the extremely tight focus of the on-axis signal. As with the ME66, its frequency response (40Hz - 20kHz ± 2.5 dB) is optimized for a natural presentation, with good articulation of high frequencies. High sensitivity and low self-noise, make the ME67 outstanding in difficult acoustic environments.

**K6 Series/K6 Series Pro Windscreens**

Standard foam windscreens reduce wind and popping noise.

- MZW-66 for ME-66, Grey $36.95
- MZW-67 for ME-67, Grey $42.95

Black velour coated foam windscreens offer even greater protection for reducing wind and popping noise.

- MZW-66PRO for ME-66 $64.95
- MZW-67PRO for ME-67 $96.50

**WINDTECH Shotgun Windscreens**

High quality replacement windscreens for shotgun mics, they prevent unwanted wind, breath and pop noises. They also protect your microphone from dirt moisture and impact damage. Made from acoustical hypo-allergenic SonicFoam, they are washable, long lasting and keep their original shape.

- SG-1: For mics up to a .75” diameter x 7.5” long (Audio Technica 4073a, Sennheiser ME66, MKH416) $24.95
- SG-2: For mics up to a .75” diameter x 11.5” long (Audio Technica 4071a, Sennheiser ME67, ME80) $29.95
- SG-60: For mics up to a 1” diameter x 6” long (Sennheiser MKH60, Sony ECM-672) $24.95
- SG-200: For mics up to a .1” diameter x 4.75” long (most on-camera shotgun mics) $19.95

**PSC Universal Shock Mounts**

Designed to provide stable and noise-free handling for a wide variety of microphones, these shock mounts are constructed of lightweight aircraft aluminum and have a non-reflective black anodize finish. The two suspension bands are custom-made and provide a high degree of isolation from handling noise.

Used by ENG, film/video and TV sound recordists, change mics simply by pulling one out and pressing in another without fear of damaging the stock suspension assembly. (Optional adapters allow installation inside Rycote Windshields). Available in 3” and 6” sizes, they accept mics up to 1.25” in diameter, while 3/8” x 16 threads allow use with any boompole.

- 3” USCM $54.95
- 6” USCM $59.95
**MIC ACCESSORIES**

**RYCOTE**

**Mini Windjammers**
Mini Windjammers are designed to improve the performance of camcorders with on-board microphones and are to be positioned over a foam windscreen.

- **Medium Mini Windjammer:** For mics up to 1.5” diameter x 2.5” length (GL-2, GY-DV300U) **$48.00**
- **Special 60:** For mics 2” diameter x 2.75” length (DCR-VX2100) **$50.00**
- **Special 155:** For mics 2” diameter by 6.25” length (XL-1s) **$55.00**

**Softie Windshields**
Windshield and shock mount with wind attenuation comparable to a standard Rycote windshield, Rycote’s Softie windshields consist of an acoustic foam base covered with a specially designed synthetic fur. The shock mount has its own bracket and can be used as a pistol grip or boom mounted. Available in 12, 18, 24, 29 and 32cm lengths with three diameters to fit almost any mic. Softie fronts, without the pistol grip and shock-mount, are also available for use with camera-mounted microphones.

**Blimp System**
Modular Suspension: Lightweight suspension with a high precision modular frame. Includes pistol grip and boom adapter. Available in three sizes to fit a wide range of mics

- **Windshield (Requires Modular Suspension):** Lightweight and durable, the windshield provides up to 25dB exterior wind attenuation without unnecessary high frequency roll-off. Twist and turn locking end caps are rattle free and secure. Slide-on / slide-off system for easy removal of mic and suspension

- **Windjammers (Requires Windshield):** Specially designed materials with virtually no adverse effects on sound level or quality. Provides an extra 10 - 12dB protection over a standard windshield. Sizes available to fit all windshields

**Multi Mount**
A modified Softie Mount with a female 3/8” threaded brass insert suitable for stand and pole mounting. An integral accessory shoe allows for camera hot-shoe mounting. Isolates your camera-mounted mic from vibration.

**LightWave Audio**

**Miniscreens**
Miniscreen: Fabric/mesh slip-on windscreen for film and video applications. The patented dead air space design with a small slip on screen provides superior wind protection over standard windscreen (20dB or more) and a sweetened mid-range that delivers enhanced dialog clarity.

- **Mini Windmaster:** Deep pile 1” fur zipped cover for the miniscreen provides maximum wind blocking

- **MiniSock:** Miniscreen zipped cover that affords high wind protection while maintaining sound transparency.

**Equalizer**
Low cost version of the Lightwave Miniscreen, the Equalizer features the same hollow shell interior and fabric mesh design and front and rear mic gripping disk system. The outer construction is made with a 25mm length ultra fine synthetic fur as is used to make the Miniscreen covers. Delivers excellent dialog recording in all ENG and EFP applications, with superlative wind protection - even under extreme wind conditions.

When purchasing either a Miniscreen (MS), Mini Windmaster (MWM), MiniSock (MSC) or Equalizer (EQ) just add the 3-digit code that references your microphone:

- **102** – for Canon XL-1s
- **104** – for Sony DSR-PD150, AT-4073
- **106** – for Azden SGM-1X, Sennheiser ME66, MKH-416, MKH-60
- **107** – for Azden SGM-2X, AT-835B

**Minimounts**
Minimounts are low profile and lightweight microphone mounts available for a variety of mounting applications. They hold any light to medium weight microphone in the 19mm to 30mm diameter range using a screw down arm clamp that allows fast changeover between mics. Isolation design allows the microphone float without ‘flopping’ around. Modular design allows the mic isolation assembly to be detached and adapted to any of the available lower section mounts.

**Available Minimount Systems**

- **MM-USC –** Fitted with universal shoe carriage for camcorders with a hot shoe attachment.
- **MM-XL –** For the Canon XL-1 or Sony cameras with a round 27mm mic mount/clamp.
- **MM-25 –** For use on camcorders that have 25mm diameter microphone clips.
- **MM-PGC –** With pistol grip handle for hand-held use.
MICROPHONES

HANDHELD MICROPHONES

AT804 Omnidirectional Dynamic Mic
Designed for demanding sound pickup situations, Audio Technica’s hardened-steel grille and die-cast case make the AT804 ideal for field applications where rugged construction is essential. Omnidirectional pattern picks up sound equally from all directions. So when close-up miking, the mic won’t accentuate bass frequencies due to proximity effect. The omnidirectional pattern is also ideal for distant miking where the reproduction of ambient environments is desired.

- Rugged die-cast housing with a low-reflectance finish
- A protective hardened-steel screen reduces wind noise and plosives
- Internal shock mounting reduces handling and cable noise.
- Includes a snap-in stand adapter with 5/8”-27 threads and a soft protective pouch are included.

EV 635A Dynamic Omnidirectional Mic
Probably the most popular and well-known ENG/EFP microphone in the world, the Electro-Voice 635A has survived being dropped, run over, thrown and even being shot while on location for film, TV and radio remotes. The 635A’s uniform frequency response (80Hz-13kHz) is specially shaped for up-close vocals. Also available in black (635A/B) and with a Neodymium element (635ND-B).

635A • 635A/B
- Completely pop-free performance
- Four-stage pop and dust filter
- Internal effective shock absorber
- Includes stand adapter

635N/DB
- N/DYM element offers higher output
- Acoustalloy diaphragm material for very smooth response over a wide frequency range
- Integral windscreen and blast filter

EV RE50/B • RE50N/D Omnidirectional Dynamic Mics
Electro-Voice’s RE50/B and RE50N/D are specially shock-isolated, omnidirectional, dynamic microphones created for the most exacting professional applications. Incorporating advanced shock-mounting techniques, they are designed particularly for hand-held broadcast and sound reinforcement use. Handling and clothing noise, even cord shock are isolated from the mic element so that mechanical induced noise is greatly reduced.

- No muddy lows when used near lips
- Acoustalloy diaphragm for very smooth response over a wide frequency range
- Dyna-Damp for extremely effective handling noise isolation
- Four-stage pop filter prevents dust from reaching the diaphragm
- RE50/B’s attractive, non-reflecting, semi-gloss black finish is ideal for on-camera use
- Integral windscreen and blast filter for excellent protection from wind noise, excessive sibilance, and “popping”
- They include a stand adapter, vinyl carrying pouch and hard shell case

Sennheiser MD46 Handheld Dynamic ENG/EFP Microphone
Unlike omni mics that pick up everything equally, including background noise, the Sennheiser MD46 is a cardioid interview mic with studio quality that focuses on the subject, increasing clarity. In addition, Sennheiser put a double layer in the sound inlet basket to reduce the tendency for the mic to emphasize plosives, enabling the MD46 to highlight the desired sound (optional windscreen is still available though, if needed).

- Traditional long handle, wind attenuation and off-axis rejection
- With low handling and wind noise, and the ability to eliminate vocal popping, it is the ideal interview tool for ENG work.
- Extended high-frequency response of 40Hz-18 kHz, warm lows, and a clean midrange allows use in a pinch as an announcer or guest mic in remote, studios or interview turrets.

ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)
Three carbon fiber and four aluminum microphone poles available in various lengths, designed for the location sound and audio recordist. The carbon poles use ultra lightweight, high modulus carbon fiber tubing that is very thin-walled without compromising their load capacity. The aluminum poles are made from stress-proof, high tempered aluminum alloys with black anodized finish. Telescopic extensions lock into place with a convenient twist-lock system, allowing simple and efficient setting of the required boom length. Complete with unique 1/4˝ - 3/8˝ reversible mounting screw, port hole for microphone cabling at both ends and soft rubber hand grip. Gitzo’s commitment to fine European craftsmanship ensures smooth gliding movement with minimum bow when poles are fully extended.

**Lightwave GT-10**

*5-Section High Grade Aluminum Boom Pole*

- Easy to grip locking mechanism with a 1.5˝ long aluminum collar
- Weighs 30 oz.
- Minimum length 30˝, Maximum length: 9’ 8”
- Industry-standard 3/8” threaded tip
- Powder coated soft-feel handle, and anodized tubing
- High quality coil cable with matte black urethane insulation terminated by Neutrik gold pinned connectors
- GT-10 without mic cable..........................155.00
- GT-10C with internal coiled mic cable.........245.00

**K-Tek Avalon KE-100**

*5-Section Carbon Fiber Boom Pole*

- Five section carbon fiber boom pole (uncabled) designed for ENG/EFP production
- Collapses to minimum length of 2’ 2” and extends to a maximum length of 8’ 9”
- Available internally wired with coiled cord (KE-100CC)

**K-Tek K-102**

*5-Section Boom Pole*

- Hybrid composite, high density graphite fiber selected for maximum strength and minimum weight.
- Collapses to minimum length of 2’ 2” and extends to a maximum length of 8’ 9”
- Ideal for ENG and documentary work.
- Unique pole top with cable retaining slots and a replaceable stainless steel threaded mounting stud.
- K-102CC Factory wired with coil cord and female XLR (Bottom Connector)
- K-102CCR Factory wired with coil cord and female XLR (Side Connector)
- K-102FTS Factory wired with straight cable and male and female XLRs

**Gitzo**

*Aluminum and Carbon Fiber Fish (Boom) Poles*

**BOOM POLE ACCESSORIES**

**Remote Audio Universal Pistol Grip**

Universal hand grip that adapts to any standard microphone suspension, the foam padded handle comes with a 3/8” threaded adapter (boom pole standard) and is also threaded at the base so it can attach it to a boompole. Made from machined Delrin, stainless steel, and expanded polyurethane to provide significant additional shock isolation, it allows you to hand-hold a PSC mount, Audio-Technica AT8415 etc., with increased isolation.

**Boommate Boom Pole Holders**

Boom pole holders attach to Avenger/Mathews grip heads and conveniently mount boom-poles to lighting or C-stands. This allows hands-free use of boom poles which are particularly useful in a single man operation or where microphone placement will remain stationary.

BOBMATE ..........................64.95
GBBPH ..........................29.95

**BOOM POLE ACCESSORIES**

**ALUMINUM BOOM POLES**

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**CARBON FIBER BOOM POLES**

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AZDEN

PRO SERIES

VHF Wireless Mic Systems

The Azden Pro Series brings you high performance VHF wireless at a price you can afford. Built around a two-channel design that allows selection of the frequency that provides the cleanest signal — for reliable RF performance up to 250 feet away. They all feature two switchable frequencies — 169.445 and 170.245 MHz for a range of 250 feet, high performance VHF transmitters and receivers incorporating SMD (surface mount device) technology. The compact receivers connect to the camera’s external mic jack with the attached mini cable and attach to the camera with a supplied shoe mount or Velcro, and have LED indicators for battery condition, transmit and receive operation.

COMPLETE SYSTEMS

WHX-PRO
Handheld Mic System

- Completely self-contained VHF wireless handheld microphone/transmitter.
- Has two switchable frequencies for selecting the cleanest sound.
- Delivers crystal-clear sound at a range of more than 200 feet.
- On/off switch with standby position for quiet switching.
- Includes shoe mount and Velcro for mounting the receiver to the camera, and an earphone for monitoring.
- Both microphone and receiver have LEDs for operating verification.

WHX-Pro ........................................................................................................... 149.95

WLX-PRO
Lavalier Mic System

- Compact, lightweight, transmitter clips to subject’s belt.
- Sensitive electret condenser lavalier mic with attached tie clip.
- Two switchable frequencies for selecting the cleanest sound.
- Delivers crystal-clear sound at a range of more than 200 feet.
- Receiver includes shoe mount and Velcro for mounting to the camera, and an earphone for monitoring.

WLX-Pro ........................................................................................................... 134.95

WMS-PRO
Two Mic System

- Complete wireless mic system with two microphones (one lavalier, one handheld)
- Delivers crystal-clear sound at a range of more than 200 feet
- Two switchable frequencies for selecting the cleanest sound
- Miniature transmitter attaches to a belt or fits into a pocket
- Receiver includes belt-clip, Velcro, shoe mount for added versatility.

WMS-Pro ........................................................................................................... 143.95

CAM-3
Miniature Mic Mixer

This miniature 3-channel microphone-mixer allows you to add and mix sound from three microphone sources simultaneously. Only 3/4 x 1/4 x 2/5”, it weighs only 3 ounces, uses no batteries, and attaches to the camcorder or the hand strap

CAM-3 Mixer ..................................................................................................... 44.95

www.bhphotovideo.com
The incredible success of the "PRO" Series among videographers has prompted Azden to add 2 new frequencies, 171.105 and 171.845 to the most popular models, WR-22-PRO, and WDR-PRO receivers and the associated WL/T-PRO, WM/T-PRO, and the WX/T-PRO transmitters. These new frequencies will not interfere with Azden’s long-established 169.445 and 170.245 MHz frequencies. (When ordering the new frequencies, specify “S” models.)

WR22-PRO
Discrete 2-Channel VHF Receiver

- Unique VHF receiver allows use of two wireless microphones simultaneously.
- Captures the voices of two people at the same time, with each on a separate channel.
- Each transmitter can be from 10 to more than 250 feet from the WR22-PRO receiver.
- Smaller than a pack of cigarettes, the WR22-PRO mounts on a camera with supplied shoe mount or Velcro.
- Operates on 9 volt battery and can be powered (with optional adapters) by 12 volt DC or 120 volt AC.

WDR-PRO
On-Camera True-Diversity Receiver

A VHF, true diversity receiver that incorporates two complete 2-channel receivers inside the case and two separate antennas to eliminate dropouts and help you create the highest quality audio. Both receivers are set to the same frequency, and the WDR-PRO’s circuitry selects the receiver receiving the stronger signal from the microphone and accepts this signal. The LEDs on the WDR-PRO turn from red to green as one receiver, and then the other receives a stronger signal. Unlike the WR22-PRO, you can only use one microphone at a time.

- Diversity circuit avoids sudden dropouts and loss of signal.
- Compatible with all Azden "PRO" series microphones.
- Two selectable VHF frequencies.
- Range of over 300 feet.
- Attaches to your camera with supplied shoe mount or Velcro.
- Balanced output.
- 9-volt battery or 12-volt DC operation.

WX/T-PRO
XLR Plug-in Wireless Transmitter

The WX/T-PRO converts any dynamic microphone with an XLR connector to wireless operation when combined with the WR-22 PRO or WDR-PRO receiver. Adjustable audio level accommodates a variety of microphones. Superb frequency response allow the true sound of your mic to come through. Power on/off, audio mute and status LED complete the full array of on-board controls needed for operational ease. It has a sleek ergonomic design in a durable ABS housing, and can operate for up to 10 hours on a single AA battery.

ORDER & INFO. (212) 444-5010 • FAX: (212) 239-7770 (800) 947-7008
1-800-947-5525 • www.bhphotovideo.com
**AZDEN**

**100LT SYSTEM**

**Event Series UHF Wireless Mic System**

This system is the standard of price/performance for entry level on-camera UHF. Consisting of the 100UPR Receiver and the 10BT Transmitter, the Event Series 100LT system is small, lightweight and has 63 user-selectable (794-806MHz) crystal-controlled and PLL synthesized channels.

The 100UPR receiver features twin-antennas, a 3.5mm -58dbB balanced mic level output jack, a 3.5mm monitor output jack (with level control), a recessed On/Off switch, a Power On/ Signal Received LED and channel selectors to set the desired frequency. Using crystal-control and PLL synthesis, the 100UPR operates for over 8 hours on a single 9v battery. CCWith mounting Velcro and a 3.5mm to 3.5mm output cable (Azden’s MX-1 3.5mm - to - XLR cable is optional).

The 10BT body-pack transmitter comes with Azden's EX-503 omni-directional lapel mic and a metal belt-clip. In addition to the 3.5mm mic input jack, the transmitter has a Power On switch with an associated LED, a separate Standby switch for audio muting and a set of channel selector switches. Runs over 8 hours on a single 9v battery.

**Camera Mountable Wideband UHF Synthesized Systems**

Ideal for corporate and event videography, the Lectrosonics 100 System is designed for field production with compact DV camcorders or portable mixers. The system offers 256 selectable UHF frequencies to alleviate interference problems.

The tiny UCR100 receiver provides an adjustable output from -50dBv to 0dBv to match mic or line level requirements. Each transmitter offers a full 100mW of output power to deliver a fail-safe system with an exceptional operating range, free from dropouts. The audio processing includes the Lectrosonics exclusive dual-band compander, which lowers distortion and improves the signal to noise ratio over conventional companders. Machined aluminum housings, door and panel provides the ruggedness required to withstand the rigors of daily use.

**UCR100 Receiver**
- Output level control
- High sensitivity for extended range
- Unbalanced 1/8” output

**UM100 Beltpack Transmitter**
- Over 30dB input limiting range
- TA5F 5-pin locking audio input
- Dual LEDs for accurate gain adjustment
- Variable low frequency roll-off
- Slim, spring-wire contoured belt clip

**UH400 Plug-on Transmitter**
- 5, 15 and 48v phantom power
- DSP based pilot-tone signal isolator
- Digital hybrid synthesized UHF transmitter
UHF Multi-Channel Wireless Mic System

UHF camera mountable with a rock-solid RF design and rugged metal construction, the U100 system is available with either a body-pack or plug-on transmitter. Each system features the ATW-R100 true diversity receiver and operates in the channel 57 to 59 TV range avoiding upcoming DTV stations in the channel 67 to 69 range. The ATW-U101 system includes the ATW-T101 body-pack transmitter with standard Switchcraft TA5F input connector that is compatible with several lavalier and headworn mics. The ATW-U102 system includes the ATW-T102 XLR plug-on transmitter compatible with all dynamic and most self powered microphones.

System Features:
- 100 Phase Lock Looped (PLL) synthesized channels selectable via switches on receiver and transmitter
- 300’ operating range typical
- True diversity operation automatically selects the better signal from two independent receivers, reducing dropouts
- LEDs indicate A or B antenna status, AF peak, and power status
- XLR balanced output with level control
- Removable antennas (BNC) connectors
- Operates on two internal 9 v batteries (for approx 6 hours) or on external 12 v DC
- Headphone jack with volume control
- Helical filter design improves rejection of unwanted signals
- Measures 3.35 x 4.53 x 1.42” (WHD) and weighs 12.0 oz.

ATW-R100 Receiver
- True diversity operation automatically selects the better signal from two independent receivers, reducing dropouts
- LEDS indicate A or B antenna status, AF peak, and power status
- XLR balanced output with level control
- Removable antennas (BNC) connectors
- Operates on two internal 9 v batteries (for approx 6 hours) or on external 12 v DC
- Headphone jack with volume control
- Helical filter design improves rejection of unwanted signals
- Measures 3.35 x 4.53 x 1.42” (WHD) and weighs 12.0 oz.

ATW-T102 Plug-on Transmitter
- 3-pin XLRF-type input connector compatible with all dynamic and most self powered mics
- Runs on a single 9 volt battery with approximately 7-9 hours battery life
- Measure 1.57 x 4.32 x 1.57” (WHD) and weighs 6.2 oz.

ATW-T101 Beltpack Transmitter
- Features industry-standard Switchcraft 5-pin mic input connector
- Runs on a single 9V battery with approximately 8-10 hours battery life
- Measures 2.52 x 3.78 x 0.91” (WHD) and weighs 5 oz.

U100 Wireless Systems

<table>
<thead>
<tr>
<th>System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATWU101</td>
<td>Includes ATW101 beltpack transmitter and ATW-R100 receiver (no mic)</td>
</tr>
<tr>
<td>ATWU101830</td>
<td>Includes ATW101 transmitter, AT831cT5 lavalier mic and ATW-R100 receiver</td>
</tr>
<tr>
<td>ATWU101831</td>
<td>Includes ATW101 transmitter, MT830cT5 lavalier mic and ATW-R100 receiver</td>
</tr>
<tr>
<td>ATWU102</td>
<td>Includes ATW102 plug-on transmitter and ATW-R100 receiver</td>
</tr>
</tbody>
</table>

U100 Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATWT101</td>
<td>Beltpack transmitter</td>
</tr>
<tr>
<td>ATWT102</td>
<td>Plug-on transmitter</td>
</tr>
<tr>
<td>ATW-R100</td>
<td>True Diversity receiver</td>
</tr>
<tr>
<td>AT831cT5</td>
<td>Miniature cardioid lavalier mic</td>
</tr>
<tr>
<td>MT830cT5</td>
<td>Subminiature omni-directional condenser lavalier mic</td>
</tr>
<tr>
<td>MT830cT5TH</td>
<td>“Theater” model (same as above except in beige)</td>
</tr>
</tbody>
</table>
UHF Camera Mountable Lavalier System

Featuring the PR81 Receiver, PT81 Body Pack Transmitter and C417L Microphone, this UHF system is ideal for any lavalier miking application. A multi-channel system (up to 20 channels simultaneously), it features SAW (Surface Acoustic Wave) filters and 15 selectable frequencies to ensure interference-free operation. An intelligent battery management system monitors the transmitter battery voltage and computes residual capacity. A pilot tone system transmits battery data to the receiver and to control the Tone Code Squelch and Auto muting functions.

The PT81 bodypack’s transmission characteristics include a 10 mW output and via signal companding, a dynamic range greater than 100 dB is attained at the receiver’s output. Audio bandwidth extends from 50 Hz to 20 kHz. Through diversity reception, their performance is uniform over a wide range—up to 330°. Ideal for vocals, instruments and speech in theaters, conference centers, small sound systems, places of worship, and A/V productions.

PT 81 Bodypack Transmitter

- Miniature bodypack transmitter with rugged plastic case and mini XLR input
- Extended audio bandwidth makes them perfect for use with guitar and bass
- Works with AGK’s C417/419/420/444L, CK77L, and MKG/L instrument cable
- 15 selectable carrier frequencies make it easy to set up multi-channel systems and avoid interference frequencies.
- Pilot tone for battery status data transmission
- Controls include frequency selector, on/off and mute switches, input level control, audio overload, battery status indicators
- Security covers for controls prevents unintentional readjustment.
- Uses one 1.5 V AA or rechargeable battery to keep operating costs low
- Intelligent battery management system computes transmitter battery capacity
- DC/DC converter maintains constant transmission quality throughout battery life

PR 81 Bodypack Receiver

The PR 81 UHF camera mount receiver offers unbeatable performance for the price. This portable miniature receiver with its rugged plastic case and mini-XLR output has been primarily designed for use in video and TV camera mount applications. However, the portable receiver can also be used as a distribution system for multiple language translations, in houses of worship, conferences and guided tours.

- Miniature bodypack receiver with rugged plastic case and mini XLR output
- 15 selectable carrier frequencies make it easy to set up multi-channel systems and avoid interference frequencies
- Microprocessor controlled “Four Level Diversity” antenna management system for reliable reception with no dropouts
- Clear status display including RF and audio levels, diversity, and mute indicators
- Fixed line level and adjustable headphones outputs on mini XLR connector
- Battery status indicator
- Volume control for headphones output
- Security covers protect the channel selector, squelch control, and on/off switch from unintentional readjustment
- Complete with versatile camera mount kit and belt clip
- An optional camera power adapter allows the receiver to be powered from the camera
- Uses AA alkaline or rechargeable batteries
- Designed for use with WWMS 81 handheld and body-pack transmitters

PR81/PT81 Lavalier System Includes:

- Camera Mount Kit
- Belt Clip
- Clothing Clip
- Mini-XLR to XLR Audio Connecting Cable (Receiver Output to Camera Audio Input)
- Miniature Screwdriver
- Dry Batteries
- One Year Warranty
SENNHEISER

EVOLUTION WIRELESS 100 G2

1,440-Channel UHF Wireless System
Simply the most affordable way to get professional-caliber UHF wireless, the amazing G2 Series offers four switchable presets (reprogrammable to any of the 1440 available frequencies) for even more flexibility and a true diversity receiver for stable, high-quality transmission, and high-quality metal construction that can stand up to the rigors of life on the road. The bodypack transmitters and mobile receivers are 30% smaller than their predecessors and include a scan function that automatically searches for free channels, as well as an intuitive user menu and large backlit displays. A pilot tone squelch ensures that the transmitter microphone can be switched on and off without noise. The (adjustable) squelch can be deactivated in order to guarantee compatibility with the first evolution wireless generation. The bodypack transmitters and mobile receivers are powered by two AA-size cells to ensure a longer operating time and stable RF performance. In addition, a powerful rechargeable battery pack, the BA 2015, is now available for the hand-held transmitter, the bodypack transmitter, the plug-on transmitter and the mobile receiver.

FEATURES

◆ System operates using switchable UHF frequency technology—previously available only on systems costing several thousand dollars. 1,440 digitally synthesized frequencies are instantly selectable in 25 kHz increments, so it’s easy to pick a wireless channel that’s free of interference.
◆ A choice of four preset frequencies saves you much time when operating several channels simultaneously on stage.
◆ A pilot tone squelch ensures that the transmitter microphone can be switched on and off without noise. The (adjustable) squelch can be deactivated in order to guarantee compatibility with the first evolution wireless generation.
◆ Unique HDX compander technology delivers crystal-clear sound. A noise suppression system, HDX compander optimizes the mic’s dynamic range while minimizing unwanted modulation and transmission noise. The result is powerful, dynamic sound quality, equal to a good wired mic.
◆ Easy-to-read LED and LCD displays and user-friendly functions, with a logical approach to operations. Frequency, channels, sensitivity and other parameters can be viewed and adjusted in an instant. All components offer this same operating system.
◆ Automatic frequency scan feature searches for available frequencies
◆ User-friendly display on the mount receiver allows you to quickly read off all the important transmission parameters.
◆ Lock function avoids accidental changing of settings
◆ Mute function for the transmitter
◆ Designed to take hard knocks, transmitters and receiver are protected by a rugged metal housing
◆ High RF output power for absolutely reliable transmission and extended range
◆ Transmitters and receiver are powered by two AA batteries to ensure a longer operating time and stable RF performance. A rechargeable battery pack is also available.
◆ Low battery consumption allows longer performances, and all transmitters feature a flashing low battery warning LED.
◆ Wide range of accessories are available to adapt the system to any requirement.

EW100-ENG G2 Kit:
Camera Mountable UHF Wireless Lavalier and Plug-on Bundle
The EW 100-ENG G2 system is ideal for video recording in the most varied recording situations. The ME 2 clip-on microphone is virtually invisible. The extremely small SK 100 G2 bodypack transmitter and the SKP 100 G2 plug-on transmitter as well as the EK 100 G2 camera receiver feature nine frequency banks with four directly accessible presets each – ready for immediate use.

System Includes:

• EK 100 G2 portable receiver
• SK 100 G2 bodypack transmitter
• ME 2 omni-directional clip-on mic
• SKP 100 G2 plug-on transmitter
• CL 1 jack cable
• CL 100 XLR cable
• Camera shoe adaptor
• 6 AA batteries
UHF On-Camera Micro Diversity Wireless Microphone System

With a compact, lightweight, and streamlined design, Samson's UHF Series One Micro system is ideal for professional videography. It offers great performance along with a host of smart, practical features. Up to six systems can be used simultaneously. Designed for camera mounting, there are a wide variety of lavalier, handheld and headset microphones to suit any application from video deposition and wedding videography to corporate and broadcast video. The UM-1 Receiver features a balanced-XLR output.

FEATURES

**UM-1 Handheld Systems**
- Battery compartment conceals On/Off switch and an audio input trim pot, controlled with a supplied plastic screwdriver. Lets you optimize audio level performance when using different microphone elements.
- 14-hour typical battery life and three multi-color LEDs indicate relative battery power (low, medium and high).
- External audio On/Off switch allows the audio signal to be muted without inducing a thud or popping sound when disabling the transmitter.

**UTII Beltpack Transmitters**
- A number of lavalier and headset microphones can be connected to the beltpack transmitters using a 3-pin Switchcraft mini-XLR jack.
- Permanently attached pig tail antenna on the body-packs maximize RF transmission.
- Beltpack transmitters have a belt clip that can be rotated to any desired position or removed.

**UM-1 On-Camera Receiver**
- Houses two discrete receiver circuits while a processor decides which of the two receiver circuits has the better signal.
- Offers 1/8” stereo headphone output with level control.
- A/B LEDs indicate whether the left or the right receiver channel is currently in use.
- 3 multi-color LEDs (low, medium and high) are switchable to indicate either battery power or RF signal strength and can be disabled to conserve battery power.
- Peak LED indicator lights up red when approaching clipping which can cause audible distortion.
- Battery compartment houses the on/off switch and a Variable Squelch control (with plastic screwdriver) that sets the maximum system range before drop out.
- Both antenna mountings allow full rotation for flexibility in placement and can be folded inward for transporting.
- Attaches to camera using supplied velcro.
- DC input can accept voltage between 6-13v from a video camera.
- Has a balanced-XLR output (as well as an unbalanced mini). Includes output cable.
- Runs 12 hours on a single 9v battery.

**UM-1 Lavalier Systems**

table

**UM-1 Handheld Systems**
- UH-1 Handheld Transmitter with UM-1 Receiver, Balanced mini XLR-to-XLR output cable, Mic Clip and Carrying Case
- UM-HHQ With Samson QMic mic capsule ............................................................... 289.95

**UM-1 Lavalier Systems**

table

<table>
<thead>
<tr>
<th>Lavalier System</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>UM-L350</td>
<td>With Audio Technica MT350...............................</td>
<td>299.95</td>
</tr>
<tr>
<td>UM-L831</td>
<td>With Audio Technica AT831 lavalier mic...............</td>
<td>329.95</td>
</tr>
<tr>
<td>UM-L44</td>
<td>With Sony ECM-44 lavalier mic..........................</td>
<td>369.95</td>
</tr>
<tr>
<td>UM-L77</td>
<td>With Sony ECM-77 lavalier mic..........................</td>
<td>519.95</td>
</tr>
</tbody>
</table>

**UM-1 On-Camera Micro**

- UM-1 On-Camera Micro with UM-1 Receiver, Balanced mini XLR-to-XLR output cable, Carrying Case
- UM-1 Series One Micro Accessory
- SAMSON 174 SERIES ONE MICRO
32-Channel UHF On-Camera Micro Diversity Wireless Mic Systems

UHF Micro 32 is a versatile frequency-selectable diversity system offering the highest level of performance for broadcast ENG/field work, corporate video and professional videographers. This remarkable system features 32 channels in both the receiver and transmitter. Sophisticated Diversity circuitry ensures optimum RF performance. The system features sophisticated SAW (Surface Acoustic Wave) filters in the receiver that focuses exclusively on the incoming signal to maximize reception and transmission quality. PLL-synthesized VCO circuitry in the transmitters reduces RF interference from spurious emissions in multi-user applications. The “system of choice” for demanding video professionals.

FEATURES

System

◆ Three bands of operation (low, medium and high), with 32 different available channels per band, all operating UHF bandwidth. Up to six Micro 32 systems (each tuned to a different frequency within the same band) can be used in the same location without interference.

◆ Uses SAW (Surface Acoustic Wave) filters like the one used in high-end television receivers for extremely precise and stable tuning. Ensures that the receiver focuses only on the incoming signal, not extraneous noise or overlapping signals.

◆ True Diversity technology maximizes active range (up to 300 feet) and reduces potential interference problems through automatic switching between two independent receivers.

◆ Channel and group selectors

◆ Optimized for use in videography applications, the Micro 32 system is highly customizable, combining a UHF “walkaround” receiver with your choice of beltpack or handheld microphone transmitters, as well as headset systems.

◆ Built-in companding noise reduction in all components for crystal-clear sound with minimal background noise and hiss.

◆ 3-year limited warranty

Transmitters

◆ Turning off the audio signal while leaving the carrier signal on, allows audio to be muted without “pop” or “thumps”

◆ Convenient three-segment multi-color battery strength LED meter for monitoring remaining power in the installed battery.

◆ They run on 9-volt batteries for 8 hours.

◆ Controls include Power On/Off switch, Audio Frequency Level adjustment, and Group/Channel selectors for 32 channels.

◆ Compact “beeper-sized” belt-pack transmitter (4 ounces with a 9-volt battery installed).

T32 Systems

Including Transmitter, UM32 Receiver, Balanced mini XLR-to-XLR output cable, Mic Clip and Carrying Case

UM-32 Receiver with T32 Body Pack Transmitter and AT MT350 Lavalier Mic...........349.95
UM-32 Receiver with T32 Body Pack Transmitter and AT MT831 Lavalier Mic...........399.95
UM-32 Receiver with T32 Body Pack Transmitter and Sony ECM-44 Lavalier Mic.......449.95
UM-32 Receiver with T32 Body Pack Transmitter and Sony ECM-77 Lavalier Mic.......599.95
UM-32 Receiver with H32 Handheld Transmitter and Samson Q Mic Capsule ...........389.95

M32 Receiver

Includes a pair of tuned antennas and provides balanced and unbalanced outputs (with a three-position output level switch) and a headphone monitor output with adjustable level. Also includes an audio peak LED, dual receiver indicators, and an RF strength meter. Using the supplied velcro strip, the compact, lightweight M32 receiver easily attaches to any video camera.
SONY

UWP SERIES

Low-Cost UHF Synthesized Wireless Microphone System

Although low-cost wireless systems has proliferated dramatically in recent years, they usually lack in transmission stability and have noise problems that are overlooked. The ideal solution for budget-conscious users seeking rock-solid transmission, the UWP Series incorporates sophisticated wireless technologies from Sony’s top-of-the-line UHF Series including PLL-synthesized system, space-diversity reception and a tone squelch function. Whether for low-cost ENG, EFP or PA systems, the UWP Series delivers the convenience of non-compromised wireless microphone operation at a very affordable price.

The UWP Series consists of five core elements — a lavalier/bodypack transmitter, a wireless handheld mic, a portable tuner, a half-rack-size tuner, and a tuner module. These are available in six turnkey packages, each comprising a microphone, transmitter and tuner, for a ready-to-go system straight out of the box. Each package has been carefully compiled to address almost any application—from video production and A/V presentations, to live performance and electronic news gathering.

FEATURES

- PLL Synthesized System used in the transmitters and tuners, achieves solid transmission and reception by using a stable carrier signal to avoid interference with other frequency channels and to allow the selection of a preferred channel from multiple frequencies (188 selectable frequencies).
- True Diversity Reception System—used in all UWP tuners – reduces signal dropout to a minimum. Achieves stable reception by using dual-antenna inputs/reception circuits that receive signals over two different paths and automatically select the stronger RF signal for output.
- The antennas of the portable and half-rack-size tuners each allow for angle adjustments, which helps to further eliminate signal dropout.
- Tone Squelch Circuitry prevents the output of unwanted signals or noise from other signal transmissions in the air, as well as the RF noise and popping noise that occur when the transmitter is powered on or off.
- Allows simultaneous operation of up to 16 wireless mics. Optimum combinations of practically tested, intermodulation-free frequencies (stored in the UWP tuners) simplifies the task of system setup.

Lavalier Microphone and Bodypack Transmitter

- Compact and lightweight design
- 3.5mm, 3-pole mini-jack input connector with lock mechanism
- Includes belt clip
- Supplied lavalier electret condenser mic with windscreen and mic clip

Bodypack and Handheld Transmitter

- LCD screen displays the operating channel number and its frequency in MHz, attenuator level, RF-output level (High/Low), audio-input and RF-output status, transmitter-battery status and accumulated operating time
- Six hours operation on two AA batteries
- Selectable RF-output level: 5 mW for simultaneous multi-channel operation: 30 mW for long-distance transmission
- Attenuator function allows adjustment of the mic-input level to suit each user’s voice

Handheld Microphone

- Uni-directional, dynamic mic capsule
- Internal antenna design
- Supplied with a microphone holder and a screw adapter

www.bhphotovideo.com
**Portable Tuner (Receiver)**

- LCD screen shows operating channel number and its frequency in MHz, audio-output status, RF-input level, tuner-battery status and operating time.
- Runs for six hours on two AA batteries
- Stereo mini jack with volume control
- Angle-adjustable antennas eliminate signal dropout and allow mounting position flexibility on a camcorder.
- Supplied shoe-mount adapter enables easy mounting on camcorders. Also includes mic stand adapter, screw adapter, mic cable and belt clip.
- Space diversity reception system for stable RF reception
- RF squelch function virtually eliminates ambient noise and unwanted signals from other wireless microphone systems

**UWP-C1 Lavalier System**

Suitable for a wide range of applications, from news gathering and interviews to talk shows and conferences. Includes a lavalier mic supplied with a windscreen and mic holder clip, a bodypack transmitter supplied with a belt clip, and a portable tuner.

The tuner includes mic stand adapter, screw adapter, shoe-mount adapter for mounting on a camcorder and mic cable (3-pole mini plug/XLR-type)

**UWP-C2 Handheld System**

Suitable for news gathering and for use in PA systems. Consists of a handheld microphone supplied with mic holder and screw adapter and portable tuner.

The tuner includes mic stand adapter, screw adapter, shoe-mount adapter for mounting on a camcorder and mic cable (3-pole mini plug/XLR-type)

**BeachTek DXA-4**

**Dual XLR Adapter for DV Camcorders**

The DXA-4 offers an easy, reliable way to hook up professional audio gear to your DV camcorder — and with it, all the benefits of using balanced audio for superb sound every time. Record from two sources at the same time. Each input is recorded on a separate audio track, making it possible for you to mix both channels during editing. You can even feed a time code signal into one input and audio into the other. Available for Sony DCR-VX2000/2100, TRV Series, Canon GL-1/GL-2 and XL-1/XL-1s.

- Two channels let you record two sources on separate tracks for post audio mixing. Both channels have their own mic/line level switch and trim potentiometers for flexibility and complete control
- Security mounts underneath camcorder, eliminating cable strain
- Has a threaded hole for mounting on a tripod plate
- Rugged all metal case provides complete shielding from noise.
- Made with Neutrik XLR connectors and transformers for dependability

**SIGN VIDEO XLR-PRO**

**Passive Dual XLR Adapter/Mini Mixer**

The XLR-Pro is a Dual XLR adapter that lets you feed professional audio to any camcorder that provides an audio 1/8” input jack. This allows you to use professional mics, tap into PA systems and mixers, and use long run, balanced audio cables — all with complete confidence. Special circuitry ensures that the XLR-Pro will work with any camera.

- Each of the inputs offer a choice of XLR and 1/8” mic/line switchable inputs with volume controls
- Connects to your camcorder via an 1/8” stereo mini plug with a 13” cable
- A stereo mono output switch lets you record from one mic to both channels
- Securely mounts under your camera, for either hand held or tripod operation, or can be easily clipped onto your belt
- Unique ground switch lets you select the quietest ground for any camera
- 5.25 x 2.75 x 1.25” and weighs 13.5 oz.

**DXA-6:** Now, an XLR adapter and phantom power unit in one compact device. Has all the great features of the DXA-4 with the addition of 48v phantom power on both channels. Works with any stereo camcorder.
FIELD MIXERS

AZDEN FMX-2
2-Channel Stereo Field Mixer
A portable, all-metal 2-channel low-noise field mixer, the ultra-compact (5 x 3.75 x 1.6” WxDxH) and lightweight (8 oz.) FMX-2 runs on a single 9v battery for up to 12 hours making it almost a requirement for any videographer’s camera bag.

- Two balanced XLR mic/line switchable outputs plus a stereo mini-jack output for high-quality DV cameras.
- One mic can be mixed to both outputs as well as either single output or two mics can be mixed to either single output or mixed together to both outputs.
- Two balanced XLR inputs with individual level controls
- Twin “Peak” level input indicators, “Monitor” output (stereo or mono) with level control and a Power On/Off/Low Battery LED indicator.
- Can be attached directly to a camera with provided velcro or belt-worn using the included 3-position belt clip

WENDT X2
2-Channel Stereo Field Mixer
Ideal for audio mixing for film, documentaries, ENG or virtually any application requiring a portable mixer, the X2 features a compact and lightweight, but durable body built to withstand the rigors of road use.

- Dual XLR balanced mic inputs delivering high audio levels while minimizing noise, and dual XLR balanced outputs that are switchable between microphone and line level output signal.
- Each channel features individually switchable phantom power, capable of sending 48V or 12T power to condenser microphones.
- Mic inputs also feature 0dB, 10dB and 20dB attenuation and gain switches, allowing further control over condenser microphones with high gain and dynamic microphones that require more.
- An additional stereo, 3.5mm mini jack output jack provides a secondary mic level output feed to camcorders, portable recorders, etc.
- The X2 is powered via 6 AA alkaline batteries for up to a 12 hours.
- Built in Slate Microphone and Test Tone Oscillator provides all the tools needed for meter and tape calibration.

SOUND DEVICES MixPre
2-Channel Compact Field Mixer
Designed for remote or field mixing in video, film, broadcast or professional recording applications, the compact and lightweight MixPre boasts an impressive feature set starting with 2 transformer balanced XLR microphone inputs and stereo (L/R) XLR outputs. Separate stereo tape output and tape return input are provided, both feature 1/8” (3.5mm) mini stereo jacks.

- Mic inputs with L/C/R panning, 48v or 15v phantom power, 6dB per octave HPF @ 80 or 160 Hz and sunlight-readable LED meters
- Maximum of 66 dB of gain per input
- “Unclippable” input peak limiters with adjustable limiter threshold (per input) and dual mono or linked stereo limiter operation
- High-power headphone monitoring
- Operates on two AA batteries or external 5 to 17v DC powering
- High-strength, extruded aluminum chassis with protective metal end panels
- All-metal connectors solidly connected to chassis

SOUND DEVICES 302
3-Channel Compact Field Mixer
The 302 is a compact, professional audio mixer designed to meet the demands of film, ENG / EFP and broadcast applications. It has three transformer-balanced mic or line level XLR inputs with continuously adjustable input trim, L/C/R panning 2-position HPF, and phantom power (48V or 12V) or “T” powering per channel

- Stereo (L/R) balanced XLR outputs (mic or line level switchable)
- Limiters on inputs and outputs
- Solo (PFL) channel monitoring, sunlight-viewable LED meters
- Active-balanced line/tape/mic level outputs on XLR connectors; tape level output on TA3 locking connectors
- Return input for monitoring
- Powered by three AA batteries or external 5-18 v DC
- Sunlight-viewable LED meters with software selected ballistics
- On-board MS stereo matrix
- Push pots for setup features to keep the front panel clutter-free
**Portable 2-Channel Stereo Preamp and Mixer**

The FP-24 is a studio-quality, two-channel, portable stereo mic mixer, designed for active use in demanding broadcast environments. Features like assignable L-C-R inputs, built-in slate microphone, 1kHz tone oscillator, and headphone monitoring combined with compact and rugged mechanical and electrical construction, make this mixer ideal for any application.

- Two transformer-balanced microphone inputs with left, center, and right position mixing capabilities
- Unique 7-segment peak output meters, with three selectable levels of LED brightness—readable even in direct sunlight
- High current balanced output drivers provide signal integrity over long cable runs
- Headphone preamplifier enables monitoring of program audio or external tape return
- "Unclippable" input peak limiters with adjustable threshold (each input)
- Selectable 15v and 48v phantom power
- Switchable low-cut filters with 80 and 160 Hz corner frequencies, 6dB per octave
- Powered with two AA alkaline batteries (11-12 hours) or 4-14v DC power (PS20)

**DV PROMIX 3**

3-Channel DV Mixer

Designed for today’s demanding video shoots, the DV PROMIX 3 is a portable, battery-operated, robust three-channel mixer that provides very high quality audio in a compact, lightweight package.

- Accepts line level and dynamic mic signals and 48v condenser mics.
- Each input has a switchable low cut filter to reduce wind noise and is equipped with a channel assignment switch.
- Inputs and outputs are line or microphone level switchable
- Output limiters ensure you won’t overload the cameras audio inputs, while the tape return function gives you confidence that the audio has been fed to the camera.
- Operates on two 9v alkaline batteries.

**M3 3-Channel ENG Audio Mixer**

A cost effective, flexible portable mixer that combines rugged construction, high quality componentry, and ease of use in a compact package, the M3 is perfect for ENG and EFP applications, digital and desktop recording and editing.

- Three transformer-balanced XLR inputs (with switchable "T", Dynamic or 48v phantom powering) and outputs for pristine audio. Inputs and outputs are mic/line switchable and have a 3-way input pad: Dynamic 0dB Pad, Condenser -15dB Pad, and Line Level -50dB Pad.
- Includes two 10-pin connectors for use with Beta snake cables (mic or line switchable) to connect two cameras, and two Auxiliary outputs for RF feeds (mic or line switchable). Also provides audio signal and tape return signal flow for monitoring.
- Ganging input and output connectors let you use two M3 mixers tied together.
- Channels 3 and 4 can be linked for stereo recording using 2 mics in either M-S or X-Y configurations. The “Gang” switch links inputs 3 and 4 and both input levels are then controlled by Pot 4.
- “Separate” and “Ganged” switches allow independent or linked operation of both limiters.
- LCD peak meters emulate the peak reading attributes found in Betacams cameras. This ensures meters accuracy no matter how the mixer and camera are connected.
- Low cut filters eliminate low frequency noise and rumble.
- Built in slate microphone for recording notes and information related to editing.
- Headphone monitoring selections include Stereo, left or right to both ears, Mono, Pre Fade Listen of channels 1,2 and 3 and MS Stereo, and tape returns from two cameras.
- A handy boom-pole remote control attaches to any boom pole. This allows sound engineers to adjust recording level without reaching for the mixer.
FIELD MIXERS

ROLLS MX-124 ProMix IV
4-Channel Stereo Mixer
The MX124 is a lightweight, compact, four channel mic mixer featuring 3-pin XLR inputs and transformer balanced XLR stereo (L/R) outputs. Located on the side are four 18v DC phantom power switches and four low-cut filter switches. Individually switchable phantom power supplies allows the flexibility to use dynamic and condenser mics simultaneously and low-cut filter switches eliminate hum, rumble and noise associated with wind and proximity effect.
- The front panel has level and pan controls for each channel.
- 1/4˝ TRS phone and 1/8˝ (3.5mm) mini outputs can be used to feed headphones or as alternative stereo outputs.
- Runs on two 9v batteries for complete portability

ROLLS MX-442
4-Channel Field Mixer
A price/performance breakthrough, the MX-442 features four XLR balanced inputs with 48v phantom power, trim controls, 20 dB pad and Lo-Cut switches. Each input has trim and volume controls, and a pan control for adjusting the signal placement in the stereo field. Large VU level meters may be switched to monitor the R/L channel outputs (mono/stereo), monitor signal, or battery condition. It has two oscillators, one 20Hz tone with the Slate Mic, and a 400Hz tone for sound check and setup. An internally adjustable limiter with adjustable threshold is also included. The MX-442 is powered via 12v DC or by two 9v batteries (for up to 20 hours) and is housed in a lightweight aluminum chassis.
- 1/4˝ stereo headphone output with level control
- Battery test switch and indication on meters

PSC AlphaMix
4-Channel ENG Mixer
AlphaMix offers four switchable mic/line inputs, 12T or 48v phantom power, low noise pre-amps with continuously variable gain trims, active low cut filters, balanced line level outputs per input channel, pre-fader-listens and simple three LED meters per input channel.
It uses NP-1 style batteries and is equipped with selectable low battery monitoring. In addition, it has four Hirose 4-pin power output connectors that allow it to power up to four wireless receivers. And unlike other external battery distribution boxes, each of the power outputs is individually filtered for quiet wireless operation.
The AlphaMix can feed and monitor audio returns from two cameras. It utilizes a custom-made peak reading LCD meter that emulates most of today’s cameras. For further convenience, it has a boom pole mounted remote control that can be used to control the gain of the first input channel, thus allowing you to boom with both hands.

VERSIFIED Professional Audio Harness
Carry your portable mixer or recorder with greater ease, comfort and accessibility using this over the shoulder harness. Room for mixer/recorder with additional clips for carrying extra equipment and cables. Wide shoulder pads provides better weight distribution. Weather proof durable construction. Compatible Porta-Brace, Kata, Petrol cases.

REMOTE AUDIO HN-7506
High Noise Environment Headset Monitor
Uses Sony MDR-7506 drivers with special baffling to provide extreme isolation from high noise environments such as helicopters, raceways, rock concerts, etc. Also adds a high degree of protection from hearing damage while giving the user the familiar sound of the industry standard Sony headphones.

SOUND DEVICES 442
4-Channel Field Mixer
Designed for film, TV news, documentary, radio, effects recording, and music production, the 442 sets new standards for functionality, size, and performance for portable audio mixers. It features 4 balanced XLR mic/line switchable inputs with variable input trim, pan and HPF; selectable 48v or 15v phantom or “12T” microphone powering per channel.
- Balanced line/tape/mic level output on XLR connectors and Hirose connector
- Peak limiters per channel, PFL monitoring in headphones
- On-board MS stereo matrix, Sunlight-viewable LED meters
- Direct outputs and balanced line or tape level output on TA3 locking connectors
- 1/8˝ stereo tape level and 1/8˝ mono mic level outputs
- 2 return inputs for monitoring two-camera productions
- Push pots for setup features to keep the front panel clutter-free
- Powered by 4 AA batteries or external 5 - 18 v DC
PMD-101/201/221/222/430
Portable Cassette Recorders

The world standard for field recording, the PMD line is also the value leader. They all feature RCA line input/outputs, 1/4" headphone jack, built-in speaker, pause control, audible cue and review, tape counter, full auto shut-off and low battery indicator. Used professionally by journalists, law enforcement agencies, aural historians and musicians.

- Record limiter and Automatic Level Control (ALC) are great in news gathering. Connect a mic, press record, and get the story while the recorder takes care of levels.
- They run up to 7½ hours on three 'D' cell batteries, or up to 5½ hours with the optional RB430 rechargeable battery.
- Built-in electret condenser microphone is a great back-up in a pinch.
- Modular telephone jack lets you record phone interviews and gives you the ability to play back over a telephone line as well.
- Mic attenuation is adjustable in three settings from 0 to -20dB.
- 3-position noise control switch, (flat, low-cut, or low-and-high cut.
- All except the PMD-430 have 1/2 speed playback/record capability. 1/2 speed recording is great for churches, because 90 minutes can be recorded on a single side—no interrupting your recording to flip the tape over. Line inputs make it easy to use and connect to your existing sound system.

PMD-670
CompactFlash Recorder

The PMD-670 is a rugged and reliable digital portable audio recorder that records digital audio data directly to a single CompactFlash memory card. Ideal for in-the-field recordings. The ability to archive to various formats allows this unit to interface with a variety of equipment, be it analog, digital or a PC based system.

- Unbalanced RCA inputs/outputs along with a pair of XLR mic/line inputs are complimented by a S/PDIF I/O on RCA coaxial connectors.
- A switchable band or high-pass filter helps reduce ambient noise.
- Comes with a two-second pre-record buffer, a silent skip mode and has a built in microphone and speaker.
- Records to compact flash media that is immune to shocks and large temperature fluctuations.
- Manual record with limiter or auto record level control.

CDR-300
Portable Desktop CD Recorder

Designed for stand-alone portable recording, the CDR-300 is a professional CD recorder that offers the functionality of a professional tape recorder—while recording directly to blank CD-R/RW media.

Once finalized, recorded discs will play back in virtually any CD player.

To record, simply place the compact and lightweight CDR300 on a table-top, power it up via 120v AC or 12v DC power and record live using either the internal mic or external microphones that attach to stereo XLR or 1/4" mic/line inputs.

Because it has a built-in preamp, an external mixer or mic preamp is not required. A built-in speaker or headphone jack conveniently allows recordings to be monitored. High and low EQ and high and band pass filtering can be independently adjusted for each mic/line input in the preset menu. 48v phantom power is available for condenser microphones. The CDR-300 also provides manual or automatic level control, limiter, and digital level meters.

Fostex FR-2
CompactFlash Recorder

Designed specifically for location sound recording, broadcast and sound effects acquisition, TV and radio documentary, and in fact any application where high quality audio recording is required, the Fostex FR-2 sets a new price performance ratio in the compact portable two track recorder market.

Flexibility is the keyword with the FR-2. Recording industry-standard Broadcast Wav Files (BWF) to either PCMCIA 1.8” hard drives or Type II Compact Flash cards, the FR-2 brings many features from Fostex’s experience as a long-term leader in digital location recording such as a 10 second pre-record buffer, battery power, on-board limiter, and phantom powered balanced mic inputs. Of particular note is the file per take system with scene and auto take naming which was developed on the industry acclaimed PD-6 & DV40.

Specific ‘firsts’ on the FR-2 include the ability to record up to 24-bit 192KHz, making it the first choice where the highest quality sound effects acquisition is required; and the optional timecode card which has a fully-featured reader/generator, including 23.976, and external word/video references, making it an ideal basic production or location back-up recorder.
**HEADPHONES**

**SONY MDR-7502**

Designed for a broad range of applications, for general sound monitoring in the studio or the field. The rugged MDR-7502 is a high quality, low-cost alternative to consumer headphones.

- 60Hz–16kHz frequency response
- 30mm driver unit delivers clear, high quality sound reproduction.
- Closed-ear design for comfort and reduction of external noise interference.
- Gold connectors and OFC cord for reliable and stable signal connection and transmission end with 1/4˝ and 1/8˝ stereo uni-match plug

**SONY MDR-7506**

With low impedance, the closed ear MDR-7506 does an outstanding job of cutting down background noise while providing plenty of volume in the studio or field. Ideal for use with camcorders or other equipment with less than powerful amplification.

**MDR-7506 Step-up Features:**

- 15Hz to 18kHz frequency response
- Rugged design for proven reliability in the toughest situations
- 40mm driver unit for clear, high quality sound reproduction
- Folding construction for compactness when storing away

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**SOUND DEVICES HX-3 Portable Headphone Amplifier**

The HX-3 is a portable, stereo headphone amplifier designed for critical audio monitoring. The audiophile-quality headphone amp is ideal for adding headphone feeds from balanced or unbalanced, line level sources. Each headphone control has its own level control, peak LED, and 1/4˝ output connector. With its extended bandwidth and high drive capability, the HX-3 can drive headphones of various impedances to high levels with very low distortion, important for monitoring in high SPL environments. It is powered by 2AA batteries or external DC.

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**Audio Technica**

**ATH-D40fs / ATH-M40fs**

AT’s Precision Studiophones deliver premium performance, long-lasting reliability and comfort for specialized uses. Built for power and precision with large 40mm diameter drivers, neodymium magnets and CCWAW voice coils, they deliver 1600 mW of power handling and very high SPL capability while maintaining exceptional clarity and accuracy. They have adjustable padded headbands and sturdy, ultra-flexible strain-relief cables made of OFC litz wire, with convenient one-side exit. Circumaural earpieces provide maximum isolation, and can be rotated 180° to permit one-ear monitoring. The ATH-D40fs features an enhanced bottom-end response (from about 20Hz to 500Hz), making it ideal for use with predominantly low-frequency sound sources such as bass instruments and drums. The ATH-M40fs is designed specifically for professional monitoring/mixing, with a flat, extended low-frequency response to 5Hz that ensures accurate sound reproduction.

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**Sennheiser HD 280 Pro**

Designed to exceed the demands of the professional environment, the closed, circumaural HD280 boasts extremely robust construction combined with extensive features that meet the requirements of today’s most demanding applications. The unique collapsible design combined with swiveling ear cups, offers maximum flexibility in any application.

- Accurate, linear sound reproduction for critical monitoring applications
- Optimum impedance ensures universal compatibility
- Collapsible, rotating earcups
- Up to 32 dB of ambient noise attenuation
- Neodymium magnets for high max. SPL
- Single-sided, coiled cable with 3.5mm mini jack with locking 1/4˝ adapter
- Rugged construction with user-replaceable parts

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**www.bhphotovideo.com**
## Mini-DV Video Tapes

### Panasonic Tapes

**DVM without Chip**

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**10 min DVM -EL with Chip**

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### Panasonic Pro Tapes

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**AYDVM-MQ**

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### Sony Tapes

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**DVM-EX without Chip**

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## Mini-DV Camera Cases

Mini-DV Cameras Cases are made for a variety of cameras. They are customized to accommodate the exact size of your camera, each with special removable pouches and comfortable suede shoulder strap. Also provided are specific camera cradles to hold most cameras, pouches with special features, and/or soft pouches padded to hold delicate parts such as lenses. The cradle is adjustable to fit your camera, giving it a secure home allowing any remaining space for accessories. The CS-DV2 and CS-DV3 have a cradle and removable padded pouch for extra batteries and tapes. The pouch can be used in the case, as a pocket, or used as a shoulder bag. The CS-DV4 comes with a cradle and two zippered stuff sacks. The CS-DV-1 comes with cradle only.

## DV Organizers

The DV Organizer provides an extra level of protection and storage options previously unavailable in the case market. Storage space for compact camera, shotgun mic, lavalier mics, receivers, connectors, cables, small tools, extra batteries and tapes are handled easily with a variety of camera cradles, dividers, and pockets thoughtfully arranged to make the DV Organizer the ideal case for compact field production. Easily accommodates matte box and filters if needed.

**DVO-2/CR3**

- Canon GL-2 .......................................................... Call
- Panasonic DVX-100, 100A, DVC-80 .......................... Call
- Sony DSR-PD170, 150, DCR-VX2100, VX2000 .................. Call

## Mini-DV Rain Slicker

The Mini-DV Rain Slicker is custom fitted to each camera model. Flaps, vinyl windows and zippered openings provide optimum ease of operation. Cameras with fold-out video screens are shrouded with a black fabric hood that makes viewing LCD monitors easier on bright sunny days.

Mini-DV Rain Slicker works with tripod or in the hand held mode. It is made from a newly designed Cordura fabric that withstands extremes in temperatures and provides excellent rain protection.

## Hip Pack

The HIP PACK can be used either in the belly position or fanny position. It has a re-enforced interior main compartment and a wide quick release waist belt. The main compartment will hold tapes and batteries or small cameras. Extra front and top pockets hold small items. There is a pocket for your keys on the waist belt. Comes with a Porta Brace water bottle.
The Edit Collection of digital video and miniDV camera bags is designed to safely and easily transport nearly every digital video camera available on the market today. They offer tremendous storage options in a light compact size, providing a truly functional and durable storage and transport system for digital video cameras and accessories. They all feature a front pocket with interior mesh organizer and visibility window for easy access to batteries and other accessories, a reverse-zipper, a padded handle with a comfort-grip, and padded Tricot lining that protects LCD screens from scratches and dust.

**Edit 120:**
Holds a digital camcorder plus accessories. 6.5 x 3.25 x 5.25” (WDH)............................19.95

**Edit 140:**
Slightly larger than the Edit 120. Dimensions are 8.75 x 4.5 x 4.5” (WDH)..................24.95

**Edit 140+:**
Similar to the above bags, with a 8¼ x 5 x 2” detachable SlIpLock compartment to store additional cords and accessories. 8.75 x 4.5 x 4.5H” (WDH).........................29.95

**Edit 160:**
Sophisticated, full-featured bag for digital video cameras with room to spare for accessories or a still camera. 9.5 x 4.5 x 6” (WDH)............................................................29.95

**Nova Micro AW:**
The smallest of the Nova Series can be carried on the non-slip shoulder strap, by the padded handle or add the optional Belt & Buckle and use it as a belt pack. An OverLap Zipper gives your gear extra protection and there is an outer accessory pocket and belt loops. Holds a super-compact digital video camera. 5 x 3.5 x 6” (WDH). Available in Black, Navy Blue, Forest Green, Grey, or Red..........................24.95

**Nova 1 AW:**
A very compact bag for those who like a smaller system. Features include an OverLap Zipper for 360° protection, No Drop Pocket for filter changes, interior and exterior pockets, a padded, contoured shoulder strap, padded handle and belt loops. Dimensions are 7.75 x 4 x 6.5” (WDH)..................................................32.95

**Nova 2 AW:**
This small, redesigned light bag loves to travel. The Nova 2 AW has hi-tech materials; and an all-weather cover to protect gear from the elements, dust and torrential rain. It has a customizable interior; OverLap Zipper; NoDrop Pocket for film and filter changes; many inner and outer pockets; a curved, pressed-foam shoulder strap; belt loops; and padded handle. 8.5 x 4.25 x 7.75” (WxDxH)..................................................38.95

**Nova 3 AW:**
The Nova 3 AW has a sleek new look and an All Weather Cover to help guard your gear. Movable dividers adjust the interior for your equipment. Film and accessories go in the inner and outer mesh pockets, security pocket and front NoDrop Pocket. Includes an OverLap Zipper; rugged metal hardware; a curved, pressed-foam shoulder strap; and padded handle. Size : 9 x 6 x 7.5” (WxDxH)..................................................43.95

**Nova 4 AW:**
The perfect travel bag with adjustable dividers that customize the interior for your system. If features an All Weather Cover; a curved, pressed-foam shoulder strap; an OverLap Zipper; a NoDrop Pocket; padded handle; belt loops; tough metal hardware; inner and outer mesh pockets; and back security pocket. 11½ x 6 x 7¾” (WDH)....54.95

**Nova 5 AW:**
This lightweight shoulder bag features an All Weather Cover for really bad weather and dust, a sleek exterior and a curved, pressed-foam shoulder strap. An OverLap Zipper offers extra protection; a NoDrop Pocket delivers safer film and filter changes. Size: 14 x 6 x 8.5” (WxDxH)....64.95

For Any Inquiries Regarding Your Order, Call Our Customer Service:
(800) 221-5743 • (212) 239-7765 • FAX: (800) 947-2215 • (212) 239-7549
The Portable Studio Series shoulder bag collection features pro-quality shoulder bags that are created from water-resistant 1200D ballistic TXP and 2000D ballistic nylon fabric. They have an OverLap Zipper; an All Weather Cover for rough weather and dust; extensive pockets; a thickly padded shoulder strap and padded leather handle, and attachment loops for optional SlipLock accessories.

**Commercial AW DV:** A large, pro-quality shoulder bag with two detachable Pro AW Side Pockets, a thickly padded shoulder strap, padded leather handle and Belt & Buckle. The totally flexible, modular interior lets you stow bodies and most-used lens horizontally or vertically — or flip the divider for a different layout. It accepts a digital video camcorder (up to a Canon XR1S) with lens attached, 2 extra lenses and peripherals. Dimensions are 19 x 12.5 x 11” (WDH)....................188.95

**Compact AW DV:** A hardworking shoulder bag that includes lots of inner and outer pockets and two removable Pro AW Side Pockets. It can hold a digital video camcorder (up to a Canon GL-2), batteries and peripherals. Interior size is 13 x 7.75 x 8” (WDH) .......................141.95

**D-Res 240 AW**
A convertible beltpack/shoulder bag to carry on its removable shoulder strap or on the hide-away, quick-release waistbelt. Designed for all your electronic toys; you can expand your carrying capacity with optional SlipLock add-ons. The front compartment has movable dividers to organize your gear, and there’s a handheld PC compartment and special pockets for memory cards and batteries. An All Weather Cover protects your gear from rain, snow, dust and sand. It holds a digital camera; PDA; cell phone, memory cards and 4 AA batteries. The interior front compartment is 10 x 2.5 x 6.5”, the notebook compartment is 10 x 1.5 x 6.5” .......................45.95

**D-Res 220 AW**
An intelligent solution designed with movable dividers and an All Weather Cover to carry a compact digital video camera system. There is also space for a PDA, a PC card in its case, 4 AA batteries; memory cards or MiniDV tapes; small accessories, and a cell phone. Carry it on the removable shoulder strap or fasten to any SlipLock base product or belt. The interior front compartment is 6 x 2.5 x 6.5”, and the back compartment is 6 x 1.25 x 6.5 ..............................................26.95

**D-Res 40 AW**
A versatile bag for many digital still or video cameras, including those with unconventional shapes. Designed to be carried on the shoulder strap or attached to your belt, the bag has inner pockets for memory cards and tapes. A movable divider customizes the interior for your system. Features a patented All Weather Cover, padded handle and quick-release shoulder strap. Attachment tabs fasten to your belt or any SlipLock base product. It can hold a digital still or video camera, plus memory cards, batteries or CD/DVD player and accessories. Its interior size is 7 x 5 x 6” ......................................................32.95

**D-Res 50 AW**
A wider, deeper bag that accommodates larger digital cameras and digital video cameras and unusual shapes. An adjustable divider allows you to customize the D-Res 50 AW for your system. There’s a laminated mesh pocket, padded handle and a patented All Weather Cover for protection against dust, rain and sand. Carry it on the quick-release shoulder strap and use the belt loops to attach it to your belt for additional stability. It holds most digital still or video camera systems, MiniDV tapes, CompactFlash memory cards or SmartMedia cards in cases, and accessories. Its interior size is 9 x 5 x 6” ..........34.95
5201

**Explorer 1**

The Explorer 1 is designed to hold most popular compact camcorders. This compact shoulder bag quickly converts to a comfortable hip pack by removing the BioCurve padded shoulder strap and unsnapping the hidden Tuck-A-Way hip belt. The main compartment features Tamrac’s Dual Foam Technology that combines closed-cell foam to provide maximum shock protection with open-cell foam for vibration dampening and a custom fit. Inside the total coverage top is an accessory pocket for lens cleaning paper. The front pocket has paraphernalia pockets and features the Memory & Battery Management System that uses red flags to identify available memory cards and batteries. You can add Tamrac accessories using the attachment slots for their Strap Accessory System (S.A.S) and Modular Accessory System (M.A.S.) products to customize this easy-to-use, compact carrying system.

- Internal Dimensions: 8½ x 4 x 6½” (WDH)
- Weight: 1 lb. 8 oz.
- Colors: Black, Blue, Green

5382

**Double Decker 2 Camcorder/Camera Bag**

This compact double decker is perfect for a digital camera or compact camcorder and accessories. In the top compartment, a foam-padded divider protects and provides a custom fit to equipment. The lower compartment is also foam padded and can be separated from the upper compartment to store an AC adapter, cords and other accessories that are not required during the day’s activity. A front zippered pocket features the Memory & Battery Management System that uses red flags to identify available memory cards and batteries from ones that are used up.

- Top compartment internal dimensions: 5 x 3 x 5” (WxDxH)
- Bottom compartment internal dimensions: 5 x 4½ x 1½” (WxDxH)
- Weight: 13
- Color: Black

5285

**Video-Photo 5 Double Decker Camcorder/Camera Bag**

This is a very full-featured bag for camcorders up to 9½” long. The top compartment is fully foam-padded with an adjustable foam-padded divider and a Windowpane-Mesh accessory pocket. A front zippered pocket provides more room for accessories. In back a Tuck-A-Way hip belt quickly converts the shoulder bag into a comfortable hip pack for hands-free action. The lower compartment is also foam-padded and can be separated from the upper compartment to store accessories that are not required during the day’s activity.

- Top Compartment Internal Dimensions: 9¼ x 4¼ x 5½”
- Weight: 1 lb. 9 oz.
- Bottom Compartment Internal Dimensions: 9¼ x 4½ x 2”
- Colors: Black

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Models 5201 and 5285 feature the Tuck-A-Way hip belt for hands-free carrying convenience.

www.bhphotovideo.com
Digital Series

Tamrac’s Digital Series offers unparalleled protection, features and functional design. Total coverage tops provide quick access and complete rain coverage. Because DV camcorders are mechanically fragile and electronically sensitive, Tamrac uses exclusive Dual-Foam Technology that combines closed-cell foam for maximum shock protection with open-cell foam for vibration dampening and a custom fit. The front pockets have Universal Memory and Battery Management Pockets inside to secure memory cards and batteries. Each bag is constructed of ultra-strong, waterproofed ballistic nylon and lined with smooth nylon that doesn’t collect dust or create lint.

5696 Digital 6 Video/Photo Bag

Dual Foam Technology combines closed-cell foam to provide maximum shock protection with open-cell foam for vibration dampening and a custom fit. Features a Speed Flap top for quick access, a zipper-closing Speed Pocket on the lid and a Windowpane-Mesh pocket inside the top for filters and lens caps. A front accessory pocket with inside secures various types of memory cards and batteries. A special fitted pocket holds extra memory cards. In addition to the EasyGrip carrying handle, the Digital 6 has an adjustable, removable shoulder strap and belt loop to carry it hands-free on a belt.

- Internal Dimensions: 5¼ x 3½ x 5¾” (WxDxH)
- Weight: 11 oz. • Colors: Black, Blue, Steel Gray

5698 Digital 8 Video/Photo Bag

The main compartment has two adjustable, foam-padded dividers and has Dual Foam Technology that combines closed-cell foam to provide maximum shock protection with open-cell foam for vibration dampening and a custom fit. A Windowpane-Mesh accessory pocket in the top holds filters or cleaning materials. The front zippered pocket contains paraphernalia pockets to hold tapes, cords and a small notepad, and also features two pockets to secure memory cards and batteries. In addition to the EasyGrip carrying handle, the Digital 8 has an adjustable shoulder strap and belt loops to carry it hands-free on a belt.

- Internal Dimensions: 9 x 3¾ x 5¼” (WxDxH)
- Weight: 1 lb. 2 oz. • Color: Black

5697 Digital 7 Video/Photo Bag

The main compartment has an adjustable, foam-padded divider and has Dual Foam Technology for vibration dampening and a custom fit. A Windowpane-Mesh accessory pocket in the top holds filters or cleaning materials. The front zippered pocket has paraphernalia pockets to hold tapes, a phone or notepad, and also features two Universal Memory & Battery Pockets for memory cards and batteries. In addition to the EasyGrip carrying handle, the Digital 7 has an adjustable shoulder strap and belt loops to carry it hands-free on a belt.

- Internal Dimensions: 8 x 3 x 5½” (WxDxH)
- Weight: 1 lb. • Color: Black

5685 Digital Double Decker

Specially designed divider system accommodates a wide range of camcorders, extra lenses, batteries and other accessories. The lower compartment can be separated from the bag and is an ideal place to store chargers and adapters. Windowpane-Mesh accessory pocket in the top. Front zippered pocket contains paraphernalia pockets, and two pockets to secure memory cards and batteries. In addition to EasyGrip handle, it has an adjustable shoulder strap and belt loops to carry it hands-free on a belt.

- Top compartment internal dimensions: 9¾ x 4¼ x 5” (WxDxH)
- Bottom compartment internal dimensions: 9½ x 4 x 2” (WxDxH)
- Weight: 1 lb. 10 oz. • Color: Black
Tamrac’s commitment to providing the ultimate in function, materials and craftsmanship is evident throughout their video bag line. Constructed of Cordura nylon that has been weather-proofed with two urethane coatings, each bag is padded with dense, closed-cell foam and features an adjustable divider for complete equipment protection. Windowpane-Mesh pockets are featured in the lid of each bag, and all but the 975 feature Tamrac’s ZipDrop front pocket, providing storage space for plenty of accessories. A strong plastic platform is found in the bottom of the 972, 973, 974, 975 and 976 for maximum support and protection. The two larger models (974 and 976) have a torsion bar stabilizer in the lid for even weight distribution. All Tamrac camcorder bags have an adjustable shoulder strap and a five year warranty. Tamrac’s Tuck-A-Way hip belt, featured on the 972, 974 and 975 quickly converts to a comfortable hip bag for hands-free carrying convenience.

972  
**Micro Camcorder Convertible Plus**

Designed to hold and protect camcorders up to 9 ½˝ long in a compact convertible carrying case, the 972 features Padded ABS Plastic platform for added stability and support, adjustable divider for custom fit, and Windowpane-Mesh Pocket inside top for lens paper, caps and accessories. The bag also features Tamrac’s Tuck-A-Way hip belt.

- **Internal Dimensions:** 10 x 4 ¼ x 5˝ (WDH)
- **Weight:** 1 lb. 7 oz.
- **Colors:** black, gray, forest green

974  
**Mini Camcorder Convertible**

Designed for camcorders up to 12 ½˝ long, the 974 gives full protection to your equipment while providing real mobility for the active video enthusiast. This bag features an ABS Plastic Platform in the bottom for added stability and support, Tamrac’s Tuck-A-Way hip belt, Zip Drop Front Pocket with organizer for accessories, Weather flap to protect zipper to main compartment, Windowpane-Mesh Instruction Booklet Pocket inside the top, and Smooth Pack Cloth Back to protect clothes from abrasion.

- **Internal dimensions:** 12 ½ x 5 x 6 ½˝ (Wx Dx H)
- **Weight:** 1 lb. 15 oz.
- **Colors:** Black

975  
**Double Decker Camcorder Convertible**

Really two bags that zip together, the 975 allows you to store charger, cords and accessories in a removable, zippered lower compartment. When the lower extra accessory compartment is removed, it creates a lighter bag for camcorders up to 10˝ long. The main compartment is completely foam padded. The bag features a sturdy carrying handle, Tuck-A-Way hip belt, and a Windowpane-Mesh pocket in the lid for instruction manuals, cables etc. Includes removable, adjustable shoulder strap with non-slip patch.

- **Top compartment internal dimensions:** 10 x 4 ½ x 4 ½˝ (Wx D x H)
- **Bottom compartment internal dimensions:** 10 x 4 ½ x 2˝ (Wx D x H)
- **Weight:** 1 lb. 7 oz.
- **Colors:** Black
976
Medium Camcorder Bag
Designed to hold and protect camcorders up to 14” long, the 976 has a Torsion Bar Stabilizer Strut in the top to evenly distribute weight and ABS Plastic Platform in the bottom for added stability and support. Features include Windowpane-Mesh instruction booklet pocket inside top, full length zipper pocket, Zip Drop Front Pocket organizer for accessories, Smooth Pack Cloth Back to protect clothes from abrasion.

- Internal Dimensions: 14½ x 4½ x 7¾” (WxHxD)
- Weight: 2 lbs. 2 oz.
- Color: Black

979
Double Decker Camcorder Convertible
The 979 is specifically designed for transporting camcorders like the DCR-VX2100, Canon GL-2 and others up to 16” in length. To accommodate all the necessary accessories, the 979 has a large, padded front pocket with organizer pockets and a mesh pocket to store cables and cords. Inside, numerous compartments provide storage for additional accessories like batteries, headphones, and extra microphones. A strong plastic platform in the bottom protects equipment.

- Internal Dimensions: 16 x 4½ x 8”
- Weight: 3 lbs. 2 oz.
- Colors: Black

TEK Series Carry-On Camcorder Case
Specifically designed to fit in the overhead compartment of airplanes, the TEK Series is constructed of PowerGrid Cordura and is ideal for camcorders such as the Sony DCR-VX2100, Canon GL-2 and XL-1s. The zipper opening main compartment is completely foam padded and reinforced with plastic armor for equipment protection. There is additional foam-padded armored protection for the viewfinder. On the front of the cases is a large ZipDrop pocket with internal organizer pockets for accessories, plus a full-length zipper pocket for smaller items. Dual zipper pockets on the back provide convenient storage for documents and accessories. The military spec. black EDP-coated hardware prevents unwanted reflections. The double webbing handles have comfortable leather wraps for carrying comfort and the heavily padded detachable non-slip leather shoulder pad takes the strain out of carrying a heavy load. Heavy-duty YKK coil zippers have convenient zipper pulls for fast action.

2248 Sub Compact Camcorder Case
- Weight: 5 lbs. 5 oz.
- Dimensions: 18½ x 6½ x 9¾” (WxDxH)
- Colors: Black, Forest Green

2249 Sub Compact Camcorder Case Extended
- Weight: 6 lbs.
- 22½ x 6½ x 10” (W x D x H)
- Colors: Black, Forest Green

2250 Compact Carry-On Camcorder Case
- Weight: 6 lbs. 5 oz.
- 22½ x 6½ x 10” (W x D x H)
- Colors: Black, Forest Green
Underwater Housing for the Sony DCR-VX2000/2100 or DSR-PD150/170

Designed for professional underwater use, the VH-2100 is an aluminum housing for the DCR-VX2000/2100 and DSR-PD150/170 that allows full use of camcorder functions at depths of 330-ft. The housing features electronic push-button controls and manual controls, provides excellent underwater balance, and has a unique front camera entry design that makes camcorder installation easy.

- 14 electronic push-button controls including: standby, record, momentary focus, zoom wide/telephoto, iris control, review, screen display, white balance, review. Also includes video light intensity controls.
- Manual controls include focus, iris, Power On/Off, and Standby-Record.
- Viewfinder features 2X magnification, adjustable focus and is tilted 25° for full-frame viewing through the face mask.
- Amphibious Dual Hydrophones add dimensional sound to underwater video.
- Bayonet mounted, fully-coated 0.55x amphibious wide angle conversion lens is vacuum sealed for maximum anti-fog protection. The lens includes a square lens hood complete with 3 x 4” filter slot.
- A sensor installed into the lowest part of the housing sets off a flashing red LED on the pistol grip if moisture is detected.
- Aluminum marine grade housing coated with 2 coats of polyurethane and marine grade brass with stainless steel hardware, that provides corrosion resistance and ideal protection in any environment.
- Pistol grips are ergonomically designed for cold water gloves or warm water use.
- Bright green LED located on the right hand pistol grip flashes when camcorder is recording.
- Includes an internal filter ring to accommodate either color correction filters or diopters for macro work and a #35 external glass 3 x 4” filter. The filters provide true underwater color and heightened contrast for sharper, brighter underwater hues.
- 2 Auxiliary ports

Dive Buddy “PLUS”

Housings for Sony DV Camcorders

A compact aluminum housing designed for Sony DV camcorders, the Dive Buddy “Plus” includes a hydrophone, Amphibico’s bayonet-mounted wide angle conversion lens, and a moisture sensor, five electronic push button controls which access 11 key camera functions, an internal flip filter for color correction filters or macro diopters, O-ring kit and 2 light shoes.

- Five electronic push button controls: Record/Standby, Telephoto, Wide Angle, Off and Photo (if supported by the camcorder)
- Built with marine grade aluminum and marine grade brass with stainless steel hardware that allows full use of camcorder features to depths up to 330’.
- Toggle between manual to autofocus
- External hydrophone for accurate underwater sound pick-up
- Extra wide quality optics (full zoom capability) .55x rectilinear wide angle providing 64° field of view
- Electronic moisture sensor with a flashing red light that lets you know if any water is leaking into the housing.
- Flashing green tally light when recording
- VCR mode: Play, Stop, REW, FF, Pause
- Rear Viewfinder
- Auxiliary port
- Approximate weight: 7.5 lbs (out of water without camera)
Video Housings

Ever since scuba began, divers have tried to capture the wonders of the underwater world and bring them to the surface to share with others. While still photography shows beautifully vivid colors and wondrous creatures of the sea, the video camera captures the added dimensions of time and motion. Video can display the unbelievable color changes of an octopus, the eeriness of a slow-moving shark in the distance, or the synchronized ballet of a school of bait fish. And with today’s ultra-compact, auto-everything camcorders it is easier than ever to capture exciting and memorable underwater footage.

Ikelite offers a full range of video housings for Canon, Sony and JVC camcorders. Designed for today’s traveling diver, they incorporate a variety of specialized features and most include the dome port, video-eye magnifier, top-handle and quick release base.

FEATURES

Easy-to-Use

* Ikelite housings are a joy to use. Their dependable, easy-to-operate controls are conveniently placed at your fingertips. Camera installation is quick and easy. housings are sized and weighted for near neutral buoyancy offering stability and superb handling underwater.

* Ikelite housing operate safely to 60m (200-ft) and have proven to be the safest enclosures money can buy. All housings are sized and weighted for near neutral buoyancy and superb handling underwater.

Easy-To-Use Controls

* Dependable, easy-to-operate controls are conveniently placed at your fingertips and kept water tight with Quad-Ring seal glands. Ikelite pioneered the quad-ring seal gland and has proven to be the most reliable method for sealing camera controls in underwater housings.

* Ikelite’s mechanical controls offer several advantages over electronic controls—the leading one being dependability. Thousands of Ikelite controls are in use with a performance record that approaches perfection. Mechanical controls allow the housing to feature more control functions resulting in a wider range of creative possibilities.

Instant Visual Inspection

* Ikelite Video housings are unique in the industry in that they allow visual inspection of the camcorder, control functions, and all sealing surfaces—offering visual insurance your system is safe.

* Ikelite offers two types of durable clear housings: clear polycarbonate injection molded housings or clear acrylic tubing shrouded with cast aluminum end caps. Both housings are exceptionally strong and corrosion resistant for trouble-free performance.

External Wide Angle Lenses

* Many video housings have a threaded port that allows the use of external wide-angle lenses manufactured by Inon and Sea & Sea.

Color Monitor

* The LCD color monitor on several camcorder models can be viewed underwater. Some monitors can be seen from the rear while others can be viewed thru the side of the housing. The optional External Mirror #9290.95 adheres to the outside of select Ikelite Video Housings allowing larger LCD screens to be viewed from the rear of the housing. Simply peel and stick.

Super-Eye Magnifier

* A special viewfinder enhancement device, the Super-Eye magnifies the camcorder’s viewfinder image allowing you to see exactly what the camera sees—even while wearing a diving mask.

UR/PRO Color Filter

* The patented UR/Pro color correcting filter enhances the warm reds and oranges that are so easily diminished underwater. The filter secures to the outside of the lens port offering easy installation and removal. Provides quality results with available sunlight underwater to 80’ depth.

Removable Handle

* The bar and handle system is easily removable from the housing to facilitate packing.

Quick-Release Base

* The quick release base removes instantly for traveling or for attaching a Pro Video-Lite to enhance color. The bar and handle system can also be easily removed from the housing to facilitate packing.
<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Controls</th>
<th>Features</th>
<th>Weight</th>
<th>Size (WHD)</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>6011.24</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Side view LCD Screen, W/A option *4 or 5</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>BN-V408</td>
</tr>
<tr>
<td>6011.27</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Super-Eye; Side view LCD Screen, Sony W/A Lens option *5</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>BN-V416</td>
</tr>
<tr>
<td>6011.30</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Rear view LCD Screen</td>
<td>6 lbs</td>
<td>11 x 8 x 7”</td>
<td>BN-V107</td>
</tr>
<tr>
<td>6012.30</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Super-Eye; Side view LCD Screen, W/A option *4 or 5</td>
<td>9 lbs</td>
<td>11 x 8 x 9”</td>
<td>BN-V408</td>
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<tr>
<td>6012.32</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Super-Eye; Side view LCD Screen, W/A option <em>4 or 5</em></td>
<td>9 lbs</td>
<td>11 x 8 x 9”</td>
<td>BN-V41</td>
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**IKELITE VIDEO CHART FOR SONY CAMERAS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Controls</th>
<th>Features</th>
<th>Weight</th>
<th>Size (WHD)</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>6037.12</td>
<td>Clear Cylindrical w/ Dome Port</td>
<td>P, SS, Z, FL, PH, WB</td>
<td>Video-Eye, Raynox 0.66x W/A Lens</td>
<td>20 lbs</td>
<td>14 x 14 x 14”</td>
<td>NP-F750</td>
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<tr>
<td>6037.14</td>
<td>Clear Cylindrical w/ Dome Port</td>
<td>P, SS, Z, FL, PH, WB</td>
<td>Video-Eye, Raynox 0.66x W/A Lens</td>
<td>9 lbs</td>
<td>13 x 13 x 13”</td>
<td>NP-F960</td>
</tr>
<tr>
<td>6037.75</td>
<td>Clear Molded with Dome Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Rear view; LCD Screen, Sony W/A Lens option</td>
<td>7 lbs</td>
<td>11 x 8 x 8”</td>
<td>NP-FS31</td>
</tr>
<tr>
<td>6037.80</td>
<td>Clear Molded with Dome Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Rear view LCD Screen, Sony W/A Lens option</td>
<td>7 lbs</td>
<td>11 x 8 x 8”</td>
<td>NP-FM30</td>
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<tr>
<td>6037.81</td>
<td>Clear Molded with Dome Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Rear view LCD Screen, Sony W/A Lens option or *5</td>
<td>7 lbs</td>
<td>11 x 8 x 8”</td>
<td>NP-FM30</td>
</tr>
<tr>
<td>6037.82</td>
<td>Clear Molded with Dome Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Rear view LCD Screen, Sony W/A Lens option or *5</td>
<td>4 kg</td>
<td>12 x 9 x 9”</td>
<td>NP-FM50</td>
</tr>
<tr>
<td>6037.84</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Rear view LCD Screen, Sony W/A Lens option</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>NP-FS30</td>
</tr>
<tr>
<td>6037.90</td>
<td>Clear Molded with Dome Port</td>
<td>P, SS, Z, FL, FM, PH, WB</td>
<td>Super-Eye, Rear view LCD Screen, Raynox 0.6x W/A Lens</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>NP-F750</td>
</tr>
<tr>
<td>6037.94</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, ME, PH, WB</td>
<td>Super-Eye, Rear view LCD Screen, Raynox 0.6x W/A Lens</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>NP-FM30</td>
</tr>
<tr>
<td>6038.05</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL</td>
<td>Super-Eye; Side view LCD Screen, Sony W/A option or *5</td>
<td>9 lbs</td>
<td>11 x 8 x 9”</td>
<td>NP-FM50</td>
</tr>
<tr>
<td>6038.30</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Super-Eye; Side view LCD Screen, Sony W/A option or *5</td>
<td>4 kg</td>
<td>27 x 20 x 24 cm</td>
<td>NP-FM71</td>
</tr>
</tbody>
</table>

**All housings feature:**
- Dome Port, External Removable UR/Pro Underwater Color Filter, and Quick-Release Base.
- Sizes shown include handles and base.

**CONTROLS:**
- P ............Power
- WB ......White Balance
- SS .........Start/Stop
- PB ............Playback
- Z ............Zoom
- D .........Edit Search
- FL ......Focus Lock
- SB ............Standby

**IKELITE VIDEO CHART FOR JVC CAMERAS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Controls</th>
<th>Features</th>
<th>Weight</th>
<th>Size (WHD)</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>6011.24</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Side view LCD Screen, W/A option *4 or 5</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>BN-V408</td>
</tr>
<tr>
<td>6011.27</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Super-Eye; Side view LCD Screen, Sony W/A Lens option *5</td>
<td>9 lbs</td>
<td>11 x 8 x 11”</td>
<td>BN-V416</td>
</tr>
<tr>
<td>6011.30</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Rear view LCD Screen</td>
<td>6 lbs</td>
<td>11 x 8 x 7”</td>
<td>BN-V107</td>
</tr>
<tr>
<td>6012.30</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Super-Eye; Side view LCD Screen, W/A option *4 or 5</td>
<td>9 lbs</td>
<td>11 x 8 x 9”</td>
<td>BN-V408</td>
</tr>
<tr>
<td>6012.32</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH</td>
<td>Super-Eye; Side view LCD Screen, W/A option <em>4 or 5</em></td>
<td>9 lbs</td>
<td>11 x 8 x 9”</td>
<td>BN-V41</td>
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**IKELITE VIDEO CHART FOR CANON CAMERAS**

<table>
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<th>Model</th>
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<th>Controls</th>
<th>Features</th>
<th>Weight</th>
<th>Size (WHD)</th>
<th>Battery</th>
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<tr>
<td>6040</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Super-Eye, W/A option *4 or 5</td>
<td>9 lbs</td>
<td>11 x 8 x 9”</td>
<td>BP-511</td>
</tr>
<tr>
<td>6041</td>
<td>Clear Molded with Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Super-Eye, W/A option *4 or 5</td>
<td>4 kg</td>
<td>27 x 20 x 23 cm</td>
<td>BP-522</td>
</tr>
<tr>
<td>6042</td>
<td>Clear Cylindrical w/ Flat Port</td>
<td>P, SS, Z, FL, PH, MC</td>
<td>Super-Eye, Canon Lens required *7</td>
<td>18 lbs</td>
<td>13 x 13 x 14”</td>
<td>BP-915</td>
</tr>
</tbody>
</table>

* Optional Raynox 0.65x or 0.7x wide angle lens from Ikelite.
**IKELITE UNDERWATER VIDEO LIGHTS**

**Pro Video-Lite Series**

The Pro-Video Lite combines remarkably even lighting coverage with a compact design that attaches easily and maintains the exceptional balance of the Ikelite video housing. The light head comes with a 50- or 100-watt primary lamp and features a built-in 20-watt modeling/diving light. A unique 13-volt nicad battery pack snaps underneath any Ikelite housing with the quick-release toggle, replacing the removable housing base. Add a second Lite head for dual intensity choices for different camera-to-subject distances. Combine two packs to double run time. The rotating on/off/on switch mounts to the handle of the camera housing for fingertip operation. Adjustable 12” mounting arm provides the flexibility to aim the light head in a multitude of positions. Convert to the SpD specialty diving light by selecting the SpD head and tank mount.

- Combines exceptionally even lighting coverage with a compact design that attaches easily. Provides easy handling while adding very little weight to the housing underwater.
- Available with 50- or 100-watt primary video lamps, and includes a separate 20 watt modeling/diving light. The ultra-wide 100° primary light coverage is free of hot-spots.
- An adjustable 12” mounting arm provides the flexibility to aim the light head in a multitude of positions.
- Contoured, lightweight (15 oz.) battery pack snaps underneath the housing with a quick-release toggle system, replacing the removable housing base. Mounting the battery underneath provides better handling than a self-contained system on the end of an arm.
- A switch is mounted in the cord that connects the battery pack and lite head. This switch mounts on the housing handle for convenient finger-tip operation.
- The pack can power one or two lite heads (a second light head can be added for dual intensity). With optional stacking toggle, two packs can be combined to double the run time.
- Supplied PRO/SpD Smart Charger provides more complete charging of the batteries, plus offers a trickle maintenance charge, keeping batteries cool for prolonged life. Operating on any input voltage from 90-240 volts AC, the charger can charge the 13v (#1400) nicad battery in 5 hours. The ideal, dependable charger for the traveling diver.

### Complete Pro Video-Lite II Systems

Complete systems with lite head, mounting arm, battery pack, PRO/SpD Smart charger, and cable with in-line switch.

**50-WATT VERSION**

- 6340.55 50W with USA Charger Plug ......................................................... $439.95
- 6340.56 50W with European Plug ................................................................. $439.95
- 6340.57 50W with Australian Plug ................................................................. $439.95

**100-WATT VERSION**

- 6340.05 100W with USA Charger Plug ......................................................... $439.95
- 6340.06 100W with European Plug ................................................................. $439.95
- 6340.07 100W with Australian Plug ................................................................. $439.95

### Pro Video-Lite II Accessories

Complete systems with lite head, mounting arm, battery pack, PRO/SpD Smart charger, and cable with in-line switch.

**REPLACEMENT LAMPS**

- 0049.42 20-watt Modeling Lamp ................................................................. $26.95
- 0049.50 50-watt Primary Lamp ................................................................. $14.95
- 0049.51 100-watt Primary Lamp ................................................................. $14.95

**BATTERY PACK**

Stack two battery packs with the stacking toggle and battery connecting cable.

- 1400 Spare 13v 4.5 Ah NiCad Pack ............................................................... $234.95
- 1405.06 Battery Cable .................................................................................. $35.95
- 9362 Stacking Toggle .................................................................................. $14.95
On a trip to Disneyland, to Paris or to Yellowstone Park, you can be surprised by rain. Not only sea spray or rain but high humidity – even on a sunny day can kill the electronics of any modern video camcorder. The repair is often impossible or more expensive than the air-tight and waterproof EWA housing. With a practical operating depth of 30 feet; colors of corals and tropical fish turn out brighter than on regular film. EWA makes models to fit hundreds of camcorders. The correct size must be selected specifically for a camcorder model with regular size battery. Camcorder buttons are controlled through the flexible skin from the outside. Autofocus works above water. Underwater, the manual focus setting allows sharp pictures within the operating range.

- Unlike hard housings which are sealed with sensitive O-rings, require careful maintenance and can leak without warning, EWA Marines housings require no such rings and their waterproofness is virtually independent of depth. The housings are ultra-sonic welded, UV resistant and feature their own carry strap All under-water housings are sealed via a triple stainless steel, non-corrosive screw closing rail.
- EWA Marine flexible housing are extremely easy to maintain. There are no “O”-rings to maintain as found in hard housing that may contain as many as 12-18 rings (a hard housing is only as good as its “O”-ring seals). These rings must be constantly inspected, greased, and many times - replaced. EWA Marine housings only require a quick rinse in fresh water, towel dry, keep them away from sharp objects, and do not allow them to bake in the sun.

- Although they have a practical operating depth of 30’, flexible housings like EWA Marine’s can be successfully taken to hundreds of feet with absolutely no damage to the housing. The depth limitation is due to the design of the actual camcorder. For example, water pressure exerted on a flexible housing causes the housing to compress. This compression effects various protruding camera controls such as a shutter button, on/off switch, or zoom button. Those designed with greater protruding controls will be even more adversely effected with “sticking” control buttons in less depths of water. Depth operation is dependent upon the construction of the camera and not the housing.
- Many of the EWA Marine flexible housings weigh less than two pounds as compared to housings weighing in at 10-20 lbs. They also serve as durable protection above water in rain and snow conditions. Housings fold for easy storage in a camera bag.

- EWA Marine housings are manufactured from double laminated PVC and have an optical glass port. They are rated to 10 metres (33-ft.) underwater.
- They are supplied in a handy yellow carry-case which has a water-proof interior and zippered side-pocket.
- They have a pair of non-corrosive and seawater resistant clamping rails which fit together for perfect sealing. They tighten by means of knurled thumb screw knobs.
- Straps at the bottom allow weights to be attached for perfect buoyancy under water.
- Perfect for snorkeling or shallow diving, sandy, dusty, humid or foul weather conditions these housings will give your camera the best possible protection while being fully operable.

### FEATURES

<table>
<thead>
<tr>
<th>Particular</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VC-PC</td>
<td>For most JVC DV Camcorders.................................229.95</td>
</tr>
<tr>
<td>VC-PC</td>
<td>For most Canon Elura and Sony DCR-PCR series ...........229.95</td>
</tr>
<tr>
<td>VC-M</td>
<td>For most Sony, Canon and Panasonic DV Camcorders.......279.95</td>
</tr>
<tr>
<td>VC-MC</td>
<td>For Sony DCR-TRV950...........................................339.95</td>
</tr>
<tr>
<td>VC-XM</td>
<td>For Canon GL-1....................................................419.95</td>
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<tr>
<td>VC-XM</td>
<td>For Canon GL-2, Sony DCR-VX2000............................449.95</td>
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<tr>
<td>VC-150</td>
<td>For Sony DSR-PD150..............................................389.95</td>
</tr>
<tr>
<td>VX-L</td>
<td>For Canon XL-1/XL-1s..........................................849.95</td>
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</table>

A Partial Listing, there are Dozens of Models to Fit Virtually any Camcorder Ever Made.

EWA Marine housings are double laminated, UV resistant and feature their own carry strap. All underwater housings are sealed via a triple stainless steel, non-corrosive screw closing rail. They are supplied in a handy yellow carry-case which has a water-proof interior and zippered side-pocket. They have a pair of non-corrosive and seawater resistant clamping rails which fit together for perfect sealing. They tighten by means of knurled thumb screw knobs. Straps at the bottom allow weights to be attached for perfect buoyancy under water. Perfect for snorkeling or shallow diving, sandy, dusty, humid or foul weather conditions these housings will give your camera the best possible protection while being fully operable.
**Video Rain Capes**

A sport capes for all popular video camcorders, they offer complete protection against rain, snow, moisture and dust. Ideal for use on boats and on the beach. Features include oversized glass optical port and mounting bracket (not for underwater usage). Fixed to the lens or fitted into the tripod screw, EWA Marine video capes are a clever alternative and offer reliable protection against the elements.

<table>
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<tr>
<th>Model</th>
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<td>For camcorders up to 8” in length</td>
<td>$794.95</td>
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<tr>
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**EQUINOX Underwater Housings**

Equinox underwater housings incorporate polyvinylchloride, a rugged, long-lasting material for the main body painted in an elaborate 5-step process with Porsche Guards Red for eye-catching beauty. They also feature all stainless steel hardware to prevent corrosion in a salt water environment; manual controls with double x-o-rings for ultimate safety from flooding; clear front and rear faceplates for visibility; safety catches on the face plates to prevent accidental opening underwater; contoured wings with lead handles and aircraft quick-release pins—another safety feature to prevent the loss of expensive video cameras in the event of an underwater emergency; and rubber feet for stability of this housing on the boat deck. With superior workmanship and materials—for dependable, long-lasting use—thousands of divers throughout the world have experienced 100% satisfaction and confidence using Equinox housings.

**ProPak 6 Housings $925.00 ea.**

- PP6DV951 For the Panasonic PV-DV951
- PP6SPC115 For the Sony DCR-P115
- PP6SDVM90U For the JVC GR-DVM90U
- PP6DVD200 For the Sony DCR-DVD200
- PP6CZR60 For the Canon ZR-60
- PP6SE20MC For Canon Elura 20
- PP6SPC330 For the Sony DCR-PC330
- PP6TRV950 For the Sony DCR-TRV950
- PP6CZR45 For the Canon ZR-40/45/50
- PP6CZR65 For the Canon ZR-65/70

**ProPak 8 Housings $1249.00 ea.**

- PP8GL1 For the Canon GL-1
- PP8GL2 For the Canon GL-2
- PP8VX2000 For Sony DCR-VX2000, PD570
- PP8DVX100 For Panasonic AG-DVX100
- PP8VX2000 For Sony DCR-VX2100, PD170

ORDER & INFO. (212) 444-5010 • FAX: (212) 239-7770 (800) 947-7008
1-800-947-5525 • www.bhphotovideo.com
Housings for the Sony DCR-PC101/105/115/120/330

Small in size and big in results, these housings pack into petite luggage spaces, yet enable great images using the camera LCD as the viewfinder. Extremely durable, they are constructed of 'Bulletproof' machined aluminum, black type III 'hard' anodize finish, and sealed with a nickel-acetate process. They have 100% mechanical controls which makes them exceptionally dependable. There are no electronics that can fail in the humid salty air, no push buttons to get stuck and no batteries to worry about. Rated to 450′ Gates reliability is a natural element of these tiny travelers. So when diving off in far off locales, they'll be ready when you are– 24 hours a day, 365 days a year– guaranteed for two years.

◆ Type II ‘hard’ anodize finish imparts a robust, military-grade finish on the housings. They will withstand abusive handling, scratches, and impacts – just about anything you can reasonably throw at it and still look great. Nickel Acetate seals the aluminum pores and makes the housing impervious to attack by salt water or other corrosive elements.
◆ Reliable fingertip controls are 100% mechanical — no sticky buttons, faulty electronics or dead batteries.
◆ LCD window is your big, built-in viewfinder for a clear, no-guesswork view of your shots. No need for extra external monitors ot see your images while shooting.
◆ Quality optics means clarity, sharpness and no vignetting (cutoff dark corners) to spoil your images.

◆ Bayonet Port Mount for quick, easy change between Standard, Wide Angle and wet-connect Multi-Ports
◆ Internal Flip Filter provides quick, effortless use of the color correction filter. Blue or Green water versions available.
◆ Positive Lock stainless steel latches confirm your housing is sealed and secure.
◆ Accommodates all camcorder battery sizes for maximum shooting between re-charges.
◆ 2-year renewable warranty on all housings

Port Options

◆ Flat Port—Excellent for macro work, this port has a narrow field of view with no optical corrections. Allows full zoom through and use of diopters.
◆ Standard Port –1:1 port is optically corrected for underwater use. Allows full zoom through.
◆ Multi Port—Gates wet changeable lens system gives you macro to wide angle on the same dive.
◆ Fathom Imaging Wide Angle Port – this high resolution, distortion-free port has multiple glass elements for up to 90° field of view.
◆ Fathom Imaging Super Wide Angle Port – provides a 110° field of view and full zoom through capability for 1.5˝ macro.

Specifications

Controls (All Mechanical):
- Mode (On/Off/Mem)
- Record/Standby
- Photo • Zoom
- Auto Focus On/Off
- Internal ‘Flip’ Color Correction Filter

Dimensions:
7.5 x 6.5 x 7.5˝ LxHxW (12.5˝ with handles)

Material:
Machined aluminum, type III ‘hard’ anodize with nickel acetate seal

Weight: 4.8 lbs

Depth Rating: 450 feet / 137 meters

Batteries: Accepts all Sony batteries up to NP-QM91 and NP-FM91

Warranty: 2 Years

Features

196
Housings for the Sony DCR-TRV950 and DSR-PDX10

The Gates DCR-TRV950 and DSR-PDX10 housings feature a host of solid professional capabilities including: full auto to complete manual operation, reliable fingertip controls, optional 2.5” External Monitor, and over 6 hours of recording time. The 3-CCD system gives you clear, brilliant colors from the underwater realm like its grander cousins, but in a smaller, compact package. And only with a Gates can you switch from video to capturing full 1.3 Megapixel digital still photos to a Memory Stick.

**FEATURES**

- Type II ‘hard’ anodize finish imparts a robust, military-grade finish on the housings, allowing it to withstand abusive handling, scratches, and impacts – and still look great.
- Nickel Acetate seals the aluminum pores and makes the housing impervious to salt water or other corrosive elements.
- Reliable fingertip controls are 100% mechanical — no sticky buttons, faulty electronics or dead batteries.
- Quality optics means clarity, sharpness and no vignetting to spoil your images.
- Bayonet Port Mount for quick and easy change between Standard, Wide Angle and wet-connect Multi-Ports. Port options are the same as the compact DCR-PC series (see previous page).
- Internal Flip Filter provides quick, effortless use of the color correction filter. Blue or Green water versions available.
- Positive Lock stainless steel latches confirm your housing is sealed and secure.
- Accommodates all camcorder battery sizes
- Professional controls include exposure, white balance, shutter speed and manual focus
- You can switch between Video and “Memory” mode to capture full 1152 x 864 resolution still images on a Memory Stick
- Optional external 2.5” color monitor gives you a clear, view of your subjects
- 2-year renewable warranty on all housings

**Housings**

| Housing for the Sony DCR-PC101, 105, 115, 120, 330 with LCD open, with Standard Port | 1820.00 |
| Housing for the Sony DSR-PDX10 with Standard Dome Port | 2335.00 |
| Same as above except with Wide Angle Dome Port | 2162.00 |
| Same as above except with Standard and Wide Angle Dome Ports | 2278.00 |
| Same as above except with Gates Multi-Port | 2925.00 |

| Housing for the Sony DCR-TRV950 and DSR-PDX10 with Standard Dome Port | 2335.00 |
| Same as above except with Wide Angle Dome Port | 2677.00 |
| Same as above except with Standard and Wide Angle Dome Ports | 2792.00 |
| Same as above except with Gates Multi-Port | 3440.00 |

**Gates Paks**

Includes Standard and Wide Angle Ports, NiteRider HID Pro Video Light Pack with battery bracket, Pelican Case with pluck foam liner, Port Cleaner/Polish Kit, Spare O-Ring Kit and Gates Drying Towel

For the Sony DCR-PC101, 105, 115, 120, 330 with LCD open | 3916.00 |
For the Sony DCR-TRV950 and DSR-PDX10 | 4430.00 |

**Specifications**

**Controls (All Mechanical):**
- Mode (Off/Camera/Memory
- Record/Standby
- Photo · Zoom
- Auto/Manual Focus
- Exposure Dial/Set
- Shutter Speed · Program AE
- White Balance Mode/Set
- Internal ‘Flip’ Color Correction Filter

**Dimensions:**
11 x 6 x 6” LxHxW (11.5” with handles)

**Material:**
Machined aluminum, type III ‘hard’ anodize with nickel acetate seal

**Weight:**
7 lbs

**Depth Rating:**
450 feet / 137 meters

**Batteries:**
Accepts all Sony batteries up to NP-QM91 and NP-FM91
GATES

UNDERWATER HOUSINGS

Housings for the Sony DCR-VX2000/2100 and DSR-PD150/170

With improved controls, depth rating of 450-feet, and Fathom Imaging high performance optics, these housings continue to be the choice of professional videographers, marine researchers, commercial divers, salvage operators, and the US military. They know it will stand up to their demanding needs day after day, year after year, with proven, reliable results.

Made of “bulletproof” machined-aluminum, anodized and urethane sealed, these housings are the perfect compliment to the DCR-VX2000/2100 and DSR-PD150/170 3-CCD camcorders. Vertically stable, they provide total control of camera functions with reliable mechanical controls, crystal-clear optics, built-in magnified viewfinder, and internal color correction “flip” filter.

FEATURES

- Type II ‘hard’ anodize finish gives a robust, military-grade finish on the housing, allowing it to withstand abusive handling, scratches, and impact – and still look great.
- Nickel Acetate seals the aluminum pores and makes the housing impervious to salt water or other corrosive elements.
- Reliable fingertip controls are 100% mechanical – no sticky buttons, faulty electronics or dead batteries.
- Interchangeable ports for quick and easy switching between Flat, Standard and Wide Angle.
- Internal Flip Filter provides quick, effortless use of the color correction filter. Blue or Green water versions available.
- Positive Lock stainless steel latches confirm your housing is sealed and secure.
- Accommodates all camcorder battery sizes
- Reversible handles let you find the best balance and position for your hands on the controls. Handles can be removed for storage and travel.
- Switch between Video and “Memory” mode to capture full 640 x 480 resolution still images on a Memory Stick.
- Optional external 2.5-inch color monitor gives you a clear, view of your subjects.
- 2-year renewable warranty on all housings

PORT OPTIONS

- Flat Port – Excellent for macro work, this port has a narrow field of view with no optical corrections. Allows full zoom through and use of diopters.
- Standard Port – This port is available for use with 3rd party lenses like Century Optics’ 16:9 Anamorphic Converter.
- Fathom Imaging Wide Angle Port – this high resolution, distortion-free port has multiple glass elements for up to 90° field of view.
- Fathom Imaging Super Wide Angle Port – provides a 110° field of view and full zoom through capability for 1.5” macro.

HOUSINGS

Housing with Wide Angle Dome Port ................................................................. 2985.00
Housing with Super Wide Angle Lens ............................................................ 6646.00
Housing with Wide Angle Dome Port, NiteRider HID Pro Video Light Pack with battery bracket, Pelican Case with pluck foam liner, Port Cleaner/Polishing Kit, Spare O-Ring Kit, Gates Drying Towel .............................................................. 4623.00
Same as above except with Super Wide Lens .................................................. 9369.00

SPECIFICATIONS

- Controls (All Mechanical):
  - Mode (On/Off/Mem)
  - Record/Standby
  - Photo • Zoom
  - Auto Focus On/Off
  - Internal ‘Flip’ Color Correction Filter
- Dimensions: 7.5 x 6.5 x 7.5” LxHxW (12.5” with handles)
- Material: Machined aluminum, type III ‘hard’ anodize with nickel acetate seal
- Weight: 4.8 lbs
- Depth Rating: 450 feet / 137 meters
- Batteries: Accepts all Sony batteries up to NP-QM91 and NP-FM91
- Warranty: 2 Years
**Housing for the JVC GR-HD1**

Breaking new ground in underwater video, the Gates HD1 housing is the first high definition system designed specifically for the JVC GR-HD1 Hi-Def camcorder. Professionals will appreciate access to key functions like white balance, shutter speed, manual focus and iris. Several optics are available for the HD1, including the WP35 wide angle port designed by Fathom Imaging for high resolution, distortion free images. Of course, Gates reliability is inherent in the HD1, and will serve your demanding needs day after day, year after year, with proven, reliable results.

**Housing for the Canon XL-1/XL-1s**

Designed specifically for the Canon XL-1 and XL-1s, this housing design includes an external viewfinder and support for both the 3x and 16x lenses. In addition, NTSC and PAL versions are both supported in this housing for true global capability, and a 2.5" color external monitor is included for clear, no guesswork images.

- **Housing with 3x Lens Port** (For Wide Shots, this port is designed specifically for the Canon 3x lens) .......................................................... $3950.00
- **Housing with 16x Lens Port** (for close up and macro work, this port supports the Canon 16x lens. The port allows filters and/or diopter elements to be used) ................. $395.00
- **Housing with 3x and 16x Lens Ports** ................................................................. $4150.00

**Optional Underwater Accessories**

- **NiteRider HID Pro**
  - Dual 10w HID light heads – 20w combined – equivalent to 80w halogen
  - 4 Amp-hour NiMH battery pack
  - Extended 1.9 hr burn time
  - Big 90° beam angle
  - Daylight-balanced 6000°K color temperature
  - Fast 3.5 hr international smart charger
  - Optional battery mounts for Gates and other housings
  - Lifetime manufacturers warranty
  - Flexible system – reconfigure for hands free dive lights
  - NiteRider HID Pro Video Light ........ $1523.00
  - NiteRider HID Pro Video Light with Battery Mount Bracket ......................... $1638.00

- **EM253 External Monitor**
  - Take the guesswork out of your images with a big 2.5" color active matrix LCD display on the Gates External Monitor. Framing, focus and other settings are easy to see (even in bright sunlight), so your results are easy, too. Available in NTSC or PAL versions.
  - Never accidentally run down your batteries. With the power-on auto sense circuitry, the monitor is on when your camera is on, and automatically off when not in use.
  - Accepts alkaline, nicad or NiMH rechargeable batteries. You get up to 14 hours of display time on a fresh set of alkaline cells.
  - Swivel mount allows the monitor to swivel in various directions for best viewing angle
  - “Bulletproof”, the monitor is machined from 6061 T6 aluminum, finished in di-chromate anodize and silver urethane.
  - Depth rated to 450 feet, it comes with Gates 2-year warranty.

- **Submersible Microphone**
  - Capture the sounds of the underwater world – whale song, reef clatter, or your buddy’s bubbles – with the submersible microphone. Compatible with Sony DCR-PC101/105/115/120/330/TRV950

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VIDEONICS
MXPro/MXProDV

10-Bit Digital Video Mixers

The MXPro is a professional four-input video mixer with powerful features and performance. It offers unmatched 10-bit digital 4:2:2 video quality as well as a S/N ratio over 60 dB and a video bandwidth of 5.5 MHz. It has over 500 digital video effects and transitions including dissolves, trailing effects and multiple picture-in-picture. There are shape wipes, soft wipe edges and easy to use 'banks' of effects with user-defined favorites. All shape effects can be enhanced with soft edges, colored borders and drop shadows for 3-D like impact. Frame synchronizer and dual-field infinite-window time base corrector (TBC) allow clean transitions, including the ability to hold an image frozen through a transition. Unique preview screen shows miniature copies of all four inputs in your choice of formats and sizes, so you can work with just one or two monitors. Digital effects include freeze, black and white, negative, mosaic, paint and flip. Has a chroma keyer and a color corrector that remembers settings for each channel. Built-in audio mixer includes a special background music feature that lets you manipulate audio tracks independent of video.

The MXProDV adds proprietary DV (IEEE1394) input/output making it a versatile, easy to use, switcher/special effects generator for both analog and DV video signals—a real-time production tool that preserves DV signals from start to finish.

### FEATURES

**Highest Quality Video**
- 10-bit (4:2:2) video processing for S-Video applications, and 8-bit 4:2:2 for composite ensures the highest quality video. S/N ratio is 60 dB and bandwidth is 5.5 MHz.

**Four Input Switcher**
- Four input channels make them useful in live production settings where up to four cameras or other sources might be in use. MXPro and MXProDV synchronize the inputs, so disruptions do not occur when switching between sources.
- Each channel has a composite video input, an S-Video input, and a set of stereo audio inputs. The MXProDV adds two DV inputs. Use all DV, all S-Video, all composite, or any combination.
- Mix any two input sources together using a variety of transitions — wipes, dissolves, flips, etc. With the frame synchronizer you can mix independent video signals.
- Multiple video/audio outputs include two S-Video and two composite video program outputs, one composite preview output, one stereo audio and a headphone output for monitoring. The MXProDV adds a single DV (IEEE1394) output.

**Joystick**
- The joystick gives you fine control over color adjustments and positioning of PIP, compose, and the chroma key cursor.

**Time Base Correction**
- Full-frame time base correction (TBC) automatically corrects the outputs time base (RS-170A standard) so the output signal is stable even when the input isn’t.

**Picture-in-Picture (PiP)**
- PiP allows multiple pictures to share the screen in various configurations. For example, one source might take the entire background while another image appears inside a separate, smaller window, both sharing the screen at the same time. You can use up to 16 images in a PiP configuration.

**Flexible Preview**
- If you are using only two sources, you can select a screen that provides two large preview screens with fewer icons. If you don’t require the effect icons, you can display all four sources full screen, with each source occupying 1/4 of the screen.

**Audio Mixer**
- Built-in audio mixer lets you change the sound along with the video, or play a constant sound while the video plays. Audio can come from a video source or from external audio devices.

**Compose**
- The mixers offer a video painting system that lets you combine video stills, color shapes, and moving video on one screen. You can create a screen that contains a video still of a football coach (with a surrounding red border), combined with a moving video of the players on the field.

**Chroma Key/Color Corrector**
- With either of the mixer’s Chroma Keyer you can key on any color. In addition they have color correction capability to compensate for minor lighting imperfections or slight color differences between sources. While other similarly-priced mixers only offer hue and intensity control, they provide real manual color correction. Apply true RGB color correction to any or all input sources. Also features Color bar and black burst generators.
Effects and Transitions

- Over 500 video effects, including fades, wipes, slides, dissolves, zooms, and trailing effects. Plus picture-in-picture, multiple picture-in-picture, picture flip, luminance and chroma key, superimpose, movable mosaic, strobe, picture freeze (frame and field), strobe, posterization (paint), solarization, negative, color inverse, zoom, and filter. Effects can be enhanced with soft edges, colored borders and drop shadows.
- GPI interface allows external controllers to trigger transitions.

Managing Transitions

- To help manage the 500+ transitions, they are separated into five logical color coded categories or effects “banks” User, Basic, Edges, Trailing, and Shapes.
  - Basic Transitions:
    Include all basic wipes and fades (over 240 transitions).
  - Edge Transitions:
    These move a curved or jagged (saw-toothed) edge across the screen when transitioning to a different picture source.
  - Trailing Transitions:
    They leave a trail of images on the screen as a change occurs. The trailing images go away once the transition finishes.
  - Organic Shape Transitions:
    They occur as a wipe in the shape of a geometric object, such as a heart, five-pointed star, circle, binocular, diamond, etc.
- Since it’s unlikely you’ll use all of the transitions — but will have a limited set that you use most of the time, you can access your favorite transitions by creating your own personal menu — the User menu. Select up to 30 of your favorite effects and access them instantly by pressing the “User” button.
- Each of the effects “banks” can be easily accessed with the press of one button. Once you get to know the mixer’s layout, you’ll effortlessly select any effect, using the cursor keys or the numeric keypad.
- Manual transitions using T-bar or automatic transitions (10 speeds) using auto-take. MXPro can even memorize a sequence of actions and repeat them for you, on cue.

The MXPro and the MXProDV both offer a unique and powerful preview output which allows you to view up to four sources on one monitor. This saves you money and space, because you don’t need a separate monitor for each source.

Choose from three options depending on your application or need. Have all 4 inputs displayed as smaller thumbnail options on one screen; choose 2 larger thumbnail screens showing you “current” and “next”, or you can fill the screen with a “quad” view of all 4 inputs.

You can also “freeze” frames from two different sources and toggle between full screen views of both. Preview outputs on all mixers is composite (RCA) jacks.

MXProDV Step-up Features

The MXProDV maintains the integrity of the digital signal from your DV camcorder or source deck to your record device. And unlike non-linear video editing systems there is no rendering time. MXProDV produces digital effects in real time, making it the ideal tool for both post-production and live applications. For speed, quality and versatility the MXProDV is unmatched! And now you can mix both high-quality analog and DV sources together.

Of course the MXProDV incorporates all the features of the MXPro. Over 500 eye-catching transitions including curved and jagged edges, trailing effects, and “natural” shape effects like circles, stars, and hearts. Effect enhancements like soft edges, color borders and drop shadows. Real RGB color correction to compensate for minor lighting imperfections or slight color differences between sources. Built-in chroma and luminance keying. There has never been a more complete DV and analog production solution.

The MXProDV also produces perfectly synchronized DV audio with CD quality. Enhanced audio mixing capability provides on-screen slide controls for volume along with level meters so you ensure that your audio levels are properly set. MXProDV supports 32kHz 4-channel and 48kHz 2-channel digital audio with a multitude of mixing options.

DistanceDV Cables

Using breakthrough cable technology, Videonics has achieved extension of the DV signal. Ideal for live and studio events, DistanceDV cables use enhanced quality cable components and a proprietary passive filter to minimize the jitter and noise that long distances are susceptible to. Your production will benefit from the pristine digital signals produced by today’s DV sources.

Whether you’re running cable on location or in the production studio, DistanceDV cables can extend your DV signal to 10 meters (33’), 20 (66’) or even 50 meters (164’) with the best picture possible. Each end includes a locking 4- to 6-pin adapter for maximum flexibility. Use the 4-pin adapter for connections to digital cameras and mixers. Remove the adapter to use with 6-pin devices like converters, hubs and computers.

**DDV-10** 10 meter (33’) cable ............**199.95**  **DDV-20** 20 meter (66’) cable ..........**299.95**

**DDV-50** 50 meter (164’) cable .................................................................**519.95**
VIDEONICS

TM-3000

Video TitleMaker

Add crisp, dazzling, professional-looking titles to your video production. A technological breakthrough in video character generation, the TitleMaker 3000 delivers high-resolution titles in over a million colors with over 200 font/size combinations and 27 styles. The TM-3000 offers a separate full-size keyboard that puts everything at your fingertips including special characters to support up to twenty one different languages. Other advanced features include patterns, see-through video effects, multi-direction scroll and crawl, fades and wipes. Non-volatile memory allows you to store up to 16,000 characters on hundreds of pages.

◆ Offers over 200 font/size combinations, including script, Old English, and many more. Fonts are specifically designed to look great on video. Each line of text can be enhanced with drop shadows, several grades of bold letters, outlines, eight-speed scroll and crawl, and much more.

◆ When creating your titles, outlines, backgrounds, and borders, you can select from a palette of over a million colors as well as a set of 32 rainbow and pixel patterns to give your titles a unique one-of-a-kind look.

◆ Four-direction scroll and crawl (8 speeds). Scroll in one direction, hold, scroll out another direction.

◆ There are 24 special effects for transitions between title screens, including cuts, fades, wipes, and more. Effects can be executed in any of eight selectable speeds.

◆ A preview output allows you to change titles on a secondary monitor without affecting video on the program output.

◆ Superimpose titles over video or over colored or patterned backgrounds. Video can also be used as a “color” for titles, backgrounds, or outline/shadow areas. Use dimmed or tinted video as a background for stunning “video-on-video” effects.

◆ Composite and S-Video input/output

◆ Easy to use, separate, full function keyboard includes special and foreign characters such as æ, £, ß, •, ® etc.

◆ Pages can be stored under separate projects. You can work on pages in one project without affecting those in another.

◆ Multiple play modes: Play a pre-arranged program with different settings for each page; manually (slide show); repeated sequence (video billboard); play one page.

◆ GPI input allows remote trigger of titles from external controller.

◆ A real-time clock/date display can be used to trigger pages.

PTM-1

Personal TitleMaker

The PTM-1 incorporates the video performance and many of the features found in the TM-3000. Like the TM-3000 it offers high-resolution titles in over one million colors plus patterns, fades and wipes. Even see-through video effects with scroll and crawl capabilities to add credits to video or create video message boards. The main differences between the PTM-1 and the TM-3000 are: No independent keyboard, only 28 font/size combinations as opposed to over 200 on the TM-3000 and no preview output. Last, the PTM-1 memory will only hold 4000 characters (16000 on the TM-3000).

◆ Individual controls can be assigned to key sequences that are saved as application templates.

◆ Incorporates the most popular controls from standalone devices like linear editors, DVEs and DDRs.

◆ Common tasks can be customized to work the way you want with the type of control you prefer.

COMMAND POST

The Command Post is a USB-based, hardware control panel that gives you conventional-style control of your multimedia applications. Controls include pushbuttons, jog/shuttle, joystick and a T-Bar. Ideal for Adobe Premiere, Apple Final Cut and many more.

◆ Comes with templates for popular video and graphics applications, including Apple iMovie, Final Cut Pro, Adobe Premiere, Adobe After Effects.

◆ Smaller than a standard keyboard and ergonomically designed control surface makes it ideal for use in your multimedia workplace. Internally illuminated for readability in darkened edit rooms.

www.bhphotovideo.com
13-/20-/27-inch Video Editing Monitors

The television that sits at home is probably very good at what it does, but it wasn’t designed for the office, classroom, edit room or operating room. True video monitors come in all sizes and configurations, because there are so many specialized demands. How about function blockout for point-of-sale or training applications? Comb filters?

Program timers? Don’t force your TV to be a monitor; it’s not built for that. Panasonic’s CT-series monitors are built with the same technology as their broadcast and high-end post production monitors. 13˝, 20˝ or 27˝, there is a monitor to fit your needs and your budget. And EasyCon icon-based on screen menu system makes adjustments to set-up parameters very intuitive.

- PanaBlack picture tube delivers improved contrast, color reproduction and detail. Dark black screen glass provides a 40% increase in contrast by decreasing the amount of light that passes through the screen and reflects back off the phosphors.
- Control panel can be locked to prevent unauthorized altering of settings (from the front panel or remote).
- Program Timer automatically turns the monitor on and off at a predetermined time for one day or every day.
- Sleep Timer will count down a desired time of 30, 60 or 90 minutes and then automatically turns the monitor off.
- Instant Power-On is ideal for presentation or kiosk applications. Monitors power up automatically when AC is supplied.

### JVC TM-A13SU

13˝ S-Video Monitor

Ideal for industrial, educational, surveillance and POP (Point-of-Purchase) applications, the TM-A13SU is a 13˝ viewable NTSC and PAL monitor with a 0.64mm dot pitch for high quality viewing at a very affordable price.

- Composite and S-Video inputs, delivers over 320 lines of horizontal resolution. Audio inputs for both sources are mono (RCA) with loopthrough.
- Compact (12⅛” high and 14⅜” deep), the shell of the monitor is made out of a strong plastic material in order to reduce weight, and maintain affordability.
- Automatically selects between NTSC or PAL displays. It will detect the color system that is being displayed and switch accordingly.
- Built-in 8cm round speaker reduces the need for external speakers
- Graphical, user-friendly on-screen menu to make fine adjustments
- Circuitry stabilizes black levels so that they are maintained constantly.
- Control Lock disables the control buttons on the front of the monitor, so that the monitor is not inadvertently misaligned.

<table>
<thead>
<tr>
<th>Monitors</th>
<th>CT-1388YD</th>
<th>CT-2088YB</th>
<th>CT-2788YD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen Size</td>
<td>13”</td>
<td>20”</td>
<td>27”</td>
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<td>Horizontal Resolution</td>
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<td>Precise Notch Filter</td>
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<td>Bass/Treble/Balance</td>
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<td>49.5 lbs</td>
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DATAVIDEO

DV BANK

Dependable DV Video Disk Recording/Playback

Available in 60- and 120GB versions, the DV Bank is an external FireWire hard drive that allows you to capture video from a DV camera or deck via Firewire (IEEE1394) cable—without using a computer. Although it’s not a replacement for a tape deck, the DV Bank and its accessories provide a number of unique capabilities, including time-lapse photography and automated playback, and it can reduce wear and tear on your DV camera or deck. What’s more, it gives you instant random access to all of your media, a great time-saver when you’re on location.

FEATURES

- The need to capture your footage is virtually eliminated with the DV Bank. Simply record from a DV camcorder directly to the DV Bank via FireWire, then connect from the DV Bank to a non-linear editing system to import the video. This minimizes wear-and-tear on your camcorder's video head, while preserving image quality by eliminating dropouts and timecode breaks.

- They incorporate specially formatted drives and a self-contained processor optimized for storing video streams. The 60 GB DV Bank holds 4.5 hours of digital video, the 120 GB version can store 9 hours—a whole day of shooting.

- Record video to the DV Bank just as you’d record to any other DV deck. Simply plug in your camera via the Firewire port (either 4- or 6-pin), press record a and let it rip. The DV Bank captures and stores the video just as your computer would if you were using a video capture program.

- Once you’ve captured your video, you can quickly move to any track and play it back without having to rewind your tape and risk breaking your timecode. To see the footage, you need to connect to your DV camera or deck. Because you’re recording to hard drive rather than to tape, you have instant random access to all of your captured footage.

- Has VCR-style controls with large, illuminated buttons and a two-line, backlit LCD display let you select play, record, REW, FF, pause, frame advance, file selection, file delete and loop play.

- Other features include seamless repeat loop play (for trade shows), variable speed forward or reverse play and play one frame at a time forward or reverse.

- FireWire (IEEE1394) interface lets you capture directly from any DV camcorder, VCR, Mixer or analog VCR with converter.

- To get the captured footage into your PC or Mac for editing, you treat the DV Bank just like any other camera or deck and use your editing program’s capturing facility to grab the clips you want.

- With the optional Intervalometer you can use the DV Bank to shoot time-lapse videos. With the Intervalometer (uses the DV Bank as its power source) you can grab individual frames from your camera and move them to the DV Bank, using any interval you want. For shooting time-lapse, creating stop-motion animation, or shooting single frames, the DV Bank and Intervalometer combo is an ideal solution.

- Other DV Bank accessories include a DC converter for running off a car cigarette lighter, and converter boxes for capturing from S-Video or YUV analog sources.

- Includes AC/DC 12v Adapter, Firewire Cable and Datavideo Easy Cut Video Editing Software CD

ADS Technologies

PYRO DV Drive

Capturing digital video with your computer has never been easier. With the PYRO DV Drive, you can pull digital video from your camera via FireWire and store it on the 30GB hard drive with little more than a push of a button.

- The PYRO DV Drive personifies ease-of-use. By pressing a single button, the drive will record the video directly from your camera.

- Simultaneously record and backup. Not only does this drive capture digital video directly from your tape, you can also capture video while you’re recording! Simply press the record button, and you’re ready to go.

- Built-in battery provides two-hours of capturing time. Great for use in the field.

- Includes pocket-size, leather belt pouch

For Any Inquiries Regarding Your Order, Call Our Customer Service:
(800) 221-5743 • (212) 239-7765 • FAX: (800) 947-2215 • (212) 239-7549
**Direct DV Recorder**

Laird’s CapDiv 60GB is a small and reliable disk recorder that can record and play DV video captured from a DV camcorder. This device stores up to 4.5 hours of “edit-ready” digital footage that can be transferred directly to your computer with faster that realtime speeds. Its open-format recording file system is compatible with both Mac and PC based non-linear editing systems.

- Record up to 4.5 hours of digital video with this self-contained DV disk recorder. Capture a full day of shooting and go straight to the editing room to review your dailies.
- Connect CapDiv to your DV camcorder and sync the camera’s operating functions to the disk recorder. Every time you press record on your camera, the CapDiv will capture the same video at the same time! Other camera operating functions work as well.
- The video files are stored as either Canopus or Windows Media .AVI Type II files. The user can then choose whether to capture the video using their non-linear editing software, or simply import the files without the need to recapture.
- Individual clips can be marked during recording, allowing you to keep track of the time-code boundaries of specific video clips.
- Creates a new bin for every tape change in the camcorder. Up to 99 bins can be created to organize your video material during capture. The bin feature is fully customizable.
- CapDiv hangs easily from your belt, allowing for quick access to controls and reliable storage for your digital video.

**VIDEO & AUDIO EDITING**

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**LAIRD/VIDEONICS**

**LAIRD CapDiv 60GB**

**VIDEONICS FS-1 FireStore**

**DV to Hard Disk Drive Interface**

The FireStore FS-1 is a unique, portable DV-to-HDD (Hard Disk Drive) recorder interface. The FS-1 enables videographers to record DV video from their video camera, deck or mixer to virtually any FireWire storage device without the need for a computer. Recorded files can then be used immediately in video applications on the desktop when the drive is connected to a Macintosh or Windows-based computer. FireStore also works as a stand-alone DV record/playback device.

- DTE, or Direct To Edit Technology, is the future of digital video for ENG, field production, the desktop, and the studio because it merges the steps of acquisition and capturing. Only DTE Technology converts the camera’s DV output to any chosen native NLE file format, as it records to hard drives.
- The FireStore FS-1 brings DTE technology to the field or desktop. With the optional carrying case and industry standard NP battery kit, FireStore FS-1 is ideal for shooting video direct to disk in the field. Alternately, it can be used as a desktop NLE capture station. In this use, any DV source can be captured to disk without tying up an NLE system or an editor’s time.
- Up to four FireWire disk drives can be daisy chained to the FS-1. Various combinations of disk drives and capacities can be chosen to continuously record almost any length event. Use a combination of HDD sizes to tailor record times to your particular needs.
- Record, play and navigate using the VCR-type controls. Navigate from clip to clip with the push of a button. No cueing of tapes is required. Multiple speed forward and backward search (including single frame) and loop playback (single clip or entire disk) are standard. The FS-1 can be slaved to a DV camcorder’s Record/Pause modes or controlled via AV/C commands from NLE systems.
- The ability of DTE Technology to record in native file format such as DV OMF for Avid Xpress DV, QuickTime for Final Cut Pro and AVI 2 for Premier, means footage is identical to the format your NLE captures in. This means clips can be used directly in the timeline without having to transfer or convert files before use. When connected to a DV NLE system, a drive with DTE recorded clips will appear on the desktop, and the clips can be dragged straight to the timeline.
- Only products featuring DTE Technology record clips in native Raw DV (.dv), AVI Type 1, AVI Type 2, Canopus AVI, Matrox AVI, QuickTime (.mov) or Avid OMF (.omf) file formats.
A leader in i.LINK (IEEE1394) solutions, ADS Technologies' “PYRO” line is synonymous with FireWire for the PC and Macintosh. Built around a low-cost but high quality 100% digital IEEE1394 DV capture card, ADS offers three complete DV editing packages to suit a range of budgets and capabilities.

### PYRO DV Card – Included with all PYRO Solutions

Each system includes a 100% digital, IEEE1394 interface card—Avid approved—with three DV ports that link your DV or Digital8 camcorder to your computer allowing you to record video to your hard drive in real time while previewing it on your PC screen. The card also lets you control your camcorder so you can play, fast forward, rewind, pause and record—all with VCR type controls. When you have finished editing you can save your video into numerous digital video formats or upload back to your camcorder. The result is 100% digital, first generation lossless video. All systems also include a 6’ 4-pin to 6-pin IEEE1394 cable.

### PYRO BasicDV

**Includes Ulead VideoStudio 7.0 DVD SE**

Beginners will appreciate how easy it is to use VideoStudio. Trim video, add your own soundtrack, create compelling titles, and drop in stunning effects using an easy-to-learn interface that makes editing videos fun. VideoStudio includes DV SmartPlay an intuitive video editor that offers both ease of use and powerful editing functions. DV SmartPlay enables you to eliminate the time consuming rendering process and keep first generation quality video while saving valuable storage.

### PYRO 1394DV

**Same as Pyro BasicDV plus—**

- Ulead DVD MovieFactory
  - Wizard Plug-in
  - DVD MovieFactory, with its simple wizard-style authoring process, makes burning your movies onto DVDs quick and easy.
  - Create professional-looking scene selection menus
  - Use your CD or DVD burner
  - Share on DVD, VCD, or SVCD
  - Create your own CD labels and case covers
- Ulead DVD PictureShow
  - DVD PictureShow lets you use your CD or DVD burner to create exciting photo slide shows that play on many standard DVD players. Now you can easily share your photos on TV!
  - Great slideshows in just a few clicks
  - Exciting slideshow features
  - Get excellent results from inexpensive digital cameras or scanned images.

### PYRO ProfessionalDV

PYRO Professional DV is the perfect marriage of the world’s best-selling 1394/FireWire card with the industry standard in DV editing software, Adobe Premiere Pro. To round out the bundle, it also includes Adobe DVD Encore for DVD authoring & Adobe Audition for audio editing and creation.

**Adobe Premiere Pro:** Real-time video and audio editing tools give you precise control over virtually every aspect of your production. From advanced color correction to 5.1 surround sound mixing, you have the tools you need at your fingertips. Plus, flexible import and export options reduce format constraints. Built for superior performance of Windows XP, Premier Pro takes video production to an entirely new level. In just minutes, you can capture video in this easy-to-use capture and playback software. With Capture Wizard, preview your video at up to 720 x 480 full screen, choose your bit rate and use advanced settings to capture video.

**Adobe Audition:** Designed for audio and video professionals, Audition delivers advanced audio mixing, editing, mastering, and effects processing capabilities. Mix up to 128 tracks, edit individual audio files, create loops, and use more than 45 DSP effects.

**Adobe Encore DVD:** Take professional DVD authoring to a new level of creativity with a flexible interface and a comprehensive set of text and menu design tools. Import and convert source files automatically to MPEG-2 video and Dolby Digital audio.
**The Ultimate DV Capture and Editing Solution**

A complete, fully integrated hardware/software solution, PYRO A/V Link Pro provides the best value and the best components for capturing, editing and exporting both analog and digital video in real time. PYRO A/V Link Pro hardware includes the PYRO A/V Link and an external box that connects to your computer via FireWire. With composite, S-Video and component connectors, you can capture video from any source. For video editing, it includes the industry standard in DV editing software, Adobe Premiere Pro. And to round out this value-packed bundle, Adobe DVD Encore for DVD authoring & Adobe Audition for audio editing and creation are included as well.

**PYRO1394 Drive Kit**

Data intensive files such as digital video and multi-media projects require a tremendous amount of storage. The PYRO1394 Drive Enclosure is the perfect external storage solution. It features an external drive enclosure that enables you to convert an IDE Ultra DMA/33 or 66 drive, ATA-100 Drive, CD-ROM, CD-RW, DVD or DVD-RAM drive into a FireWire drive simply by plugging into the ADS Native Bridge Board inside the enclosure. With up to 400Mbps/sec and hot swappable, the Drive Kit is ideal for those who need a faster bus than USB, but don’t want the hassle of SCSI devices.

**DVD XPress**

DVD XPress is the fastest and easiest way to get Hollywood quality video into your computer so you can burn to disk or publish on to the Internet. Capture video into MPEG-1 or MPEG-2 (VCD, SVCD or DVD) at up to 720 x 480 pixel resolution from any analog or digital source. Capture video in the Easy to use Capture Wizard application or VideoStudio 7.0 DVD SE and then “Create Disk” to burn your movies on to CD or DVD disk. If you want to do more than straight archiving to disk, DVD XPress includes video editing with an integrated DVD Authoring tool that allow you to get very creative. Use VideoStudio 7.0 DVD SE to add transitions, video filters, video overlay, fast or slow motion effects, and animated titles, back ground music and then author your DVD disk.

- Utilizes the latest in video conversion and filtering technology (temporal and spatial video pre-processing filters) to help reduce noise on old VHS tapes or TV signals.
- Exclusive “Audio-Lock” technology provides perfect lip synch all the way through the capture, edit and disk burning process.
- Capture from any analog video source in MPEG-1 or MPEG-2 video formats including VCD, SVCD and DVD formats via RCA (Composite) or S-Video inputs.
- Capture DVD (MPEG-2) at video bit rates from 1 Mb/sec. up to 15 Mb/sec. (up to 4 Mb/sec. for USB 1.1 connections)
- USB 2.0 connection to the PC, backward compatible to USB 1.1
- Capture using Constant or Variable bit rates and other custom settings.
- Brightness, Contrast, Chroma, Saturation and Hue controls
- Use Video Studio 7 SE DVD to capture and then burn to disk in quick, simple steps.

**Instant DVD Solutions**

**DVD XPress:** Input only with Capture Wizard and ULead DVD 7.0 SE ......124.95

**Instant DVD 2.0:** Same as above plus it adds composite and S-Video output and additional software —ULead DVD Movie Factory (SE) and muvee autoProducer DVD SE ..............................................174.95

**USB Instant DVD+DV:** Same as above plus it adds DV input and output as well as full camcorder control ...............264.95
Real-Time Editing for Professional Video Production

Reach a new level of productivity with the breakthrough real-time editing experience in Adobe Premiere Pro 1.5. The elegant user interface and expansive feature set—which includes multiple, nestable timelines, advanced color correction, and subframe audio editing controls—make it fast and easy to get the precise results you’re looking for. Whether you’re editing short- or long-format projects, you have the professional video and audio editing tools you need right at your fingertips—plus the frame-accurate control and immediate results required to deliver outstanding productions. Unmatched integration between Premiere Pro and other Adobe video software enables unprecedented efficiency. Work across applications that use and recognize common elements, such as keyframes and layers. Easily access and edit the original projects for files you create in another Adobe application and place in Premiere Pro, or quickly create new files in those applications with the resolution and aspect ratio from your project automatically applied. Familiar Adobe-standard tools and shortcuts ease the learning curve. Comprehensive industry compatibility lets you drop your Premiere Pro projects into professional online or offline video production environments. Import and export AAF and EDL files. Enjoy full compatibility with standard and high-definition hardware, VST plug-ins, and advanced ASIO sound cards. And deliver your output for broadcast or virtually any media, including DV, DVD, CD, videotape, and the Web.

FEATURES

Real-Time Editing
- See precisely how your video will look with every edit. Full-resolution playback in real time on NTSC, PAL, or VGA monitors.
- Choose from hundreds of real-time video and audio effects. Even create and save your own settings to instantly apply again and again.
- Add another dimension to your projects with new 3D plug-ins that provide instant, amazing effects.
- Create more natural, elegant-looking effects using sophisticated, spline-based Bézier keyframe controls.
- Set your effect parameters for a keyframe, and then save them as presets you can apply anytime to ensure consistency from one project to another.
- Instantly apply dozens of advanced ready-made effects, including picture-in-picture, pan and zoom, and many more.
- Set linear- or Bézier-controlled keyframes for individual parameters of the effects you apply with the Effect Controls palette, which looks and works like the one in After Effects.

Elegantly Designed Interface
- Remove unused material from your project and consolidate the project’s media in one location for archiving with Project Manager.
- Experiment more freely and easily manage complex projects more efficiently using multiple, nestable timelines.
- Easily organize your workspace with dockable palettes that let you quickly navigate between editing functions.
- Use the interactive Project window to adjust in and out points, create custom columns with fields or checkboxes, and more. Choose the List view to see file details displayed alongside a thumbnail or use the Storyboard view to see media in an orderly grid.
- Precise control over ripple, roll, slip, and slide edits using the Trim window, which opens separately and gives real-time feedback.
- See side-by-side Source and Program views in the Monitor window, which presents familiar tools in a sleek design that puts more controls at your fingertips.
- Capture a tape in separate clips in one step using the new scene detection feature.

Advanced Color Control
- Use color correction tools to adjust hue, saturation, and lightness for highlights, mid-tones, and shadows; replace a color throughout a clip with a single selection; and more.
- Automatically improve image quality using Adobe Photoshop style filters, including Auto Levels, Auto Color, Auto Contrast, and Shadows/Highlights.
- Preserve the color values of original source footage and improve bandwidth efficiency by avoiding color conversions, thanks to native support for YUV processing.
- Monitor data readouts with built-in waveforms and vectorscopes to ensure your clips share a common color spectrum and fall within legal broadcast limits.

Optimized Performance
- Make the most of multiple processors, advanced multi-threading technology, hyper-threading support, and SSE2 optimization on the latest Pentium-based Windows XP systems. Get immediate feedback during effect editing and manipulation thanks to built-in CPU optimizations.
Adobe After Effects Integration
- Import Premiere Pro projects directly into the After Effects Timeline with video and audio arranged as layers, and embed project-linked After Effects clips to edit in Premiere Pro.
- Access the plug-ins from your installed version of After Effects directly within Premiere Pro for even more visual effects.
- Simply copy and paste between Premiere Pro and After Effects.

Adobe Photoshop Integration
- Import layered Photoshop files as a single flattened file, or import the files as a sequence with each layer arranged on a separate video track.
- Quickly create a new image in Photoshop with the resolution and pixel aspect ratio of your current Premiere Pro project (some features require Photoshop CS).

Adobe Encore DVD & Audition
- Export AVI and MPEG-2 files to Adobe Encore DVD software to author multilanguage DVDs with interactive menus and multiple audio and subtitle tracks.
- Timeline markers are recognized as chapter points.
- Import high-quality audio files from Adobe Audition software for use in your video productions. Easily modify these files using the Edit Original feature, which lets you open the original multitrack session right in Adobe Audition.

Online/Offline Flexibility
- Easily import and export project data with support for Advanced Authoring Format (AAF) and Edit Decision List (EDL) format.
- Edit low-resolution digital video offline, and then recapture and reacquire material and finish your work in uncompressed, high-definition resolution.
- Import and export in all major industry-leading video and audio formats.
- Work with AI, AI sequence, PSD, PSD sequence, JPEG, TGA, TGA sequence, TIFF, TIFF sequence, PCX, BMP, and BMP sequence files.

Adobe Premiere Pro 1.5

Adobe Video Collection 2.5 Standard Edition
The Video Collection 2.5 Standard Edition delivers a comprehensive, integrated tooset for Windows-based video production. Transform your video into an award-winning production with Premiere Pro 1.5 software. Create stunning motion graphics and visual effects with Adobe After Effects 6.5 Standard software. Produce high-quality audio for any production with Adobe Audition 1.5 software, and author interactive, multi-language DVDs with Adobe Encore DVD 1.5 software. An exceptional value, the Adobe Video Collection pairs creative control with the ability to deliver professional results for film, video, DVD, or the Web ..............................................799.95

Support for HD Content
- Import, edit, and deliver HD productions using your choice of a wide variety of certified third-party hardware.
- Encode HD Windows Media 9 Series content using the built-in Media Encoder.
- Edit HD content in its native resolution with support for 480p, 720p, and 1080i.

Scalable Editing Platform
- Assign multiple input/output ports for audio recording and playback with support for ASIO hardware cards. Integrate with existing studios and connect to audio editing systems like DigiDesign Pro Tools.
- Capture the look of film with support for Panasonic’s AG-DVX100/100A 24P format cameras.
- Produce content for the leading delivery media, including broadcast formats, DV, DVD, CD, VCD, SVCD, and the Web.

Enhanced Audio Editing
- Adjust audio clips with the precision of up to 1/96,000 of a second to produce more precise L-cuts or eliminate small pops, crackles, and other audio problems.
- Support for the industry-standard VST plug-in architecture allows you to work with advanced audio filters. Jump start your audio-filtering experience with a library of included VST plug-ins.
- Enjoy the freedom to choose with extensive hardware support that lets you work with everything from an impressive list of DVCAVM gear to the latest video decks and camcorders to third-party hardware, including SD and HD boards.

Online/Offline Flexibility
- Easily import and export project data with support for Advanced Authoring Format (AAF) and Edit Decision List (EDL) format.
- Edit low-resolution digital video offline, and then recapture and reacquire material and finish your work in uncompressed, high-definition resolution.
- Import and export in all major industry-leading video and audio formats.
- Work with AI, AI sequence, PSD, PSD sequence, JPEG, TGA, TGA sequence, TIFF, TIFF sequence, PCX, BMP, and BMP sequence files.
AVID

Xpress DV

Professional Non-Linear Editing Software

Xpress DV is the affordable, real-time DV studio from the company that ignited the digital video revolution. Featuring more customizable real-time effects than any other product in its class, Xpress DV combines legendary Avid ease of use with the powerful tools that continue to define the editing industry. With Windows and Macintosh versions for one low price, Xpress DV is perfect for anyone who wants to explore the exciting world of digital video.

Features include over 100 customizable real-time effects, including moving titles, picture-in-picture effects, and automatic color correction that enable you to adjust an entire sequence with a single click. There are also powerful audio tools, extensive import/export capabilities, DVD authoring and the award-winning user interface. The software is highly customizable, allowing users to tailor the interface and keyboard to suit their working styles, and take advantage of customizable toolsets that can instantly re-map the interface for basic editing, color correction, source/record editing, effects editing, audio editing, and capture. Upgradeable and 100% compatible with the entire family of Avid editing products.

Real-time Architecture

Xpress DV offers more customizable real-time effects than any other product in its class, including titles, keys, transitions, and audio mixes with multiple simultaneous streams to provide the most powerful software-only, real-time system available.

◆ Over 100 customizable real-time software effects and multiple simultaneous real-time streams to create and view richly layered effects without rendering
◆ Real-time professional level color correction tools that increase productivity and deliver better, more sophisticated results
◆ Real-time performance on desktops and notebooks (Mac/Windows)
◆ ExpertRender optimizes real-time performance
◆ Keyframable, real-time picture-in-picture effects
◆ Expert color correction toolset (based on sophisticated color correction technology found in Avid Symphony)
  – Patent-pending NaturalMatch color matching allows you to click on a face in two shots to instantly match skin tones
  – Three-window view allows you to more easily compare color from frame to frame
  – Customizable real-time waveform and vectorscope for more accurate assessment of color correction
  – Customizable, advanced histogram and parade monitors
◆ Real-time audio dissolves and punch-in

Customizable, Professional Tools

Xpress DV allows you to personalize every aspect of the editing interface – toolsets, timeline, keyboards, buttons, even interface colors. Work the way you want to work.

◆ Industry-standard Avid user interface that’s easy to navigate and learn
◆ Customizable menu, toolbars and keyboard commands to enhance your workflow can be saved and transferred to other Avid editing systems
◆ Unlimited video tracks via nesting for dynamic multi-layered compositions
◆ Best of class audio tools including real-time audio mix, punch-in, EQ, automation gain, stereo VU meters, and DigiDesign AudioSuite
◆ Easy manipulation of imported graphics, including Photoshop layers
◆ AutoSave with Attic folder to revert to previous version and 32 levels of undo
◆ Superior title animation, effects, and 2D/3D compositing through Boris Graffiti LTD
◆ SuperBins provide access to all media using minimal screen real estate
◆ 24-bit audio support
◆ DV Scene Extraction
◆ Avid Pan & Zoom

Hundreds of Hollywood films and thousands of television shows, commercials, and music video are edited every year using Avid software. Experience the combination of speed, power and ease-of-use that has made Avid the leading choice of professional editors for nearly 20 years.
**Productivity Features**

Xpress DV is easier and faster to use thanks to Avid’s built-in software experts: Dynamic Storyboarding, One-Step Technology, NaturalMatch color correction, SuperBins, DV Scene Extraction, Quick Transitions, and more.

- Windows XP Professional and Macintosh OS X versions in one box
- Avid One-Step technology to automate common tasks
- Dynamic storyboarding with drag and drop to the timeline
- Scrub clips with JKL control in any bin window
- Award-winning online tutorial and documentation
- DV scene extraction instantly builds individual clips from a single DV clip
- Six customizable toolsets speed up common tasks: basic editing, source/record editing, color correction, effects editing, audio editing and capture from tape
- JKL trim
- Segment drag anywhere and user selectable snap mode
- Dual rolling trim
- Highly customizable user interface
- AutoSave and 32 levels of undo

**Expert Color Correction**

Avid’s real-time color correction tools provide unmatched professional-caliber functionality that’s also incredibly easy to use. One-touch Auto Correct automatically makes each shot look its best, or you can go even further with color correction tools based on Avid Symphony finishing software.

- NaturalMatch expert can match skin tones and other elements across scenes with one click
- OneStep AutoCorrect can fix an entire sequence with one click
- Keyframeable color effects
- Three-up color correction windows
- Advanced Waveform and Vectorscope monitors
- Before and after split screens

**Interoperability + Workflow**

- Avid DV codec provides exceptional quality
- Export in many popular formats, including MPEG, Windows Media and QuickTime
- OMF files for collaboration with graphics and other systems. EDL import/export allows finishing in tape online facilities
- Seamlessly exchange with Digidesign Pro Tools systems
- Supports all AVX 1.5 plug-ins including 3rd party RT plug-ins
- Every box includes both Mac and Windows software and license. Use either or both.
- Application, projects and media identical on both platforms
- Support for popular FireWire cards, cameras and decks
- Multiprocessor optimized

**Advanced Software Experts**

- One Step Dynamic Storyboards
- Quick Transitions
- AutoSave
- SuperBin
- DV Scene Extraction
- ExpertRender

**Encoding Support**

- QuickTime (MOV)
- Sorenson Squeeze 3
- Flash, Flash Video (SWF, FLV)
- SVCD, VCD
- Windows Media 7, 8, 9 (PC only)
- Real Media (PC only)
- MPEG-1, MPEG-2

**Fast, Easy DVD Creation**

You’ve finished your edit. Now create a DVD with only a few clicks using the industry-leading DVD creation tool for Windows. Bundled Sonic DVDit SE automatically converts your audio to Dolby Digital, and supports a wide range of devices and media. Mac users can also use any of their favorite DVD-authoring applications for their Avid Xpress DV projects.

In the Box...

Avid Xpress DV box includes software for both the Macintosh OS X and Windows XP platforms, plus Boris Graffiti LTD for 2D title creation and animation; Sorenson Squeeze 3 Lite for high-quality encoding to Windows Media 9, QuickTime, Flash, MPEG-2, and other formats; and Sonic Solutions DVDit! SE for DVD authoring.
64-bit Supercomputers for Video and DVD Creation

The world’s fastest 64-bit personal computers, the Power Mac G5 combines rock solid engineering reflective of the full-throttle Xserve architecture with massively enhanced output and connectivity. Available at speeds up to dual 2GHz with a ultra-high bandwidth system architecture featuring AGP 8X and PCI-X, these turbocharged computers rip through digital video and audio projects faster than Pentiums can say “uncle”. With the 64-bit PowerPC G5 processor supporting up to 8GB of 400MHz, 128-bit DDR SDRAM and fast 6.4 Gbps throughput, you can write large projects to memory 40x faster than to a hard disk.

Available in three powerful configurations — 1.6GHz, and dual 1.8GHz and 2GHz models, they each feature the legendary 4X SuperDrive (DVD-R/CD-RW), three PCI-X slots, one FireWire 800 and two FireWire 400 ports, three USB 2.0 ports (plus two USB 1.1 ports on the keyboard), ADC connector, DVI connector, analog audio I/O, optical S/PDIF I/O, front headphone and speaker jack and built-in Gigabit Ethernet — as standard.

Finally, each Power Mac G5 is supported by Mac OS X’s robust foundation, which features multithreading and symmetric multiprocessing for an additional performance boost.

FEATURES

Exceptional Performance

- The latest in PCI technology, the PCI-X protocol is perfect for high-performance PCI devices, increasing speeds from 33MHz to 133MHz and throughput from 266MBps to 2GBps.
- Gigabit Ethernet, FireWire, USB 2.0 and optical digital and analog audio are all integrated through two bidirectional 16-bit, 800MHz HyperTransport interconnects for a maximum throughput of 3.2GB per second.
- Ultra-high bandwidth system architecture features a 1GHz frontside bus — one on each processor — for maximum throughput. And a point-to-point system controller lets data move directly between subsystems, without affecting processor function.
- Designed for whisper-quiet operation, the Power Mac G5’s enclosure houses four discrete thermal zones to compartmentalize the primary heat-producing components.
- The Power Mac G5’s built-in handles will come in handy the day you need to move all your stuff into that corner office you’ve always had your eye on.

iDVD

DVD Authoring Software

The SuperDrive comes with the software needed to create your own DVDs — faster than ever before. With iDVD preinstalled, the Power Mac G5 is a complete DVD production studio. And it’s the fastest on the planet, too.

- There’s no easier way to create quality DVDs and share your photos, movies and music with friends and family than with iDVD. Offering tight drag-and-drop integration with the other apps in the iLife suite, iDVD also gives you breathtaking themes, slideshow options, higher quality longer length DVDs, and innovative organizational tools.
- There is no faster way to create slideshows and menus. Make the background for your new DVD menu dissolve with a drop of water into the movie of your latest vacation.
- Don’t worry about running out of room on the disc. Resource meter built into iDVD keeps track of how much storage space you have left for your movies, photos and music.
- Keynote makes it a snap to create cinema-quality presentations with professional-caliber themes, razor-sharp text and beautiful charts and tables. Make layered images with transparent graphics and text, and adjust the transparency of each layer as you choose.
64-bit Performance

- 64-bit power and high-bandwidth architecture alleviates the limitations and bottlenecks of the traditional PC — opening up a wealth of possibilities for 2D and 3D designs, video and audio producers, and game developers. The industry’s fastest frontside bus, an advanced system controller and high-speed, high-capacity memory combine to make the Power Mac G5 one of the fastest PCs ever built.
- The dual 1.8 and 2GHz Power Mac G5 systems can play up to seven simultaneous standard definition (SD) video streams. With DV content, the Power Mac G5 can play up to nine simultaneous streams.

Graphics and Display Support

- Compared with the AGP 4X interface, the G5’s AGP 8X Pro graphics bus effectively doubles the maximum transfer rate and doubles the amount of data transferred in a single AGP bus cycle. The 66MHz AGP 8X Pro bus achieves a 333MHz data rate and a maximum bandwidth of 2.1GB per second — ideal for the included ultrafast ATI Radeon 9800 Pro or NVIDIA GeForce FX 5200 Ultra graphics cards.
- Supports 1920 x 1200 pixel digital resolutions and 1600 x 1200 analog resolutions
- ADC and DVI connectors; DVI to VGA adapter included
- Dual display support for extended desktop and video mirroring modes
- Support for two Apple flat panel displays

Storage and Expansion

- Two Serial ATA controllers supporting up to 150-MBps data throughput per hard drive
- Two 3.5-inch hard drive expansion bays with drive guides for a second drive
  - One 80GB or 160GB 7200-rpm Serial ATA drive installed in standard configurations
  - Support for up to two internal Serial ATA drives; 500GB maximum system capacity
  - 8MB memory buffers on all hard drives
- Optical drive bay with SuperDrive (DVD-R/CD-RW) installed; writes DVD-R discs at up to 4x, reads DVDs at up to 8x, writes CD-R discs at up to 16x and CD-RW discs at up to 10x, reads CDs at up to 32x speed.

iMovie2 Video Editing Software

With iMovie 2, you can create dazzling Desktop Movies complete with effects, voice-overs, music scores, transitions, titles, credits, and much more. iMovie 2 is simply the best way to make great movies on your Mac. iMovie 2 gives you everything you need to create your own desktop movies. There are no complicated procedures to learn. If you can cut and paste, and drag and drop, you can transform any digital video footage into a polished movie with a few simple steps:

1. Capture — With a click of your mouse, iMovie automatically transfers video and audio from your DV camcorder to your Mac through a single FireWire cable.
2. Edit — Edit clips and arrange them in any order you, then add cool effects such as dissolves, fades, and pushes for professional-looking transitions between scenes.
3. Enhance — Spice up your flick with a music soundtrack, voice-overs, and sound effects; apply video effects including Soft Focus, Sepia Tone and Water Ripple; then polish it off with titles and credits.
4. Share — When done you can view it full screen or transfer back to your camcorder for recording or watching on TV.

DVD-R/CD-RW SuperDrive

Every Power Mac G5 comes with a SuperDrive (DVD-R/CD-RW) that lets you burn both CDs and DVDs that can be played in most consumer DVD players. The SuperDrive reads DVD titles at 8x and writes to 4.7-gigabyte DVD-R discs at 4x. And if you want to watch a DVD while your work is burning, or archive material at the same time, all Power Mac G5s offer a second optical bay. Choose a combo DVD-R/CD-RW to fill it up.

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Each includes Apple keyboard and mouse, DV1 to VGA adapter, AirPort antenna, Mac OS X v10.2 “Jaguar”, iLife (iMovie, iPhoto, iMovie, iDVD, QuickBooks for Mac, FAXSoft, Art Directors Toolkit, Microsoft Office X Test Drive, FileMaker Pro Trial, OmniGraffle, OmniOutliner, GraphicConverter, QuickTime, iChat, Safari, Sherlock, Address Book, iCal, iSync, DVD Player, Mail, Acrobat Reader, Classic environment & Apple Developer Tools.

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The Emmy Award-Winning Tool for Editing and Finishing in DV, SD and HD Formats

Final Cut Pro (FCP) 4 is a scalable digital nonlinear editing system built on a resolution-independent architecture. From the innovative OfflineRT and DV, up to uncompressed 10-bit 601 or HD, Final Cut Pro 4 is perfect for editing and finishing a wide variety of programs at virtually any resolution or frame rate. Pros will appreciate the rich editing tools — including support for asymmetric trimming — and customization features such as fully customizable keyboards and workspace layouts. RT Extreme, a sophisticated multi-stream real-time architecture, supports an increased number of video streams and effects. Multi-track audio mixing, multi-channel output and real-time audio effects enhance NLE-based audio editing. FCP4 includes two additional creative tools: LiveType, a broadcast-quality title generator, and Soundtrack, an intuitive tool for creating musical scores.

Uncompromising image quality, sample-accurate A/V synchronization and corrective finishing tools make FCP4 ideal for SD and HD broadcast applications.

Apple's SD and HD finishing formats let online editors work with 10-bit uncompressed video, composite elements and render effects with incredible clarity and precision using HDR imaging to render video using an amazing 32-bits per channel. XML interchange format — a new, standards-based composition and metadata interchange format, bridges the gap between disparate edit systems and customized post-production workflows. XML interchange format, AAF support and the ubiquity of QuickTime across professional applications give FCP4 the flexibility to fit into any production pipeline. Enhanced EDL support and FXScript — a visual effects scripting language — make Final Cut Pro 4 the most extensible NLE available.

Sophisticated Editing, Compositing and Effects

Final Cut Pro 4 has sophisticated editing, compositing, effects, and audio tools that allow professional editors to meet demanding post-production deadlines while maintaining their creativity and passion for high-quality results.

RT Extreme

RT Extreme leverages the strengths of Mac OS X and the PowerPC G5 processor to support a scalable number of video streams and real-time effects with fully synchronized output to a broadcast monitor for DV and fully uncompressed SD projects.

But the RT Extreme engine really comes into its own when you use a dual-processor Power Mac G5 system — which handles up to seven streams of uncompressed SD video. That’s because the number of simultaneous real-time video streams and effects scale with processor performance, delivering greater power and speed as your processing resources increase.

And new real-time modes allow you to choose full-resolution output for finishing or real-time preview for maximum simultaneous streams. Final Cut Pro 4's enhanced multi-stream real-time effects now include output to a NTSC/PAL broadcast monitor for more accurate, real-time previews.

Real-time Effects

Playback and Software Effects

Final Cut Pro 4 gives you innovative features like real-time effects playback, a high-capacity offline format for seamless offline-to-online workflow, and powerful finishing capabilities like advanced color correctors.

Final Cut Pro 4’s software-based, real-time effects let you explore “what-if” scenarios — to switch effects on a whim — without having to render them. So you can check out what a scene would look like if you used, for example, a Ripple-Dissolve instead of a Cross-Dissolve in real time.

Use varying combinations of real-time effects and still have real-time playback, depending on the speed and number of processors in your computer. Each effects operation you apply to a clip makes varying demands on the processing capabilities of your G5 depending on the effect. (When the total processing demands of all combined effects exceed your system’s capabilities you’ll have to render them.)
**Editing and Timeline**

Final Cut Pro 4 gives you a unique editing environment that includes the tools professional editors require to cut video with speed and precision. Editors can now perform asymmetric and dynamic trims, use master clips, gang playback between windows, and much more. The Timeline supports variable track heights, keyframe graphs, and Auto Select tools. Final Cut Pro 4’s visual controls – like buttons and shortcut menu commands – give you total control of the editing process.

- Edit at 23.976, true 24, 25, 29.97, or 30 fps
- Source/record three-point editing model
- Insert and overwrite with or without transitions
- Replace, fit to fill, and superimpose edits
- Edit overlay for drag-and-drop editing
- Blade and Blade All tools for adding edits
- Extend and split edits
- Sync indicators in Timeline with automatic correction options
- Adjacent (through edit) indicators in Timeline
- Dupe detection in Timeline
- Keyframe graphs
- Track targeting, Track locking
- Auto Select tools
- Timecode or frames in Timeline
- Clip, sequence, scoring, chapter, and compression markers
- Marker exports to DVD Studio Pro for chapter and compression settings
- Clip and sequence marker export to LiveType for titling
- Waveform display in Timeline
- Opacity and audio level overlays in timeline
- Custom, independent track heights

**Trimming**

- Ripple, roll, slip, and slide
- Asymmetric, multitrack trimming
- Dynamic JKL trimming
- Trim window, Timeline trimming
- Keyboard and numeric trimming

**Designed for Speed**

Final Cut Pro 4 lets you customize the way you work by creating your own keyboard shortcuts and shortcut buttons for many commands. Select from more than 600 tools and commands to customize your keyboard using multiple modifier keys and interface buttons. The Browser, window arrangements and Timeline settings can also be customized to suit the way you like to work, and you can save your settings and load them onto any other Final Cut Pro 4 system.

**Customizing your Keyboard:**

Final Cut Pro 4 lets you use your own keyboard shortcuts to perform actions on your computer using the keyboard instead of pointing and clicking. You can customize the keyboard to override Final Cut Pro 4’s default keyboard shortcuts individually for several commands or for the entire keyboard layout. This way, you can set up keyboard shortcuts based on your preferred set of keys and work habits. You can also set up your keyboard to use the same keyboard shortcuts you’ve used in other applications. Naturally, you can clear your customized keyboard layout at any time, removing most of the commands and their keyboard shortcuts (a feature that’s particularly useful if you want to clear a keyboard layout you previously set up and change the commands for another project).

**Export and Import Keyboard Layouts:**

Once you set up your preferred shortcuts, you can export your keyboard layout for other group members to use. This works both ways, so you can also import layouts that others have set up (useful options when you’re working on multiple computers or with others). What’s more, Final Cut Pro 4 lets you save text documents that list commands and your keyboard shortcut equivalents, so you can print out a handy guide for easy reference.
**Soundtrack**

The easiest way for video editors to create original royalty-free music, Soundtrack puts professional audio scoring capabilities right at your fingertips.

- Soundtrack lets you easily create high-quality, royalty-free music for your projects. As a production tool, it’s perfect for creating 15-, 30- and 60-second original music content, promotion spot and bumpers as well as longer programs.
- Combine and arrange audio loops and sound effects to create original, royalty-free music soundtracks.
- Combine and match loops of different tempos and musical keys in real-time — Soundtrack does it for you automatically, so you don’t need to have a background in music.
- Automate your effects and entire mix for complete creative control.
- Import Final Cut Pro 4 video projects complete with Scoring Markers to create perfectly timed professional sounding soundtracks.
- Use the powerful search engine to quickly find audio loops and sound effects based on instrument, musical genre or mood.
- Import AIFF, WAV, and ACID format audio files, and get access to hundreds of third-party, multi-genre, royalty-free loop CDs.
- Soundtrack enables you to create original music scores on your own — no professional musical experience necessary. And by letting you develop your musical scores in real time, Soundtrack allows you to quickly evaluate dozens of different alternatives before you export your digital content for output.
- Soundtrack includes thousands of professionally recorded, royalty-free instrument and sound effects that you can start using immediately to create original, high-quality music scores.
- As an added bonus, Soundtrack includes over 30 powerful audio plug-ins like reverb, EQ, delay and chorus, as well as specialized effects from Emagic Logic Platinum like SubBass, Bitcrusher and AutoFilter.

**Audio**

A new on-screen audio mixer, along with an audio router and 24-channel output, raise the bar for nonlinear editor-based audio editing. Final Cut Pro 4’s on-screen mixer supports 99 tracks. Each track contains a fader, level meter, mute, solo and pan controls. A separate master section in the mixer allows for adjustment of the overall level of the mix. Each output channel in the master section includes peak hold level indicators to provide enhanced precision when viewing your overall mix levels. You can define up to four separate views, allowing you to make quick work of large multi-track mixing jobs.

The faders use a continuously varying log scale for more intuitive adjustment of levels and a wider sweet spot around unity gain. Fader automation lets editors mix their audio in real-time. Fader automation can be recorded in three ways — with all keyframes, with reduced keyframes or as peaks only.

Any of the 99 available tracks in a sequence can be routed to 24 channels of discreet output. Group audio channels into mono or stereo output groups and adjust attenuation values for each channel. A stereo down-mix button lets you edit and monitor multi-channel projects easily when working on a portable or where a multi-channel audio interface is inaccessible.

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**LiveType Titling**

LiveType revolutionizes titling with a breakthrough new font standard — LiveFonts, the world’s first animated font standard, as well as a whole new way to create effects. Now you can create dynamic, professional-quality animated titles quickly and easily with LiveFonts, an easier-to-use approach to keyframe animation, as well as customizable effects, sophisticated project templates, and royalty-free broadcast-quality animated content.

- Features professionally animated font styles and a powerful FontMaker utility. So even before you apply movement and effects to your titles, every character has a life of its own.
- Includes 350 broadcast-quality animated textures and objects that you can use in your projects royalty-free — in effect, allowing even non-animators to produce professional-level content.
- Effects in LiveType are like digital building blocks — modular behaviors that include movement, transformation and timing parameters. The pre-built effects that come with LiveType give you the power to add fades, zooms, rotations, and motion to your titles, and you can create your own styles by adjusting these existing effects within the LiveType interface. Create your own effects dynamically on the fly, and can even save them for use on future projects.
- Thanks to LiveType, creating animation is easier than ever before. Each keyframe, for instance, contains all the parameters for an element, eliminating the time-consuming hassle of long keyframe stacks. Powerful timing features allow you to precisely control every aspect of your animation. And since LiveType treats every character of the word as a separate layer, sequencing gives you the freedom to move single characters within a text block with individual timing elements, so you’re not limited to using blocks of text that fly around the screen as one image.
- Import and export QTIme-supported formats, including Photoshop, JPEG, TIFF and PICT.
- Import clips from Final Cut Pro 4 complete with markers, so it’s easy to synchronize your titles to important video and audio transitions in your Final Cut Pro 4 projects.
**Color Correction**
- Color correction is one of the last steps in the post-production workflow. If making sure that peoples’ flesh tones on tape look quite the same as they do in real life isn’t enough of a challenge, wait till you encounter the trickier aspects of lighting.
- To ensure that flesh tones look the way they do in real life, Final Cut Pro 4’s color correction filters let you fix imbalances in lighting by adjusting the color balance, black levels, mids and white levels of each individual clip in your project. That way all of the different clips that make up a scene can be balanced to match one another, so they all look as if they’re happening at the same time, in the same place, with the same lighting.

**Compressor (MPEG-2 Encoder)**
- Compressor is designed to ensure that the highest possible quality is maintained when encoding projects from Final Cut Pro 4 into MPEG-2 for DVD authoring.
- Compressor can also be used as an integrated part of your Final Cut Pro 4 to DVD Studio Pro 2 workflow. This means that you don’t need to create an intermediate file to be encoded by another application. And that means that you save time (because no export time is required), save hard disk space (since extra disk space for an intermediate file is no longer required), and get pristine-quality video (since you’ll be avoiding the generational loss that occurs when exporting to another file).

**Media Management**
- Final Cut Pro 4 uses XML interchange format technology to give you an unprecedented level of control over integration with other nonlinear editing systems and production workflows through the interchange of project, bin, sequence, clip, metadata and media data information.
- The new interchange format for exchanging content with other nonlinear editing systems, asset management systems and broadcast servers, XML interchange format describes every aspect of a program from edits and transitions to effects, color correction settings, and keyframe data.

**Intelligent Codecs**
Final Cut Pro 4 ships with a wide range of codecs, including 8- and 10-bit uncompressed YUV (4:2:2) SD and HD codecs, native support for Panasonic DVCPRO50, 50Mb/s 4:2:2 video over FireWire, and a newly optimized, high-quality MPEG-2 codec for encoding and distribution. This lets you capture, play back and output different formats of digital video in a variety of compressed or uncompressed formats.

When you start editing with Final Cut Pro 4, you’ll need to choose the codec that clips in your edited sequence use. For instance, if you’re editing material captured from an NTSC DV camcorder, you’ll need to select the DV-NTSC codec. Just be assured that whatever type of codec you need to work with, Final Cut Pro comes with a wide range of them:

Codecs include, DVCPRO50 DV-NTSC and DV-PAL, OfflineRT using PhotoJPEG, Apple M-JPEG, JPEG and Animation.

**Cinema Tools—Advanced Tools for Film and 24P HD Video**
A database that tracks the relationship between your original film and sound with its digitized counterpart in Final Cut Pro 4, Cinema Tools provides the vital link between your original film negative and your digital video edits.

- Supports independent filmmaker by providing affordable tools for finishing on film while editing digitally. Now with support for ink numbers and change lists, bigger-budget productions can use Final Cut Pro 4.
- Adds support to the HD off-line and finishing work flow in Final Cut Pro.
- Studio-produced films go through multiple versions and screenings in post-production. If screenings are done from work-print, the work-print reels need to be re-conformed as changes are made to the digitally edited sequences. Change List feature makes it easy to generate a list of instructions for conforming a work-print reel from any one version of a sequence to any other version of that sequence.
- Supports 35mm (3- and 4-perf) and 16mm film formats
- 24-fps EDL I/O
- 24-fps EDL conversion to/from 29.97 fps
- Import ALE, ATN, FLX, and FTL files, export ALE files, import/export Final Cut Pro batch lists
- Track key numbers, ink numbers, video and audio timecode
- Output following lists: Cut, Change, Optical, Pull, Dupe, Missing elements, Audio EDL
- Link media to database
- Poster frame capability
- Conform clips to specified frame rate
- Reverse telecine function

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- Logic Dedicated Keyboard
- One or two Lacie 19˝ Electron Blue IV Monitor
- 3-Year Apple Care Warranty

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Professional DVD Authoring Software

Redefining the art of DVD authoring DVD Studio Pro 2 gives you unprecedented creative control over the design process. Customize the interface to suit your workflow needs. Apple-designed menu templates let you create DVDs quickly. And you can instantly view tracks, assets and menus, so you can see how your project looks and operates before you build the DVD. Advanced interactivity controls let you create up to 98 stories, use scripting controls for advanced playback options, define remote control functionality, create multiple language DVDs and include DVD-ROM data in your project. Includes a world-class MPEG-2 encoder that generates stunning video at lower bit rates, allowing you to maximize the length of video on a DVD without compromising quality. For more control, two powerful encoding utilities are included: Compressor provides customization and correction of compression files in real time and lets you batch process to MPEG-2 for DVD and MPEG-4 for web streaming. A.Pack encodes uncompressed audio into highly compressed Dolby digital AC-3 streams, which can then be used for full 5.1-channel surround sound.

Three different workspaces to give you maximum flexibility

The Basic configuration enables you to quickly build a DVD, using styles and templates which you can modify. If you're tackling a more elaborate project, the Extended configuration adds an intuitive workflow with a timeline, Asset bin and Inspector. The Advanced configuration provides a complete set of professional features, exposing the full power of DVD Studio Pro. You can even build your own workspace configurations to fit your particular workflow.

Everything you need to start building DVDs right away can be found in the Basic configuration. With the help of Apple-designed templates and styles, you can quickly build menus, add assets and interactivity by simply dragging and dropping edited video, audio and graphics from the palette. There is no need for a separate graphics application to design menus and buttons for your DVD project, but you can if you want to. Ideal configuration if you need to put something together quickly.

- Apple-designed menu templates and styles make it easy to build high-quality DVDs. Customize these templates to suit an individual project and save them to use for future projects, they'll speed production time and maintain a consistent look and feel.
- Quickly create menus using royalty-free templates for marketing, training and sale uses. Additional templates offer solutions for music videos, independent films, TV and ad reels, as well weddings and other events.
- Menu Editor provides all the tools you need to create menus. The alignment guides and onscreen title and action-safe area displays help you align elements and keep them inside the title and action safe areas. Shapes and drop zones will help you create beautiful and interesting menus. And you can type text directly into the menu background and format it however you like. Studio Pro 2’s powerful compositing engine quickly renders complex graphics and effects, allowing you to instantly preview menus. And when it comes time to build your project, it will automatically composite your new buttons over motion menus, eliminating the need to do the work in other programs.
- Includes drop zones that allow you to add graphic elements to a menu background. Add photos, graphics or movies – rotated, positioned and sized – and you can use shapes to provide irregular edges and borders. With drop zones, you can transform a simple background into a highly customized and interesting canvas. Once you’ve created your drop zones, you can quickly add content from your media tabs or even right from the Finder.
- Styles control menu properties such as background assets, button highlights and text colors. Styles work with an existing menu, letting you change areas such as the shape of a button or its text font. While templates affect all aspects of a menu, styles let you customize specific areas. Create your own styles, apply all or just selected parts of a style to a selected part of a menu.
Want more control? Just switch to the Extended configuration and you can work with a timeline-based Track Editor that provides a linear view of a track and its video, audio and subtitle streams. Organize your assets in the Asset Manager and view their properties at a glance. As you select different elements in your project, you can use the Properties inspector to change attributes to really make your DVD stand out from the rest. Import content, automatically transcode QuickTime files, encode to MPEG-2 and Dolby audio, design menus, assemble tracks and polish your project using the intuitive workflow of DVD Studio Pro 2.

- Use the context-sensitive Drop Palettes to make otherwise tedious connections in one step, dramatically reducing the work required to make a DVD. Automatically assign functionality in one gesture – for example, make a new track and link it to a button or create slideshows and submenus by dragging one or a group of photos over a menu. You can even create movie scene indexes based on chapter markers in one step.

- The timeline can assemble nine video angles, eight audio tracks and 32 subtitles into a single track. It adds trimming and merging options and lets you place, modify and delete chapter markers. Convert slideshows into a track, to add subtitles and audio tracks.

- Just as you assemble video assets in the Track Editor, you can assemble still images in slideshows, with fixed or user-controlled duration, with or without audio. Combine slideshows with video tracks on a DVD to provide extra information about the subject, such as historical information, newspaper articles and cast biographies. You can also create presentations with high-quality audio, and even put photo albums and scrapbooks on DVDs. Slideshows uses images in TIFF, JPEG, BMP, PICT and any other QuickTime-based image format.

- Connections tab determines how the viewer moves from one element to another. You make links so the viewer jumps from a starting point, or source, to a destination, or target. The Connections tab allows for quick drag and drop changes or keyboard commands for power users.

- Stories allow you to play back content in a different sequence, just as you might build a playlist in iTunes. Stories let you create a version of a track that skips some objectionable content, or you may use a short piece of a track as a preview. A story does not increase the amount of disc space the track requires, since it simply plays track markers in a different order. Choose which markers to include and in what order. You can even choose to play a marker’s video more than once. Create up to 98 stories to play back track segments in the order you choose.

- Simulator lets you test most aspects of a project by playing the project before it’s built. Also lets you test most connections, including First Play, and provides the functions of a DVD player remote control.

- Full access to a powerful scripting language. Add sophisticated interactivity and control with scripts assigned to buttons or attached to the start or end of any track, story, menu or marker. The Simulator also provides a complete display of the contents of the SPRMs and GPRMs, letting you verify the script behaviors you created.

- When you assign a video clip as a menu background, you can choose to loop to a frame different from the starting frame. Audio assigned to the menu automatically follows the video as it loops.

- Advanced overlay graphics let you choose up to four colors or shades of gray so that multiple highlight colors appear when buttons are selected or activated. You can configure a menu to support up to 16 different languages. In addition to importing movie files, DVD Studio Pro 2 maintains original chapter markers from Final Cut Pro and iMovie and imports iDVD 3 projects.
LACIE

PORTABLE HARD DRIVES

Data Bank (USB 2.0 and Firewire)
Design by F.A. Porsche, the Data Bank is the most compact hard disk ever. Weighing less than 5 oz., the Data Bank is barely larger than a credit card and thinner than a mobile phone (4.4 x 2.5 x 0.5”). A masterpiece of understated elegance, the Data Bank offers 20GB or 40GB of storage at fast FireWire and USB 2.0 speeds, in a sleek, ingot-shaped magnesium design.

- Hot-pluggable to easily share among cross-platform desktops, it features one FireWire (IEEE1394) and one USB 2.0 port
- USB 2.0 standard boasts transfer rates of up to 480Mbps while still maintaining backward compatibility with USB 1.1 devices. The blazing FireWire interface delivers transfer rates of up to 400Mbps.
- Offers true plug and play connectivity, without the need for driver or software installation for Windows XP and Mac OS X users.
- No power supply needed. Simply connect the drive to your computer and use the power supplied by the FireWire or USB cable.

PocketDrive (USB 2.0 and Firewire)
Designed for today’s traveler, the LaCie PocketDrive family offers an ideal solution for data exchange, backup and archiving on the road. Slender and compact, the drives are easy to carry and feature a silicon bumper for maximum shock protection. Available in two 60GB versions (5400 and 7200 RPM) as well as an 80GB (5400 RPM), the PocketDrive provides both USB 2.0 and Firewire (IEEE1394) interfaces in one drive. With two Firewire ports and one USB port, you can connect and disconnect any of the PocketDrives while the computer is running with immediate device recognition.

- PocketDrives weigh just 12½ ounces, yet they can easily store heavy graphic, audio and video files, and perform complete backups of most systems.
- Designed for people on the move, the PocketDrive is small enough to fit into your pocket and features a special silicone bumper and sturdy casing for proven shock protection
- PC and Mac compatible, the PocketDrive comes complete with USB 2.0 and FireWire cables, AC power adapter, and LaCie’s SilverKeeper backup software (for Mac OS X only).
- SilverKeeper eliminates the time-consuming task of manually backing up your important files, offering you an easy-to-use backup solution.

Mobile Drives (USB 2.0 or Firewire)
The perfect companion for desktop and notebook computers, the LaCie Mobile Drive weighs just 7 oz. to neatly fit in any travel, tote or computer bag, giving you the flexibility to work comfortably at home or away. Available in 20, 40 and 80GB capacities, the Mobile Drive is made with a durable exterior to withstand life on the go. In addition they are bus-powered and don’t require AC adapters, providing more freedom to roam while staying connected.

- Plug and play with USB 2.0 interface, this lightweight, portable drive boasts transfer rates of up to 480Mbits/sec. — while maintaining convenient backward compatibility with USB 1.1 devices
- With FireWire interface and fast transfer rates (up to 400Mbits/s) you can download data or back up important files in no time
Mobile & Desktop Hard Drives
LaCie’s D2 series mobile and desktop hard drives are available in a variety of interfaces for easy connection to Macs and PCs. While USB is best-suited for personal backup and data sharing, Firewire is ideal for use with high-bandwidth applications, such as video and audio editing. All drives are plug-and-play for Mac OS X and Windows 98SE/2000/Me and XP.

◆ The D2 drives feature a sturdy aluminum case designed to enhance portability, durability, and appearance. Made of a metal alloy that dissipates heat and prolongs drive performance, the drives feature a slender, stylish case that allows you to arrange them vertically on the desktop, horizontally stacked in a desk rack, or mounted in 19” racks.
◆ Available with up to 500GB of storage, a 250GB D2 drive can store the equivalent of a 385 CD-Juke-Box or 50,000 MP3 songs.

D2 Firewire Hard Drive
◆ Available with up to 250GB capacity, these drives are capable of reaching transfer speeds of up to 800Mbits/s for FireWire 800 users and up to 400Mbits/s for FireWire 400 users. FireWire interfaces, 7200 rpm speed and 8MB buffer (250GB version) makes them one of the fastest storage solutions available for digital content creators.
◆ Drives are hot-pluggable, allowing for connecting and disconnecting while the computer is running.
◆ Can be connected to any computer equipped with FireWire 800 (9-pin), FireWire 400 (6-pin) or iLink/DV (4-pin) ports.

D2 Triple Interface Hard Drive
◆ This drive is capable of reaching transfer speeds of up to 800Mbits/s for FireWire 800 users, up to 400Mbits/s for FireWire 400 users, and up to 480Mbits/s for USB 2.0 users. This drive’s triple interface, 7200 rpm speed and 8MB buffer make it the fastest-possible storage solution for digital content creators.
◆ With the appropriate cable, the drives can be connected to any computer equipped with FireWire 800 (9-pin), FireWire 400 (6-pin), USB 2.0 or USB 1.1 ports, making it the most universal drive ever.
◆ Chained and striped in a FireWire 800 RAID 0 configuration, can reach unprecedented sustained transfer rates of up to 100MB/s, making them ideal for workstation and small-server environments.

Big Disk Extreme
◆ The LaCie Big Disk Extreme is a unique innovation that offers incredible storage capacities up to 500GB in a 5.25” format. Featuring a new, faster chipset, the LaCie Big Disk Extreme is the first FireWire 800 storage device to achieve transfer rates that are up to 50% faster than first-generation FireWire 800 drives. This high-performance drive also allows for native RAID 0 speed without complicated configuration.
◆ Compatible with Mac and Windows, this drive features two FireWire 800 ports and one FireWire 400 port, making it ideal for audio and video professionals working with large DV/SD video and video RAID.
◆ Convenient, automatic on/off feature conserves energy and prolongs the life of the drive.

◆ Fan-free design ensures quiet operation
◆ The drives are hot-pluggable, allowing for connecting and disconnecting while the computer is running. They are also compatible with Mac and Windows enabling simple cross-platform data sharing and exchange among workstations.

D2 Accessories
LaCie Desk Rack
Conveniently stack up to four D2 drives in this separate rack and save valuable space on your desk. When holding three drives or less, this sturdy desk rack features an area to neatly store media such as CDs and DVDs .................48.95

LaCie Security Lock
Also available for use with the D2 design is a Kensington-type lock to protect your equipment from theft or damage. This security lock can be quickly and easily installed and features a durable steel cable ......18.95

LaCie Rackmount Kit
Configure your LaCie D2 drives in standard 19” racks with this optional rack-mounting kit. This kit allows for greater organization of storage peripherals and tidy consolidation of hardware. Kit includes two aluminum brackets and one aluminum junction piece....................................................38.95

Included LaCie Drive Stand
LaCie D2 drives ship with a sturdy metal drive stand that provides stability and enables upright desktop use. When positioned vertically, these slender drives occupy less surface area for more efficient use of desktop space.
**8x d2 DVD±RW**

**USB 2.0/Firewire DVD Rewritable Drive**

This universal drive delivers four DVD formats in a single, slim device. By combining DVD+RW and DVD-RW formats, the LaCie Dual DVD±RW Drive delivers greater creative versatility by eliminating the need to choose one format over another.

- Drive is also capable of writing to CD and DVD formats, which are compatible with nearly all existing DVD-Video players.
- Encased in Lacie’s d2 design, this drive features Firewire and USB 2.0 (Firewire only on Macintosh version) connections and can be positioned horizontally on the desktop, stacked in a separate desk rack, or mounted in standard racks with the optional rackmount kit.
- Record digital audio, video and data or backup valuable data. Read/write to CD and DVD media. Utilize Easy CD and DVD Creator and Toast Lite to record professional-quality, personalized DVDs.
- Fully hot-pluggable, simply connect the drive and start creating. Drives can be shared between workstations for cost savings.

**8x INTERNAL DVD+/-RW**

**Internal E-IDE/ATAPI High-Speed DVD Burner**

Edit and author professional, interactive video DVDs, store music files and archive digital photos — all on reliable DVD media. Record data, video and MP3s on DVD general use discs and store up to 4.7GB of data — up to 1,000 songs, more than two hours of MPEG-2 DVD video, or as many as 500,000 documents.

- Discs can be played on most DVD players so you can easily share your creations with family and friends.
- Buffer under run protection reduces failed burns
- Bundled software incorporates easy-to-use interfaces and a range of professional-grade tools, allowing you to create superior, high-quality DVDs to be used for storage, backup or playback
- Ideal for storage and backup of audio, video and data in consumer and corporate environments.

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**d2 FireWire CD-RW**

**Equipped with fast record speeds and spacious capacity, the d2 Firewire CD-RW drive in the d2 design boasts an elegant new look that was specifically developed to enhance mobility, functionality and versatility.**

- Shipped with comprehensive recording software, you’ll be able to start burning immediately. The LaCie CD Utilities includes all of the necessary drivers and Toast for the Mac and Easy CD Creator for the PC, allowing you to create custom audio CDs, store files and archive your photographs.
- As a “plug and play” peripheral, the LaCie CD-RW Drive is easily configured to Macs running OS 9.x and 10.x, as well as Windows 98SE, Me, 2000 and XP. Creating data, audio, photo and multimedia CDs has never been easier.
- With hot-pluggable FireWire technology, you can connect and disconnect your drive without shutting down your computer.
- The LaCie CD-RW is also supported by both the Mac OS and Windows, which means that the LaCie CD-RW Drive can be utilized by an entire department without costly down-time.

**FireWire Pocket DVD-RW**

**Mobile DVD Recording**

This lightweight, mobile DVD-RW drive offers enough capacity to store large graphic, audio and video files, as well as perform complete backup of most systems on reliable DVD media. An ideal companion for Apple Power Mac computers and PowerBook laptop computers, LaCie’s FireWire Pocket DVD-RW Drive delivers a complete, lightweight DVD recording and authoring solution.

- Record digital video, MP3s and data files on DVD general use discs. Offering generous storage capacity of up to 4.7GB, DVD general use discs are capable of storing as many as 1,000 MP3 songs, up to two hours of MPEG-2 DVD video, thousands of digital still images, and as many as 500,000 documents.
- Ships with full-featured DVD authoring software, as well as CD and DVD recording software for Macintosh so you can burn video, audio or photo CDs and author exciting video DVDs - all from the road.
- FireWire powered, the drive can be connected and disconnected while the computer is running with immediate device recognition. An external power supply isn’t needed.
**Real-Time A-D (Analog-to-DV) Converter**

The ADVC-50 lets you convert your VHS/S-VHS and 8mm/Hi8 video tapes to DV in one simple step. The ADVC-50 is compatible with all OHCI and DV capture cards for Macintosh or PC. No need to install drivers or any applications. Ideal companion to the Canopus DVRaptorRT2 or any OHCI/DV capture card providing both analog input and easy cable access.

- Uses Canopus’ award-winning DV Codec to convert analog video to DV in realtime, and provide the best picture quality preservation.
- Supports locked audio when converting from analog to digital, assuring perfect audio and video synchronization. Capture long clips with perfect audio sync.
- NTSC and PAL compatible, works with Mac and Windows
- Easy to install, the ADVC-50 allows convenient access to video cabling when fitted into the computers 5¼” bay. Alternatively, it can be installed internally as a standard PCI card.

**ADVC-100**

**Real-Time Analog-to-DV and DV-to-Analog Converter**

Ideal for non-linear editing, the ADVC-100 converts VHS/S-VHS, Hi8 and 8mm video tapes to DV in one simple step. The converted DV streams are then transferred to your PC or Mac via IEEE1394 (FireWire) and stored on your hard drive where they can be manipulated using any photo or video editing application.

- Proprietary DV codec chip provides the industry’s best picture quality preservation during A-D and D-A conversion.
- When used with Canopus DV cards, the ADVC-100 automatically detects whether you’re importing digital or analog video.
- Outputs color bars for reference signal
- Supports locked audio when converting from analog to digital, assuring perfect audio and video synchronization. Capture long clips with perfect audio sync.
- Front and back analog input connectors for permanent connections such as VCRs, which can be connected to the back while all inputs are still available on the front.

**ADVC-300 Bi-directional Analog / Digital Video Conversion**

The ADVC300 is the ultimate bi-directional analog to digital video converter. Featuring high-quality image enhancement technology including digital noise reduction and image stabilization, the ADVC300 instantly cleans, stabilizes and preserves old VHS and Hi8 videos in clean DV format.

- Ideal for capturing and exporting analog video from editing and DVD authoring applications for Windows and Mac. Use as a stand-alone bi-directional analog/digital video converter without using a computer.
- Convert VHS, S-VHS, 8mm and Hi8 tapes to DV and back in one simple step
- ADVC300’s intelligent usability allows for easy setup and connection in any video environment. Front and back I/O connectors provide analog and DV signal pass-through and ensure that cabling is neat and simple.
- Compatible with all widely used DV and analog cameras and decks. High-quality component video output is ideal for monitoring video using a broadcast monitor.
- Features color bar reference signal output and advanced analog input control software for adjusting brightness, contrast, saturation, hue and sharpness.
- Employs advanced 3D Y/C separation, 3D noise reduction and Line Time Base Correction for perfect frame synchronization. Poor analog source video is filtered and stabilized prior to DV conversion. ADVC300 is also ideal for “cleaning” old analog video and output back to analog tape.
CANOPUS

ACEDVio

Analog and DV Editing Card

ACEDVio is the world’s only analog and DV editing card that is completely compatible with hundreds of video editing applications and all widely used video equipment. By using Canopus’s proven DV codec technology to provide unmatched picture quality, along with the company’s locked audio technology for perfect audio and video synchronization, ACEDVio reflects the strong engineering and product stability found in Canopus’s line of professional level video products. Whether it’s a Windows or Mac computer, VHS or DV camcorder, Final Cut Pro, Xpress DV, Premiere or Vegas editing software, Canopus ACEDVio is the one card for all editing environments providing the broadest compatibility, longest product life and highest return on investment. Available in three configurations: Board only (with Ulead DVD MovieFactory SE) with Vegas Video 4.0 or in a ‘Ultra Bundle’ with Adobe Premier Pro, Audition and Encore.

FEATURES


◆ Connects to all widely used analog and DV cameras and decks including: VHS, S-VHS, Hi-8, Digital8, DV and DVCAM (supporting PAL and NTSC video standards)

◆ Compatible with Windows and Mac systems. Easy one-card installation requires no additional software drivers. Also provides easy connections for storage devices, CD-RW drives, scanners and more.

◆ Provides the industry’s best picture quality preservation and locked audio support during analog-to-DV conversion and capture. Locked audio ensures perfect audio and video synchronization at all times.

◆ Provides video output to a monitor or television while editing.

◆ Features adjustable brightness, contrast, saturation, hue and sharpness controls on analog video input.

◆ ACEDVio (all versions) also includes Ulead DVD MovieFactory 2.0 SE, Ulead’s popular DVD creation software. Combined with ACEDVio, DVD MovieFactory allows you to capture directly from a camcorder into a VCD or DVD project, as well as providing menu, still slideshow and chapter point creation. DVD MovieFactory supports a wide selection of CD and DVD burners.

Vegas Video 4.0 Bundle

ACEDVio is available ina bundle with a complete, fully-functioning version of Vegas Video 4.0. A Windows-based, integrated realtime video and audio non-linear editor with a comprehensive feature set, Vegas Video 4.0 offers multitrack mixing, compositing, color correction, titling, streaming media encoding and 5.1 multichannel surround sound production.

Video

• Multitrack video editing with unlimited tracks
• Powerful video compositing
• 3-wheel primary and secondary color correction filters
• Real-time previewing of effects and processes
• Keyframeable transitions, filters, and track motion
• Support for any aspect ratio (4:3, 16:9, etc)
• Supports multiple file formats, frame rates

Editing

• Real-time non-destructive editing
• High Definition editing and output
• 24p DV support with Panasonic AG-DVX100

Audio

• Audio recording, editing, and mixing
• 24-bit/96 kHz audio support
• 5.1 surround mixing tools
• DirectX plug-in effects automation

Capture/Export

• DV capture and print-to-tape tools
• Advanced streaming media tools
• Windows Media9 Series support, including surround encoding
• RealVideo 9 support
• VideoCD and data CD burning
• Imports CMX and Sony EDLs

ACEDVio Ultra Bundle

This bundle combines ACEDVio with Adobe Premiere Pro, Adobe Audition and Adobe Encore.

• Premiere Pro is the leading editing package. From titles to graphics to fancy transitions to realtime effects, Premiere Pro is a TV studio in a box.
• Audition’s pro-class audio editing and effects tools give you the power to create a sonic canvas as powerful and professional-sounding as your visual canvas.
• Encore brings Adobe’s easy and familiar interface to the world of DVD authoring. From encoding to menus to interactivity, Encore allows you to make impactful, polished DVDs.
Realtime Video Editing with Movie-style Effects

Let’s EDIT is a fast and easy-to-use video editing software with movie-style effects including Old Movie, Blur, Pencil Sketch and color correction. Realtime operation dramatically speeds up the editing process as there is no rendering or waiting while creating movies with sophisticated special effects. Combining real-time video tracks, film-like filter effects and 2D/3D transitions with intuitive and easy-to-use software—Let’s EDIT is the ultimate home editing and DVD creation package.

Let’s EDIT RT and RT+ combine Let’s EDIT software with an OHCI capture card for easy capturing of video from either analog or DV camcorders, as well as realtime analog (RT+ only) and DV output. The card features Canopus’s proprietary DV codec chip to provide the industry’s highest-quality, analog-to-DV conversion with locked audio support for perfect audio and video synchronization.

FEATURES

◆ Realtime video playback ensures there is no waiting required to view a video project.
◆ Realtime mixing and playback of two or three video clips
◆ Realtime titles and graphics layers, each with motion and opacity controls, for effortless creation of subtitles, captions and movie credits
◆ Realtime movie-style effects can be applied to video in any combination to produce unlimited special effects possibilities
◆ Realtime 2D and 3D transitions such as 3D Dissolve, Cube Spin and Page Peels with hundreds of presets eliminate time-consuming effects creation
◆ Voiceover recording allows narration to be added in realtime to a video project
◆ Customizable effects include Chroma Key, Picture-in-Picture and speed control.
◆ Fast, intuitive, easy-to-use operation using professional editing tools and techniques
◆ Proprietary Media Technologies provides the highest-quality DV and MPEG video output. User-definable presets make creating the MPEG-1/2 files required for DVDs, SVCDs and VCDs quick and easy.
◆ Also includes Ulead DVD MovieFactory SE for easy authoring of fully interactive, professional-looking DVDs.

Let’s EDIT RT and Let’s EDIT RT+

Let’s EDIT RT and Let’s EDIT RT+ are PCI analog and DV editing cards compatible with widely used video equipment and hundreds of video editing applications. Together with Let’s EDIT software these cards provide realtime render-free video output to ensure that there is no waiting or rendering to playback, output and complete sophisticated video projects. Otherwise identical, Let’s EDIT RT+ adds analog composite and S-Video and stereo audio output.

◆ They connect to all widely used analog and DV cameras and decks, including VHS, S-VHS, Hi8, Digital8, DV and DVCAM
◆ DV and analog video compatibility for editing and DVD authoring applications, including Vegas Video 4.0, Final Cut Pro, Avid Xpress DV, Premiere, Pinnacle Edition, Ulead MediaStudio Pro, and Windows Movie Maker
◆ Features adjustable brightness, contrast, saturation, hue and sharpness controls on analog video input
◆ Support PAL and NTSC video formats
◆ Compatible with Windows and Mac
◆ Provide the industry’s highest-quality analog-to-DV conversion with locked audio support for perfect audio and video synchronization
◆ Broad editing software support and video equipment compatibility ensures a long product life and high return on investment
◆ Let’s EDIT RT+ provides video output to a monitor or television while editing
Professional Video Editing Software

Redefining realtime editing, EDIUS 2.0 lets you seamlessly edit, mix and output DV, MPEG-1, MPEG-2 and uncompressed video with true realtime render-free operation. It also redefines video production productivity with realtime multi-format, multi-track editing and timeline output to DVD using a standard desktop or notebook PC.

EDIUS 2.0 streamlines DVD-Video production by allowing editors to work in MPEG-1 or MPEG-2 format for realtime editing, effects compositing, keying, transitions and titles. Canopus’s MPEG codec technology maintains the highest picture quality during every stage of the production process. EDIUS 2.0 also features DVD-Video authoring directly from the timeline, with full chapter point support.

EDIUS 2.0 delivers unprecedented productivity and flexibility by offering unlimited video and audio tracks, unlimited title and graphics layers, the ability to transition between multiple video tracks, voiceover recording, three-point and four-point editing for even greater flexibility, multi-format conversion capabilities and realtime output – all in a fresh graphical user interface that makes it easy to create powerful, professional video and audio content.

While EDIUS 2.0 works with any OHCI-compliant system, it is optimized for Canopus’ DVStorm and DVRaptor RT2 cards, providing additional realtime, render-free operation working with DV, MPEG-1/2 and uncompressed analog video output.

**Features**

- Integrates Canopus’s proprietary Effects Technology to offer 27 realtime video filters, including White/Black Balance, Color Balance, High Quality Blur and Region. Also features a selection of high-quality realtime video keyers, such as Chroma Key and Luma Key, for use in compositing effects, as well as a fully customizable 2D/3D Picture-in-Picture effect. All effects are easily adjustable and may be combined to produce hundreds of customizable effects.
- Sophisticated bin folder structure and search capabilities for enhanced clip organization and management, the ability to remap moving or moved clips within a project for easier updating, and enhanced timeline management features, including batch delete. Also supports 32-bit uncompressed video with alpha channel, allowing editors to insert clips made using applications, such as Ulead COOL 3D, directly onto the video track and play back in realtime.
- Includes Xplode for EDIUS and EDIUS FX, Canopus’s advanced realtime 2D and 3D video effects engines. These effects packages harness the power of Canopus Effects Technology to create stunning, professional-quality video transitions. With more than 40 transition groups from which to choose, each with customizable options and numerous presets, Xplode for EDIUS and EDIUS FX provide enough power for even the most demanding video editor.
- EDIUS is capable of unlimited simultaneous realtime titles and graphics layers. Its motion and opacity controls allow users to stack multiple title layers for greater creativity. Title Motion Filter effects include Blur, Dissolve, Slide, Wipe and Laser. EDIUS also includes Inscriber TitleMotion, for the creation of visually stunning text, graphics and effects. In addition to award-winning CG capabilities, TitleMotion includes professional functions such as crawls, rolls, directional blurs, dissolves and more. Text can be fine-tuned through kerning, leading, slanting, rotating and dynamic sizing. Editors can choose from more than 170 pre-set templates, or create a unique design of their own.
- The output quality of a completed video project is just as important as the editing process. EDIUS addresses this by providing fast, high-quality, multiple format export capabilities with technology featured in ProCoder, Canopus’s highly acclaimed conversion software. ProCoder Express - EDIUS Edition lets users rapidly export to MPEG-1, MPEG-2, QuickTime RealVideo and Windows Media formats, in addition to Canopus’s own DV AVI format.

User Interface

Floating window user interface for easy workspace customization (customizable for single and dual monitor setups)
- Dual or single preview windows (recorder and player)
- Up to 10 user-definable workspace layouts
- Customizable toolbar buttons
- User-definable effects presets and folders
- Re-mapping of missing media clips
- Timecode and VU meter overlay display
- Timeline window
- Bin window
- Effect selector window
- Information window
- Marker window
- Realtime waveform/vectorscope window (available while capturing and previewing video)

Titles

- Inscriber TitleMotion
- Realtime roll /crawl
- Animated titles with 3D effects and motion
**Timeline Editing**
Fast and flexible timeline editing for efficient workflow and increased productivity.
- Unlimited video tracks, title and graphics layers, audio tracks
- Audio waveform display
- Transparency track keyframe
- Audio volume / pan keyframe
- Lock / Hide tracks
- Three-point editing
- Four-point editing (fit to fill with realtime speed control)
- Ripple editing
- Slip, slide and roll editing (performed while viewing in/out points)
- Video / audio split editing
- Voiceover recording support
- Realtime audio mixer
- Multiple clip selection and deletion
- Clip division through all tracks
- Transition on same track (all tracks)
- Transition between video tracks
- ShuttleScrub preview window control
- Unlimited undo / redo levels
- Auto save feature

**Effects**
- Simultaneous realtime effects for unlimited creativity
- Realtime video and audio tracks, title and graphics tracks and filters
- Realtime chroma and luma keying
- Realtime 2D and 3D transitions
- Realtime 3D perspective Picture-in-Picture
- Realtime title effects

**Video Clip Bin handling**
- Group selection of media
- Multiple folder support
- Detailed list folder view
- Media clip search options
- Clip sorting functions: File name, Clip name, File size, Date

**Video Input and Output**
- Full DV deck control capture
- Batch capture and direct-to-timeline capture
- Automatic file division capture at date and timecode break
- 32-bit uncompressed video import (for video clips with alpha channel)
- MPEG video capture support from Canopus MPEGPRO series and Amber
- Realtime DV output from timeline
- Embedded timecode on exported video
- TGA file sequence export
- MPEG-1 and MPEG-2, Windows Media, RealVideo and QuickTime export
- Direct-to-DVD timeline export
- Hardware MPEG encoder support for DVStorm

**DVRaptor RT2max**
**Render-Free Real-time DV Editing for EDIUS 2.0 or Adobe Premier Pro**
A total solution for realtime multi-track DV editing, special effects, DVD authoring and Web video publishing, the DVRaptor RT2 Max sets a new standard in performance and price providing entry to Canopus’s legendary realtime DV editing and special effects capabilities. With DVRaptor RT2 Max there is no rendering and no waiting while editing in with EDIUS 2.0 or Adobe Premier Pro.
- Can process up to three video layers and 30+ moving title and graphics layers in realtime from Premiere Pro timeline. The internal video keying process is done in YUV 4:2:2, as opposed to the RGB, resulting in superior output quality and excellent keying results.
- Includes the industry’s best DV chroma keying and realtime color correction with vectorscope and waveform monitoring. Also features a high-quality realtime speed controller, which provides realtime speed adjustments of any value ranging from 1 to +/- 1,000%.
- Powerful, customizable realtime video filters can be combined to provide endless special effect possibilities. No limit to the number of filters that can be combined and blended.
- Xplode Basics adds 2D, 3D and alpha video transition effects with an easy-to-use interface and over 160 different effects presets.
Realtime Production Studio

DVStorm2 Pro is the professional’s video production backbone of choice. Superior hardware and software integration allows editors to seamlessly work with leading editing, composting, effects and transcoding applications while benefiting from DVStorm2 Pro’s highest-quality analog and digital video processing. Combining Canopus’s proprietary technologies, DVStorm2 Pro delivers the industry’s highest-quality DV and MPEG, breakthrough realtime performance and a professional, stable studio environment.

Bundled with EDIUS LE as well as Adobe Premier PRO (certain packages), DVStorm2 Pro’s Premier Pro plug-in lets you preview and output both native Premiere Pro effects and Canopus effects simultaneously in realtime. When using Premiere Pro, DVStorm2 Pro delivers five simultaneous realtime video streams and unlimited title and graphics layers. DVStorm2 Pro also provides unmatched realtime multi-track editing, an ample collection of realtime filters, 3D effects and realtime, render-free DV output. It also provides realtime color correction with waveform/vectorscope, variable speed control, the industry’s leading DV chroma key, auto white balance, region filter, voiceover recording, and more.

Since MPEG capabilities are vital to today’s editor, DVStorm2 Pro includes StormEncoder, Canopus’s realtime MPEG hardware-encoding module, as well as a frame-accurate MPEG editing tool. StormEncoder lets you encode MPEG-1/2 files in realtime directly from DV and analog sources using the MediaCruise control software for effortless capture and encoding.

Features:

- Unlimited simultaneous realtime video tracks
- Unlimited simultaneous realtime title and graphic layers
- 30 realtime video filters.
- 7 realtime audio filters
- Perspective / 3D picture-in-picture
- Simultaneous unrestricted combinations for all of the above
- Realtime DV and analog output
- 28 realtime 2D and 3D transition groups with hundreds of presets
- Realtime render-free DV and analog output
- Adobe Premiere Pro plug-in
- Component video output
- Supports PAL and NTSC
- Supports 16:9 and 4:3 aspect ratios
- Supports DVcam equipment
- Full YUV 4:2:2 editing and processing

Canopus Proprietary Technology

DVStorm2 Pro is the world’s most capable realtime multi-track editing system. Combining Canopus proprietary technologies, DVStorm2 Pro delivers the industry’s highest-quality DV and MPEG, breakthrough realtime performance and a professional, stable studio environment. Unlike any other realtime editing system, DVStorm2 Pro is capable of performing unlimited simultaneous realtime video filters, titles and graphics layers. This power and expandability is made possible by Canopus’s proprietary scalable video architecture. Pioneered by Canopus in 1998, Scalable Video Technology ensures that DVStorm2 Pro’s realtime editing capabilities expand as CPU power increases. Scalability ensures a greater return on investment and a long product life. To date, no other editing system offers such scalability.

Storm Encoder

DVStorm2 Pro+’s unique hardware MPEG-1, MPEG-2 encoder can either capture MPEG from a DV or analog source or encode MPEG in realtime from the timeline. Presets for VCD, SVCD and DVD ensure fast high-quality encoding, ready for authoring. DVStorm2 Pro also includes a component video output connector. Component video output provides connectivity to Betacam decks and broadcast monitors.

Realtime Chroma and Luma Keying

Chroma and luma keying allows editors to make part of their video transparent. Keyed clips can be placed over other clips to achieve effects, such as placing a person in front of any background video. Canopus processes realtime effects in the YUV color space with 4:2:2 sampling. The result is a much cleaner Chroma and Luma Key without the compression artifacting around the edges normally associated with a Key that works in the RGB color space.
30 Advanced Realtime Video Filters

- DVStorm2 Pro features powerful realtime video filters unique to Canopus. All realtime filters are customizable and can be combined to provide endless special effects. In addition, there are no limits to the number of video filters that can be combined and blended. Canopus Scalable Technology allows stacking of video filters onto all video tracks, all in realtime.

  - Anti-flicker  • Blend Effects  • Blur
  - Chroma Key  • Chrominance
  - Color Correction  • Combine Effects
  - Emboss  • High Quality Blur
  - Loop Slide  • Luminance Key
  - Matrix  • Mirror
  - Monochromatic  • Mosaic
  - Motion Blur  • Noise  • Old Movie
  - Pencil Sketch  • Picture-in-Picture
  - Raster Scroll  • Region  • Sharp
  - Soft Focus  • Solid Color
  - Variable Speed Control (±10,000%)
  - Strobe  • Tunnel Vision
  - Variable Speed Control
  - White / Black balance

- The White Balance filter is ideal for adjusting all color values within the same range to correct problems with improperly shot footage (typically brightness issues). This filter features a ‘pick’ tool to allow automatic white balance adjustment relative to a selected color value. As an example, the original shot was filmed at dusk resulting in footage with a blue tint. By selecting an object in the shot that would normally appear white in color with the pick tool, the footage is automatically adjusted to correct the color information.

Realtime Title Motion Filter

DVStorm2 Pro is capable of unlimited simultaneous realtime title and graphics layers. Create realtime multi-layered composites with dozens of title and graphics layers with motion and opacity controls to allow each layer to behave differently. Title Motion Filter effects include Blur, Dissolve, Slide, Wipe and Laser.

Realtime 3D Picture-in-Picture/Pan and Zoom

Powerful 3D Picture-in-Picture transition controls include.

- Interactive preview tools for position, orientation, scale and shadow configuration.
- Full key frame timeline control for position, orientation, perspective, scale and transparency.
- All key frame groups can be interpolated by: Constant, Linear or Spline.
- Crop and Border controls allow separate crop control for each border as well as color and soft edge controls.
- Extremely high quality anti-aliasing for smooth edges and clear representation of 3D manipulated image borders.

- Easy to use presets provide perfect results without time consuming adjustment.
- User friendly configuration controls allow quick configuration of complex transitions without worrying about start and end points.

Xplode for DVStorm and 3DRT-II

Realtime 2D and 3D Transitions

DVStorm2 Pro includes Xplode for DVStorm and 3DRT-II, advanced 3D video effect engines. Xplode for DVStorm and 3DRT-II feature proprietary Canopus effects technology and provide the power to create stunning and professional quality video transitions. With 28 transition groups hundreds of presets and endless customizable options Xplode for Storm/3DRT-II provide sophisticated power for the demanding video editor. Xplode plugs-in to Premier and EDIUS to execute multiple complex transitions and effects in realtime.

Create Completely Original Effects:

- Adjust the rate of motion at any point of a transition
- Save keyframed effects into a preset list
- Configurable lighting allows editors to adjust where a light source is positioned, what color the light is, and the degree of light intensity.
- Xplode breaks the barrier of static shadows by providing a very natural, realistic and smooth look to projected shadows as they are cast in reference to the direction of the incoming light source.
- Import 3D objects from Lightwave and 3D Studio Max Xplode DVStorm lets users create their own customized 3D effects. Further customization is possible through the support of AVI, BMP, GIF, Windows Media and JPEG formats.

Transition Categories (with many presets)

- Xplode 3D Standard – Ball Bounce, Billboard, Confetti, Conveyor, Cube Tube, DoubleDoor, Fly Away, Page Peel, Ripple, Twist, Wave, Zoom.
- Alpha Vapor Dissolves – Clouds, Smoke and Water.
- 3D Object Wipes (Video B onto Video A)– Airliner, Boom Box, Butterflies, Camera, Card, Cell Phone, Dice, F16, Golf Ball, Heart, Helicopter, Semi Truck, Sword.
- Over 60 Alpha wipes including: Beam Me Up, Breaking Wave, Checker, Circles, Curtains, Diamonds, Hearts Galore, Jaws, Layered Roll On, Mosaic Ripple, Oil Slick, Quad Spots, Radar, Sandblast, Spiral Burst, Wash Away 3D Dissolve, Blinds, Cube.
**Canopus Realtime Tools**

DVStorm2 Pro incorporates an impressive array of professional tools to assist editors in making the best creative decisions with their projects. These include a waveform & vectorscope monitor, realtime audio filters and realtime video out plug-ins for After Effects, Photoshop, and NewTek LightWave 3D.

- Process and maintain the video signal quality necessary for broadcast using Canopus' waveform and vectorscope for accurate color information. The waveform and vectorscope monitors are available for the Color Correction and White Balance Filters. The White Balance Filter alters the balance of color using the white or black ends of the color spectrum.
- Canopus realtime audio filters provide tools such as Graphic Equalizer, Delay, High Pass Filter, Tone Controller and mor.

**Bundled Software**

Includes Sonic Foundry ACID Style, a powerful software and loops package that gives you everything you need to begin producing royalty-free music.

- Choose from over 600 music loops
- Create tracks using an easy-to-use “pick, paint, and play” style interface
- Use unlimited tracks of audio
- Fly in sound effects, samples, and rhythmic effects
- Save your mix in many formats, including MP3, RealAudio, Windows Media, and WAV
- Includes EDIUS LE. Packed with many of the features of EDIUS 2.0, EDIUS LE provides DVStorm2 Pro with true real-time editing and visual effects power. Experience the intuitive, high-productivity workflow that is revolutionizing video production.
- EDIUS LE includes ProCoder LE for professional multi-format encoding capabilities including MPEG-1, MPEG-2, Windows Media, Quicktime and RealVideo formats.
- Bundled Ulead COOL 3D Production Studio SE lets you design and animate custom 3D titles for import into video projects. Choose from pre-made shapes and styles or create titles from scratch

**MPEG Tools and DVD Authoring**

DVStorm2 Pro incorporates Canopus’s Proprietary Media Technologies for the highest-quality MPEG encoding at the fastest speed. DVStorm2 Pro includes MPEG cutting and recompressing utilities for editing files that have already been encoded to MPEG.

**MPEGcraft LE:**

- Fast, high-quality re-encoding
- Supports MPEG-1 and MPEG-2 system streams
- Frame-accurate navigation for more precise cutting, including mouse wheel timeline scrubbing
- GOP-based editing to avoid re-encoding while cutting
- Hardware encoding support for DVStorm2 Pro’s hardware MPEG encoder
- to MPEG Tool provides additional MPEG encoding to pre-existing video files including:
  - Multiplexing and De-multiplexing of MPEG files
  - Re-encoding of MPEG files including upscaling of MPEG-1 to MPEG-2
  - DV AVI to MPEG encoding with In/Out configurability

**DVD Authoring**

DVStorm2 Pro integrates the power of realtime DV editing with DVD authoring in a single system solution. Bundled UleadDVD Workshop SE lets you output sophisticated DVDs, VCDs and SVCDs with features such as motion menus, special text effects, highlight color customization and photo slide shows with still images and audio. Creating DVDs with DVStorm2 Pro is a snap. Simply encode to MPEG-2 from the timeline and import the MPEG-2 files into Ulead DVD Workshop SE for easy and powerful DVD authoring.

**DVStorm2 Pro—Available in three versions**

- **DVStorm2 Pro Ultra Real-Time DV Editing Solution** — Same as above plus it adds Adobe Premiere Pro, Adobe Encore DVD, Adobe Audition
- **DVStorm2 Pro+ Real-Time DV Editing Solution** — Same as above plus it adds Adobe After Effects 6.0 Standard,
The Ultimate Format Converter

Whether encoding MPEG video for DVD production, producing Windows Media for streaming or transcoding between NTSC and PAL, ProCoder 2.0 makes video format conversion quick and easy. Encode a single source to multiple targets simultaneously, run multiple conversion jobs back-to-back in batch mode, or use ProCoder 2.0’s drag-and-drop preset icons to start conversion with a single click.

ProCoder 2.0 features support for many popular video codecs out of the box, including Canopus’ high-quality, high-speed, proprietary DV and MPEG-2 codecs, and also supports additional codecs already installed on the system.

- Simplifies your workflow, ProCoder 2.0’s powerful manipulation tools get your sources ready for conversion.
  - Stitching allows you to link multiple sources of various formats together to create a single seamless result, preventing you from having to combine the sources in an editor.
  - Source filters provide useful enhancement tools, such as bitmap overlay, cropping and volume adjustment, to ensure perfect input before encoding, while target filters give you the flexibility to make specific adjustments for particular output.
- With Scalable Technology architecture, conversion speed increases with the power of your system. In many cases, ProCoder can transcode files faster than realtime.

Canopus’ DV codec provides the best picture quality preservation at the highest speed, reducing the impact of multiple recompressions. Canopus’s MPEG-2 codec employs two-pass variable bitrate (VBR) compression and advanced motion-estimation algorithms to provide the best possible encoded result.

Encode a single source to multiple targets simultaneously, run multiple conversion jobs back-to-back in batch mode, or use drag-and-drop preset icons to start conversion with a single click. ProCoder provides the streamlined workflow to convert once and create all the output formats you need.

Xplode Professional 4.0

Xplode Professional 4.0 is an advanced 2D & 3D video effects package providing editors with powerful creativity tools to produce stunning quality video content. With hundreds of customizable effects, transitions and an intuitive interface, creating custom effects is a snap.

- With a selection of over 100 presets, Composer Effects gives editors detailed keyframing and advanced transition customization capabilities to create stunning 2D and 3D effects to their liking. Several Composer Effects can also be combined with an Alpha Mask or be applied on transparent graphics to provide even more customization for PIP and text effects.
- Accessed from within Canopus editing packages or Adobe Premier, Transition Launcher is a fast, efficient way of navigating through over 900 different effects within Xplode. Features one-click previews, drop-down “Explorer” style interface and the ability to store favorite transitions separately.
- “SmartConfig” intuitive interface dramatically reduces the learning curve by allowing users to easily and quickly adjust transitions to their specific needs. SmartConfig panels include options for progress keyframing, positioning, lighting and shadows and now also basic playback and scrubbing controls for finer tuning of effects.
- Enhanced rendering engine provides high quality output, including superior anti-aliasing. Xplode Professional 4.0 is also engineered to take advantage of Direct3D compatible Video Graphics Accelerators for faster, hardware-based performance.
- Global Configuration utility quickly adjusts important functions such as overscan area handling and 3D rendering and have the settings instantly apply to all Xplode effects. Accessed either directly or from any effect configuration panel, Global Configuration also provides users with four different quality settings to improve preview performance on older machines.

Effects

Xplode 3D Object Transition Group (SmartConfig Interface)
4 Groups: Props, Pull, Transition, Wipe

Xplode Alpha Transition Group (SmartConfig Interface) 7 Groups: Alpha Animated, Color Map, Custom Map Organic Dissolves, Shape Wipes, Vapor Dissolves, Wipes

Xplode Composer Effects (Composer Interface)
6 Groups: 3D Object, Advanced Alpha Map, Box, Morphing Shapes, Multiple Objects, Picture Frame

Xplode Standard Transition Group (SmartConfig Interface)
43 Groups: Around We Go, Ball Bounce, Blend, Blocks, Confetti, Conveyor, Cube Spin, Cube Tube, Curtain, Double Door, Fly Away Flying Ball, Mirror Twist, Mosaic, Page Peel, Ripple, Rolling Cube, Shuffle, Single Door, Twist and much more!
The RT.X10 Suite is a video editing hardware and software bundle designed for video enthusiasts who want professional results—fast. Consisting of a state-of-the-art video capture and realtime 3D effects card, an audio/video breakout cable, plus the full versions of Adobe Premiere Pro, Encore DVD, and Audition, you can easily create home movies, business videos, and school projects that you can be proud of. Realtime color correction makes all your shots picture perfect. Realtime broadcast-quality titles and customizable 3D effects such as page curls, organic wipes, spheres, cubes, particles, 3D tiles and picture-in-picture give your projects a high-end TV look. Realtime super-smooth fast and slow motion lets you create dramatic or humorous effects. Multi-track audio mixing lets you easily add soundtracks and music. When you’re finished editing, quickly deliver your finished videos on tape, VCD, SVCD, DVD, and the web.

**FEATURES**

**Capture Faster**
- Realtime SinglePass DV scan and capture cuts capture time in half and saves wear and tear on tapes and camcorders
- High-quality capture from VHS, S-VHS, 8mm and Hi-8
- Single-frame capture from DV tape or a live source for easy photomontage creation
- Video capture using OHCI and Video-for-Windows compliant applications

**Realtime Editing**
- Superior realtime video editing with Adobe Premiere Pro
- Full-quality video output on a TV, while editing
- Realtime color correction with automatic white balance, for picture perfect shots
- Realtime, customizable Matrox Flex 3D effects such as page curls, spheres, cubes, picture-in-picture, etc.
- Realtime super-smooth field-blended fast and slow motion
- Professional audio editing with Adobe Audition

**Versatile Delivery Tools**
- Realtime recording to VHS, S-VHS, 8mm and Hi-8 tape
- Matrox TurboDV export engine for fast export to DV tape
- Professional DVD authoring with Adobe Encore DVD
- Hardware-accelerated simultaneous batch encoding of DVD, SVCD, VCD, and web formats
Complete Software Bundle

The RT.X10 Suite software bundle includes the full versions of Adobe Premiere Pro, Adobe Encore DVD, Adobe Audition, plus a variety of tools to make your work faster and easier.

- Matrox MediaTools is a frame-accurate capture and logging application that lets you efficiently manage your DV video footage and capture still images.
- Matrox MediaExport provides hardware-accelerated simultaneous batch encoding of Windows Media/RealMedia streaming formats and MPEG-1/MPEG-2 multimedia formats with multiple resolutions, bit rates, and frame rates.
- Matrox Video-for-Windows codec lets you read and write RT.X10 Suite-compatible DV files using popular digital media applications such as After Effects, Discreet Combustion, Discreet 3ds max, and LightWave, with or without the RT.X10 Suite hardware installed in your system.
- WYISYWG video output support for standard DirectShow-based applications. As you work with standard DirectShow-based applications, you get instant output on your NTSC or PAL video monitor. For example, you can preview video files, such as MPEG, DivX and AVI, on your broadcast monitor using Windows Media Player. Note that WMV and Real Media files are not compatible.
- Pexían Software Video SpiceRack Lite is included with Matrox RT.X10 Suite, providing over 150 realtime organic transition patterns.

If you’re a serious professional concerned about getting the most from the Adobe’s digital video applications, you need Matrox RT.X100 Xtreme Pro. Premiere Pro becomes a full-quality, full-resolution, no-compromise powerhouse with RT.X100 Xtreme Pro. For not much more than the price of the software alone, your editing experience is greatly improved.

### RT.X10 Suite vs. RT.X100 Xtreme Pro Comparison

<table>
<thead>
<tr>
<th></th>
<th>RT.X10 Suite</th>
<th>RT.X100 Xtreme Pro Suite</th>
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<tbody>
<tr>
<td><strong>Video I/O</strong></td>
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<tr>
<td>Analog Y/C and composite I/O</td>
<td>✔</td>
<td>✔</td>
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<td>DV-1394 I/O</td>
<td>✔</td>
<td>✔</td>
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<td><strong>Codecs</strong></td>
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<td>DV</td>
<td>DV + MPEG-2 IBP for DVD</td>
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<tr>
<td>Editing formats</td>
<td>DV</td>
<td>DV</td>
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<tr>
<td>Interleaved audio/video file support</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td><strong>Realtime output</strong></td>
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<tr>
<td>Analog + cutlist-only DV</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Analog + DV + MPEG-2 IBP for DVD authoring</td>
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<tr>
<td>Frame-accurate insert edit</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td><strong>Realtime layers</strong></td>
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<tr>
<td>Video</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Graphics</td>
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### Adobe Premiere Pro support

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<th></th>
<th>Multiple formats: TGA, BMP, GIF, TIF, etc.</th>
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<td>Title Designer support and preview</td>
<td></td>
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<tr>
<td>NTSC/PAL video monitor</td>
<td>✔</td>
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<tr>
<td>Audio mixer support</td>
<td>✔</td>
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<tr>
<td>JKL keyboard support</td>
<td>✔</td>
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<tr>
<td>Matrox effects keyframeability</td>
<td>Limited</td>
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<tr>
<td>Scratch preview to NTSC/PAL monitor</td>
<td>Extensive</td>
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### Realtime Matrox Flex 3D effects

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<td>Cross dissolve</td>
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<tr>
<td>Simultaneous 3D DVEs</td>
<td>1</td>
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<tr>
<td>Page curl</td>
<td>✔</td>
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<tr>
<td>Native Adobe transitions (60), Motion</td>
<td>✔</td>
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<tr>
<td>effect, and Opacity</td>
<td></td>
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<tr>
<td>Organic wipes, 3D tiles, Particle effect</td>
<td>✔</td>
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<tr>
<td>Distortions, RGB colorization, Mask DVE</td>
<td></td>
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<tr>
<td>Blur, Ripple, Lens flare, Mesh warp, Twirl</td>
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<tr>
<td>Cubes, Sphere</td>
<td></td>
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<tr>
<td>Mosaic, Emboss, Pan &amp; Scan Tool</td>
<td></td>
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<tr>
<td>Move &amp; Scale (simultaneous 2D DVEs)</td>
<td></td>
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<tr>
<td>Soft Focus, Old movie, Corner pin</td>
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### Realtime host-based effects

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<tr>
<td>Color correction</td>
<td>7-parameters</td>
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<tr>
<td>Professional vectorscope/waveform monitors</td>
<td>18-parameters + 8</td>
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<tr>
<td>Speed control method</td>
<td>Blended-field</td>
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<tr>
<td>Alternate speed control method</td>
<td>Repeat-field</td>
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<tr>
<td>Chroma and luma keying</td>
<td></td>
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<tr>
<td>XtremePreview for editing many layers and effects without rendering</td>
<td>✔</td>
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### Workflow

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Software Video Editor

The ultimate consumer software video editor, Studio 9 gives you every tool you need to easily capture video to your computer, edit it, add titles, music, narration and special effects and then output a finished movie back to videotape, DVD and the web.

Simply drag-and-drop your captured video footage onto the editing timeline and assemble a movie in minutes. Take your production to the next level by adding voiceover narration, professional-caliber titles, and background music. You can also import CD, MP3 and WAV audio files into your timeline, and export still frames that can be printed out on a color printer.

Then, when you are finished editing, you can author and burn discs with your CD or DVD burner that play in most set-top DVD players. Create multiple linked menus, motion menus and motion buttons. Studio 9 also features native 16x9 (widescreen) support, 3rd party plug-in support, automated editing, and audio and video correction tools. Studio is more than the easiest consumer video editor to use; it's also the most powerful.

Advanced Video Editing
- Capture and edit widescreen (16:9) or standard (4:3) video
- Capture and edit footage from your DV Digital8 or MicroMV digital camcorder
- Capture and edit footage from your Hi8 or S-VHS analog camcorder
- Capture and edit DVD quality MPEG video from your DV or Digital8 camcorder
- Import and edit MPEG-1 and MPEG-2 files
- Easy drag-and-drop editing lets you assemble your masterpiece in minutes
- SmartCapture saves time and effort by instantly detecting where each scene starts and stops
- Advanced timeline features for frame-by-frame editing
- Preview window shows your edits immediately
- Automatic color correction to enhance poorly lit footage and brighten dull video.

Transitions and Video Effects
- More than 100 scene transitions and Hollywood FX 3D transitions
- Professional title effects with Pinnacle TitleDeko, including drop shadows and neon glows
- Fast/slow motion effects
- Special video effects and image correction
- Video Enhancement
- Effect fade in fade out
- Fix poorly shot footage using Studio's audio and video cleaning and restoration tools:
  - Image Stabilization to fix those shaky handheld shots
  - Analog cleaning lets you restore old tapes
  - Noise Reduction tools for removal of unwanted background noise such as annoying wind noise, hiss, and camcorder whine
  - Image Filters let you create exciting video effects, such as Old Time Movie, Ripples, Lens Flares and more.

Audio Features and Effects
- Import background music as MP3 files or rip directly from an audio CD
- Record your own voiceover narration
- Create custom musical soundtracks precisely matched to the duration of your movie
- Stereo and surround sound panning
- Graphic EQ
- Effect fade in fade out
- Support for RTFx video plug-ins and VST audio plug-ins
- Audio Filters let you apply professional-level effects such as Reverb, Graphic EQ and normalize.

Advanced Video Publishing
- Share your movies on videotape, DVD, Video CD, and the Internet
- Burn a video CD or DVD that you can play on your living room DVD player
- Output widescreen (16:9) or standard (4:3) video
- Studio 9 can save movies as AVI, MPEG-1, MPEG-2, RealVideo, and Windows Media Format
Step One: Capture
After you’ve installed Studio, attach your camcorder to your video capture device, and capture the video clips you want to use in your project to your computer’s hard drive.

Step Two: Edit
Import your video clips, then drag-and-drop them onto the editing timeline. From there, trim the clips, add a 2D or 3D transition and title or two, and sync the whole project up with your favorite music (Studio supports CD, MP3, and WAV audio). Studio even includes SmartSound, which automatically generates music to fit entire scenes in your movie. If you want to get really creative, try out a few of the software’s built-in special effects features.

Use SmartMovie, an automatic movie creator, to make the process of moviemaking even easier. Simply select raw video footage, add a favorite song for a soundtrack, and choose an editing style for your finished movie. With one click, Studio creates a professional-looking movie-complete with titles, transitions and special effects-and synchronizes it to the beat and duration of the music.

Step Three: Output
Add menus and chapter breaks and burn a disc that can play in your living room DVD player. Studio saves your finished movie in any number of formats, including AVI, MPEG-1, MPEG-2, RealVideo, or Windows Media Format. Use RealVideo and Windows Media Format to export your video to the web, and use MPEG-1 and MPEG-2 to export your video onto VCD, SVCD, or DVD.

Studio MovieBox DV: This package includes Studio 9 software and an external box for converting video from analog camcorders to a digital signal that can be read through your computer’s Firewire (IEEE1394) port. Incorporating an F.A. Porsche industrial design, MovieBox DV is equipped with composite, S-Video and DV inputs/outputs that lets you capture your movies in either MPEG or DV quality from any consumer videotape to your PC or Mac (Studio 9 is not Mac compatible and doesn’t include video editing software for Mac) via its FireWire port.

Studio MovieBox USB: This package includes Studio 9 software and an external box for converting video from analog camcorders to a digital signal that can be read through your computer’s USB port. Incorporating an F.A. Porsche industrial design, the it connects to your computer’s USB 1 or USB 2 port and captures video in DVD quality MPEG-2 format. The box also includes composite and S-Video input and output.

Studio AV/DV: This package includes Studio 9 software and an internal analog and digital video card that lets you capture your movies from any consumer videotape to your PC. The included PCI capture card is equipped with analog and digital I/O allowing you to capture and edit footage from your DV, Digital8 and MicroMV digital camcorders, or Hi8, S-VHS analog camcorders. Unique circuitry incorporated in Pinnacle’s custom chip ensures the highest possible video image quality.

Studio AV/DV Deluxe: Like Studio AV/DV, this package includes Studio version 9 software, and a video capture card that supports both analog and digital camcorders, but it also offers a professional breakout box and Hollywood FX Plus software. The ultimate internal video editing solution, the professional breakout box allows you to easily attach analog or digital video sources, while the Hollywood FX Plus provides hundreds of additional 2D and 3D transitions and video effects.
LIQUID EDITION

Powerful Realtime Video Editing with Integrated DVD Authoring

Liquid Edition is the most powerful and comprehensive DV editing solution available today. It combines the professional expertise and broadcast heritage of the Pinnacle Liquid line with Edition's plug-and-play power and ease-of-use. On top of providing the strong editing features that professionals demand and require, Liquid Edition delivers stellar tools for impressive real-time compositing, effects and DVD authoring, all from the same intuitive interface.

Liquid Edition is the first professional non-linear video editing application to utilize both your computer's CPU and GPU (Graphics Processor Unit), to take full advantage of every aspect of your system. Effects such as chroma and luma key, fast/slow motion, and color correction are performed by the system CPU, while advanced 3D digital effects and sophisticated video texture-mapping effects are generated with the GPU.

The result is incredible realtime performance without the need for a special graphics accelerator. This means that however your PC is configured, Liquid Edition will provide the best performance you can get.

Real-Time Editing

- Up to 10 streams of real-time DV and graphics previewing gives you the freedom to explore dozens of creative options while meeting tight deadlines
- Uses the throughput of the AGP bus which offers 16x more bandwidth than competitive PCI-based solutions, to offer unequalled bandwidth for real-time effects on multiple video and graphic streams.
- Liquid Edition harnesses the full potential of your computer by driving real-time effects from both your CPU and GPU.
- Protect your future with a completely scalable architecture. The real-time power of Liquid Edition expands with faster CPUs and more powerful graphics cards.
- Pinnacle Liquid Edition offers an incredible amount of real-time compositing and effects to bolster, not hamper your creative workflow. The real-time effects arsenal includes: 2D DVEs, true 3D DVEs, Dissolves, Wipes, Chroma/Luma Key, Spotlights, Lens Flares, Blurs, Particles and Hollywood FX effects and transitions.

World Class Color Correction

- Liquid Edition’s unique CX Color Correction offers a wealth of tools for top quality professional primary and secondary color correction including, but not limited to, one and three point tone, grey and color balance, primary and secondary selective color correction and a full set of color scopes.
- Besides Histogram and Lighting, allows you to visualize and edit Vector Scope Waveform and the 3d-Cube display.
- Has a workflow optimized and clearly arranged interface (easily view the video clip, the scope and color settings simultaneously) that offers all of the necessary controls with just one mouse click.
- Offers a fully automated Hue and Histogram function to match the color of a reference to multiple clips in just one easy step.
- Gives you an unlimited control of selective color correction, including precise settings for range and softness.

CX Color Correction is the most advanced secondary color corrector in its class. The four major segments - primary color, six vector color, selective color, and legalizer provide comprehensive and instant control of all relevant settings.
Over 1000 Real-Time Effects

3D Effects
- 3D DVE
- Page Curl
- Page Peel
- Water Drop, Water Wave
- Cylinder
- Particle
- Magnify, Replicate
- Accordion, Bevel Crystal, Cracked Slab
- Falling Crystals, Curtain,
- Cylinder, Explosion, Reflection

Motion Effects
- 2D DVE
- Invert
- Crop
- Roll/Crawl
- MultiShape Crop, MultiShape PIP
- MultiShape Spotlight

Transitions
- 2D Editor
- 3D Editor
- Cross Dissolve
- Gradient Wipe with Border

Color Correction
- Base Color Correction
- Brightness and Contrast
- Black-and-White
- Stained Glass

Keyers
- ChromaKeyerYUV
- Luma Keyer

Special Effects
- Lens Flare
- Blur
- Spotlight
- Posterize

Workflow Optimized User Interface

Liquid Edition’s user interface is built and optimized for a professional editing environment. Not only does this make an editor’s life easier, it gives the new user a quicker learning curve. Uses the same completely customizable user interface and programmable shortcuts found in the Liquid blue, silver and chrome solutions.

- All menus are context sensitive. This allows for the minimum number of mouse movements and need for structured menus.
- Optimized for use with one or two monitors. A single mouse click can switch between multiple optimized views.
- Has Windows style desktop storyboarding with the complete freedom to position and arrange clips any way you want.
- Offers an intuitive way to set your keyboard shortcuts by just dragging and dropping the appropriate command on the desired key.

High Performance

- Dynamic Slow Motion provides exceptionally fine control over the speed of clips and optimizes the ability to make adjustments to speed over time.
- Professionals will appreciate the greater responsiveness and improved accuracy of deck and device control when using the built-in RS-422 machine control
- In addition to DV and DVCAM, it supports DVCPRO 25 as a native codec.
- Pinnacle offers a broadcast quality Jog/Shuttle controller for fine control of the tape machines and editing in the timeline.
- Control sound levels in Liquid Edition’s audio editor via external faders attached by Midi.
- With Sony Cliplink support, you can save time and resources by directly importing all Cliplink cut points and picons on capture. With Sony DSR-DU1 support you can load media without capturing therefore streamlining your workflow
- Wide range of software-based effects that render while you edit with sub-pixel precision.

Conveniences

- With Liquid Edition, you can continue to drive your creativity while you are rendering high quality DV output in the background. This dramatically speeds up the output process, because you can continue to edit while you are rendering in the background.
- Why take the risk of losing work when with Liquid Edition’s unique InstantSave technology, every step you make is immediately and automatically protected. You can even drop back to an earlier version of your project by using the Undo History palette.
- Liquid Edition adapts to your workflow unlike other editing programs that require you to adapt to their constrained workflow. User interface commands and keyboard shortcuts can be customized to individual needs and can be stored on a per user basis.
- Based on time code or video content, Liquid Edition’s Automatic Scene Detection divides up the scenes into individual clips to let editors focus on creating rather than sorting through their footage.
- Liquid Edition supports a scalable UI (User Interface) for up to 1600 x 1200 resolution and full size Source and Preview Windows to accurately check your work.
**Project Sharing**

- Edit directly off of shared storage. Liquid Edition’s intelligent media management is network savvy and lets multiple editors view and access the same media. This allows production teams to work more efficiently by having the option to work independently and/or together on each and every aspect of a project.

- Liquid Edition allows you to map your networked drives so that multiple users can view and access the same media. Liquid is based on open networking standards and works with 100-baseT, Gigabit Ethernet and Fibre Channel storage solutions. Double the performance of your network by adding a Pinnacle Palladium network storage solution.

- Liquid Edition’s Palladium option provides native support for Media Access Server (MAS) protocol, a video over Ethernet protocol that increases bandwidth performance and reliability of Ethernet connections for video when used with Pinnacle’s Palladium network storage solutions.

- Liquid Edition offers options such as XSend to Pinnacle Thunder and DekoCast, as well as communication with broadcast servers, automation an asset management systems. These interfaces provide for direct exchange of media and metadata for workflow integration.

- Furthermore, XSend to Macromedia Flash Video Files lets you send clips and projects directly to Macromedia Flash MX for applying enhancements targeted for web distribution.

- Liquid Edition’s ability to import and export ALE files as well as export OMF files provides an open exchange of clip, bin and project metadata with other editing systems, audio post production suites and asset management databases.

- Take your project on the road with your laptop. Liquid Edition fully supports editing with real-time effects on a laptop.

- Share Liquid Edition projects across the entire Liquid product line including Liquid blue, Liquid chrome and Liquid silver.

- Produce once and distribute everywhere (e.g. tape for broadcast, DVD, and the Web) in the appropriate formats.

**Direct to DVD — Integrated Timeline-based DVD Authoring**

Historically, DVD creation has been a difficult and time-consuming proposition. Liquid Edition changes this by incorporating DVD authoring directly into the edit timeline. By eliminating the frustrating process of exporting and importing files to a separate authoring application, Liquid Edition makes the process of DVD authoring easier and more streamlined.

- Why waste time and energy switching between a completely different application with an unknown interface when with Liquid Edition you can author and burn DVD/VCD/SVCDs directly from the timeline.

- Using the familiar editing tools of Liquid Edition, editors can create sophisticated DVD menu structures, motion menus and motion buttons.

- Once finalized, DVDs can be both simulated and burned directly from the Liquid Edition interface.

- Includes DVD Wizard with over 40 easy to use templates to expedite authoring and delivery of professional looking DVD’s.

- Direct export to elementary or program DVD streams as well as Super Video CD and Video CD.

**Liquid Edition Includes**

- Liquid Edition v5.5 Software
- Pinnacle Hollywood FX Plus
- 1000+ Real-time Effects and Presets
- IEEE 1394 Interface Card (PCI)

**Liquid Edition Turnkey Computer Systems**

- 10-bay tower with 400w power supply
- Intel Pentium 4 3GHz Processor
- 512 MB of RAM (Kingston or PNY)
- Matrox P650 128-bit 64MB 8X AGP Dual Display Card (Liquid Edition 5.5 system)
- PNY MX400 Graphics Card for second display (Liquid Edition PRO system)
- 80GB IDE System Drive, and 120GB Drive for A/V storage
- Pioneer DRV-A06 4x DVD-RW Burner
- Creative Labs Sound Blaster Live
- 3.5” Floppy Disc, Microsoft Mouse, Keyboard
- Windows XP Pro operating system software and Liquid Edition 5.5 or Liquid Edition PRO installed
- One-year warranty on parts and labor with tech support
Liquid Edition PRO is the most powerful video editing, effects, compositing and DVD authoring solution available today. Liquid Edition PRO includes a first-rate graphics card and breakout box, guaranteeing real-time analog out to tape with effects and digital I/O. Liquid Edition PRO also provides top-quality VGA output to your main computer monitor and the professional I/O necessary for simultaneous viewing of your projects, with realtime effects, on your NTSC/PAL monitor while going out to your analog deck.

**Liquid Edition PRO Adds**
- Pinnacle Liquid Edition Accelerator (AGP)
- Liquid Edition PRO Breakout Box (Composite, S-Video and IEEE 1394 I/O)

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**LIQUID EDITION PRODUCTIVITY PACK**

Top off your postproduction tool kit with the Liquid Edition Productivity Pack. This comprehensive professional software bundle includes Pinnacle’s award winning products — Commotion Pro, Hollywood FX Pro, Impression DVD Pro, and TitleDeko Pro. Basically, you get every creative tool you need to do professional compositing, paint, motion graphics, special effects, broadcast-quality titles, and DVDs and much, much more.

**Commotion Pro**
Targeted at motion graphics professionals, broadcast graphics professionals, independent film makers and editors looking for touch-up tools for moving images, Commotion Pro delivers integration of raster-based image editing with a comprehensive compositing system suited to the growing base of independent filmmakers.

**Hollywood FX Pro**
Create stunning 3D transitions, titles and animation effects with Pinnacle Hollywood FX Pro version 5, the powerful creative tool for Pinnacle Edition, Pinnacle Studio and Pinnacle Liquid Systems. Packed with over 400 exciting 3D effects and transitions, Pinnacle Hollywood FX Pro version 5 gives you more creative freedom than any other application in its class.

**Impression DVD Pro**
Impression DVD Pro is everything you need to create compelling, interactive, professional DVD titles! Its as intuitive as it is complete in professional features; including eight audio tracks, 32 subtitle tracks, unlimited menus, Hollywood-style motion menus, multi-angle titles, Dolby Digital support and more! Impression DVD Pro – make a lasting Impression!

**TitleDeko Pro**
TitleDeko Pro is a software-based character generator for both Avid and Adobe editing systems. TitleDeko Pro provides features designed to enhance non-linear video productions. Controls exist to adjust color, texture, gradient, scaling, skewing, kerning, leading, justifying and rotation. TitleDeko Pro will create rolls, crawls and reveals. Additional features include type on a curve, spell checker, unlimited layering and unlimited undo.
VEGAS 5

Professional Digital Video and Audio Production

VEGAS 5 software provides an innovative and scalable non-linear editing environment for professional video and audio production. Its intuitive interface maximizes productivity and elegantly delivers unmatched power and performance. From DV to HD, VEGAS 5 is an all-in-one, real-time solution for digital video and audio production, streaming content creation, broadcast production and more. VEGAS 5 is the new standard for professional media production on the PC platform.

Apply high-quality 2D and 3D transitions, filters, credit rolls and text animations; create sophisticated 3D composites, keyframe track motion and pan/crop, and create Bezier masks, all with unlimited tracks and unsurpassed flexibility. VEGAS 5 provides real-time playback of effects, transitions, and advanced compositing from the timeline without rendering. Apply advanced color correction and perform scene matching, precisely view video levels using scopes including Waveform, Vectorscope, Parade, and Histogram monitors. VEGAS 5 also supports HD and HDV editing and rendering along with native support for 24p DV.

VEGAS 5 provides the ultimate in audio flexibility, including unlimited tracks, 24-bit/192kHz audio support, record input monitoring and on-the-fly punch-in recording, effects automation, time compress/expand, and much more. VEGAS 5 comes with over 30 studio-quality real-time DirectX effects including, EQ, reverb, noise gate, time compress/expand and delay. Take advantage of hands-on mixing using external control surfaces and envelope automation recording. VEGAS 5 is ideal for digital video production, soundtracks, web content creation, radio and broadcast, and mixing 5.1 surround soundtracks.

FEATURES

- Efficiently edit and arrange events on the VEGAS timeline using drag-and-drop operations. Apply real-time effects, transitions, envelopes, color changes, reverse, time-stretching and motion effects. Expertly edit complex SD or HD long-form projects using mouse or keyboard trimming along with powerful ripple editing modes.

- Over 175 2D and 3D real-time transitions, including Barndoors, Clock Wipe, Dissolves, Linear Wipes, Page Peels, Venetian Blinds, Zooms, 3D Fly In/Out, 3D Shuffle and more. All transitions are customizable and can be keyframed to change over the length of each fade or overlap.

- Transition progress envelopes provide full keyframeable control over all transition attributes across the length of an event overlap. Create customizable fades or reverse, hold and repeat individual transitions. Precise customization of transitions in VEGAS 5 provides new levels of creative flexibility.

- Create spectacular 3D motion and text effects with precise control over Z-depth, plane intersection, compositing and more. 3D motion is real-time and instantly viewable via an external monitor. Also offers multi-level composite group nesting, separate peer and parent motion settings, and pre and post composite track effects.

- Produce keyframeable Bezier masks for complicated objects. Bezier curves let you closely track object outlines to mask and keyframe shape and motion changes over time. Create depth-of-field effects, apply color correction to specific areas of a clip, crop surrounding source material and create mask overlays. Multiple animated free-form shapes can be created in a single window, with mask invert control for each object. Feather and blend hard edges, set opacity levels for each layer, and zoom the workspace to the sub-pixel level for extremely accurate Bezier mask creation.

- Choose from over 190 customizable video effects including: Lens Flares, Light Rays, Film Effects, Chroma Key, Timecode Overlays, Color Gradients, Media Generators, Credit Rolls, Text Effects and more. Quickly recall frequently used effects chains with new configurable packages.

- Playback and edit video effects, transitions and composites on-the-fly without rendering while viewing each change instantly on external monitors in real-time. VEGAS software takes advantage of the PC’s processing power by caching complex processes or effects directly to RAM for smooth frame-rate playback and previews.

- Capture DV from a variety of sources with automatic scene detection, batch capture, tape logging, media bins and thumbnail previews. Print projects to DV tape directly from the VEGAS timeline with NTSC or PAL color bars, tone, and source file or timeline timecode windows.
**Professional Audio**

- Includes a powerful set of audio tools for the most demanding productions. Mix audio in a multitrack environment on an unlimited number of tracks. Use on-the-fly punch-in recording, real-time audio effects, and take advantage of hands-on mixing using external control surfaces and envelope automation recording.

- Apply over 30 customizable, real-time audio effects. Automate delays, reverbs, EQs and more with envelope control for each parameter. Use over ten automated effects such as Track EQ, Reverb, Chorus, Delay, Noise Gate, and Flange/Wah/Phase. New 5.1 DirectX effects for the master bus include EQ, Dither, and Wave Hammer Surround compression tools.

- Extensive tools for the creation of 5.1 surround mixes. Keyframeable surround panning for tracks and buses lets you mix the most demanding DVD soundtracks without leaving the Vegas environment. Apply 5.1-channel audio effects to the master bus for enhanced control over DVD mixes.

- Allows for on-the-fly punch-in recording on armed tracks while playing back your Vegas project. Record and maintain multiple takes of audio into an empty track, a time selection, an event, or a combination of time and events.

- Perform tape style auto-input record monitoring with event ASR parameters applied to the incoming signal. Monitor input signal during both playback and recording.

- Includes 19 new user-definable timestretch modes that let you choose the resampling method that best fits your audio material. Select: change pitch, change length; change length, preserve pitch; or change pitch and preserve length, by semitones or cents.

- Pitch change ACID loops, or any audio event that has had ACID metadata assigned to it, via keyboard commands and modify your audio mix in real-time.

**Premium Encoding Tools**

- Vegas 5 features high-quality 2-pass VBR MPEG-2 encoding for DVD, broadcast, and other delivery targets. The high-quality DV codec delivers pristine colors, incredibly sharp images, artifact-free compositing and unparalleled recompression quality.

**CineForm Connect HD**

Connect HD is a high-performance high-definition (HD) accelerator for Windows-based video-editing applications. Connect HD's editing performance is based on the same patented video-processing technology that powers its real-time sibling, Aspect HD. The technology is built on CineForm's visually-lossless high-definition editing codec, CFHD, which provides unmatched performance and visual quality for high-definition post-production applications. Connect HD's file format guarantees compatibility with industry-leading video editing applications like Vegas 5, as well as other Windows AVI-compatible applications including After Effects and Windows Media Player. In addition, Connect HD includes HDLink, CineForm's I/O software that connects PCs with HDV-compatible camcorders and DVHS decks.

The key to Connect HD's unmatched editing performance is CineForm's innovative technologies including a proprietary and symmetric, yet visually lossless video codec. After editing, HD video is easily exported to a wide variety of HD, SD and web distribution formats. CineForm's high-performance HD editing solutions enable wide adoption of HD in the independent film, professional videography, corporate and television markets by providing real-time, multi-stream video editing on today's fast PCs.

**Powerful Color Correction and Matching Tools**

- Use 3-Wheel Primary and comprehensive Secondary Color Correction filters to adjust differences in video from different camera setups or lighting situations; enhance dull, washed out footage, or make specific color ranges stand out. All edits can instantly be analyzed on four scopes: Vectorscope, Waveform, Parade and Histogram. Changes are immediately viewable on an external monitor.

- Accurately measure the color, black and whites of video, and locate illegal chroma and luma levels so you can fix them prior to output. View levels in real-time as they play back in the preview window or on an external monitor.

**Optimized Workflow/Network Rendering**

- The Vegas 5 interface provides a full customizable workspace for accomplishing a wide range of production requirements. Dock multiple windows and save layouts to fit certain tasks; design and save keyboard commands, and use application scripting to automate repetitive tasks. Network rendering saves time by using multiple computers and networked drive arrays to render complex projects. Vegas 5 also supports 24p, HD and HDV editing.
Professional Video, Audio and DVD Creation Software

The Vegas+DVD Production Suite is a powerful set of three integrated programs that seamlessly edits video and audio, produces 5.1 surround mixes, encodes to Dolby Digital AC-3 file formats and authors DVDs. From short-form videos to widescreen 5.1 DVDs, Vegas+DVD software provides comprehensive video, audio, and DVD production features for the professional media producer.

The suite includes Vegas 5, the complete solution for digital video and audio production, audio recording, editing and mixing, streaming content creation and surround-sound production. DVD Architect 2 software which includes an extensive set of professional DVD layout and authoring tools for developing dynamic menu-based DVDs, movies, picture slideshows and music compilations. When finished with your audio mix in Vegas software, encode either stereo or multi-channel AC-3 files for use in surround sound DVD productions via the Dolby Digital AC-3 Encoder.

**FEATURES**

- **Features (previous page) + Professional DVD Design and Authoring**

- Author professional menu-based DVDs using backgrounds, motion menus, buttons, text and effects. Use programmable end actions to set DVD content to loop, hold, or time out at the end of a scene change. Create DVDs with subtitles, multiple languages and running commentary.
- DVD Architect 2’s project overview window provides a hierarchical view of all the menus and titles in a DVD project. View end actions, quickly delete, add or rename a menu or title, or set the DVD introduction media. DVD Architect 2 has a fully customizable interface to optimize workflow.
- DVD Architect 2 works seamlessly with the Vegas 5 environment, providing video and DVD professionals a complete solution for DVD authoring. Vegas markers can be imported into DVD Architect 2 software as chapter points for quick scene creation.
- Export text regions using Vegas software, and import them into the DVD Architect 2. Subtites display on-screen during movies, slideshows, and music compilations. Text files can be translated for use as alternate language subtitles in a project to create DVDs containing multiple languages. Subtitles can also be imported from a text file or third-party subtiting application. DVD Architect 2 supports up to 32 subtitle tracks for each title (16 for widescreen).
- Output surround mixes by encoding 5.1 multichannel or stereo projects with the a Dolby Digital AC-3 encoder. DVD Architect also imports AC-3 files for the creation of multichannel 5.1 DVDs.
- Play back DVD projects in real-time on a virtual DVD player while simultaneously previewing on an external monitor. Simulate different aspect ratios including letterbox and anamorphic widescreen.
- DVD Architect analyzes source material, and provides fit-to-disc adjustable compression in your project on a file-by-file basis. Also includes new recompress settings, allowing per-asset control of bitrate estimation, aspect ratio, resolution, frame-rate, confirmation of no-recompress and more.
- Drag, drop, and arrange stills in the DVD Architect interface. Create personalized music compilations that display text and images, or add background music to stills to enhance presentations.
- Import Flash (.swf) formats into a DVD Architect 2 project and combine with other events to create spectacular DVD motion backgrounds and effects.
- Import MPEG elementary stream MPEG-2 files. No additional conversion is necessary.
- Support for 24p MPEG-2 files for the preparation of 24p DVDs
- Create customizable end actions for menus and buttons in your DVD project. Set DVD content to loop, hold, or timeout at the end of a button or scene change. Set multiple end actions for a single menu item without rendering the file.
- Produce DVDs containing multiple languages, alternate music beds and Director’s commentary. DVD Architect 2 allows up to eight different audio tracks for each title. Also add multiple audio tracks to videos and picture slideshows.
- Customize the DVD Architect environment to fit your workflow. Dock multiple windows and float them anywhere on your workspace – especially useful when working on a system with dual monitors.
- DVD Architect 2 lets you specify behaviors for links, highlight masks, destination buttons, custom color sets, remote behaviors and much more.
- Real-time external monitor preview ensures your DVD project looks the way you want. View safe areas and fine-tune subtitles and object positioning in real-time. Simulate different aspect ratios including letterbox and anamorphic widescreen.
- DVD Architect 2 supports the latest devices including DVD+/-R, DVD+/-RW drives.
The Cost of Video, the Look of Film—Plug-in for Final Cut Pro, Premiere Pro, and Sony Vegas

Magic Bullet for Editors is a finishing tool developed for video editors to allow them ultimate creative control over the final look of their movie, music video, commercial or video project. From the machine-green of Neo to the bleached look of recent war epics, the results will give your video the drama and mood of popular films and television shows. This plug-in brings the power of Magic Bullet to the editing environment, allowing film treatments to be added right on the timeline. It delivers the Look Suite technology including film stock emulation, diffusion filter, and easy-to-use presets. Look Suite processes all images in 32-bit/pixel color space using The Orphanage’s DeepColor technology to deliver unmatched quality. The package also includes Misfire, a film damage creation tool, with 14 different film characteristics, including popular tools like grain, splotches, and scratches—as well as projection artifacts like flicker and gate weave.

FEATURES

◆ Make any video source look like film
◆ Includes 50 presets that mimic popular TV and film “looks”
◆ Includes looks inspired by “The Matrix”, “Traffic”, and “Three Kings”
◆ Create and save your own unique looks
◆ Soften the harsh edges and over saturated colors of video
◆ Provides 14 filters that accurately mimic damage of old film
◆ Film damage includes grain, splotches, scratches and projection artifacts
◆ Optimized for Power Mac G4/G5 and Pentium 4

Misfire —Film Damage Software

◆ Bundled with Magic Bullet for Editors or available standalone, Misfire offers 14 different film characteristics, including grain, splotches, and scratches—as well as projection artifacts like flicker and gate weave. Misfire’s use of custom damage resources accurately mimics damage of old film. A master plug-in with 13 categories of control, it includes individual plug-ins for all 13 effects.
  • Includes 14 easy-to-use plug-ins for adding damage characteristics
  • Lets you quickly build old film looks with easy controls
  • Easy to use and extremely realistic

Offers controls for Fading, Funk, Splotches, Dust, Flicker, Vignette, Displacement, Grain and 3 different types of scratches: Micro, Basic and Deep Scratches. Each effect category can be turned off individually.

Magic Bullet for Editors (with Misfire) ....................... Call
Misfire .................................................................Call

Knoll Light Factory for Editors

Lens flares are the result of photographing bright lights either on film or video. A plug-in for Final Cut Pro & Premiere Pro, Knoll Light Factory was created by John Knoll, co-author of Adobe Photoshop and a visual effects supervisor at Industrial Light and Magic to digitally add extremely realistic lens flares. It is the gold standard in lighting effects used by thousands of motion graphic professionals and visual effects artists to create light effects and lens flares like those on television and in feature films.

◆ Lens flare preset menu allowing you to easily apply over 40 different flares
◆ Apply simple glows to photon torpedo type effects
◆ Adjust the brightness, scale and color the flare presets

Knoll Light Factory .................................................................Call
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24-bit/96kHz Audio Interface and MIDI Keyboard Controller

The ideal audio-interface and keyboard controller when working with limited space, the PCR-1 offers the vast majority of options you’ve come to expect from a high-end sound card as well as a 25-key controller that feels great under your fingers. The PCR-1 draws its power directly from the computer, so now you can compose, sequence, record, playback your music anywhere you can take your computer. (Measures just 1⅛” thick and weighs a mere 2 lbs. 11 oz.) Whether working with software synths or powerful sequencing applications, the PCR-1 offers an incredible set of features and superior quality in the most tightly compact keyboard and audio interface available. Includes a carrying case and a Kensington lock port, so it won’t get up and walk away.

FEATURES

- Offers standard width keys to ensure easy play, and 128-step velocity sensitivity.
- Offers 8 assignable knobs and 6 assignable buttons. There is a shift button to change the function of the 8 knobs and 3 of the 6 assignable buttons for a total of 25 controllable parameters per control map
- Offers 16 different save locations for control maps. With 25 parameters available per control map, the PCR-1 offers control over a total of 400 parameters held in the memory of the keyboard.
- 24-bit/96kHz for maximum performance.
- USB Bus-powered, no AC adapter required
- Includes PCR-Editor, a powerful program that greatly eases the process of creating control maps
- Line-level recording & playback through standard RCA-style connections.
- 1/8” headphone jack doubles as a S/PDIF optical output
- Low latency driver support through WDM, ASIO2.0, and CoreAudio. Compatible with a wide variety of audio and MIDI applications for Mac and Windows.
- Direct Monitoring of your input signal lets you hear what you’re recording with absolutely NO computer latency. Direct Monitoring is simply a connection from the input of the PCR-1 to the output of the PCR-1, so the additional lag of the signal going through the computer doesn’t affect the monitoring of the recorded signal.

PCR-30

32-Note MIDI Keyboard Controller

The most advanced 32-key MIDI keyboard controller available. Never before has there been a better compact keyboard for use with popular sequencers and software synthesizers. The PCR-30 takes MIDI control to a new level with unprecedented versatility.

- The PCR-30 can control a number of parameters not accessible from other controller keyboards at this price point; such as RPN, NRPN, SysEx.
- Compatible with WinXP and Mac OS X, the PCR-30 is the ideal keyboard for use with Arturia Storm, SONAR, Cubase, Reason, FruityLoops, and most other popular sequencers and software synthesizers. Comes equipped with templates for these and other programs.

- The PCR-30 is equipped with:
  - 32 full-sized, velocity sensitive keys
  - 8 assignable rotary knobs (cut off, resonance, pan, tempo, etc.)
  - 8 assignable faders (volume, EFX send, etc.)
  - 9 assignable buttons (program change, track mute, start, stop, etc.)
  - Sustain and expression pedal connections
  - 1x MIDI I/O
  - Pitch & Modulation controls
  - One Preset and 15 User Memory locations
  - USB Bus powered or AC adapter
  - Template sheets for controls

UA-1X USB Audio Capture Interface

The UA-1X is a stylish, simple interface that easily turns your USB-equipped computer or laptop into a digital audio recorder. Stereo RCA I/O lets you capture audio from CD players, keyboards or any analog device with line level output at 16-bit/48kHz component-quality to your computer. It also has a combination headphone output with volume control and S/PDIF optical output. Signal indicators show when audio signals are present. Convenient USB connection provides clean digital data transmission as well as power.
**M-AUDIO**

**MOBILEPRE**

**USB Bus-Powered Preamp and Audio Interface**

A bus-powered USB interface with built-in two-channel mic/instrument preamps, the MobilePre USB eliminates the need for an external power supply, making it ideal for field recording and other laptop-based mobile recording situations. It features two XLR-balanced mic inputs with switchable +48v phantom power, 1/8” mini stereo mic jacks for desktop mics, and two 1/4” TRS balanced instrument/line inputs. Each input channel also features a gain control knob (+40dB maximum), phantom power indicator, and a signal presence/clipping indicator. Outputs include two unbalanced 1/4” connectors, 1/8” mini stereo line output, and 1/8” mini stereo headphone output with level control.

- 2x2 16-bit/48kHz analog I/O
- Two XLR-balanced mic inputs with 48v phantom power
- Stereo microphone input (1/8”)
- Two balanced/unbalanced 1/4” TRS high-impedance instrument/line inputs optimized for guitars and basses
- Two unbalanced 1/4” line outputs
- 1/8” stereo line output
- 1/8” stereo headphone output with levels
- Zero-latency hardware direct monitoring (mono/stereo) with software level control

**USB/Firewire Mobile Studio Interfaces—Take your music anywhere you want**

Mobility is about more than just field recording, it’s about ease and flexibility. M-Audio’s mobile audio solutions let you use your laptop or any USB- or Firewire-compatible computer to record and play audio whenever you want. One simple connection gives you all the functionality you need for desktop music production or making music on the go. Plus, these mobile audio solutions all include M-Audio’s legendary driver support spanning all popular operating systems and industry communication standards.

- Mobility and simple connectivity for audio and MIDI
- 24-bit/96kHz audio
- Highest quality components, specifications and fidelity
- Low driver latency, zero-latency hardware monitoring
- Software-controlled internal digital mixing and routing
- Unequalled driver support and software compatibility

**About USB and Firewire**

Offering excellent plug-and-play mobility compared to PCI, the USB and Firewire protocols each have their own inherent bandwidth that dictates how much audio it can transfer. Where PCI handles 132MB/sec., Firewire delivers 30MB/sec and USB 1.5MB/sec. Greater bandwidths allow you to record more tracks simultaneously than do lower bandwidths. USB meets the needs of the majority of users who tend to record one or two tracks at a time. Supplied driver control panel allows you to manage bandwidth according to the needs of each project.

**AUDIOPHILE USB**

**USB Audio/MIDI Interface with S/PDIF I/O**

Audiophile USB is an affordable, no-hassle USB audio and MIDI interface that delivers great frequency response, dynamic range and noise specs. AC-powered components deliver better fidelity than bus-powered circuitry and the bundled Mac and PC drivers let you independently scale bit depth and sample rate (up to 96k) to deliver the lowest USB latency anywhere.

- Two pairs of analog line-level audio inputs (1/4” unbalanced or RCA)
- Two analog line-level audio outputs (RCA) with level control knob
- S/PDIF in and out (coaxial)
- Supports AC3 and DTS surround sound setups
- 1/4” headphone output with level control
- AC-powered for high-performance A/D-D/A

**EQUIPMENT LEASING AVAILABLE**
M-AUDIO

FIREWIRE AUDIOPHILE

4-in/6-out Firewire Audio/MIDI Interface

FireWire Audiophile is a compact, IEEE1394-compatible audio/MIDI interface that takes M-Audio’s award-winning Audiophile line to the next level. 4 x 6 audio I/O combines with powerful on-board mixing in a mobile package that’s perfect for home recording. Stereo headphone output with A/B switching between assignable sources, and the assignable aux bus is perfect for creating dedicated headphone mixes and effect sends. You also get zero-latency hardware direct monitoring, ultra-low latency ASIO software direct monitoring, and 1 x 1 MIDI I/O. Even has AC-3 and DTS passthrough for surround sound playback.

- 2 x 4 unbalanced 24-bit/96kHz I/O (RCA jacks)
- Coaxial S/PDIF digital I/O with PCM, AC-3, and DTS support
- Compatible with ASIO 2, MME Sound Manager, DirectX, Core Audio / Core MIDI
- Flexible software-controlled mixing
- Rotary encoder is assignable to control any software-addressable level such as output DACs, software returns or hardware input monitor levels
- Momentary A/B source monitoring switch
- Versatile mixer/router control panel provides near zero-latency hardware direct monitoring
- 1 x 1 16-channel MIDI I/O
- Bus-powered or via included power supply

MAXIMUM AUDIO TOOLS BUNDLE

All M-Audio mobile audio solution include the Maximum Audio Tools bundle - a great collection of software software that lets you make music immediately. Includes:
- Ableton Live Delta audio sequencer (a basic version of Ableton’s revolutionary Live audio sequencer software)
- M-Audio ProSession series WAV/REX samples (125MB)
- Reason Adapted, a limited edition of the world’s most popular software synthesizer

FIREWIRE 410

4-in/10-out Firewire Mobile Recording Interface

Delivering powerful performance for Firewire (IEEE1394) equipped computers, the 410’s 4-in/10-out configuration is perfect for personal recording where you build up tracks one at a time yet need multiple outputs. FireWire 410’s ten outputs allow your computer-based recording system to behave more like a traditional analog recorder or sampler, where signals are bussed to multiple channels of an analog mixer or to multi-channel monitoring systems. Software-controlled DSP handles all internal routing and mixing.

- Two analog input channels each featuring:
  - Balanced XLR and unbalanced 1/4” mic/line inputs
  - Preamp with level control, signal/clip LEDs and amazing available gain of 66dB
  - 48v phantom power (globally switched)
  - 20 dB pad
- 8-line outputs with signal/clip LEDs (unbalanced 1/4” @ -10dBV)
- Stereo monitor level control
- Two-channel S/PDIF digital I/O (coaxial and optical, switched)
- 1 x 1 MIDI I/O with bypass for stand-alone operation
- Two headphone outs with individual level controls (1/4” TRS)
- Two Firewire high-speed ports for connection convenience
- Low-latency software monitoring
- Zero-latency direct hardware monitoring
- AC3 and DTS surround support via digital output
- Analog outs can directly drive up to 7.1 surround w/o decoder using included software bass management
- Standalone operation via AC adapter

ORDER & INFO. (212) 444-5010 • FAX: (212) 239-7770 (800) 947-7008
1-800-947-5525 • www.bhphotovideo.com
**Advanced USB MIDI Control Surface**

The UC-33e is the affordable, easy-to-use remote USB controller for any computer music system or MIDI setup. It allows instant and simultaneous control of up to 47 different parameters—and with 33 memory locations, changing setups is fast and easy. The powerful Snapshot feature instantly makes all controllers live for real-time, on-the-fly editing, and the unique Control Mute function mutes the output of all controllers, allowing you to position them before tweaking, thereby preventing parameters such as filter cut-off or amplitude levels from jumping abruptly during performance. The UC-33e also features a drawbar mode for the sliders, which greatly enhances the experience of playing virtual instruments such as Native Instruments’ B4 virtual Hammond organ. Use the UC-33e with a conventional MIDI setup, or as a remote control for your existing studio rack. 30 pre-configured presets allow immediate control of the most popular virtual instruments and host applications like Reason, Live, Logic, Cubase SX, Native Instrument’s B4 and more. Also includes 5 color overlays for the front panel customized for programs such as Ableton Live, Pro-53, B4 and a general Mixer Channel Strip plus a blank which users can tailor to their personal setup needs.

**FEATURES**

- 24 fully-assignable rotary knobs
- 9 full-size assignable ALPS faders with light indicators
- Independent channel assign for all 47 controllers
- 33 memory locations for storing your settings, including 4 one-touch access buttons
- 5 color overlays for popular music software
- 14 assignable buttons provide fingertip control over sequencer functions and act as numeric keypad for data entry
- Controller mute function allows positioning before tweaking
- Snapshot mode sends all controller values simultaneously
- Multi-purpose LCD display shows controller assignments
- Drawbar mode for sliders allows realistic control of classic organ sounds
- Sys-ex memory dump
- Global channel assign allows controllers to command up to 16 different channels at the touch of a button
- Operates with music software or stand-alone with MIDI gear
- Sys-ex librarian software loads, saves any combination of setups for your studio

**SOUND SOAP Audio Cleaning Software**

Sound Soap is an easy-to-use, professional-quality noise reduction software designed for videographers and multimedia developers. By simply adjusting two knobs, anyone can remove unwanted hiss, room noise, rumble, electrical hum, and other background noise from almost any digital media file. These include DV and digital audio workstation tracks, as well as cassette or other analog tape recordings that have been transferred to a computer.

- Sound Soap removes “broadband” noise (room noise, tape hiss, road noise, or noise from air conditioners). It also removes low-frequency rumble, as well as hum - 50 and 60Hz electrical “buzzing” sound common in audio recordings — without harming the audio you want to preserve. It can even learn the difference between the noise and the desired audio, achieving amazingly results. With moderate or subtle noise problems, Sound Soap makes the difference between a project that sounds amateurish and one that sounds professional. It can even salvage otherwise unusable audio files.

- Use as a standalone application — works with any QuickTime compatible audio or video file (AVI, DV, WAV, SDII, AIFF, MP3, MP4 & many more) or as a fully integrated plug-in with any compatible DirectX or VST host program — including BIAS Peak, Vegas 5, Cubase & others.

- One-step Learn Noise button automatically reduces noise (in under three seconds, SoundSoap will profile any noise in your signal and adjust the Noise Tuner and Noise Reduction knobs to their ideal settings), or fine tune the intuitive controls for even more professional results — in just seconds.
The software synth is here to stay, and along with it comes dozens of parameters to be tweaked. Oxygen 8 puts your hands on any 8 parameters of your choice in real time.

Oxygen 8 lets you get deeper into your software programs, to get more out of them, to experiment and push them to their limits.

Gives you more freedom on the stage than you’ve ever had before, dynamically increasing the possibilities available to you.

Instead of taking hours to program drums with a mouse, use Oxygen 8 to play grooves into your program in real time. Use the 8 knobs to manipulate the dynamics, feel, and FX.

Synthesists can use Oxygen 8 to gain access to, and to automate parameters that exist deep within their hardware, making it easier to get more out of them without having to navigate through dozens of menus.

Applications:
- The software synth is here to stay, and along with it comes dozens of parameters to be tweaked. Oxygen 8 puts your hands on any 8 parameters of your choice in real time.
- Oxygen 8 lets you get deeper into your software programs, to get more out of them, to experiment and push them to their limits.
- Gives you more freedom on the stage than you’ve ever had before, dynamically increasing the possibilities available to you.

Features:
- 8 MIDI assignable knobs, one assignable slider
- Inputs and outputs 16 channels of MIDI to and from your computer using the power and convenience of your USB port.
- Fully functional, velocity sensitive 25 key MIDI controller keyboard, capable of sending all MIDI messages, such as modulation, pitch-bend, MIDI volume, and more.
- Powered via USB port or 6 “AA” batteries, or with the supplied power supply.

25-Key Portable USB MIDI Controller
A new breed of controller designed to meet the needs of today’s electronic musicians, Oxygen 8 puts you in control of any 8 MIDI-assignable parameters within your favorite software programs. Oxygen 8 is also a USB MIDI interface that speaks directly with your computer without any extra devices. You don’t need a MIDI interface for this keyboard interface.

KEYSTATION 49e
49-Key USB MIDI Controller
The Keystation 49e is the perfect USB MIDI controller keyboard for getting started with music on your Mac. Class-compliancy with OS X means true plug-and-play operation—and the included Maximum Audio Tools software bundle lets you start playing immediately. Despite its simplicity, the Keystation 49e includes a 49-note full-size, velocity-sensitive keyboard for authentic playing experience, as well as built-in MIDI interface, pitch and modulation wheels, and sustain pedal input. Sleek, compact and USB bus-powered, the keyboard is compatible with most educational and studio software.

MIDI Features:
- Built-in 16-channel USB MIDI interface
- 25-note keyboard with full-sized keys
- Eight assignable MIDI controller knobs
- Pitch and mod wheels
- Sustain pedal jack
- Two MIDI outs (one from computer, one from Ozone)

Audio Features:
- Built-in 2 x 2 24-bit/96kHz audio interface
- Stereo out (balanced 1/4˝ TRS)
- Mic input (XLR) with built-in preamp and phantom power
- Instrument and Stereo aux in (bal. 1/4˝ TRS)
- Stereo headphone out
- Monitor switch for zero-latency monitoring

What is a MIDI Controller?
Unlike traditional keyboards, MIDI controllers have no sound built into them. They are optimized to control other MIDI sound sources such as synthesizers, samplers and today’s popular software synths. For example, here’s how you play sounds within a software program: Because of M-Audio’s driver technology, your computer will recognize your Keystation as a MIDI interface with which it can communicate. By playing the keyboard, you send MIDI information to your computer, which triggers sounds in a software program that are played via the audio output to your computer’s sound card. You can also send MIDI via the Keystation’s dedicated MIDI output port to external MIDI sound modules like synths and samplers.
**TASCAM**

**US-428**

**Digital Audio Workstation Controller/USB Interface**

The US-428 is a 24-bit digital audio workstation controller with the familiar interface of Tascam’s Portastudio that professionals have come to recognize over the years. Essentially combining a hardware interface with computer functionality, the plug-and-play US-428 interfaces with Windows and Mac-based sequencing platforms via USB without any additional cards to be installed.

The US-428 offers full control over any number of software faders through eight hardware faders, groups of eight software faders selectable with buttons located beneath the unit’s jog wheel. The control surface also supports transport, EQ and control functions for sequencers and DAWs. The US-428 supports inputs of 16- or 24-bit resolution at 44.1 or 48 kHz, and stereo or mono, with four analog inputs and a S/PDIF digital input. Two audio output channels also support 16- or 24-bit resolution in stereo or mono, and at 44.1 or 48 kHz. The US-428 also comes bundled with a custom version of Steinberg’s Cubase VST recording/MIDI sequencing software.

### Input Section
- There are four analog inputs and a stereo S/PDIF input, any four of which can be combined to record up to four simultaneous tracks via USB.
- There are four Trim knobs with individual signal present and overload LEDs (one for each analog input) that ensure setting proper input levels before recording.

### Channel Section
- Eight Channel Faders send continuous controller information to the current bank of eight faders delegated by the Bank select buttons. Each of the eight channels has its own Mute/Solo, record-ready and channel select switches with status LEDs.
- Master Fader controls the level going to the stereo bus output, and/or sends MIDI controller information to the host software.

### The Master Section
- Dedicated Transport and Locate controls provide one-button access to the corresponding on-screen transport controls of your host application.
- Four Aux Send buttons with status LEDs access the corresponding Aux Send in your software and are controlled using the Datawheel.
- The Datawheel also acts as a continuous controller for a variety of functions such as a shuttle wheel, moving the transport in the direction the wheel is turned.
- Dedicated EQ module controls the currently selected channel of your audio recording program and has continuous controllers for level, frequency and Q as well as selector buttons that access the four available EQ bands (High, Hi-Mid, Lo-Mid and Low).

### FEATURES
- Two balanced XLR Mic/1/4” TRS line inputs
- Two unbalanced 1/4” inputs switchable from Mic/Line to HiZ for direct connection of a guitar or bass
- Coaxial S/PDIF digital I/O, US-428 to USB interface
- 1/4” headphone output, stereo analog monitor outputs (RCA)
- Two independent 16 channel MIDI inputs and output
US-224

Digital Audio Workstation Controller/USB Interface

Combining a hardware interface with computer functionality, the US-224 is a simplified version of the US-428 DAW controller and interfaces via USB. There are no additional interface cards to install, and it is compatible with applications that accept standard MIDI controller messages. Portable and incredibly affordable, the US-224 connects to your laptop for a complete studio you can take anywhere. The US-224’s cool purple control surface gives you more than just mouseclicks for your DAW software. Like the US-428, the US-224 gives you real tactical controls like faders, transports, mutes and solos, panning and more. Plug in a guitar, mic or keyboard and get two channels of audio I/O in 16 or 24 bit quality, as well as 16 channels of MIDI I/O. The US-224 comes with a custom version of Steinberg’s Cubase VST for Windows and Mac. With eight channels of audio and 16 MIDI tracks, the US-224 is a perfect all-in-one setup for anyone getting into the world of computer audio recording.

- The input section comprises a 24-bit audio (44.1 or 48 kHz) interface, capable of streaming two simultaneous tracks of audio into your computer.
- Inputs include two balanced XLR mic, two 1/4” unbalanced line (switchable to high-impedance for direct input of a guitar, bass or other hi-Z source), and S/PDIF digital.
- Outputs include a pair of unbalanced line (RCA), S/PDIF and headphone
- Also has MIDI input and output ports, allowing you to send and receive data and MIDI Time Code (MTC) from your MIDI-based keyboards and other devices.

- The US-224 is powered via its USB connection to the computer with no external power supply required.
- The US-224’s control surface includes a variety of controls which make working with audio software faster and easier. The US-224 allows control over any number of software faders via four hardware faders selectable in banks with buttons located beneath the US-224’s jog wheel. Control surface also supports transport and control functions for sequencers and DAWs.

US-428 Compatibility Reference

- Variable ASIO buffer size latency control
- Emulates Pro Tools CS-10 control protocol, allowing use as a control surface for any Pro Tools software (TDM and LE) and Pro Tools Free
- Cubase VST 5.0 or higher (Mac/Windows)
- Nuendo 1.5 - Mac/Windows
- eMagic Logic Audio 4.7 or higher
- Cakewalk Pro Audio 9.xx and Sonar1.xx
- Digital Performer v2.7 or higher - Mac
- Sonic Foundry Vegas, ACID and Sound Forge
- Syntrillium Cool Edit Pro
- Minnetonka MXTracks - Windows
- BIAS Deck and Peak
- Tascam GigaStudio
- Propellerheads Reason
- Most VSTi instruments
Mbox is a compact and affordable 2-channel USB-powered audio interface for MacOS 9.1 and up, MacOS X 10.2.3 and up, and Windows XP, that’s been specifically engineered to offer the home/project studio and the pro who needs a studio quality digital recording, mixing and editing environment that can be taken virtually anywhere. Mbox features a pristine 24-bit input-to-output signal path with two Focusrite designed (Green Range) mic preamps accessible via 1/4” TRS / XLR analog inputs; two 1/4” analog outputs as well as 1/8” and 1/4” headphone jacks with a dedicated volume control for monitoring. A 24-bit stereo S/PDIF digital I/O is also provided for transferring data to and from the Mbox entirely in the digital domain. Every Mbox includes ProTools LE software which features 32 audio tracks and 128 MIDI tracks along with a host of RTAS (Realtime) and AudioSuite (File-based) effects plug-ins.

**FEATURES**

- Two analog inputs featuring two Focusrite mic preamps with variable gain and switchable 48V phantom power.
- XLR, 1/4” inputs using Neutrik combo connectors with separate source selection (MIC/LINE/INST) and gain controls with peak LEDs per channel.
- Two analog inserts, using 1/4” TRS connectors, allow you to use outboard processors while recording to disk.
- 1/4” TRS left and right outputs with 24-bit D-to-A converters.
- Support for 44.1 kHz and 48 kHz sample rates.
- 24-bit signal path from input to output
- 24-bit coaxial S/PDIF digital I/O allows you to work entirely within the digital domain.
- Zero-latency monitoring
- Inputs and outputs accept both balanced and unbalanced connections.
- 1/4” and 1/8” headphone outputs with dedicated volume control.
- 100% USB powered
- Mbox sessions can be migrated to another Pro Tools platform, from Digi 001 to Pro Tools|HD, for further manipulation.
- Includes a USB cable

**Software Supplied with System**

- **Pro Tools LE Software** — 32 audio tracks, 128 MIDI tracks with powerful editing, mixing real-time plug-in support and automation.
- **DigiRack RTAS and AudioSuite Plug-Ins:** D-Verb, Dither, Dynamics II, EQ II, Invert/Duplicate, Mod Delay, Normalize/Gain Change, Reverse/DC Removal, Signal Generator, Time Comp-Exp/Pitch Shift, Trim
- **Digidesign ASIO Driver** for Windows XP allows you to use the Mbox with a wide range of popular third-party audio apps such as Cakewalk SONAR 2.2, Propellerhead Reason and Ableton Live.

**Specifications**

<table>
<thead>
<tr>
<th>Mic pre-amp: &gt; -120 dB EIN @ &gt; 40 dB gain</th>
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</thead>
<tbody>
<tr>
<td>A/D Dynamic Range: 101 dB (A-weighted)</td>
</tr>
<tr>
<td>99 dB (unweighted)</td>
</tr>
<tr>
<td>Maximum Input: +24 dBu</td>
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<tr>
<td>D/A Dynamic Range: 103 dB (A-weighted)</td>
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<tr>
<td>101 dB (unweighted)</td>
</tr>
<tr>
<td>Frequency Response: 20 - 20kHz (±0.5dB)</td>
</tr>
<tr>
<td>Maximum Output: +4.2 dBu</td>
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</tbody>
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**DigiStudio**

DigiStudio is a featured component of ProTools software that provides a revolutionary way to collaborate with other Pro Tools users via the Internet. DigiStudio participants interact from any Net-connected location to exchange Pro Tools session media, from raw audio tracks to MIDI data to plug-in information to automation.
Convert your Pro Tools LE System into a Desktop Audio-for-Video Powerhouse

DV Toolkit for Pro Tools LE is a software bundle that enables you to easily sweeten and augment the audio content of your own film and video projects. With DV Toolkit, you’re able to import a project file (OMF or AAF) from applications such as Avid’s Xpress DV on either your Windows XP or Mac OS X-based Pro Tools LE system. You can then record new audio such as voice-over and Foley (sound effects you create after the fact), clean up existing audio such as unwanted background noise, replace audio such as compromised on-camera dialog, and even add your own music tracks. Quality audio is crucial to good media — DV Toolkit complements Pro Tools LE’s acclaimed feature set to give you full control over your media projects. The DV Toolkit option includes special Time Code functions, DigiTranslator 2.0 option for full AAF/OMF import and export, Digidesign’s AudioSuite DINR LE noise reduction plug-in and Synchro Arts’ VocALign Project plug-in for dialog replacement.

**Features**

- Offering some of the same key Pro Tools TDM features used in the making of the vast majority of hit feature films, DV Toolkit complements Pro Tools LE’s acclaimed standard feature set to provide full control over any projects. Included are two primary DV Toolkit features. Time Code functions and specialized plug-ins.
- Time Code functions enable one to edit audio to picture with frame accuracy, making it easy, for instance, to spot sound effects. Because Pro Tools software is inherently sample accurate, it is easy to achieve the most difficult audio edits with the utmost precision.
- Included specialized plug-ins such as Synchro Arts’ VocALign Project and Digidesign’s DINR LE (AudioSuite) complete the picture, readily assisting in audio aligning and clean-up chores.
- Includes specialized resources designed to accelerate and improve any media project. DigiTranslator 2.0 manages the exchange of AAF and OMF sequences - standardized files that contain key project information - with other compatible applications such as Avid’s Xpress DV. So a project can be started in Xpress DV, migrated with exact content seamlessly into Pro Tools LE for audio sweetening, and then sent back for final output or layback to tape.

**E-MU 1212M Digital Audio System**

The E-MU 1212M Digital Audio System delivers everything you need to produce audio on a PC with professional results - 24-bit/192kHz converters, hardware-accelerated effects and mixing, and seamless compatibility with your favorite PC audio/sequencer software. It includes a PCI card that features ADAT, S/PDIF and FireWire interfaces, as well as connectivity to a family of internal and external I/O and sync options. Whether you are recording full-blown productions or running virtual instruments on a dedicated computer, the E-MU 1212M Digital Audio System is the perfect solution for any application that only requires a couple channels of premium analog I/O (i.e. mastering, remixing and running virtual instruments).

- Mastering-grade 24-bit, 192kHz converters - the same A/D converters used in Digidesign’s Pro Tools HD I/O Interface
- Flexible connectivity with 1/4” balanced analog I/O, 24/192 ADAT I/O and 24/96 S/PDIF I/O, MIDI I/O plus a FireWire port for seamless integration with your entire studio
- 32 Channels of zero latency hardware mixing/monitoring with super-flexible virtual patchbay - no external mixer needed
- E-DSP 32-bit Multi-effects processor offers you over 16 simultaneous hardware-accelerated studio-grade effects with no CPU overhead - plug-in architecture allows you to add new effects as needed
- Full compatibility with most popular audio/sequencer applications with ultra-low latency WDM, DirectSound and ASIO 2.0 Drivers
- Powerful software studio package
Affordable Audio and MIDI Recording Software

Based on Cakewalk’s SONAR next-generation audio and MIDI technology, Home Studio 2004 provides amateur musicians and those getting started with PC-based recording, with a host of potent features that include: unlimited audio and MIDI tracks, 24-bit / 96 kHz recording support, audio loop construction tools, hundreds of MBs of ACID™-format audio loops, real-time effects, ReWire 2.0 support, ASIO hardware support, DXi 2.0 support for multi-out synths and automation from synth interface, easier DXi synth integration with Synth Rack, multi-port Drum Grid editing, Edirol Virtual Sound Canvas DXi 2.0 and Audio Simulation DreamStation DXi 2.0 soft-synths. Home Studio 2004 XL adds plug-ins and more loop libraries.

Loop-based Composition Tools

- Easily create and layer loop-based music tracks along with live recordings. Create entire compositions or add new sonic layers to your existing songs. The Loop Explorer helps you find the right samples fast. Browse the Cakewalk Loops sample library created by leading producers, or thousands of available sample collections.
- Preview multiple loops while your project is playing back in tempo and in key with your song. Then just click and drag to paint your canvas of sound. Even make your own loops out of any MP3 or WAV file. Opens and reads ACID™-format audio loops.

Built-in Software Synthesizers

Add hundreds of high quality instrument sounds to your studio with the included DXi soft synths, while the Synth Rack makes loading and working with the synths a snap.

EDIROL Virtual Sound Canvas DXi: A software synthesizer, modeled after the famous Roland synth of the same name. Choose from over 990 sounds and drum sets

Audio Simulation DreamStation DXi: A vintage analog-style synthesizer reproduced as a DXi plug-in. Combines physical models of analog circuits together with mathematical models of analog oscillators. Works just like a vintage hardware synthesizer worth thousands of dollars today.

Integrate ReWire Synths

Get more synth sounds by patching Project5, Reason, ReBirth, and other ReWire 1.0 and 2.0 compatible synths right into Home Studio 2004’s Synth Rack. Or use Home Studio to add audio recording and editing to your Project5 or Reason studio

DirectX Audio Effects

Sweeten your mix with Amp Sim Lite, Chorus, Reverb, EQ, Delay, Flange and other audio effects, or even add hundreds of other available DirectX-compatible audio plug-ins.

Graphical Editing Tools

Compose and edit MIDI tracks using the Piano Roll view. Point and click to insert, copy, move, delete or modify MIDI notes and Controller data. View multiple tracks or just one at a time.

Home Studio is designed to let you concentrate on creating music, instead of getting bogged down with confusing software. It’s all laid out in an intuitive Track window that lets you quickly record, edit, arrange, and mix your music. It doesn’t matter what you want to record—guitars, keyboards, vocals, live turntable scratches, CD samples, or any other sound source. Home Studio puts it all together seamlessly.

Centralized Audio and MIDI Recording

Create Video Soundtracks

Home Studio 2004 provides a fast and effective way to create, edit and dub soundtracks for digital video files. Just import and sync any Windows AVI file to your Home Studio project. Then export your finished project to AVI — perfect for enhancing home movies and multimedia presentations.

Home Studio 2004 XL Adds—

- DYAD DXi - (expressive SF2 sample player with a full CD of compatible Sound Font sample banks)
- Audio Effects:
  - SpectraFX (multi-effects processor)
  - Audio FX 1 Dynamics Processing Suite, which includes Compressor/Gate, Expander/Gate, and Limiter
  - Audio FX 2 Analog Suite, which includes Amp Simulation and Analog Tape Simulation
Multitrack Audio/MIDI Recording and Editing Software

Now you can produce projects faster than with any other Windows-based multitrack recording software available today. The industry-standard for audio and MIDI production, used by thousands of musicians, composers, engineers, and producers involved in CD recording and mastering; scoring and posting for film and television; and music for the web, SONAR 3 Studio offers you speed, precision, elegance, and stability, providing the complete software-based production environment. And with support for the world's best effects, soft synths, and hardware controllers, SONAR 3 Studio presents an open system that places no limits on your creativity.

SONAR 3 Studio is a digital multi-track recording system, with 24-bit audio support and sample rates restricted only by your hardware. The software is capable of recording, editing, mixing, and delivering music and sound projects for CDs, film and video scores, the Internet, or any multimedia project. There's no limit on the number of tracks that can be recorded, and you can patch as many effects or soft synthesizers as your host computer's processor can handle. Additionally, there are no limit to effects sends and busses. Unlimited undo/redo provides the freedom to explore new musical directions without having to commit to them. An Edit History List allows you to instantly jump back and forth to any point in a session.

Templates can be created and saved to recall routing, bussing, automation, mixer, and effects settings for new projects. Hot keys can be assigned to instantly configure SONAR 3 Studio with custom screen layouts for various editing and mixing tasks, and for shortcuts to the editing commands, features and views that are used most.

Effects can be patched, audio trimmed and loops rolled out without disrupting the audio stream. The program also provides advanced MIDI routing, synthesizer layering and MIDI Groove Clips. The supplied Cakewalk VST Adapter provides support for VST effects and instruments.

Track View

SONAR 3's streamlined Track View is the center of your recording and editing environment, designed to enhance your own creative process. Record, edit, sequence, and mix your projects—all from within one global view—this really maximizes your creative workflow. The On-demand Track Inspector provides convenient access to all channel/bus parameters and plug-ins even when your channels are minimized.

◆ No limit on the number of tracks you can record
◆ Patch as many effects or synths as your processor can handle
◆ Get your mix right with no limit to effects sends and busses
◆ Unlimited undo/redo gives you the freedom to explore new directions for your music—without having to commit to them
◆ Edit History List allows you to instantly jump back and forth to any point in your editing session
◆ Create and save templates to recall routing, bussing, automation, mixer, and effects settings for new projects
◆ Assign hot keys to instantly configure SONAR 3 with custom screen layouts for various editing and mixing tasks, and for shortcuts to the editing commands, features, and views that you use most.
CAKEWALK
SONAR 3 STUDIO

Console View
A well-mixed track can be the difference between album filler and a hit single. SONAR 3 Studio features the latest in 32-bit floating point digital mixing and bussing technology with full delay compensation throughout your signal path. Whether you prefer to mix in the Track view or in the Console view—providing an alternative for mixing and automating audio and MIDI tracks using a familiar hardware-style mixing interface—SONAR 3 Studio has the dynamic tools you need to suit your mixing style.

- Unlimited mixing capabilities with unlimited potential audio and MIDI channels, real-time effects and synths, effects sends, and busses
- Assignable MIDI controls for access and automation of MIDI data
- Mono toggle on all tracks and busses
- All parameters can be automated on screen or remotely via hardware
- FX bins and individual effects can be bypassed for quick A/B comparisons of your mix
- Dynamic Display Filtering—see all mix parameters or only the ones you need with option for narrow or wide strip widths

Additional Cutting-Edge Mixing Features
- Confidence recording—real-time drawing of audio waveforms, MIDI data during recording
- Automate with vector envelopes for precise control over your mix
- Patch effects, trim audio, and roll out loops without disrupting the audio stream
- Fast, offline rendering of soft synths, effects, and tracks for conserving CPU
- Frame-accurate SMPTE/MTC sync with auto-detection of time code
- Transmit MIDI Time Code (MTC) and MIDI Sync to multiple output ports
- SONAR also includes completely configurable, dynamic bussing capabilities:
  - Use busses for subgroups, effect sends, master busses, output to different monitor or headphone mixes
  - Route busses to other busses or main outputs
  - Insert busses and sends on the fly, pre or post fader
  - Per-track "input monitoring" switch
  - Input monitoring no longer linked to recording and can be toggled on/off per track
- Flexible metering (peak, RMS, peak and RMS, pre-fader, post-fader, and pre-fader post effects) with peak history
- Dynamic Console view was engineered from the ground up to meet the needs of mixing professionals

Integrate DXi & VSTi Soft Synths, ReWire Clients
Compose, orchestrate, and perform using SONAR 3’s integrated software synthesizers, or widen your scope with DXi and VST instruments, ReWire clients like Project5, or external MIDI synths

DXi (DirectX Instruments)
- DXi is the open standard for soft synth plug-ins, based on Microsoft’s DirectX technology. DXi synths are CPU efficient with low latency — unlimited DXi synths can be loaded simultaneously (CPU dependent) with full automation and multiple output capabilities
- Three DXi instruments are included while additional DXi synths are available separately from leading developers including Native Instruments, IK Multimedia and others.

ReWire 2.0 Support
- Patch Cakewalk’s own Project5, as well as Propellerhead’s Reason, ReBirth, and other ReWire 1.0 and 2.0 compatible devices right into the Synth Rack.
- Route ReWire channels into audio tracks and process with DirectX effects
- Use MIDI FX, automation, and sequencing capabilities to control Reason
- Add VST instruments and effects with an optional VST to DX converter.

Audio Simulation – DreamStation 2.0
- DXi Polyphonic Analog Synth
  - Accurately reproduces analog synth sounds by modeling analog circuits and oscillators.
  - Combines subtractive synthesis with FM synthesis.
  - 3 oscillators, multimode self oscillating IIR filter, VCA, LFO, user EG for each voice.
  - Waveforms include sine, triangle, sawtooth, pulse, square and noise.
  - Filter types include 12dB/Octave Lowpass, Highpass, Bandpass, 24dB/Octave Lowpass and Formant.
  - Up to 16 voices polyphony.

Virtual Sound Canvas DXi 2.0
- Modeled after one of the world’s most popular sound modules
- 16-part multi-timbral up to 128-voice polyphony
- GM2/GS compatible – 902 tones plus 26 drum sets
- Reverb, chorus and delay effects
**Cyclone DXi**

Cyclone DXi presents a new, more flexible way of working with samples, and brings a live dynamic to loop-based music.

- A 16-part, ACID-compatible, multi-out, phrase sampler, loop trigger, composition tool, and loop editor wrapped up in a single DXi synth
- Rearrange, replace, combine, and tweak loop slices to create custom grooves
- Perform and record loop-based compositions in real-time using any MIDI device, MIDI tracks, a computer keyboard, or mouse
- Loaded samples match the tempo and pitch of your project.
- Control gain, pitch, and pan of individual loop slices
- Full control over looping points: a great way to create polyrhythmic textures and work with loops in odd time signatures
- Support for multiple outputs & key mapping
- Snap to grid with assignable resolution
- Export combined loops as a Groove clip that can be used in Sonar and other apps

**Loop-based Composition Tools**

With support for both ACID™-format audio loops and MIDI groove clips, SONAR 3 provides total integration of loop-based composition to your studio.

- Features on-the-fly beat matching, and loops follow the pitch and tempo of your projects with no degradation of audio
- Create and export ACID-format audio loops and MIDI Groove Clips for use in other projects
- Roll-out loops with click and drag ease
- Find & audition audio loops in real-time from the Loop Explorer view
- Includes loop content from KeyFax, PowerFX, and Smart Loops

**Enhanced MIDI Routing and Synth Layering**

- Play multiple or split synths from one MIDI controller
- Route multiple controllers to multiple synths or MIDI devices
- Custom drum maps allow you to create and play kits that span MIDI devices on multiple ports and multiple DXi synths
- Save presets of your favorite MIDI configurations for instant recall

**Complete MIDI Editing**

SONAR is widely recognized for having the most complete and intuitive MIDI editing of any multitrack recording system

**Multitrack Event List**

- Provides a list of all selected events occurring in all selected tracks
- A display filter lets you to specify the data type(s) to be viewed and edited (notes, pitch bend, controller, etc...)

**Multitrack Piano Roll**

- The multitrack piano roll is a flexible and intuitive display that lets you select, and edit multiple tracks of MIDI notes and controller data simultaneously with a 64th note grid line resolution
- Includes monophonic and polyphonic Pattern Brush tool that allows you to paint complex MIDI parts

**Drum Grid Editor**

- Paint rhythmic patterns in a single mouse stroke using hundreds of included Smart Loops patterns, or create your own
- Custom drum maps – preview and create kits with real-time remapping across multiple MIDI devices, multiple outputs as well as DXi synths

**Create Scores Fast**

- View and edit MIDI events in standard notation, then print sheet music of complete arrangements or individual parts
- Print 24 staves per page, along with lyrics, chord grids, percussion notation, dynamic markings, and enharmonic spellings

**Professional Project Management & Collaboration Tools**

SONAR 3 Studio includes a vast range of features that take the hassle out of project file management and collaboration with other studios

- Optional per project audio directories and intelligent file naming
- Consolidate all project files for fast backup or transfer
- Enhanced asset sharing with networked media support
- Search for associated files to locate relevant audio and to keep your projects organized
- Export or bounce multiple tracks and busses to single or separate files, with full control over what mix elements are printed to the output file (effects, automation, synth output, ReWire client output, mute/solo, mono/stereo, etc.)
- Import/export OMFI & Broadcast Wave files for cross-platform collaboration with DP4, Logic, Pro Tools, and others

**Control Surface Support**

- SONAR 3’s support for control surface hardware gives you tactile control of your mix, audio effects, and soft synths Features dedicated support for control surfaces from CM Labs, EDIROL, JL Cooper, Mackie, Radikal, Roland, Tascam, and many others.
- A Global Control plug-in features a learn mode that allows you to quickly integrate other MIDI-compatible control surfaces.

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Computer-based Music Production

The most widely used program of its kind in professional music production, Logic Pro 6 elegantly combines composition, notation and audio production facilities, as well as renowned virtual instruments and effects, all in one complete package. Logic Pro 6 combines all of the attributes required to form the ultimate music and audio production software for your Mac. It offers intuitive control, a freely configurable user interface and has an enviable reputation for its reliability. An all-in-one solution for music composition, audio recording, multimedia, sound generation, movie scoring and remixing Logic Pro 6’s comprehensive set of music creation tools include rock-solid MIDI timing and synchronization, mixing and automation with total recall, as well as non-destructive editing of both audio and MIDI in real time. It also offers superb MIDI timing with 960 PPQN and sends and receives synchronized MIDI clock, MTC, MMC and word clock signals, making it ideal for film, TV and video post-production facilities.

Whether it be comprehensive surround sound, to near publishing quality score generation, to infinitesimal MIDI manipulation, to the integration of hardware interfaces for both audio and MIDI, Logic Pro 6 delivers and more. It is bundled with nine software sound generators, including the EXS24 mk II virtual sampler, and the EVD6, EVB3 and EVP88 vintage sound modules. It offers five synthesizer modules, and includes Space Designer, a high-end reverb plug-in.

Audio & MIDI

Logic Pro 6 provides countless features for the seamless processing of Audio and MIDI data in a single application. Powerful editors and the Arrange window allow extensive manipulation of sound and MIDI data. The entire premise behind Logic Pro 6 is built around the demands of professional users for optimum workflow in the studio. This approach allows you the freedom to concentrate on the creative part of the job - the music!

The Arrange Window: The center of your musical ideas

The Arrange window - or simply Arrange - provides you with a number of graphical objects that can be rearranged and edited in a number of ways to form a song in Logic Pro 6. Audio recordings and MIDI keyboard performances are captured and displayed in a linear fashion, vertically divided into tracks. You can even incorporate thumbnails of a QuickTime movie in this track view as well, when scoring a movie, TV show or perhaps an advertisement.

Beyond the rearrangement of graphical audio and MIDI objects, numerous editing possibilities are available in the Arrange. Time Stretching, for example, allows the length of an audio object to be quickly and easily adjusted to match a chosen number of bars - without affecting the pitch of your audio. The Marquee Tool assists in selection of specific portions of your graphical audio and MIDI objects, allowing precise move, copy, delete or cut edits.

The channel strip of the selected track is displayed on the left of the Arrange. This facilitates fast access to mixing parameters directly from the Arrange, enabling you to see and graphically edit parameters of the mixer, internal effect plug-ins and software instruments as well as those of external MIDI devices.

Freely customize the way the Arrange is displayed by selecting different zoom levels for each track plus several other visual options. This flexibility lets you create a central interface for your projects, offering an optimized overview that precisely matches your individual needs. This, put simply, accelerates your workflow in Logic Pro 6.
EMAGIC
LOGIC PRO 6

Audio Recording And Editing

Logic Pro 6 turns your Mac into a professional digital audio workstation that meets the highest demands for audio quality. Logic Pro 6 supports audio at up to 24-bit resolution and sample rates of up to 192 kHz - for both audio recordings and playback of internal software instruments. This high level of sonic quality is maintained throughout the project - even during mixdown to 16-bit audio for CD release - thanks to the integrated POW-r dithering algorithm.

A powerful sample editor is integrated into Logic Pro 6, allowing precise editing of your audio data. Beyond simple operations such as: cut, copy and paste an extensive suite of DSP processing tools are also available. These tools include; time stretching, pitch shifting and formant correction. Further processing possibilities are afforded by the option of inserting Premiere and Audiosuite plug-ins.

Logic Pro 6 features integrated support of ProTool HD systems. You can link the native signal processing of the computer with the DSP hardware of TDM systems via the optional Emagic System Bridge (ESB TDM). This combination of the native and TDM systems ensures that all available processing power is available for your use. ESB TDM also extends the functionality of the EXS24 by allowing it’s insertion into Aux channels of the Logic Pro 6 TDM mixer.

MIDI And Score

You can freely record your MIDI melodies and arrangements via USB MIDI keyboards or interfaces. There are no boundaries for your imagination as a near unlimited number of MIDI tracks allows the creation of vast arrangements. An extensive selection of editors provide access to your MIDI data: the Matrix and Hyper editors both provide convenient edits via the manipulation of graphical objects. The alphanumeric Event editor provides comprehensive information on every detail of recorded MIDI events.

• The Score editor perfectly transforms MIDI performances into notation - in real time - as you’re playing. Elaborate layout functions and professional notation printout functions allow you to quickly deliver anything from a lead sheet to a complete orchestral score. Automatic transposition of different instruments is supported, as well as guitar tablature, drum notation and rapid entry of song lyrics or performance notes.

• The Environment provides you with a virtual representation of your physical MIDI hardware. The entire data flow is visible onscreen. MIDI processing objects such as: arpeggiators, chord memorizers, faders and delays can be inserted at almost any point in the data flow.

• The Environment provides you with the tools to perform a range of tasks. As examples, you could; construct dedicated remote controllers for MIDI devices, build a drum computer or step sequencer, or perhaps simply fade between two audio tracks with the modulation wheel.

• No other audio and MIDI sequencing program provides more flexibility in this area than Logic Pro 6.

Arrange and Track Mixer Window—Producing the Mix

The virtual mixer of Logic Pro 6 controls a maximum of 255 audio tracks, 64 audio instrument tracks, and a nearly unlimited number of MIDI tracks.

• Each audio and audio instrument track can display and use up to 15 insert plug-ins and 8 effect bus sends.

• Logic Pro offers over 50 integrated effect plug-ins and supports additional AU format (Mac OS X) or VST format (Mac OS 9) plug-ins. Logic Pro 6 also features an exclusive collection of software instruments as well. As with the effects, additional instrument plug-ins are integrated via AU in Mac OS X and via VST 2.0 in Mac OS 9.

• The parameters of software instruments and effects, as well as the controllers of the mixing desk, are integrated into the comprehensive automation system of Logic Pro 6 - allowing full, total recall mixes. The mixer further supports a range of hardware controllers, spanning from simple models for the home studio up to high-end professional control surfaces that are deeply integrated into the Logic system.

• Your final mix is written to your hard drive in industry standard formats such as: SDII, WAV, AIFF and MP3 (in Mac OS X).

• Logic Pro 6 also features support for 12 surround formats, making it ideal for those involved with soundtrack work.
Sound Generation

One of the aspects that makes Logic Pro 6 a unique music and audio production system is the comprehensive collection of software instruments that it includes. All of the instruments offer the same level of pristine sound quality, achieved through the use of 32-bit internal processing. The utilization of modern technologies, such as component modeling algorithms, are the basis for calculating the most complex of sounds - in real time!

A delightful side-effect of this uncompromising stance towards the technology is the brilliant responsiveness of the instruments, with even the smallest nuances in playing style being reflected sonically. The exclusive selection of instruments offered by Logic Pro 6 features; a software sampler, synthesizer and virtual counterparts of vintage keyboards, including the Hammond B3 Organ and Hohner D6 Clavinet. The seamless integration of these instruments into Logic Pro 6 guarantees optimal handling and processing, no matter where you wish to use the system - on stage or in the studio. You can even use it while travelling - on your PowerBook!

The instruments are easily inserted into an audio instrument channel strip of the Logic Mixer. The integrated track-based automation system of Logic Pro 6 allows you to graphically display and edit the parameters of the instruments, and if you have a hardware controller, these parameters can be adjusted and recorded as well.

EXS24 mk II Software Sampler

The EXS24 mk II software sampler is the standard amongst Logic-based musicians and producers. Easily and quickly incorporate sample-based sounds into your productions - with uncompromised sound quality of up to 24-bit/192 kHz resolution! It also offers outstanding support for a wide range of sample library formats, including: EXS24 native, Akai, GigaSampler, SampleCell II, SoundFont2 and REX2, providing you with access to a huge number of sound libraries. The EXS24 mk II allows the use of huge sample libraries, as memory is only limited by the computer’s RAM or hard disk capacity.

◆ The EXS24 mk II is a reliable and productive partner in every studio, featuring: sample-accurate timing, total recall and an intuitive operating concept. If desired, up to 16 individual outputs can be addressed, allowing further processing of EXS24 mk II sounds with Logic Pro’s extensive range of effect plug-ins.

◆ The modulation matrix, borrowed from the ES2 synthesizer, provides comprehensive routing possibilities, allowing countless creative sound processing options. Sources include: the three LFOs, the two snappy envelopes, any MIDI-Controller, or the level of the sidechain input can be routed to Sample Select, Sample Start, Pitch, Glide, Volume, Pan, envelope times, parameters of LFOs or filters.

◆ A excellent sounding multi-mode filter completes the feature set, providing adjustable slopes, variable filter overdrive amount, and a fatness circuit that ensures excellent low frequency response, even at high resonance settings.

◆ Additionally, Logic Pro’s ESB TDM allows the direct insertion of up to 32 instances of Emagic’s Xtreme Sampler 24 Bit into the Aux channels of Logic’s TDM mixer. The stereo output signals of each EXS24 instance can be treated via any of the processing options afforded by the TDM DSP environment, such as TDM plug-ins.

◆ Each EXS24 TDM is calculated by the host CPU, and places no overhead on the TDM DSPs. The MIDI performances of each EXS24 TDM instance are recorded on TDM Auxiliary tracks, and are controlled directly in Logic Platinum. This eliminates the need for OMS, thereby providing the benefit of sample-accurate playback for all instances of the EXS24 TDM.

ES1 Software Synthesizer

The ES1 has the heart of many classic analog favorites, and includes all of the details and facilities that fans of this type of sound generation know and love. It is rich with character, and elegantly combines 30 years of synthesizer history for the Logic platform.

Offering up to 16 voice polyphony, every ES1 voice features a main and sub-oscillator delivering the raw sonic material shaped by the analog ES1 filter. Each oscillator features a set of “classic” waveforms including triangle, sawtooth and variable pulse. The sub-oscillator, with its own five waveforms, operates one or two octaves below the main oscillator adding a solid bass fundament. Additionally the sub oscillator provides a noise source and an input for an external audio signal allowing audio tracks to be processed with rhythmically changing filter movements.
**ES2 Software Synthesizer**

Rather than recreating old analog synthesizers with wood-grain end blocks, Emagic’s ES2 offers an innovative software synthesizer that combines the full-bodied warmth of subtractive synthesis with the unbelievable possibilities of digital tone generation systems such as vector synthesis and frequency modulation (FM). Draw from a whole host of sounds and an exclusive range of synthesis techniques to create radical sounds or the most subtle of sound changes. The same level of flexibility also extends to the huge number of modulation options.

- Handles the warm subtractive synthesis of classic analog synthesizers with the same ease as it does popular digital synthesis techniques such as Vector Synthesis, Wavetable Scanning and Frequency Modulation (FM).
- Use up to 64 ES2 simultaneously, depending on the computer power available. Each ES2 has 32 voices, each offering three especially flexible oscillators, two filters and extensive modulation possibilities. Select Unison, and layer up to 32 voices for huge, imposing sonic monuments.

**ESM, ESE and ESP Instruments**

Logic 6’s instruments combines high sound quality, simple handling and modest processing demands in an ideal way.

The ESM is a monophonic Bass Synthesizer that is ideal for the creation of powerful basses and expressive lead sounds. It provides variable selection between sawtooth and rectangular waves. A source of particular pleasure is the resonance-capable dynamic low-pass filter, with a biting slope characteristic of 24 dB.

One of the strengths of the eight-voice polyphonic ESP are the characteristic 80’s pop music synthesizer brass sounds, for example. In addition to the oscillator, sub-oscillator and filter, the ESP offers an LFO for creating wah-wah-effects and an ADSR envelope generator for precise level control.

The ESE is an eight-voice polyphonic synthesizer designed for padsounds. The basis of its sound generation are sawtooth or rectangular waves, that can be mixed in a near-infinite variety of base tones. The sawtooth wave can be modulated in frequency, the rectangular wave in impulse width. ESE further offers selectable attack and release times, a dynamic low-pass filter and a three-step chorus/ensemble effect.

**Vintage Instruments**

**EVP88 (Emagic Vintage Piano 88) - Vintage Sounds for Logic**

Fender Rhodes, Wurlitzer, Hohner – the sounds of these vintage electric pianos have been legendary for decades. Often criticized for being maintenance-intensive, big and heavy, the sounds of these original instruments can be used in the Logic system with none of the hassle. The EVP88 is precise in every detail, with all sounds are reproduced authentically, without the use of samples. This modeling technique results in a software instrument that not only sounds great, but responds to every subtle playing nuance with incredible dynamism. In addition, the deep integration of the EVP88 into Logic guarantees stability, ease-of-use and perfect total recall automation.

**EVB3 Legendary Hammond Sound for Logic**

The Hammond B3 organ is one of the most influential keyboard instruments of the 20th century. The characteristic B3 sound has been, and continues to be heard, in a wide range of musical styles such as Motown, Jazz, Pop, Rock, Funk, Reggae, Dance, Country, Blues, Soul and Gospel. For anyone working in a computer-based environment with a Logic system, this unmistakably warm sound is an essential. The EVB3 flawlessly recreates the sound of the B3 in software. As with all Emagic instruments, the user interface is intuitive, and offers far more tonal flexibility than the original instrument.

**EVD6 The Funkiest Instrument Alive**

The Hohner Clavinet D6 is one of the classic keyboard sounds of the 20th century. Although the D6 has always been closely linked to funk, the sound is used in countless pop, reggae and dance productions. The EVD6 mathematically recreates every subtle nuance of the original without using any samples, making it an extremely playable instrument.
Sound Processing

Given the dramatic increase in computer processing over the past few years, the potential - and reality - of digital sound processing has developed at a staggering rate. This "native" sound processing - calculated directly on the computer processor(s) - substitutes the use of external DSP's (Digital Signal Processors) and effect devices. Logic Pro 6 delivers over 50 realtime effect plug-ins, allowing for the most innovative audio processing. The basic technical specifications - 32-bit floating point mathematics and support of audio resolutions up to 24-bit/192 kHz - ensure uncompromising sound quality.

The included plug-ins are precision tools for sound processing, offering a straightforward interface that enables the user to conceptualize and realize any sound design visions with the minimum of fuss. The intuitive, ergonomic interface and professionally-oriented feature set of the plug-ins is the result of the Emagic’s extensive studio experience and the active exchange of knowledge with countless users. A multitude of forward looking functions have been implemented, with many going far beyond the feature sets and ideas of traditional plug-in concepts.

In addition to the built-in effect system, Digidesign’s TDM system for ProTools hardware is completely supported, including surround. Depending on the configuration, up to 64 audio tracks and 64 busses are available. TDM plug-ins from all major developers can be used and fully automated. I/O inserts even allow the integration of external audio effect processors.

Space Designer (Reverb)

Featuring a real-time convolution process, it is now possible to produce a reverb in Logic that is virtually indistinguishable from that of a real room or hall. Using a real-time calculation process, Space Designer merges the input signal with a reverberation sample - the impulse response (IR) - taken from any acoustic space such as, for example, a room, hall, or cathedral. The result sounds as if the input signal had actually been recorded directly in the sampled room. The reverb can be further shaped using Designer’s comprehensive parameter set. Ships with a library of over 1,000 impulse responses. These include real rooms and halls, as well as legendary classic and contemporary reverb units. In addition, you can always record your own impulse responses.

The ability to create and edit your own custom convolution reverbs sets Space Designer apart. In addition to the sampled reverbs, Space Designer uses a unique reverberation method that features specially-designed envelopes to create high-quality synthetic reverbs. The results are dense and smooth reverbs that complement your mix without the need to extensively boost effects levels.

EVOC20 (Filter and Vocoder)

The EVOC20 package provides three powerful tools for sound design: A classic polyphonic vocoder with built-in synthesizer, a formant filter bank, and a pitch tracking vocoder. Each plug-in provides maximum flexibility and features pristine 32-bit sound quality.

Tape Delay

This delay recognizes the tempo of Logic. Just click on the sync button and the echo fits the beat. The Groove slider offers smooth switching between triplet and dotted notes (this corresponds to Logic’s Swing parameter). Delay time can also be modulated with an LFO as well.

Stereo Delay

The Stereo Delay offers similar controller features to the Tape Delay, although tape saturation is missing, to optimize CPU-efficiency. The feedback level is separately controllable for each stereo channel, and is rounded out with a separately controllable cross feedback level. As a result, interesting rhythmic structures can be easily created.

Distortion2 (EVB3)

Emagic’s EVB3 also benefits from the included Distortion2 plug-in. Selection "type" offers three different simulations of tube amplifiers: a Leslie 122, a classical guitar amplifier and an amplifier with a more aggressive sound character, for drastic distortion effects.

Dynamics

• Compressor • Expander • Noise Gate • Enveloper • De-Esser • Multipressor • Limiter

Channel EQ

Perfect EQ-ing has never been so easy, intuitive, precise and efficient. The Channel EQ seamlessly unites two tools in one plug-in. In addition, it is possible to see a thumbnail view of the Channel EQ displayed in the upper corner of a channel strip.

Modulation

• Modulation Delay • Phaser • Tremolo • Ensemble • Rotor Cabinet (EVB3)
• Spreader • Scanner Vibrato (EVB3)

Special

• Spectral Gate • Pitch Shifter • SubBass • Denoiser • Exciter • Stereo Spread
Logic Express 6 perfectly fits the needs of aspiring musicians and audio engineers. It provides all of the tools needed to write, record, edit and mix music - at a sample rate of up to 96 kHz. The included EXSP24 sample player enables you to easily integrate a huge range of sounds, from countless sample libraries, into your projects. The critically-acclaimed EVP73 Vintage Piano and the astoundingly fat ES1 Synthesizer further expand the sound generation capabilities of Logic Express. Logic Express offers the same flexibility, reliability, ease of use and precision as its “big brother” Logic Pro 6, making it the perfect product to start creating music like the pros - without breaking the bank.

**Arrange and Mixer**

The Arrange window, where both MIDI and audio tracks are arranged and edited - via a comprehensive selection of tools, is the nerve center of Logic Express. View your entire song arrangement at a glance, or zoom into individual regions. Graphically enter controller data – volume and pan curves, for example – directly into individual tracks. Even compose to a synchronized digital movie – no matter if it’s a multimedia presentation, a film score or your holiday video.

**FEATURES**

### Audio

Logic Express allows you to work with up to 48 stereo or mono audio tracks, at up to 24-bit/96 kHz resolution. A maximum of 12 inputs and outputs are simultaneously supported (dependent on your audio hardware). The built-in stereo Sample Editor allows precise editing of your audio recordings and incorporates creative options such as pitch and tempo editing.

- High-end dithering with POW-r algorithms
- 32 Bit internal processing
- Hardware independent audio scrubbing
- Up to 48 stereo tracks (depending on CPU)
- 4 band Channel EQ Plug-In
- Up to 16 audio instruments
- Supports ReWire 2
- Bouncing with realtime effects including
  - Offline Bouncing
  - 8 busses
  - 4 inserts per channel
  - 8 sends per channel
- 28 integrated high end effect plug-ins

### MIDI and Score

The MIDI sequencing capabilities of Logic Express provide extensive control over internal software instruments and external MIDI instruments. Up to 128 MIDI in and outputs are supported, and a virtually unlimited number of MIDI tracks. The editors, include the Matrix Editor, Event List and Hyper Editor. These powerful and elegant tools make editing and modifying MIDI data a breeze. Express also features a comprehensive scoring section, allowing the creation of printed notation. It incorporates a number of pre-defined score styles and generic guitar tabulation facilities, plus lyric entry and much more.

- Transform Window
- HyperDraw in Arrange, Matrix and Score window
- Score editor with easy realtime notation including printout, steptime input window
- AMT for ultra-precise MIDI timing with
  - Emagic AMT8 and Unitor8
- AutoLink with Emagic SoundDiver

### Instruments and Effects

The increase in computer processing power over the last few years has made the concept of the “virtual studio” a reality. Logic Express 6, combined with your Apple computer, now plays the role of a tape machine, mixing desk and a MIDI Sequencer. Nowadays, the external effect racks and even instruments can also be substituted with software equivalents.

Logic Express 6 features over 18 professional effect plug-ins that process sounds in realtime. Also included are three software instruments to help your initial compositions.

- The EXSP24 sample player provides you with easy access to vast sample libraries.
- Play the EVP73 with your MIDI keyboard, and you'll quickly realize that it really feels like you're playing a Fender Rhodes electric piano.
- ES1 virtual analog synthesizer invites you to experiment with all kinds of electronic sounds.

Logic Express recreates a complete studio environment - directly in your computer. Record audio and MIDI (via a MIDI keyboard), and develop your own arrangements, remixes and mixes.
Audio Workstation Software with MIDI Sequencing for Mac

An integrated digital audio and MIDI sequencing production system, Digital Performer provides a comprehensive environment for editing, arranging, mixing, processing and mastering multitrack audio projects for a wide variety of applications. Digital Performer allows you to simultaneously record and playback multiple tracks of digital audio and MIDI data in a totally integrated, creative environment. It features dozens of real-time DSP-effects with easy to use graphical controls, complete automation and supports multiple processor computers. Extensive audio file editing is also included, from the usual cut, paste and copy tools to MOTU’s PureDSP functions, providing independent control over the duration and pitch of audio files with exceptional sound quality. This allows for tempo-conforming drum loops, adding vocal harmonies or even gender-bending vocal tracks. Digital Performer’s award-winning multitrack sequencer design, combined with non-destructive digital audio editing capabilities, provide you with unprecedented flexibility and control over the audio you create. And now, version 4 takes full advantage of OS X’s MIDI and audio services, providing 100% compatibility and inter operability with OS X and all CoreMIDI- and CoreAudio-compatible software and hardware.

**FEATURES**

**Audio**
- Unlimited audio tracks (as many tracks as your CPU and hardware will allow) with support for high resolution 24-bit audio up to sample rates of 192kHz.
- Direct support is provided for MOTU’s range of professional audio interfaces, such as the 2408MKIII, as well as a wide range of third party audio hardware using Core Audio drivers. ProTools HD support is expected in the near future as a free update.
- Audio tracks can be mono, stereo and surround (n-channel) tracks.
- The Bounce to Disk feature allows you to combine an unlimited number of audio tracks, along with effects and realtime automation, into a single mono, stereo or surround track. Need to hear 100 audio tracks at one time? Just bounce them down. Original tracks are always preserved, so you can go back and tweak them if needed.

**MIDI**
- Record and playback an unlimited number of MIDI tracks simultaneously.
- MIDI can be edited with a resolution of 1/10,000,000 PPQ (pulses per quarter).
- MIDI timing resolution is accurate within a single MIDI byte (under 1/3 of a ms) when used with a MOTU USB MIDI interface.
- Individually zoomable tracks, flexible window arrangement, and navigation tools allow for trouble-free manipulation within even the largest projects.

**Effects**
- Dozens of real-time 32-bit and 64-bit DSP-effects are provided with DP to meet the demands of today’s audio production including EQs, dynamics processors, reverbs, modulation effects, delay, filters, preamp simulators, mastering plug-ins and more

**Automation**
- Everything is automatable, including effects parameters with five advanced automation modes and sample accurate editing of automation data.
- Support for control surfaces including Mackie Control, Mackie HUI, CM Labs MotorMix, Radikal Technologies SAC-2.2.
- Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns.
- Virtually every parameter can be immediately accessed via customized key commands or MIDI controller. You can even save your key command settings and import them into a DP session at another studio.

**Audio Editing**
- View and edit all of your digital audio tracks in a single, intuitive window.
- Audio editing is accurate to a single sample.
- Everything from simple dialog editing to complex restructuring of large compositions is as easy as playing with Lego blocks.

**How Many Audio Tracks?**
The maximum number of tracks you can playback at a time depends primarily on your CPU speed, how fast your hard drive is and how much RAM you have. Based on a Dual 1.2GHz G4 w/512MB RAM you can expect to get approximately 140-150 independent tracks of audio with 8-band EQ and dynamics on every track.
**Sequence Editor**

Side-by-side display of MIDI and audio tracks — The Sequence Editor window provides combined viewing and editing of MIDI notes, audio soundbites (audio regions), audio automation and MIDI controller data in one window along a single timeline.

- **Zoom in to work on fine details or zoom out for a wide overview.**

**Soundbites Window**

- "Drag and drop" audio regions from the soundbites window to any editing window for intuitive placement.
- Sort by any parameter (length, bit depth etc.) Trace the genealogy of the soundbite by viewing its family tree.

**Waveform Editor**

The Tool Palette includes: arrow cursor, pencil, waveform tool, waveform selector, rhythm brush (for painting percussive patterns in the Drum Editor), magnifying glass, loop insert, and scrub. These tools operate consistently across all applicable windows. If a tool does not apply to the currently active window, it grays out.

- The fully-integrated waveform editor provides all of the tools you'd expect from a premium editor including:
  - View and Edit mono and stereo audio files and create soundbite boundaries with single sample accuracy
  - Use the pencil tool for removing clicks
  - A loop tool lets you create perfect loops for your sampler as well as mute and scissor tools
- Many navigation tools are provided to help you work more efficiently like scrubbing, jumping to selection or loop boundaries, as well as user-definable zoom levels

**Movie track** – a QuickTime movie track displays movie frames side by side with MIDI and audio data. DP intelligently displays more frames as you zoom in and fewer frames when you zoom out, so that frames are never obscured by overlapping one another.

- Independent vertical zooming – Both MIDI and audio tracks can be independently resized vertically. Many zoom shortcuts are provided, including the ability to enlarge one track and automatically scale all other tracks to fit in the window.
- Scale individual audio track sizes as well as adjust the waveform height within each track.

**Non-Destructive Audio Editing**

Copy and paste regions to repeat verses or sound effects. Graphically draw volume and pan automation curves.

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MOTU
DIGITAL PERFORMER continued

DP’s Mixing Board – a virtual mixing console on your computer screen

- More flexible than even the most expensive hardware consoles ever made
- Instantly create customized board layouts: drag track strips anywhere you like, and show or hide any combination of tracks - or even mixer sections (like the inserts section) - with a mouse click.
- Save and recall any number of custom Mixing Board configurations
- Assign tracks to plug-ins and MIDI effects processors for real-time output processing
- Faders can respond to control surfaces or any MIDI controller such as a volume slider or pedal, mod wheel or any data slider.
- View your MIDI and audio tracks in a single, unified mixer
- Save multiple effect presets as a single clipping and then drag and drop them onto any track in any mix
- Use Aux tracks to combine hardware instruments and virtual instruments into one mix

32-Bit and 64-Bit Fully Automatable Realtime DSP Effects

- 32-bit and 64-Bit realtime effects with easy to use intuitive graphical controls
- Effects can be inserted on a single channel or on a bus and accessed via a channel send
- Effects can be easily organized into folders
- Multiple plug-in windows and surround panners can be opened simultaneously
- Up to 20 effects can be inserted pre or post fader per channel
- The number of simultaneous effects is limited only to the speed of your computer
- Multi-processor support of MOTU’s and third party plug-ins provides nearly twice as much processing power with dual processor CPUs
- Compatible with effects supporting mono, stereo or surround inputs and mono, stereo or surround outputs
- Sidechain inputs allow you to control an effect parameter from any audio signal in mixing environment by busing the audio to the sidechain input.

Included Effects

- 2, 4 and 8 band EQ
- PreAmp-1 tube-simulation and distortion plug-in
- 3 reverbs
- 2 noise gates including the MasterWorks Gate with real time look ahead gating
- 2 compressors
- A synth-style multimode filter
- Echo & delay effects including a surround delay
- Modulation effects including chorus, phaser, flanger, the Sonic Modulator and more
**Automation**

- Everything in the mixing environment can be automated in real time, including effects parameters, track muted/soloed, effects by-passing, send levels, send mutes
- Automation can be recorded during playback, or you can draw and edit parameters in the audio graphic editor
- Support for three types of automation data: ramps, step-step, one-shot (such as waveform type - sine, square, etc.)
- Automation data is always displayed using real-world values such as decibels and milliseconds
- Mute and Solo automation allows you to bring tracks in and out of the mix in real time as you listen
- Save your fully automated mixdown for instant recall at any time, and then create an unlimited number of alternate mixdowns
- Using beat/tempo based automation you can control plug-in effects to move in perfect time with your music, from LFO synchronization to filter sweeps that land on downbeats to multipath delays that create syncopated rhythms
- Sample-accurate 32-bit floating ramp automation insures smooth automation movements without unwanted artifacts or zipper noise
- Five advanced automation modes allow you to: Modify automation data you’ve already recorded; Scale values up or down while maintaining its current contour; Overwrite automation that’s already there; Scale values up or down while maintaining its current contour; Automatic conversion options include:
  - Automatic sample format and sample rate conversion when importing audio
  - Automatic time-stretching of audio when placing soundbites into a track
  - Automatic time-stretching of audio when the tempo is changed
  - Automatic placement of imported audio files in a pre-designated folder, regardless of if format conversion took place or not

**Automatic Audio Conversion**

- DP can automatically convert audio data wherever necessary to conform to the current project’s sample rate, sample format and tempo. This greatly streamlines the process of importing audio quickly into your projects.
- Automatic conversion options include:
  - Automatic sample format and sample rate conversion when importing audio
  - Automatic time-stretching of audio when placing soundbites into a track
  - Automatic time-stretching of audio when the tempo is changed
  - Automatic placement of imported audio files in a pre-designated folder, regardless of if format conversion took place or not

**Acid File Import**

- Acid WAV files can be imported using standard drag and drop. If the Acid file has a tempo and automatic tempo conversion is enabled, it will automatically conform to the sequence tempo when placed in a track.
- REX 2 file import allows you to conform Recycled audio files to your DP sessions tempo
- ReWire support allows you to integrate outputs from Propellerheads’ ReBirth and Reason applications into DP
- Import and export SDII, AIff and .Wav files

**Time Compression/Expansion**

- PureDSP (time compression/expansion) functions provide high quality, independent control over the duration and pitch of audio files allowing you to conform the tempo of drum loops to your project and add vocal harmonies or gender-bend effects to vocal tracks
- Both PureDSP and off-line audio processing occurs in the background so you can continue working
- The graphic time-stretching function allows you to grab the edge of a soundbite with the hand cursor and stretch it longer or shorter.

**Sampler Integration**

- The Samplers window lets you transfer samples between your project, supported sampler and the Mac’s desktop (hard drive) via SCSI using simple drag and drop
- Imported samples are automatically converted into Sound Designer II files and back to the sampler’s format when exported
- Using the integrated waveform editor, you can define a region of audio from your project, edit it, trim the edges with sample level precision, specify loop points, normalize, fade in & fade out and send it to your sampler - without ever leaving DP

**POLAR**

- POLAR is a unique, interactive, RAM-based loop recording environment that allows you to layer multiple passes of audio (limited only to the amount of available RAM) without having to stop recording.
- Use POLAR to layer vocal harmonies; generate mesmerizing polyrhythms; build an entire song or just plain jam.
- When going for that ‘perfect take’ POLAR can mute the previous take for you automatically so you can concentrate on the music not on playing engineer.
- Because POLAR records audio directly to RAM, you can overdub on the fly without affecting your disk tracks.
MIDI Editing

- DP provides a range of environments, besides the Sequence Editor, for editing MIDI data including a Graphic (piano style) Editor, an Event List editor, a dedicated Drum Editor and QuickScribe (notation). This combination of editors offers you the flexibility of fine-tuning single MIDI events, or make changes to entire sections.
- Multiple MIDI tracks can be edited and displayed in one Graphic Editor window – notes for each track are displayed in the track's color. A track selector list allows you to show/hide tracks as desired.
- Three freely switchable MIDI continuous controller editing modes provide flexible and intuitive automation of MIDI instruments:
  1) DP's classic 'points' mode
  2) 'Vision-style' colored bars
  3) Audio-style breakpoint automation lines which intelligently interpolates CC data.

Adjustable PPQ

The display resolution can be adjusted to 480, 960, 1920 or any number from 2 to 10,000 PPQ and each tick value can be displayed with up to four decimal places. For example, if you normally edit MIDI data at 480 PPQ, you can set your edit resolution to 480,000 for 1000 times more precision. With the resolution at its maximum value of 10000.0000, you can nudge a MIDI event by a little as one one-hundred millionth of a quarter note.

Non-Destructive MIDI Effects Plug-ins

- A variety of MIDI processing plug-ins can be can be inserted into the mixing board window and applied to your MIDI tracks non-destructively in real time.
- Bundled MIDI plug-ins include: Arpeggiator; Echo; Remove Duplicates (gets rid of duplicate events on the same tick); Transpose; and Shift can all be applied non-destructively and in real-time.
- Plug-ins settings can be saved and recalled for use on other tracks or in other sessions.
- Real-time MIDI Effects can be 'printed', (destructively applied) to the track. This allows you to add effects to certain portions of a track, instead of the entire track.
A complete environment is available for creating surround recordings from start to finish including support for quad, LCRS, 5.1, 6.1, 7.1 and 10.2 surround formats.

Four panner plug-ins are provided including a localizing room simulator — support is also provided for third party panners.

Each audio track can be assigned to any surround sound format and have its own, independent surround panner.

The desired surround panner can be controlled with the panning dish available for each track’s channel strip in the Mixing Board. Panners can also be opened as separate windows (just like a plug-in).

Panning movements are fully automatable.

MacOS Input Sprockets support allows you to connect a compatible USB joystick to your Power Macintosh and use it to control any MOTU or third-party surround panner.

Record, edit and apply effects to multi-channel tracks as easily as mono and stereo tracks — master the multichannel mix using a wide range of channel effects, including the MasterWorks Limiter and bounce the surround submix to disk or record the output of a multichannel mic setup or print a multichannel reverb.

The included Auralizer effect is a room simulator that allows you to localize a sound in space using psychoacoustic cues – design the size and absorptive characteristics of the space you wish to place your audio, then place a sound precisely in that space.

Universal compatibility and interoperability with Mac OS X and all CoreAudio- and CoreMIDI-compatible software and hardware. No special drivers or wrappers — just install your software, plug in your hardware, and go.

Operate multiple audio hardware systems simultaneously with Digital Performer — use your MOTU 828 FireWire audio interface together with your MOTU 2408mk3 PCI audio interface - or use any combination of CoreAudio-compatible interfaces.

Mac OS X’s Audio MIDI Setup utility delivers universal MIDI system management. DP4 shares a common studio setup with all of your Mac OS X MIDI applications.

Easy device remapping from FreeMIDI to CoreMIDI when you open a project created in an earlier version of Digital Performer.

Mac OS X’s MIDI device patch lists and drum note names allow you to view the sounds in your MIDI synthesizers by name in Digital Performer’s patch lists. Build drum kits with instrument names like “808 kick” and “sizzling hat” rather than note numbers. All of FreeMIDI’s of patch lists have been ported to Mac OS X, where they can be used by any CoreMIDI-compatible software.

Support for interapplication MIDI - Digital Performer can publish an unlimited number of MIDI inputs and outputs, allowing it to transmit and receive a virtually unlimited number of MIDI data streams to and from other CoreMIDI-compatible software.

Mac OS X’s MIDI Time Stamping achieves a 12th of a millisecond MIDI timing accuracy on input and a 3rd of a millisecond on output when used with a MIDI Time Stamping compatible hardware including MOTU’s rack-mount MIDI interfaces.

Support for ReWire 2.0 support provides compatibility with Propellerhead Reason 2.0, Rebirth and all other Rewire applications. Direct MIDI I/O support allows you to sequence MIDI tracks in Digital Performer using your ReWire instruments as virtual synths.

Enhanced QuickScribe notation transcription engine - display and print unquantized MIDI tracks as beautifully engraved music scores, instrument parts and lead sheets.

Digital Performer Version 4 features that are on the way - to be supplied as a free update soon:

Support for Audio Units plug-ins for effects and virtual instrument.

Support for Pro Tools hardware running under the Digidesign Audio Engine (DAE) including ProTools HD hardware.
Music Creation and Production Software

The Cubase legacy continues with Cubase SL and Cubase SX — the most advanced and powerful versions of Steinberg’s renowned Virtual Recording Studio software to date. Designed from the ground up to take advantage of the latest breakthroughs in processor and operation systems technologies including WindowsXP and Mac OSX, both Cubase SL and Cubase SX provide the potential for recording and playing back an unlimited number audio tracks (up to 96kHz) and MIDI tracks and feature a comprehensive suite of advanced editing facilities, realtime effects, mixing and automation facilities. Both applications support realtime VST 2.0 effects plug-ins and virtual instruments, and low-latency, multi-channel ASIO 2.0 compatible audio hardware allowing you to outfit your computer-based recording studio to suit your specific requirements. VST System Link functionality allows several computers to be linked together and actually perform as one fully integrated system. Cubase SX adds comprehensive 5.1 surround sound support, complete score layout features and a wider range of automation modes.

FEATURES

Audio

- Native audio – no expensive additional outboard equipment is required to record and playback audio. Plus ASIO soundcard support for low latencies.
- Up to 200 or more simultaneous playback of Audio Channels (cpu dependent)
- Recording multiple channels of audio simultaneously.
- Support for 16-Bit, 24-Bit and 32-Bit float audio files at sample rates of 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz.
- Record of AIFF, WAVE and Broadcast WAVE files, (Sound Designer II for Mac)
- Non-destructive Part Editor
- Destructive rendering of virtual effect processors into parts from the Project Window (with process history).
- Very quick and efficient parts bouncing
- Simple ‘Drag-and-Drop’ functionality means allows objects to be moved quickly, not just within projects, but also between multiple projects.

Mixing and Automation

- Adaptive and configurable track mixer selectable (wide/narrow) views.
- Up to 64 Group Channels with access to the same audio effects and EQ as normal audio tracks.
- Sample accurate automation with automation tracks for every audio, group track and plug-in.

VST Effects and Instruments

- Includes a wide range range of professional real-time VST effects and (VSTi) virtual instruments.
- Supports virtual instruments with multiple outputs (VST 2.0 standard)

MIDI

- Unlimited MIDI tracks and multiple MIDI recording modes: Cycle, Mix, Overdub, Step, Punch.
- Sample-accurate timing for MIDI-events. For ease of use the displayed musical resolution is set to 480ppq. If you need a higher resolution for your editing needs you can simply switch to sample resolution.
- A wide range of MIDI editors are provided including: Key (piano keyboard); Drum; Event List; SysEx and Logical. Cubase SX adds professional Score editing.
- Supports high-precision MIDI timing when using an LTB compatible MIDI interface such as Steinberg’s Midex 8.
- A Tempo Track allows you to control song tempo using a graphic editing interface.
- Sends MIDI clock and send/receive MIDI timecode (MTC).
- Extensive control surface support including Steinberg’s own Houston, Mackie Control, Yamaha Digital Mixers, Radikal Technologies SAC-2.2 and more.

Sample Editing

- Destructive Sample Editor with offline process history.
- Sample accurate zoom and in-place editing of audio directly in the Project window.
- Automatic tempo matching of audio loops with integrated Slice and Stretch functions.
The Project Window

The Project Window – provides an overview of the entire project area and allows real-time recording, playback placement, editing and automation of audio and MIDI. You can move, nudge, fade in, fade out, change volume, or crossfade parts directly from the Project Window with great ease and efficiency.

- **Timeline Ruler**
  - Option Positions and lengths displayed as:
    - Bars+Beats – Bars|beats|sixteenth notes and ticks
    - Seconds – Hours, minutes, seconds and milliseconds
    - SMPTE Frame (Hours, minutes, seconds & frames) – 24, 25, 29.97, 30 fps as well as 29.97 and 30 dfps
    - Samples – Samples

- **Track Inspector**
  - Provides instant access to any parameter of the currently selected audio or MIDI track.
  - Each component of a channel’s mixer is displayed as a folder that can be expanded to reveal that component’s parameters – add insert-effects, adjust aux sends, pan and volume and more, without calling up the mixer.

- **Project Overview**
  - Provides quick and easy access to any location within the project window – the smart cursor allows you to click and drag on the bottom of the overview to navigate to the specific area of the project you want to access or click and drag at the top of the overview to zoom select a new zoom value of the project window.

- **Grid and Quantize**
  - Adjustable down to single sample resolution
  - There are 5 Grid modes to choose from – Grid, Event, Magnetic, Cursor and Shuffle

- **Transport Controls** – stop, play, record and loop

- **Tooltips**
  - In the Project Window Point and click on these icons to access the five most common editing windows within a project – the inspector pane, project overview, object parameter list, audio pool window and project console window.

- **Supported Audio Formats**
  - Import of AIFF, AIFC, WAVE, Broadcast WAVE, WMA, MP3, REX files as well as SDII on Mac.
  - Export audio to MP3, RealAudio G2, AIFF, Broadcast Wave and WAVE, as well as Windows Media Audio and Real Audio V5 on PC and SDII on Mac.
  - Import/export files with sample rates of up to 96kHz depending on format.

- **Supported Video Formats**
  - MOV, QT, AVI, MPG, MPEG

- **Video Functions**
  - As working in sync with the picture is an essential demand for film scoring, Cubase does not only allow playback of video files within a video window, it also provides you with a thumbnail video track for fast and easy composing to the picture and placing musical events at takes and frames.

- **Non-destructive, editable crossfades**

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**Mixer Channels**

The extended view adds a top zone to the standard size mixer that adds an upper zone where you can switch between views for EQ and aux-send or insert effects per channel or globally.

- Global Solo/Mute and automation
- Read/Write buttons
- Complete channel setups can be copied and pasted between channels or even saved to disk and loaded into new projects – a great way to create a custom library of multiple effects or virtual instruments with effects.

- Select the type of channels you want to view in the mixing console – audio, group, virtual instrument, ReWire and MIDI channels
- Click the Edit button to open the Channel Settings window (detailed below)
- Mixer channels can be switched between mono or stereo
- Any combination of mixer channels can be freely grouped or sent to one (or more) of up to 64 sub group channels.

- The response time of the meters is adjustable (fast/slow/hold)
- The Master Section features 8 insert slots plus dithering using Apogee’s UV-22 HR algorithm
- Each channel within the mixer has 4-bands of parametric EQ, 8 insert points for plug-in effects and 8 aux sends
- The extended view adds a top zone to the standard size mixer that adds an upper zone where you can switch between views for EQ and aux-send or insert effects per channel or globally.

**Hardware Control**

- Surface Support
  - Of course, Cubase is fully compatible with Steinberg’s Houston controller surface which allows you to grab hold of the virtual world of Cubase with physical knobs, buttons and faders.
  - Features such as transport control, scrub, fast forward, rewind, track muting, track arming, control over plug-in parameters and full moving-fader control over your mix are just a few of the possibilities.
  - A wide number of 3rd Party remote controllers are supported including devices made by Mackie, JL Cooper, CM Automation, Radikal Technologies, Roland, Tascam, and Yamaha.
VST Realtime Effects Processors

- Steinberg's Virtual Studio Technology (VST) interface allows the seamless integration of virtual effect processors and instruments into your digital audio environment. These processors run the gamut from software emulations of classic hardware effect units and instruments to never-heard-before creative processors. All functions of a VST effect processor or instrument are directly controllable and automatable.
- A complete suite of Steinberg VST effect processors is included with Cubase SL and SX and because VST is an open standard, new virtual effect processors and virtual instruments are constantly being developed by Steinberg as well as numerous third party companies including Antares, Waves, Waldorf, Native Instruments, IK Multimedia and many more.
- DirectX plug-in support is also available on the PC

Included VST Effects Processors

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VSTi (VST Instruments)

- VST Instruments are software synthesizers and sampler that are loaded into Cubase just like standard VST plugins.
- VST instruments can be triggered via MIDI, just like their hardware counterparts, and their audio outputs appear on separate channels in the Mixer, allowing you to add effects or EQ, just as with audio tracks.

Included VST Instruments

- Three VST instruments are included and numerous others can be purchased separately from Steinberg and third party manufacturers.
  - A1 – Analog Synthesizer Unit developed by Waldorf
  - VB1 – Bass Emulation Unit
  - LM7 – 24-bit Drum Sampler Unit

MIDI Plug-in Effects

- A number of realtime MIDI effect plug-ins are included for transforming and generating MIDI events in a variety of ways.
- MIDI effects can be applied in real time to the MIDI data played back from the track or can be inserted while playing live on your MIDI keyboard - an inspiring performance tool.
- Just like any other parameter in the Cubase mixer, MIDI plug-ins can also be fully automated.
- MIDI Plug-ins Effects Include: Arpache (Arpeggiator), AutoPan, Chorder (create chords from single keys), MIDI Echo, Microtuner, Quantize, Step Designer (step sequencer), MIDI Compressor, and many more.

ReWire 2.0 Support

Stream up to 64 audio channels between ReWire compatible applications, such as Propellerhead's Reason and Rebirth, and Cubase with sample accurate synchronization. Audio outputs from the ReWire compatible application are connected via Rewire to the VST mixer, allowing VST Effects, EQ and Dynamics to be applied in real time. MIDI-streaming between applications — the ReWire application shows up in Cubase as a MIDI out port, ready to trigger. Use Cubase to control the ReWire apps transports.
Sample Editor

Even though you can do most of your editing directly within the Project window, an integrated Sample Editor is included for editing mono and stereo audio files. The Sample Editor allows viewing and manipulating of audio data at the Audio Clip level. Functions such as cutting and pasting, removing or drawing audio data is fully “non-destructive”, in the sense that you can undo changes or revert to the original versions at any point, using the Offline Process History. Any audio clip can be permanently edited and changed with full backup, plus multi-level undo and redo. A number of integrated non-destructive audio processes are provided for optimizing and even resynthesizing audio files: Acoustic Stamp, Crossfade, Envelope, Fade-Ins and Outs, Gain Change, Normalize, Phase Reverse, Pitch Shift and Timestretch, DC Offset removal, Reverse and Stereo Flip.

Sample Editor tools include: the selection tool for creating regions within an audio clip; the magnifier tool; The Pencil tool allows you to manually edit out a spike or click; and the Scrub tool which allows you to locate positions in the audio by playing forwards or backwards at any speed.

The Thumbnail display provides an overview of the whole Clip.

The Info Line shows all relevant information about the edited Audio Clip.

The Loop Editor

- The Loop Editor allows you to automatically match the of an audio phrase or loop to your song's tempo by applying time compression and expansion to short audio-segments contained with the audio file.
- Audio segments can be created automatically or by manually — the phrase or loop is analyzed and then segments are generated using the audio file's transients as markers.
- You can then make tempo changes to your song in real-time and your audio playback will follow.
- Use odd meters and loops of unlimited length when mixing.
- You can combine a number of loops with different feels and tempi and conform them to your song's tempo.
- Match the groove of MIDI tracks to looped audio or vice versa. Quantize the groove of looped audio.
- Re-arrange grooves by exchanging single samples inside your loop.
- The Loop Editor is also provides an easy auto cutting and match quantizing of single words from vocals takes.
**MIDI Editing**

**Key Editor**
- The Key Editor / Piano-roll Editor features many standard functions for manipulating MIDI note and event data. You can Draw, Move, Copy, Delete, Mute, Size, Transpose and change Velocity for note-events.
- The Multi-Lane Controller Editing functions allow simultaneous editing of various controller data sets at the same time.
- The Mathematical Curve Function (such as parabola, sine, triangle, square) allows you to draw precise Controller data curves quickly and easily.
- Step Recording allows recording events offline by inputting notes via MIDI-in at the start position and automatically stepping these to the next Grid point (e.g. 1/16th). This allows the easy creation of musical lines that are difficult or impossible to play.

**Drum Editor**
- The Drum Editor features standard editing functions (Draw, Move, Copy, Delete, Mute, Size, Transpose note-events, Velocity and Controllers) as well as Drum Map support allows you to assign sound names (e.g. kick, snare) to notes.
- Each sound or notepitch can have its own settings for Quantize, Output and Channel.
- The Drum Editor also provides access to the same Multi Lane Controller Editing, Mathematical Curve and Step Recording functions found in the Key editor.

**Logical Editor**
- The Logical Editor allows you to find certain MIDI events, based on defined criteria and conditions. You can then manage and edit this data using the list of available actions.
- Applications range from simple MIDI event filtering to complex tasks such as changing the scale of a piece of music from minor to arabian.

**List Editor**
- The List Editor allows all data (MIDI, Audio events, Automation, etc.) to be edited numerically.
- It provides an overview of the whole project so that you can easily browse through all of the project’s tracks. This allows very precise control when adjusting the ‘fine detail’ like sample-accurate positioning of multiple data types.
- The event display shows the events graphically while the value display shows the “value” of each event, allowing for easy viewing and graphical editing.
- The information available in the List Editor Includes: Event Type; Start and End position; Length; Data 1 and Data 2 (eg. pitch and modulation); Channel and Comment.
- Single and multiple events can be muted and unmuted using the dedicated Mute Tool.

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**Steinberg Technology**

**ASIO**
- ASIO (Audio Stream Input/Output) is a high performance, low latency audio driver architecture that forms the backbone of Steinberg’s Virtual Studio Technology. ASIO was developed to deliver a truly professional audio recording solution — one that supports variable bit depths and sample rates, multi-channel I/O and synchronization — all within a native computer environment.
- ASIO is a supported standard by many leading audio hardware manufacturers including MOTU, M-Audio, Tascam, Edirol, Steinberg and many more.

**VST System Link**
- VST System Link is a platform independent communication protocol that provides sample accurate networking of several computers running VST System Link-compatible host applications including Cubase SX, Cubase SL and Nuendo. It enables synchronization, transport control and audio data between two or more workstations over standard digital audio cabling systems such as ADAT, TDIF, AES/EBU or S/PDIF.
- Expandability, Flexibility and connectivity for your virtual studio — exploit the DSP resources of multiple computers within a single project.

**Accurate MIDI Timing with LTB**
- LTB (Linear Time Base) is a multi-channel communication protocol which offers sub-millisecond MIDI timing accuracy.
- LTB is a MIDI Time Stamping technique that bypasses the computer’s operating system and thus significantly reduces latency.
- LTB is utilized by the MIDEX series of hardware MIDI USB interfaces to offer the lowest latency of any MIDI interface available.
- Supported by Cubase SL and SX as well as Nuendo.
**STEINBERG**

**WaveLab 5.0**

**2-Track Digital Audio Editor for Windows**

Professional audio editing and mastering software for Windows, WaveLab 5 can handle almost any audio editing task—be it internet audio, multimedia applications, and preparing audio for broadcasting. With its unique Audio Montage window, you can create audio montages and carry out precision edits in real-time. Use fades, crossfades, volume envelopes or effects without having to wait. The full implementation of multitasking allows editing and processing in the background during playback. Even save or record while working on a different file.

WaveLab 5 features drag & drop and a customizable user interface, and you can freely scale all windows. Comprehensive CD burning capabilities, real-time audio file analysis and batch processors add to the functional depth of WaveLab 5. Also supports samplers, ASIO, WDM, a range of file formats, up to 32-bit/192 kHz resolution and real-time input and output monitoring. Finally, the latest version includes a complete set of DVD Audio mastering and authoring tools. The DVD Audio burning capabilities also include video data, DVD Audio extraction, conversion, and archiving. There is support for up to eight audio channels throughout the entire signal chain for surround recording, editing, processing and mastering, a “Smart” Video Thumbnail Track for editing audio for video, track-based insert effects, multi-channel metering, and support for Steinberg Surround Edition plug-ins.

**FEATURES**

**Highest Quality Sound**

WaveLab 5 offers outstanding sound quality. The internal 32-bit floating processing depth with a sample rate of up to 192 kHz offers superb audio clarity. Apogee’s renowned professional UV22HR dithering algorithm converts your audio into other bit rates at the very last step in the mastering process.

**Powerful Real-Time Analysis Tools**

WaveLab 5 features a broad palette of professional analysis tools. Thanks to newly developed high-precision level indicators, you can visually monitor playback audio input and even each single sample position—in real-time, of course. Also included are a new version of the Peak/VU Meter (now free-floating), a 60-band spectrum analyzer and Phasescope, a correlation meter with integrated goniometer. With the FFT meter, you can also, for example, test rooms or PA systems.

**Audio Montage**

The Audio Montage window is the heart of WaveLab 5. Here, audio files and sections of audio are defined, arranged and edited. Open as many clips as many tracks as you want simultaneously in the audio montage and place, move, cut, fade or crossfade them any way you like. Crossfades, panorama, volume edits and effect send levels are calculated in real-time. You can change the "rubber band" curves with the mouse: hear and see the changes you make straight away - without creating fade files that have to be calculated first.

The Audio Montage is absolutely non-destructive, as the clips are only references to the original audio files. This gives you the flexibility of being able to move, cut or delete clips. Each clip can be processed using up to ten VST effects. The sum of all the tracks then passes through the Master Section, where another eight real-time effects (VST, WaveLab, Direct X) are available. Unlimited undo/redo lets you take back any edits or changes you have made.

**Integrated Mastering Studio**

WaveLab 5 offers everything you need to give your audio the finishing touches it deserves: a graphic, editable, fully parametric equalizer, a top level reverb algorithm, comprehensive dynamics section as well as special high-end loudness optimization algorithms. Also built-in are two plugins for restoration of audio recordings, Declicker and Denoiser. Using virtual effect processors in the Master Section couldn’t be easier - you can drag & drop the plug-ins around and place them into the desired position in the processing chain. To help you compare results of different effect combinations easily, you can open several instances of WaveLab 5 at the same time.
**Burn Your CDs**

WaveLab 5.0 makes burning CD masters easy. You can set track and index markers directly in the waveform, including extremely accurate settings for codes and pauses. The integrated Label Editor lets you make your own CD labels and covers. The backup tool lets you archive your audio files to hard drives, CDs and JAZ. Also features audio-in-pause function for creating hidden tracks, 1:1 CD copying, ISO import and export, PQ sheet import, export and printing.

**Transparent File Management**

With its integrated audio database and batch processors, WaveLab 5 takes care of routine tasks. Organizing sound archives or databases is simple. These versatile tools can edit and convert audio files automatically. Using them couldn’t be simpler - just select your audio files, choose the editing functions and set your destination folder. Meta Leveler can be used during batch processing to compensate undesired volume fluctuations.

**Audio file formats**

Supported file formats include WAV, AIFF, Ensoniq Paris 24-bit, RAW (8/16/20/24 bit), AU, Sound Designer II, ulaw, MP3, Sun/Java and many more…

**Additional Functions**

- ASIO, WDM and MME driver support
- Analyze audio signals in real-time: Level/Pan, Phase, Spectrum Analyzer, FFT Meter, Wave Meter, Bit Meter
- Full real-time input and output monitoring
- High-quality virtual effect processors Q (parametric 4-band mastering EQ), Multiband Compressor, Spectralizer (Enhancer), Denoiser, Declicker, Voice Attenuator, 192 kHz Resampler
- Backup function, data CD burning, CD copy, CD label creation
- OSQ (Original Sound Quality) - lossless audio file compression
- Save several audio files in the background while you continue working
- Apogee UV22HR Dithering
- Automatic pitch recognition and pitch adjustment
- Autosplit function splits audio files into segments with a range of different criteria

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**Steinberg Studio Case**

WaveLab 5.0 is Steinberg’s complete music producer’s software collection. It includes Cubase SE, HALion SE, Virtual Guitarist Electric Edition SE, Groove Agent SE, The Grand SE, and D’cota SE.

Cubase SE, a powerful music workstation software application that’s based on the successful Cubase SX, offers all of the essential features found in Cubase SX and SL.

**The Complete Music Producers’ Collection**

Beginners, crossgraders, hobby musicians and users of Cubase SX and/or VST System Link alike will be stunned by this complete music production package, which includes a high-performance sequencer and five fantastic-sounding VST instruments. The package includes Cubase SE (the new music production software based on award-winning Cubase SX technology and featuring 48 audio tracks as well as full VSTi support), and SE versions of 5 great VST instruments: HALion, The Grand, Virtual Guitarist Electric Edition, D’cota and Groove Agent, all of which can be upgraded to the full versions at an time. This software collection is available for Mac and PC users at an unbelievable price.

---

**Cubase SE**

The complete music production suite for your studio! Cubase Start Edition combines powerful audio and MIDI recording features with professional editing and effects. Start creating your own music with a system that is fully compatible with the Cubase family of products that are used in high-class studios around the world.

**HALion SE**

The backing part specialist. This 4-way timbral version of Steinberg’s HALion Sampler includes the Wizoo Composer Library and features HALion and Soundfont import, letting you play literally millions of sampled instruments.

**Virtual Guitarist Electric Edition SE**

Steinberg’s next-generation multiple synthesis VST instrument supplies punchy basses, biting leads and massive pad sounds.

**Groove Agent SE**

Forget about tedious drum programming. Groove Agent is your personal virtual drummer, providing you with ready-to-go drum tracks, live feel and extraordinary real-time control.

**D’COTA SE**

Steinberg’s next-generation multiple synthesis VST instrument supplies punchy basses, biting leads and massive pad sounds.

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**The Grand SE**

The Grand SE is a great-sounding acoustic grand piano with 4 characters (Natural, Soft, Bright and Hard) to suit any musical style.

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SONY

SOUND FORGE 7.0

Professional Digital Audio Recording, Editing and Mastering Software for Windows

The industry-standard for audio recording, editing, effects processing and streaming media creation, Sound Forge is used worldwide for production in leading recording studios, post-production houses, broadcast facilities, radio stations and home studios. It includes over 35 realtime audio effects and processes with more than 200 presets for manipulating audio, and supports a wide range of audio and video file formats, including Windows Media, RealMedia, QuickTime and MPEG 1 & 2. Version 6.0 expands on a decade of leadership by adding features that make it faster and more powerful than ever.

From non-destructive editing to new formats for import and rendering, Sound Forge 6.0 provides the most intuitive and efficient digital audio editing environment available for media professionals worldwide. Features include realtime non-destructive editing, modeless audio plug-in chainer, multitask background rendering, 32-bit/64-bit float/192kHz file support, enhanced time zoom, fully customizable tool bars, tabbed docking windows and DirectX plug-in manager.

FEATURES

Fast, Powerful Audio Editing

Sound Forge provides the power and flexibility you need to create a clean, professional final product—cut, paste, and delete audio with extreme speed and accuracy — down to the sample level. Sound Forge 6.0 combines fast and powerful non-destructive editing with simple drag and drop operation, allowing you to focus on your project and not time. And a fully customizable interface allows you to build projects the way you want. Also supports standard Windows keyboard commands and mouse shortcuts.

◆ Edit, record, process, and encode audio on your PC
◆ Cut, paste, move, mix, delete, mute, reverse, fade, and cross fade audio
◆ Drop markers during playback or while editing. Create custom marker names and use them for creating regions and loops.
◆ Edit files down to the sample level. Sound Forge has a 24:1 zoom ratio, allowing you to perform more precise, sample accurate editing. View, select, edit, and snap to sample selections. You have more control over your audio editing than ever before.
◆ Import and save 32-bit files (record them if your hardware supports 32-bit recording)
◆ Multitask background rendering lets you work on one file while Sound Forge processes another—saving you valuable production time. Open, play, preview, cut, copy, paste, and delete files while other project files render in the background.
◆ Customize your toolbars to create the interface you want for quick access to commonly used functions.
◆ Dock floating windows, including, regions list, playlist, keyboard, play meters, and time display, individually or on top of each other.
◆ Customize your toolbars to create the interface you want for quick access to commonly used functions.
◆ Use an unlimited number of undos/redos to restore a file to any previously edited state.
◆ Synchronize audio and video, frame by frame for streaming media productions and multimedia presentations.
◆ Create and edit ACID loops. Permanently assign root notes, number of beats, and tempo to ACIDize new loops.
◆ Trigger audio playback via MIDI commands from any MIDI software or hardware device.
◆ Use the Spectrum Analysis tool to analyze waveforms by frequency and help identify noise problems.
◆ Use the Preset Manager to back up, transfer, and organize your favorite presets (even ACID presets). Save time in accessing most commonly used settings.

Audio Effects and Processing

◆ Choose from 35 audio effects (including Amplitude Modulation, Chorus, Dynamics, Delay/Echo, Flange/Wah-Wah, Distortion, Envelopes, Gapper/Snippet, Noise Gate, Pitch Bend/Shift, Reverb, Vibrato and more) and processes with over 200 presets, including 18 DirectXAudio Plug-Ins from Sonic Foundry's XFX1, 2 and 3 series.
◆ Use the Audio Plug-In Chainer to chain multiple plug-ins together and hear the results immediately.
◆ Use the DirectX Plug-In Manager to customize folders and rename audio plug-ins.
◆ Apply acoustic responses of real environments such as concert halls, caves and stairways with the Acoustic Mirror plug-in.
◆ Wave Hammer mastering tool limits dynamic range, adds punch to recordings, and boosts signal levels without clipping
◆ Audition effects before applying them and make "before and after" comparisons
◆ Use Time Compress/Expand to easily turn 33 seconds of narration into a 30-second spot without altering the pitch.
◆ Use the Spectrum Analysis tool to perform precise FFT analysis, and display resulting data in two graphical formats. Use the Spectral Graph to monitor input or playback in real-time.
Protected Work Environment

Sound Forge includes crash recovery tools, which allow you to recover lost work after a power failure or system crash. Also includes a powerful undo/redo history feature, which allows you to see your entire work history at a glance and undo edits.

Powerful Encoding Tools

- Encode your audio files for the Internet in RealAudio, Windows Media, and MP3 formats. You can even encode video, insert metadata command markers, launch web sites, display captions, and embed URL flips into your audio and video streams.
- Render audio to just about any file format including WAV, ASF, RM, MP3, WMA, and AVI, eliminating the need for another program to perform file conversions.
- Sonic Foundry’s Batch Converter 5.0 utility allows you to apply the same process across multiple files automatically.

CD Features

- Rip audio from CDs, transferring music to your hard drive, and save files in MP3, WAV, and WMA formats.
- Create your own audio CDs. Sound Forge includes track-at-once CD burning, allowing you to take your audio projects with you and share them with the world.

Video Features

- Video render options include fast video resizing, source video resampling, and video stretching.
- Sync audio with video at sub-frame accuracy. With external monitor previewing through IEEE1394 devices and more render options than ever, Sound Forge is the perfect companion to your video editor.
- If you’re new to the world of digital video, Sonic Foundry’s bundled Vegas Video LE 3.x provides the perfect introduction to professional DV and audio production.
- A professional digital video and audio multitrack editor, Vegas Video LE 3.x lets you add up to eight tracks of video, apply effects and transitions, and time-stretch audio and video. Perform edits in real-time and hear the results immediately.

Sound Forge Studio

Incorporating much of the award-winning technology found in Sound Forge, this streamlined version makes it easy to record, edit, and process audio using your PC. Record from a CD, microphone, LP, cassette, or musical instrument, and then edit your recording using a wide range of tools and effects. Liven up presentations, recordings, and music using over 30 digital audio effects and processes, including 1001 Sound Effects. Create your own “Best Of” audio CDs using track-at-once CD burning.

- Edit files in real-time and hear the changes immediately. Sound Forge Studio includes dozens of editing tools including: cut, paste, move, delete, mute, reverse, crossfade, trim, normalize, fade, resample, pan, enhance, insert silence, and more.
- Sound Forge Studio includes a 10-band EQ, reverb, delay, distortion, mute, reverse, fades, crossfade, pan, volume, normalize, and more.
- Free sound effects library lets you enhance your audio with over 1,000 professional-quality sound clips - from explosions and flying saucers to animals and spooky noises. This royalty-free library is perfect for presentations, PowerPoint presentations, and web sites.
COOL BREEZE
PRODUCT TRAINING CDs

Software and Hardware Media Systems for the Creative Mind

Cool Breeze's CSI (Cool School Interacts) series of CDs provide an easy-to-use and intuitive learning environment. The structure of the CSI CD allows the user to go at his own pace. A flexible interface encourages each user to customize his learning path depending on his personal needs and desires. The novice through the veteran will find great benefit in using these CDs. Made up of system designers, engineers, acousticians, programmers, musicians, composers and graphic artists, Cool Breeze offers over 20 years of combined experience in digital audio operations, training, slugging’ brews and systems design.

SONAR 3 CSi Starter
If you're ready to use SONAR to create amazing music but aren't sure where to begin, this interactive CD will give you the hands-on tips you need to get up and running quickly. Cover a basic production from start to finish as you develop the skills you need to get down to the business of producing a song. Movie tutorials include not only functionality, but also production techniques, special shortcuts, key commands, and before and after audio examples. Offering an easy-to-use and intuitive learning environment, sit back and watch a DAW pro show you the ins and outs and then switch over to your own DAW to try out each concept yourself! Use the quizzing feature to test your skills along the way.

Digital Performer
Get ready for a comprehensive introduction to the many features of Digital Performer 3 as well an overview movie tutorial of new features DP 4. Sit down with a DAW pro and learn operational techniques and feature options. The CSi Browser interface includes screen element definitions with click-state pop-up simulations for the Control Panel, Tracks Window, Sequence Editor, Mixing Board, Graphic Editor, Soundbite Window, and Menus. There is a massive glossary of DAW-related terms and numerous movie tutorials. The CSi movie tutorials are designed to include not only basic functionality, but also production techniques, special shortcuts, key commands, and before and after audio examples.

Desktop Audio
A powerful guide covering the basics of sound production on a computer, whether you’re into music, post-production or multimedia. Learn the many concepts, elements, products and possibilities - and gain the knowledge to put together the system that’s right for you. Topics covered: goals (where the authors help you state your mission, and explain & categorize the different types of software and hardware), sound, computers & operating systems from the audio perspective, MIDI, digital audio, DAWs, plugins, synchronization, system set-up & upkeep, even studio furniture, and much, much more. Includes a searchable glossary of over 1,200 digital audio related terms, and is packed with swingin’ music, top-notch graphics, excellent interactive examples, flow charts, pictures, animations, before and after audio examples, video, diagrams, and info-packed movie tutorials!

Digital Performer 4 CSi Master
If you’ve been using Digital Performer and want to get more out of your rig, then Digital Performer 4 CSi Master is the product you’ve been searching for! Get ready to master the key operational techniques and cool features of Digital Performer 4 with this interactive CD-ROM. If you’re a new user, the Introduction topic will take you through set-up, first record, edit, and mix. The CSi movie tutorials include not only functionality, but also production techniques, special shortcuts, key commands, and before and after audio examples. Digital Performer 4 CSi Master offers an easy-to-use and intuitive learning environment. Sit back and watch a DAW pro show you the ins and outs and then switch over to your own DAW and try out each concept yourself. Use the quizzing feature to test yourself along the way!
Pro Tools LE CSi Starter
Are you ready to jump in and learn the basics of Pro Tools LE? This interactive tutorial CD-ROM is the ideal tool for hands-on learning! Pro Tools LE CSi Starter takes you through a basic production from start to finish and shows you how to get down to the business of producing a song. Sit back and watch a DAW pro show you the ins and outs and then switch over to Pro Tools and try it yourself. The CSi Movie Tutorial interface provides an easy-to-use and intuitive learning environment, as well as a title bar that allows you to position it on your screen and easily switch between your DAW and CSi tutorials. Pro Tools LE CSi Starter also includes a quizzing feature so that you can test your newfound skills as you go.

Pro Tools 6 CSi Master
Get ready to master the key operational techniques and cool features of Pro Tools 6 with Pro Tools 6 CSi Master. This hands-on, interactive CD-ROM includes a multitude of movie tutorials that include not only functionality, but also production techniques, special shortcuts, key commands, and before and after audio examples. If you're a new user, the Introduction topic will take you through set-up, first record, edit, and mix. The CSi Movie Tutorial interface offers an easy-to-use and intuitive learning environment. View a movie tutorial in CSi, then instantly switch over to Pro Tools and try it yourself. It's the ideal way to jump right in and put Pro Tools to work for you!

Waves Plug-Ins CSi Master
Whether you are a newbie or an experienced user, Waves Plug-Ins CSi Master will help you understand the functionality and operation of key Waves plug-in processors. This training and tutorial CD-ROM covers basic concepts, button and element definitions, and production techniques, and includes before and after audio examples. If you prefer the "show me" style of learning, then CSi Movie Tutorials are for you. Sit back and watch a DAW pro show you the ins and outs of driving plug-in processors in sound production. Cover plug-ins from the Waves Gold, Platinum, Native, Renaissance, Broadcast, Maxx, Transform, Masters, and Restoration bundles.

Logic Audio
Get more out of EMAGIC’s Logic Audio - the interactive way! Get hip to the basic concepts, operational ins and outs, and new features. CSi vol. 4 combines the Cool Breeze vibe with the practical expertise of Logic Audio pros. CSi tutorials are designed to include not just basic functionality, but real-world production techniques as well. You’ll get coverage of Logic Audio applications, system requirements, hardware and software configurations and set-up, concepts of Logic Song, Audio Objects, Instruments, Ports, Screen sets, and much more!

Audio Plug-Ins CSi Master
Are you ready to master the functionality and operation of virtual effects processors? Then Audio Plug-Ins CSi Master is the product you’ve been searching for! This interactive CD-ROM is full of movie tutorials covering basic concepts and production techniques to help illustrate the effective use of today’s most commonly used plug-in products. You’ll cover plug-ins from Bomb Factory, Digidesign, Drawmer, Focusrite, IK Multimedia, Line6, McDSP, Metric Halo, MOTU, TCIWorks, Waves, and Universal Audio. CSi movie tutorials provide an easy-to-use and intuitive learning environment. You’ll quickly master each concept as you watch a DAW pro show you the ins and outs of driving plug-in processors in sound production.
STUDIO MONITORS

EVENT ELECTRONICS TR5/TR8

Tuned Reference Bi-amplified Direct Field Monitor Systems

Like their names intimate, the TR (Tuned Reference) 5 and 8 monitors are precision tuned to provide flat frequency response and uncolored sound, giving you a true sonic reference for mixing. So when you mix on a Tuned Reference monitor, you know your mixes will translate accurately to other playback systems. However, you might think that this level of mix precision comes at a high price. But thanks to a powerful new ultra-efficient amplifier (actually two of them, since these are biamped systems), they are able to bring you high definition, non-fatiguing monitoring at prices so low they’re downright silly. But don’t let the cost fool you: The TR series monitors are filled with time-tested Event technology, and designed by the same engineering team behind their full line of critically-acclaimed monitors.

S·5 Active Studio Monitor

The Tapco S·5 is a compact, bi-amplified monitor that features dual high-precision internal amplifiers providing a total of 120 watts RMS (60 watts for the woofer and 60 watts for the tweeter). A 5.25” woofer delivers punchy bass output and extremely detailed midrange, while a 1” waveguide-loaded silk dome tweeter provides smooth, non-fatiguing high end. Rear panel controls on the S·5 allow for acoustic tailoring with low-frequency boost and high frequency cut/boost switches. Inputs include 1/4˝ TRS/XLR balanced and RCA unbalanced.

- Flat frequency response (64 Hz to 20kHz)
- 1-inch silk dome tweeter, fully magnetically shielded
- 5.52-inch polypropylene cone woofer, fully magnetically shielded
- Ported, bass reflex design for enhanced bass performance
- High strength cabinet constructed with 5/8˝ MDF composite and 3/4˝ front board with radiused edges
- 60-watt HF and 60-watt LF power amplifiers
- Front panel clipping indicators
- High-density adiabatic foam absorbs internal reflections
- Full magnetic shielding allows placement near computer monitors
- Balanced XLR and 1/4˝ TRS, and unbalanced RCA input connectors
- 24 dB/octave crossover at 4 kHz
- Adjustable sensitivity control
- LF equalization provides +2dB or +4dB at 65Hz
- HF equalization provides ±2dB at 5 kHz and above
- Rear panel power switch with front panel indicating LED
- Small footprint, perfect for desktop applications

ONE HOUR FREE PARKING
AT 349 W. 34th STREET (with purchase of $100 or more)
STUDIO MONITORS

MACKIE HR624/HR824

6.7” and 8.75” 2-Way Active Near-Field Monitors

One of the most accurate near-field monitors ever built, thousands of recording studios and post-production facilities rely on the HR824 to reveal details that comparable monitors simply cannot resolve. Frequency response is an astonishing 38Hz to 20kHz ±1.5dB. To achieve such a sweet spot and smooth response, the HR824 uses technology not found in typical vented-box near field monitors. A cast zinc exponential waveguide disperses sound evenly and integrates the output of the HF and LF drivers. Its servo-coupled LF transducer works in conjunction with a rear-firing passive transducer to extend low octaves and eliminate vent noise. The HR824 uses two separate high-current amplifiers with discrete circuitry. And it is fully stuffed with dense foam to fully damp internal vibrations before they can escape through the LF transducer.

Employing the same acoustic technology as the HR824, but in a compact version, the HR624 is deal for rear surround sound channels in existing HR824 front left/right systems or as a main monitor system in control rooms and editing suites where space is at a premium. When using the HR624 as the primary monitor in project rooms or off-line editing suites, mixes will flawlessly transfer to an “A” room that employs HR824’s. The HR624 is flat ±1dB from 55Hz to 20kHz.

**FEATURES**

- Wave guide technology matches the high frequency dispersion pattern to the bass transducer for a seamless midrange transition. Furthermore, the high frequency transducer is recessed, providing acoustic alignment of high and low frequencies.

- 1” MDF (Medium Density Fiberboard) front board. Internal cavity is filled with high-density foam to absorb the internally-projected midrange before it can exit through the low frequency transducer cone.

- 1” high-frequency aluminum dome driver with ferrofluid-cooled voice coil.

- 6.7” (HR624) or 8.75” (HR824) RCF Precision low frequency transducer with mineral-filled polypropylene cone, die-cast magnesium frame and extra-long-throw voice coil are servo-coupled with a dedicated 100-watt or 150-watt amplifier.

- High frequency shelving control adds or attenuates frequencies above 10kHz by 2dB.

- 40-watt (HR624), 100-watt (HR875) high frequency amplifier. Proprietary Fast Recovery circuitry prevents latching when the amps are driven at their maximum.

- Low frequency switch with 49Hz (full range) and 80Hz roll-off settings (HR624); 37Hz (full range) 47Hz and 80Hz roll-off settings (HR824).

- Magnetic shielding.

- Input sensitivity control, ideal for dealing with sensitive artists or insensitive clients.

- Acoustic space switch allows bass optimization when placed freestanding (full space), against back walls (half space), and corner placement (quarter space).

- Overload LED indicates when protection circuitry kicks in.

- Three mode power switch: On, Auto On (with front panel clipping LED and a signal present/power indicator), and standby.

- XLR and TRS jacks accept virtually any line-level input from a mixing console.

- Power cord and all inputs (balanced XLR and 1/4” TRS, unbalanced RCA) are mounted on a downward-facing, vertical panel. This allows speaker placement close to walls and eliminates strain on the connectors.
STUDIO MONITORS

M-AUDIO BX5/BX8

Reference Monitors
The latest in the popular Studiophile series, the BX5 and BX8 deliver exceptional quality and professional sound. They offer 5.25” (BX5) and 8” low-frequency drivers (BX8), 1” high-frequency drivers, and 75 or 130 watts of bi-amped near-field technology at a fraction of the cost of other monitors of this quality. The 1” natural silk high-frequency drivers employ a flush design and electronic time alignment with the low-frequency driver, resulting in controlled dispersion for superior three-dimensional imaging. The tooled rear Sub-Frequency Ports reduce low-frequency turbulence and optimize driver excursion for amazing bass in a small footprint.

Monitors that adapt to your needs
Your monitors should be able to adapt to any changes in placement or work environment. That’s just what the BX5 and BX8 do. Since a monitor’s bass response can change depending upon proximity to walls, their Acoustic Space control section allows you to optimize their performance—no matter whether you need to put them on stands, on a bookshelf or in the corners. You can also adjust the high-frequency response to compensate for reflective surfaces like glass. The presence control gives you an automatic mid-range boost for added flexibility. There’s even a variable low-frequency roll-off to optimize response at crossover points when adding a subwoofer like the SP-8S.

STUDIOPHILE LX4 SURROUND SOUND SYSTEM

2.1 Monitoring System Easily Expands to 5.1 Surround

Consisting of the Studiophile LX4 2.1 System and Studiophile LX4 5.1 Expander, together they comprise the Studiophile LX4 Surround Sound System. The Studiophile LX4 2.1 System offers two satellites and a subwoofer for high performance 2.1 monitoring. The subwoofer contains the active crossover matrix for both the 2.1 system and the completely expanded 5.1 system. The integral 125-watt power amp houses enough power for the full surround system—60 watts for the subwoofer and 27 watts for each of the 5 satellites in the full LX4 Surround Sound System. The ported design of the subwoofer cabinet combines with the 8” woofer for a formidable bass experience. The passive satellites contain a 4” polypropylene woofer and 1” mylar high-frequency drivers.

The Studiophile LX4 5.1 Expander is a separate package comprised of three additional LX4 passive satellites. These simply connect to the subwoofer of the LX4 2.1 System to complete the LX4 Surround Sound System. Combined with their compact size, the passive design of the satellites is also a plus because many people find it challenging to route AC from the same circuit all over a room for active surround environments.
PLEASE FILL IN ALL INFORMATION:

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City: ___________________________ State: __________________________ Zip: ____________ Country: __________
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Name: __________________________ Address: __________________________ Apt. ________
City: ___________________________ State: __________________________ Zip: ____________ Country: __________
Phone: __________________________ Fax: __________________________ e-mail: __________________________

Date: ______________ Amount Enclosed: $ ______________ I can be reached during the day at: ______________

☐ Check ☐ Money Order ☐ AmEx ☐ MasterCard ☐ Visa ☐ Discover

Bank Issuing Card: ______________ Exp: ______________

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SHIPPING: See next page for shipping information

N.Y. STATE CUSTOMERS: ADD LOCAL SALES TAX OF YOUR AREA

TOTAL

Signature: __________________________

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## Shipping, Handling & Insurance

### U.S.A. WITHIN THE FOLLOWING ZIP CODE RANGES

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<td>56503-59999</td>
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<tr>
<td>00900-00999</td>
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<td>00800-00899</td>
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<tr>
<td>96799-96799</td>
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</tr>
<tr>
<td>60000-63999</td>
<td>Min. $6.95 for 1st lb. (orders under $100 is $4.45 for 1st lb.) Add 65¢ for ea. add. lb.</td>
<td>Min. $12.00 for 1st lb. Add $1.85 for ea. add. lb.</td>
<td>Min. $27.00 for 1st lb. Add $3.25 for ea. add. lb.</td>
</tr>
<tr>
<td>96800-96897</td>
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<tr>
<td>99500-99999</td>
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<tr>
<td>99600-99699</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

### UPS 3-DAY SERVICE

- (3-5 day delivery time) (insurance add 50¢ per $100 for all zones)
- Min. $6.95 for 1st lb. Min. $6.95 for 1st lb. Min. $7.95 for 1st lb.

### UPS 2-DAY SERVICE

- (2nd Day Service to 50 states, 3 day to P.R.) (insurance add 50¢ per $100 for all zones)
- Min. $12.00 for 1st lb. Min. $12.00 for 1st lb. Min. $14.00 for 1st lb.

### UPS NEXT DAY SERVICE

- (Overnight Service to 50 states and P.R.; U. S. Territories 3-5 days) (insurance add 50¢ per $100 for all zones)
- Min. $27.00 for 1st lb. Min. $27.00 for 1st lb. Min. $32.00 for 1st lb.

### Truck/Air Freight

- Min. $150.00 up to 250 lbs. Min. $175.00 up to 250 lbs. Min. $200.00 up to 250 lbs.
- Insurance 50¢ per $100 Insurance 50¢ per $100 Insurance 50¢ per $100

### Priority Mail

- (Up to $1000 value) (insurance add $1.25 per $100 for all zones)
- Minimum $18.00 for 1st lb. Minimum $25.00 for 1st lb. Minimum $25.00 for 1st lb.
- Add $1.75 for each add. lb. Add $3.00 for each add. lb. Add $1.50 for each add. lb.
- Insurance 50¢ per $100 Insurance 50¢ per $100 Insurance 50¢ per $100

### Express Mail

- (Up to $5000 value) (insurance add $1.25 per $100 for all zones)
- Minimum $30.00 for 1st lb. Minimum $35.00 for 1st lb. Minimum $35.00 for 1st lb.
- Add $3.25 for each add. lb. Add $4.00 for each add. lb. Add $4.00 for each add. lb.
- Insurance 50¢ per $100 Insurance 50¢ per $100 Insurance 50¢ per $100

### International (By Country Range)

- **Canada**
  - Min. $18.00 for 1st lb. Add $1.75 for each add. lb. Insurance 1.25¢ per $100.
  - Min. $25.00 for 1st lb. Add $3.00 for each add. lb. Insurance $1.25 per $100.
  - Add $1.50 for each add. lb. Add $1.25 for each add. lb.
  - Insurance 50¢ per $100

- **International**
  - **China, Hong Kong, Japan, Singapore, Indonesia, Malaysia, Pakistan, South Korea, Bangladesh, Philippines, Taiwan, Thailand**
    - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
    - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
    - Add $4.00 for each add. lb. Add $4.00 for each add. lb.
    - Insurance 50¢ per $100

- **Australia**
  - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
  - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
  - Add $4.00 for each add. lb. Add $4.00 for each add. lb.
  - Insurance 50¢ per $100

- **Africa, Rest of Asia, Eastern Europe, Pacific Islands**
  - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
  - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
  - Add $4.00 for each add. lb. Add $4.00 for each add. lb.
  - Insurance 50¢ per $100

- **India**
  - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
  - Min. $25.00 for 1st lb. Add $5.00 for each add. lb. Insurance $1.25 per $100.
  - Add $4.00 for each add. lb. Add $4.00 for each add. lb.
  - Insurance 50¢ per $100

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