





The Professional Audio

SourceBook

Section 5

All-In-One Workstations

Akai	514-516
Fostex	517-519
Korg	521-523
Roland/Boss	524-532
Tascam	533-535
Yamaha	536-541
Zoom	542-545

DPS24

24-Track Digital Personal Studio

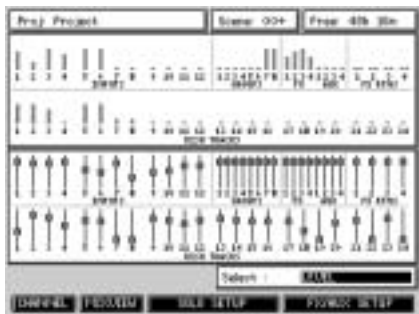
The DPS24 is a self-contained digital studio that takes the professional recording, mixing, effects and editing capabilities of the DPS16 to an even higher level. For starters, the DPS24 combines 24-tracks of uncompressed 24-bit/96kHz random access recording and a 44 channel, 20 bus digital mixer with 100mm touch sensitive moving faders that support onboard dynamic and scene automation. A wide range of inputs and outputs are available right out of the box including 28 analog inputs and an MPLP (Multi-Purpose Light-Pipe) optical interface which can be used for 8 channels of ADAT lightpipe or stereo S/PDIF I/O. 12 rotary encoders allow you to adjust a channel's entire parameter set at the touch of a button. The system's user interface can be further enhanced with the included ak.Sys Track View utility which allows real-time track displays to be viewed on any Mac or PC computer with a USB connection.



FEATURES

24-Bit/96kHz Digital Recorder

- ◆ Supports 24-tracks of linear (uncompressed) 16/20/24-bit recording and playback at 44.1/48/88.2/96kHz
- ◆ Up to 20 tracks can be recorded simultaneously without compromise to the systems performance



- ◆ 24-track recording is supported via a special transfer mode designed to allow you to make digital transfers from other sources in a single pass
- ◆ A total of 256 virtual tracks, limited only by available disk space, can be freely assigned to any of the 24 physical tracks for playback

44-Channel Digital Mixer

- ◆ 44-channel digital mixer consists of 12 input channels, 24 disk tracks and 4 stereo effects returns
- ◆ Each channel features —
 - > Level, Pan, Solo and Mute
 - > Compressor/Limiter/Expander
 - > Noise Gate
 - > 3-band EQ (hi/low shelving, sweepable mid w/variable Q)
 - > L/R routing, Group 1 – 8 routing
 - > Four pre/post FX sends for accessing the internal FX
 - > Four pre/post FX sends for accessing external effects and/or Studio outs for talkback monitoring

12 Faders

- ◆ Twelve faders and Five fader banks
 - > Bank 1 controls the levels of the 12 inputs
 - > Bank 2 controls tracks 1-12
 - > Bank 3 controls tracks 13-24
 - > Bank 4 controls the Group/FX levels (Faders 1-8 control the Group Outs while faders 9-12 control the stereo FX returns)
 - > Bank 5 is a USER bank that allows the 12 faders to be customized by the user

Built-in Automation

- ◆ Both dynamic (moving fader) and scene automation are supported
- ◆ The twelve 100mm Q-Touch touch-sensitive moving faders provide full dynamic automation of level and pan, channel on/off, FX/AUX sends and FX select, with UNDO/REDO
- ◆ The Q-Touch technology makes recording and editing mix automation data as easy as touching and moving a fader. You can easily correct any mistakes made when recording automation — simply grab the fader, make the adjustment and the original control movement will be overwritten
- ◆ Automation parameters such as levels, mutes and pans can be enabled/disabled during automation recording allowing you to capture only what you want
- ◆ A RECORD SAFE mode allows you to protect automation on individual channels from being accidentally overwritten
- ◆ In EDIT mode, when you're moving bits and pieces of audio around, you have the option of including any automation data associated with the specified audio region. This allows you to maintain the integrity of the mix for that region

Analog Inputs

- ◆ Twenty four inputs divided into two banks provide a choice of –
 - > (Bank A) Twelve balanced mic/line inputs using XLR-1/4" TRS combo jacks
 - > (Bank B) Twelve balanced line inputs using 1/4" TRS jacks
- ◆ The desired input type can be individually selected with a push button switch located at the top of each channel strip, virtually eliminating the need for continual re-patching by allowing several devices to be connected at any once
- ◆ A Hi-Z instrument input on the front panel that overrides input 12 when a guitar or bass is connected
- ◆ Two RCA tape inputs are provided for patching cassette deck or CD player as well as two 1/4" AUX inputs for bringing in a sub-mixer or external effects processor
- ◆ Switchable phantom power is available for input channels 1-4
- ◆ Input channels 1 - 4 also offer separate balanced 1/4" TRS Send and Return jacks that can be used as
 - > Channel inserts for patching external dynamics and EQ processors
 - > Direct channel outputs
 - > Direct ADC inputs — When using external mic-preamps, the ADC inputs allow you to bypass the DPS24's input stage, and route signals directly to the 24-bit A/D converters

Non-Destructive Editing

- ◆ Non-destructive Copy, Cut, Erase, Insert, Paste and Move functions are supported, with 256 levels of undo/redo, using an edit "clipboard" in much the same way as computer-based applications
- ◆ Audio regions can be copied within the same project, or between different projects
- ◆ Up to two tracks can be viewed in the waveform screen at once, making it easier to edit stereo tracks

DSP Functions

- ◆ DSP functions include phase-coherent Timestretch, Pitch Shift, BPM Match, Varispeed, Reverse and Normalize. As with the other edit functions, the user has the option of including the automation parameters when manipulating the audio

Analog Outputs

- ◆ Separate 1/4" Main, Nearfield and Mono monitor outputs, accessible via a front panel switch, are provided for reference checking a mix
- ◆ Two 1/4" stereo headphone outputs, with a dedicated volume control, are provided on unit's front panel

Synchronization

- ◆ MIDI In/Out/Thru connectors support MIDI Time Code (MTC), MIDI Clock
- ◆ Wordclock I/O is provided using a single BNC connector

Akai's ak.Sys Control and Networking PC/MAC Software

- ◆ The USB interface provides a realtime SVGA TrackView display using ak.Sys software installed on a Mac or PC as well as networking capabilities with other Akai products, and software updates
- ◆ Using the optional 1394 Firewire interface board, ak.Sys will support VST plug-ins, allowing the ak.Sys computer to be used as a realtime effects engine for the DPS24



Dedicated Controls

- ◆ A generous complement of dedicated function keys, transport buttons and rotary encoders are available
- ◆ Multi-function rotary encoders located above the faders have a collar of LEDs around them that let you see their values at a glance
 - > Hit the Q-STRIP keys and use the 12 encoders to adjust pan or effects sends
 - > Hit the Q-CHANNEL key and use the 12 encoders to adjust a channel's entire parameter set
- ◆ A dedicated multi-track jog wheel for 'reel-rocking' and you begin to get the feeling that it's you that's in charge, not the machine's arcane operating system

Media & Storage

- ◆ Equipped with a large capacity 60 GB internal IDE drive that provides over 5 hours of audio on 24 tracks at 48kHz, (12 tracks at 96kHz) — Additional IDE drives are available at low cost
- ◆ The built-in SCSI interface allows you to link up to seven additional external SCSI drives providing the flexibility of recording cuts of any length, limited only by the size of the selected storage medium
- ◆ A built-in 5.25" drive bay supports an optional CD-R/CD-RW drive, providing a cost-effective means of project archiving as well as allowing users to produce professional quality audio CDs



Conveniences

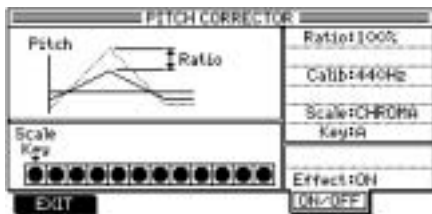
- ◆ 5.1 surround mixing will be supported using analog the Stereo/Main/Near or digital (MPLP) outputs
- ◆ ASCII keyboard input for track/project naming
- ◆ The 1/4" footswitch port supports the Alesis ADAT LRC (Little Remote Control)

DPS24

Internal 4-Bus Effect Section

- ◆ 4-bus 56-bit multi-effects processors offer 44 types of high quality, fully editable effects including a wide range of reverb, modulation, delay, EQ, dynamics processors and combination effects as well as a multi-band dynamics processor with 4-bands of compression or expansion, adjustable cross-over points, adjustable slopes and reduction metering
- ◆ Effects can be inserted to any input or playback channel or routed (pre or post fader) from each individual channel via AUX send / return 1-4

Realtime Pitch Corrector



- ◆ The Pitch Corrector algorithm allows you to correct the pitch of monophonic tracks, such as a vocal, in real-time
- ◆ Parameter adjustments are provided for controlling the amount of pitch correction, vibrato, root note and tuning calibration from 415Hz - 466Hz (default is A440Hz)
- ◆ The Scale parameter allows you to choose from 13 different scales plus two user-programmable scales
- ◆ An external MIDI keyboard can be used to control the target pitch in real-time

Effects Types

Reverb Effects

Small Room
Big Room
Small Hall
Big Hall
Studio
Live House
Medium Hall
Bright Hall
Non-Linear
Reverse

Modulation Effects

Mono Chorus
Stereo Chorus
X-Over Chorus
Mono Flanger
Stereo Flanger
X-Over Flanger
Pan Flanger
Mono Phaser
Stereo Phaser
X-Over Phaser
Pan Phaser
Pitch Shift
Rotary Speaker
Auto Pan
Trigger Pan

Delay Effects

Mono Delay
Ping Pong Delay
Panning Delay
Stereo Delay
X-Over Delay
Tape Echo
Multi Tap Delay

Dynamics Processing

Compressor
Limiter
Expander
Noise Gate

EQ

Digital EQ
Autowah
Touch Wah
Enhancer

Combination Effects

Chorus / Delay
Flange / Delay
Phaser / Delay

Other Effects

Distortion
Pitch Corrector

Q-Link Navigation System

- ◆ The Q-link Navigation System is a row of assignable encoders, above the channels, faders designed to provide quick and direct access to all major mixing functions including EQ, Aux send levels, and effects parameters, without the need to wade through complex menu layers. Encoders can be quickly assigned to make adjustments to FX/AUX Send levels, or adapted to become a full Q-Channel channel strip providing access to all parameters of an individual channel
- ◆ The large 6-inch diagonal (320 x 240) graphic LCD display, provides precise feedback of how a track is shaping up with a graphic representation of audio cues on a scrolling track sheet

Enhanced Q-Link Navigation

- ◆ Q-Link features make searching through complex layers of menus a thing of the past by providing direct access to all major Record, Edit, Mix, and Effect functions
- ◆ 6 Q-Knobs located on the large tiltable LCD display offer easy realtime access to effects parameters and system control.

Editing

- ◆ Graphic waveform editing is provided down to the sample level with up to 256 levels of UNDO
- ◆ A number of editing functions can be applied to single or multitrack sections of audio including — copy-overwrite, copy-insert, cut-overwrite, cut-insert, insert-silence, cut-discard, cut-move
- ◆ A choice of 54 preset timestretch algorithms provide an unprecedented variety of timestretch options each of which are capable of delivering phase coherent processing of stereo recordings
- ◆ You are also able to normalize and change the levels of audio regions up or down

Locate Features

- ◆ Up to 100 locate points in a song can be named and stored. A "Direct Locate function" that assigns locate points to the keys on the front panel is also available
- ◆ Both Manual Punch In/Out (using the transport buttons or a footswitch) and Auto Punch In/Out (at specified In and Out points) are supported

What is Non-Destructive Editing?

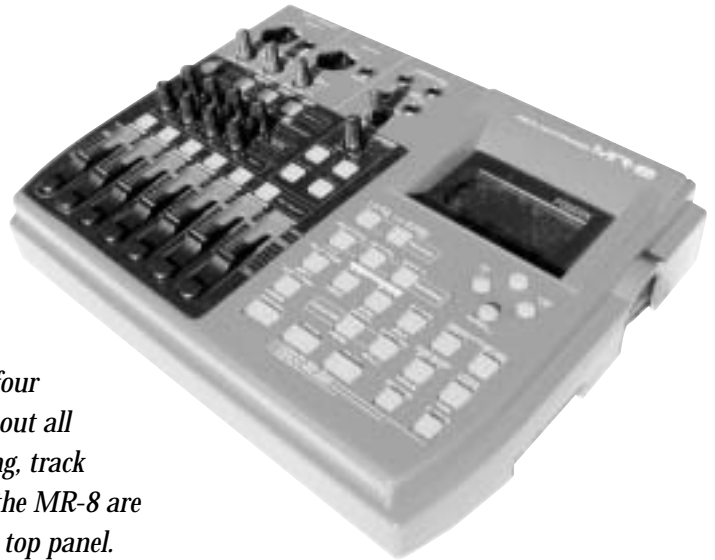
When a section of audio is copied from one location to another, that audio is re-written on the disk and exists in two separate locations on the drive. This is an inefficient use of disk space and makes your recorder work hard much more than it needs to when accessing audio. With non-destructive editing there is no duplication, or re-writing, of the audio on the disk.

Instead, non-destructive editing uses pointers to reference audio on the disk. So when you "copy" the audio you are only adding a second set of pointers that reference the exact same audio on the disk, not re-writing the same audio to another location on the disk.

This makes edit functions much faster than on many portable studio products, as well as making the most efficient use of your disk space

8-Track Digital Multitracker

The Fostex MR-8 is an affordable, ultra-portable eight track digital multitracker which records and plays back 8 tracks of uncompressed audio using a CompactFlash media card. Audio can be recorded at high quality 44.1 kHz/16 bits or 22.05 kHz/16 bits in the extended mode. The MR-8 also features an 8-channel digital mixer, digital effects including the delay/reverb, mastering effects and guitar/bass amp and mic preamp simulation insert effects. The four track cassette-style user-interface allows you to intuitively carry out all the process for digital multitrack recording including overdubbing, track bounce and mixdown – nearly all of the functions available on the MR-8 are accessed directly from physical knobs and buttons located on the top panel.



FEATURES

- ◆ 8-tracks of recording and playback using readily available Compact Flash cards (a 128MB card is included)



- ◆ 16-bit Delta Sigma A-to-D and D-to-A converters and high quality sound uncompressed linear 16-bit/44.1 kHz digital audio recording and playback (normal mode).
- ◆ 2-track simultaneous recording and 8 tracks playback
- ◆ Approximately 25 track-minutes of recording time is available using 128MB Compact Flash Card in normal mode (16-bit/44.1kHz). Extend Mode (16-bit/22.05 kHz) doubles the available recording time

Inputs and Outputs

- ◆ Two analog input channels – Channel 1 gives you a choice of a balanced XLR mic input or a 1/4" unbalanced line or Hi-Z guitar input Channel 2 Gives you a choice of a balanced XLR mic input or a 1/4" unbalanced line input
- ◆ 1/4" TRS main/monitor outputs
- ◆ Two 1/4" stereo headphone outputs with level control
- ◆ Optical S/PDIF digital output

Effects

- ◆ Digital effects include delay and reverb using a newly developed algorithm for the MR-8
- ◆ Guitar Amp simulation (Brit Stack, U.S. Metal, and 60'S Combo) with analog style distortion on input A at "Guitar" position) and Microphone simulation (Dynamic, Condenser, Tube) on input A at "Line/Mic" position) as insert effect
- ◆ A mastering effect is provided on the stereo bus that allows you to process a song after it has been bounced or during mixdown.

Intuitive Interface

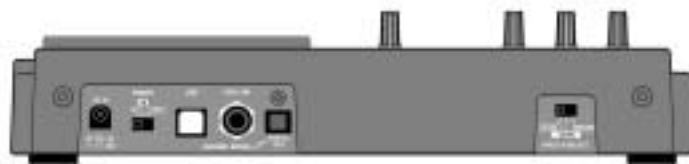
- ◆ Intuitive, four track cassette-style operation is ideal for new comers to the world of digital multitrack recording.
- ◆ 128 x 64 dot-matrix LCD and self illuminating keys show current operating status
- ◆ Using the built-in USB port, on the rear panel, and the free MR-8 WAV manager software allows you to transfer WAV file data between the MR-8 and a Windows PC (XP/2000/ME/98SE) for data editing, CD burning (normal mode) and backup

Editing

- ◆ Two locate points are provided for executing a variety of editing functions including auto-punch in and out recording
- ◆ Erase, Copy, Paste, Move and Exchange mono or stereo track data with one level of undo/redo.
- ◆ Part editing allows you to Erase, Copy, Paste, Move and Exchange data from within two locate points of a track. Part editing also allows one level of undo/redo.

Conveniences

- ◆ Powered by 6 AA alkaline batteries (provides just over 2 hours of normal use) or with the included AC adapter
- ◆ A built-in microphone allows instant access for recording ideas or events.
- ◆ The metronome function generates guide clicks according to the tempo map.
- ◆ MIDI output allows you to transmit MTC or MIDI Clock for synchronization with another MIDI compatible device such as a drum machine or computer.



FOSTEX

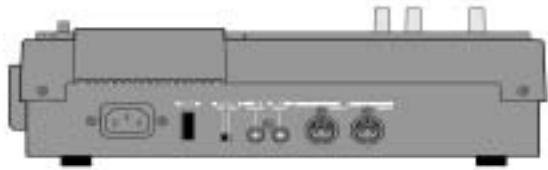
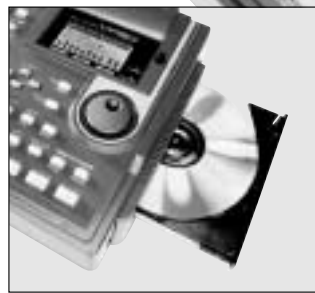
VF80 • VF80CDR

MULTITRACK RECORDERS

518

Digital Personal Studio

The Fostex VF80 is an affordable all-in-one digital multitracker that provides 8-track digital recording, an intuitive digital mixer, A.S.P.+ digital effects with mic and guitar amp modeling, 99 scene memory, waveform display, XLR inputs with phantom power and an optional internal CD-R/RW burner. Fostex's proprietary FDMS-3 technology enables more efficient disk and CPU usage allowing you to obtain a greater amount of recording track minutes per drive without data compression, and faster editing and DSP operations.



FEATURES

- ◆ 8 playback tracks plus an additional 16 ghost tracks that allow you to record multiple takes and choose or "comp" the best performances.
- ◆ 20-bit A-to-D converters and 24-bit D-to-A converters.
- ◆ Internal 3.5" 20GB IDE hard drive provides 64 total track hours of uncompressed 16-bit digital audio at a sample rate of 44.1kHz.
- ◆ CD-1A internal CD-RW drive (optional in the standard VF80) for mastering, data back-up and WAV file import and export.

Digital Mixing

- ◆ Eight 60mm faders including six mono faders (channels 1 -6), one stereo fader (channels 7 and 8) and a Master fader for the stereo bus.
- ◆ Two-band shelving EQ with ± 18 db boost and cut (at 100 and 10k Hz) on channels 1-6 with access to a 36 preset EQ library.
- ◆ The 99 mix scene memory, with title edits, allows you to store an entire mixes fader positions, EQ and effect settings for later recall or automated scene changes during final mixdown.

Effects

- ◆ A.S.P.+ digital channel effects provide 44 types of effects including reverb, panning, hall, reverb, chorus, flange, and pitch shift effects as well as mic modeling, guitar amp simulations and distortion.
- ◆ The Bounce function allows audio from tracks 1 through 6 to be bounced to tracks 7 and 8 at the touch of a button.
- ◆ Mastering Mode allows you to apply one of 10 preset Mastering Effects, including EQ, compression and effects to tracks 7 and 8 during your final mix to the internal CD-RW drive or an external recorder.

Editing

- ◆ Non-destructive Copy, Move, Paste and Erase audio editing with undo/redo.
- ◆ Find precise editing points using the waveform display and audio scrubbing using the onboard jog wheel.
- ◆ Clipboard data can be automatically repeated up to 99 times.
- ◆ Auto punch in and out.
- ◆ $\pm 6\%$ varipitch control.

Inputs and Outputs

- ◆ Two simultaneous inputs, with trim controls, on/off switches and peak LED indicators, including two XLR inputs with phantom powered and two unbalanced 1/4" instrument inputs.
- ◆ Left and right 1/4" main outputs and a 1/4" stereo headphone output with level control.
- ◆ Coaxial S/PDIF digital I/O.
- ◆ 1/4" footswitch input provides hands-free manual punch I/O.

Training Mode

- ◆ Center signal cancellation and full control of audio speed (tempo) without altering the pitch can be applied to tracks 7 and 8 allowing you to practice along with a stereo track.

Synchronization

- ◆ MIDI In and Out connectors allows synchronization and control using MTC, MMC and MIDI clock as well as song position pointer.



ONE HOUR FREE PARKING

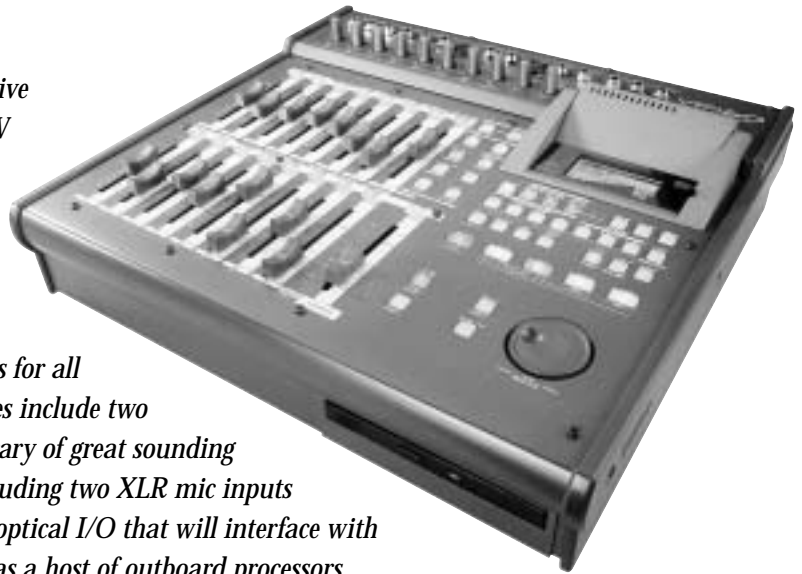
AT 349 W. 34th STREET (with purchase of \$100 or more)

FOSTEX

VF160CDR

Digital Personal Studio

The VF160 is a 16-track digital recording, non-destructive editing, mixing and mastering with an internal CD-RW drive included as standard equipment. Up to sixteen tracks can be recorded simultaneously to the included 20GB internal IDE hard drive. The waveform display and 16x zoom feature provides precise editing. The digital mixer features 60mm faders, 3-bands of EQ, solo-in-place as well as two effect and two aux sends for all 16 channels with a 99 mix scene memory. Other features include two independent multi effect DSPs packed with a preset library of great sounding algorithms. And not only are there 8 analog inputs, including two XLR mic inputs with phantom power, there is also an 8 channel ADAT optical I/O that will interface with a host of computer-based DAWs, digital mixers as well as a host of outboard processors.



MULTITRACK RECORDERS

519

FEATURES

- ◆ 16 playback tracks and 8 track simultaneous record plus 8 additional ghost tracks for multiple takes (16-track simultaneous a recording is available when using ADAT interface in addition to analog inputs).
- ◆ 7 on the fly marker points, 7 Edit Memory & 99 Event Memory.
- ◆ Internal CD-R/RW drive.
- ◆ .WAV file export and import.
- ◆ 99 programs (songs).
- ◆ 3.5" IDE hard drive bay includes a 20GB drive and is upgradeable to accommodate larger drives.

- ◆ 17 (60mm) input faders – 8 x analog/track inputs, 8 track inputs and 1 x Master fader (stereo buss).
- ◆ Fader pairing allows channels to be grouped in stereo sets.
- ◆ Solo, 3-band EQ and plus a Low Pass Filter on all 16 channels.

ADAT Mixer Mode

- ◆ Use the VF160 as the front-end, mixer and control surface for your PC/Mac-based audio/midi workstation equipped with an ADAT card and a MIDI interface.

Digital Mixing

- ◆ Two channel compressors assignable to channels 13/14 or 15/16 with EQ off).
- ◆ Master compressor and 3-band EQ.
- ◆ Two effect sends and two pre/post switchable AUX sends.
- ◆ Two built-in Fostex A.S.P. digital effects.
- ◆ 100 mix scenes per program.

Inputs and Outputs

- ◆ Eight balanced/unbalanced 1/4" TRS inputs (channels 1 - 8).
- ◆ Channels 7 and 8 also give you the option of two XLR inputs with phantom power or 1/4" instrument inputs plus 1/4" TRS inserts for injecting outboard processors into either signal.
- ◆ Unbalanced 1/4" L/R Monitor outputs and a 1/4" stereo headphone outputs.
- ◆ Two AUX Sends via single 1/4" TRS connector (TIP: send 1 / RING: send 2).
- ◆ Unbalanced RCA L/R outputs.
- ◆ Optical digital I/O switchable between eight channel ADAT and S/PDIF.
- ◆ 50-pin SCSI-2 connector supports additional storage devices including external CD-RW drives.

A.S.P. (Advanced Signal Processing Technology)

The A. S. P. is Fostex' proprietary digital effect processing technology designed to provide maximum efficiency from a small amount of DSP power. The H. F. A. (Harmonic Feedback Algorithm) achieves a rich high density Early Reflection sound and wonderfully smooth High Dump response while the H. D. L. P. (Hi-Density Logarithmic Processing) delivers an elaborate reverb simulation with clear sounds without the graininess caused by numerous integrated delay module interference.

KORG

D1200CD / D1600 V40

MULTITRACK RECORDERS

520

Digital Recording Studios

The D1200 and D1600V40 are all-in-one, digital audio workstations that deliver uncompressed 16- and 24-bit direct to hard disk multi-track recording, automated mixing, powerful built-in REMS effects processing, a wide range of I/O and routing flexibility, as well as intuitive non-destructive editing capabilities. The D1200 offers 12 tracks of audio playback at 16-bit (6 tracks at 24-bit) and the D1600V40 provides 16 tracks of playback at 16-bit (8 tracks at 24-bit).

The D1200's 16 channel, 4 bus digital mixer and the D1600V40's 24 channel, 8 bus digital mixer each feature level, pan, mute, solo, 3-bands of EQ as well as effects inserts and 3 effects sends on each channel. Mixer, EQ and effects settings can be stored within each song as scenes and even

controlled in realtime via MIDI and external controllers. Balanced XLR and 1/4" TRS analog inputs with high-performance balanced preamps will allow a variety of audio sources to be connected directly to the systems, ranging from mic level to a +16 dBu level. A dedicated 1/4" Hi-Z input is also provided for direct connection of a guitar or bass. The internal CD-R/RW drive, included with both units, makes it possible to backup/restore data, or to create audio CDs in a single integrated package — Go from recording to effect processing to mixing down to CD while staying completely in the digital domain.



PASE (Pure Audio Sound Engine)

- ◆ Both units offer uncompressed 16-bit and 24-bit record and playback at 44.1kHz
- ◆ The D1200 offers 4 simultaneous record tracks and 6 playback tracks at 24 bit or 4 simultaneous record tracks and 12 playback tracks at 16-bit
- ◆ Each of the D1200's 12 tracks offers 8 virtual tracks, for a total of 96 tracks per song
- ◆ The D1600V40 offers 4 simultaneous record tracks and 8 playback tracks at 24 bit or 8 simultaneous record tracks and 16 playback tracks at 16-bit
- ◆ Each of the D1600V40's 16 tracks offer 8 virtual tracks for a total of 128 tracks per song

The Virtual Track Concept

- ◆ Allows you to record multiple passes of instrumental or vocal performances which can then be compared, allowing you to choose the best one or the best phrases from each take can be edited to create the perfect take
- ◆ Choosing virtual tracks as the recording destination when bounce-recording allows you to combine the data of all tracks, including effects and EQ into two tracks without losing any data

Digital Mixer Section

- ◆ The D1200 features 16 mixer channels which are divided into four input channels and 12 playback tracks. The D1600V40 has 24 mixer channels divided into 8 simultaneous input channels and 16 playback tracks
- ◆ The D1200 has 9 channel faders (6 mono and 3 stereo) with pan controls and a master fader that provide smooth, precise level adjustments over individual channels and the overall output level. The D1600V40 has 16 channel faders with pan controls
- ◆ Each channel has its own Level, Pan, Solo and Mute controls, Phase (polarity) reverse, a 3-Band EQ as well as an effects insert, two Master effects sends and an Aux send for accessing an external effects processor
- ◆ During mixdown, input channels on can be used for submixing external audio sources such as sequenced MIDI tracks as well as outboard effects processors
- ◆ A Pairing function allows adjacent channels to be grouped as a stereo pair — ideal for stereo synths and drum loops

Serious EQ

- ◆ Three bands of EQ, each with a boost/cut range of ± 15 dB, are provided for each analog input and mixer channel
 - > High shelving band at a fixed frequency of 10kHz and a Low shelving band at a fixed frequency of 100Hz
 - > Sweepable Mid band with a frequency range from 100Hz to 20kHz
- ◆ Because EQs are separate for the input and mixer channels you are able to assign different EQ settings for recording and playback

Mix Automation

- ◆ Mixer settings such as fader, EQ, pan and effects can be stored in a "scene" — Up to 100 scenes can be stored per song
- ◆ The Scene playback function allows you to assign scenes for automatic recall at the time locations you specify within the song
- ◆ Automation data can be sent and received in realtime, as controller data via a MIDI compatible sequencer, keyboard or computer



For Any Inquiries Regarding Your Order, Call Our Customer Service:
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D1200CD / D1600 V40

Analog Inputs

- ◆ A variety of analog audio sources can be connected directly to the mixer and instantly routed to any channel, ranging from mic level to a +16 dBu level.
- ◆ All inputs feature high-quality balanced preamps with individual Trim controls and overload LEDs.
- ◆ The D1200 has two 1/4" TRS and two XLR / 1/4" TRS combo connectors.
- ◆ The D1600 has four balanced XLR / 1/4" TRS mic/line inputs and four balanced 1/4" TRS inputs.
- ◆ Individually switchable +48V phantom power which is provided for each of the D1600V40's four XLR mic inputs.
- ◆ Both units also provide an unbalanced 1/4" Hi-Z input which allows you to plug a guitar or bass directly into the units.
- ◆ Analog inputs and the 24-bit S/PDIF input can be utilized as Sub Inputs that can be used to send external audio sources such as keyboards, samplers or effects processors directly to the Master bus.

Outputs & Monitoring

- ◆ Separate L/R Master and Monitor Outputs via unbalanced RCA phono jacks on the D1200 and 1/4" jacks on the D1600V40.
- ◆ A 1/4" Auxiliary Output accessed by the Aux send on each channel can be used for connecting an external effects processor.
- ◆ A 1/4" stereo headphone output with level control is provided for both units.
- ◆ The Monitor function lets you create a monitor cue mix for all tracks that includes level and pan settings that are independent of the mix routed to the Master outputs.

Effects Section

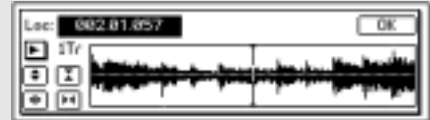
- ◆ Each song can contain up to eleven simultaneous effects programs —
 - > Up to eight insert effects, including guitar, bass and vocal multis, can be inserted into an any analog input or mixer channel.
 - > Two master effects can be applied to the send from each channel.
 - > A final stereo effect can be applied to the master L/R as the last stage.
- ◆ Each effect program is created with one of 98 different algorithms using Korg's REMS (Resonance structure and Electronic circuit Modeling System) technology.
- ◆ 192 preset effects (128 insert effect presets, 32 master effect presets, and 32 final effect presets) created by professional musicians and studio engineers.
- ◆ Preset programs can be editing and stored in 192 user program locations.
- ◆ An expression pedal, available separately, can be connected to control an insert effect in realtime.



Guitar Multi

Non-Destructive Editing

- ◆ Operations such as copying, pasting, or erasing phrases are as easy as specifying the IN, OUT, and TO locations.
- ◆ The Scrub function lets you listen to the recorded sound of a track as if you were manually rocking the reels of an open-reel tape recorder, giving you precise control when editing tracks and for finding the exact punch points.
- ◆ 99 levels of undo/redo makes it easy to compare complex edits and arrangements.
- ◆ To make the most efficient use of hard disk space, you are able to select between 1, 8 or 99 levels of Undo.
- ◆ Four Locate points and 100 Mark points with names) are available per song providing quick and easy access to playback and editing locations.
- ◆ The Normalize function lets you boost the overall level of track to the maximum volume without clipping.
- ◆ The Time Expansion/Compression function makes it possible for phrases of differing tempo to be matched after they have already been recorded, or to make a phrase fit into a specific time.
- ◆ Optimize Track Data creates one piece of audio from several "fragmented" regions, resulting in perfect track playback and better conservation of hard disk space.
- ◆ Reverse playback can be applied to single or multiple tracks and copied to new audio regions or tracks.
- ◆ Single and multiple tracks can be faded in and out or even crossfaded using one of six fade curves.



Scrub Mode

Digital I/O

- ◆ 24-bit optical S/PDIF I/O includes a built-in sample rate converter that automatically converts 48 or 32 kHz sources to 44.1kHz.

CD Burning

- ◆ The internal CDRW-1X8 slim-line CD-R/RW drive makes it possible to backup and restore data, to create audio CDs, as well as playback and record directly from an audio CD.
- ◆ A CD burner with the same capabilities is included with the D1600V40.



CD-R/RW

KORG

D1200CD / D1600 V40

Media & Storage

- ◆ Both units include an internal 40 GB hard drive providing up to 62 hours of total audio data at the 16-bit resolution
- ◆ The D1200 has a built-in USB interface that allows direct connection with a computer. A 2GB partition of the 40GB hard disk is reserved to allow simple drag and drop data transfer between the D1200 and the computer using the .wav file format
- ◆ The D1600V40's user-installable 3.5" hard disk cartridge/bay system supports affordable, readily available IDE hard disks that can be exchanged when switching between projects. A 50 pin SCSI-2 port supports a variety of fixed and removable drives providing additional record, playback and data back-up options
- ◆ Data backed up from earlier D-Series digital recording studios can be restored into the D1600V40, allowing easy transfer of data. Playable D12, D1200 and D16 drives can also be played back by the D1600

Metronome

- ◆ A built-in Metronome with 96 metronome patterns and 215 PCM-based drum patterns covering many different genres of music provide inspiring tempo guides when laying down tracks
- ◆ Drum patterns can even be recorded to tracks and used within your songs

Control Surface

- ◆ The comfortable size and logical layout of the control surfaces make navigation on both units easy and intuitive
- ◆ Both units provide a full range of transport controls including scrubbing as well as dedicated buttons that provide instant access to system functions
- ◆ A large 240 X 64 pixel backlit display provides clear access to setup and editing operations, including precision graphic waveform editing
- ◆ The D1200's display flips up for easy viewing
- ◆ A number of dedicated LED indicators provide visual feedback of system activity
 - > Hard disk / CD-R / MIDI activity
 - > Track status (play, input, rec, mute)
 - > Transport status

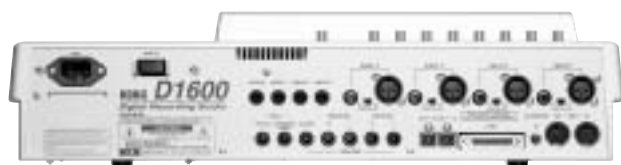


TouchView Display

- ◆ The D1600V40 features a 240x64 pixel, backlit TouchView LCD display system which allows you to select pages, tabs, and parameters, and set their values by pressing their related objects on the screen. Also displayed, during recording or playback are level meters and time locations as well as various other parameters

Synchronization & Tempo Control

- ◆ MIDI In/Out connectors allow you to:
 - > MTC (MIDI Time Code) and MIDI Clock can be sent or received allowing the units to synchronize with an external sequencer
 - > Use MMC (MIDI Machine Control) to allow Stop/Play/FF/Rew/Record/Locate functions to be sent and received between the units and an external sequencer
- ◆ Up to 200 tempo map events, that can be dialed in numerically or created using Tap Tempo or MIDI Clock, are available per song, allowing tempo, time signature and rhythm patterns to change during recording and playback



Conveniences

- ◆ The Trigger Recording function allows recording to begin automatically in response to an audio input
- ◆ The Auto-Save Feature ensures that song data will be automatically saved automatically when selecting new songs and on power-down
- ◆ Built-in auto chromatic tuner – In addition to tuning a guitar or bass, you can even check the tuning of a playback track
- ◆ Auto and manual punch-in/out recording makes it easy to re-record just the desired portion of a performance
- ◆ Loop recording and playback lets you set specific in / out points within a song and loop the audio. This allows you to:
 - > Rehearse intricate parts to be recorded
 - > Use the punch-in function while looping, and add new data as the loop plays
 - > Use the loop playback feature to audition specific regions of recorded audio
- ◆ The Program Play function allows you to playback multiple songs in any order, from the internal drive and external drives

Digital Recorder

The PXR4 delivers 4 tracks of high-quality digital recording and mixing, pro-level editing functions along with great sounding digital effects in a compact, ultra-portable package. The PXR4 records directly to readily available SmartMedia cards from 4MB to 128MB — a 16MB card is included. A full compliment of onboard I/O is provided including a dedicated guitar input, stereo mic/line inputs, stereo line and headphone outputs are provided as well as a USB port that allows you to transfer files between the PXR4 and your computer in stereo MP3 format. The PXR4 can be powered by two AA batteries or the included AC adapter. There's even a built-in stereo mic ready to capture your musical ideas at a moment's notice.



FEATURES

Recorder Section

- ◆ Record 4-tracks of high-quality digital audio directly to SmartMedia cards from 4 to 128 MB - a 16MB card is included
- ◆ Three recording modes afford maximum flexibility by enabling you to select the one that's right for the task at hand depending on the recording quality and time you need.
 - > Standard mode provides an excellent balance between recording quality and memory use
 - > High-quality mode captures your performance with impeccable clarity
 - > Economy mode delivers maximum recording time

Professional Editing

- ◆ Eight virtual tracks per track allow you to record multiple takes of the same track and select your favorite one
- ◆ Equipped with everything you'd expect from a digital recorder many times larger including easy-to-use punch in/out, bounce, copy and delete functions even time compression and expansion

Intuitive Interface

- ◆ Five faders, one per track, plus a master fader as well as dedicated controls are provided for all key features making parameter selection and editing easy
- ◆ Clear, backlit display uses an intuitive icon-based user interface



Inputs & Outputs

- ◆ 1/4" input with a hi/low impedance switch
- ◆ Stereo mic/line input
- ◆ 1/8" stereo output jack, plus a stereo headphone output
- ◆ Using the built-in USB port, you can transfer song data to and from your computer in stereo MPEG format

Digital Effects

- ◆ 77 different built-in effects, based on Korg's proprietary REMS technology deliver ultra-realistic models from guitar amps and pedals to world-class microphones as well as studio essentials like reverbs, delays, modulation effects and more
- ◆ 100 preset and 100 user multi-effects programs with up to five simultaneous effects

Metronome / Rhythm Patterns

- ◆ 55 different rhythm patterns plus 36 metronome patterns, using high-quality PCM sounds are provided for use as a recording guide, or to create the actual rhythm track for your song

Included Accessories

- ◆ Model PXRC-00S 16MB SmartMedia card
- ◆ AC Adapter
- ◆ Soft Case

Application Note!

Not only is the PXR4 a great multitrack recorder, it is also an outstanding tool for practicing guitar —

- > Hook up a CD player to the line inputs and record a song you want to learn
- > Plug in your guitar and dial in the appropriate amp model and effects
- > Use the Time Compression/Expansion to slow down the tempo of a solo by half without altering its pitch
- > Use the rhythm and metronome patterns to practice your rhythm playing and scales

ROLAND / BOSS

BR-532

MULTITRACK RECORDERS

524



Portable Digital Studio

The BR-532 is a compact and affordable battery powered 4-track digital workstation designed to give the guitarist and songwriter "on-the-go" the freedom to record whenever and wherever inspiration strikes. Up to four tracks of simultaneous playback is provided along with 32 Virtual Tracks per song. Audio is recorded directly to affordable SmartMedia cards (a 32MB card is included). Plug your dynamic mic, guitar, bass or keyboard directly into the BR-532 and record using the high quality COSM amp modeling effects without the need for external processing gear. There's even a built-in microphone. A separate Rhythm Guide track keeps the groove going with a choice several stereo drum patterns available in a variety of styles. The four playback tracks and rhythm guide can be mixed (bounced) down to a stereo file along with onboard effects.

FEATURES

- ◆ Four simultaneous playback tracks and two simultaneous record tracks
- ◆ A total of 32 Virtual Tracks (8 per track) are available for capturing multiple takes
- ◆ Audio is recorded to ultra-thin 3.3V SmartMedia cards — cards up to 128MB are supported — a 32MB card is included
- ◆ When more tracks are needed, you can digitally bounce all four tracks with effects to a single or pair of virtual tracks
- ◆ Digital non-destructive track editing tools include Copy, Paste, Move, Erase with one level of Undo/Redo
- ◆ Three locator points provided instant access to specific edit points and Auto punch In and Out points
- ◆ Manual punch In/Out is also provided
- ◆ 24-bit A-to-D and D-to-A converters and 32-bit internal processing

Mixer and Transport Controls

- ◆ There are four volume faders for each channel and a master fader
- ◆ A dedicated pan button lets you control the L/R position of each playback track
- ◆ Besides standard Play, Stop, Record FF and Rew controls, a Time/Value dial is provided that lets you shuttle to the desired song position as well as adjust the values of various editing functions

APPROX. TOTAL RECORDING TIMES IN MINUTES			
Recording Mode	HiFi	Standard	Long
32MB Card	16	19	24

Inputs and Outputs

- ◆ Balanced XLR and 1/4" TRS mic inputs allow you to connect a dynamic mic without adapters
- ◆ A dedicated Hi-z 1/4" instrument input is provided for plugging a guitar or bass
- ◆ Left and right unbalanced RCA line inputs
- ◆ Left and right unbalanced RCA line outs are available for mixdown or monitoring
- ◆ A 1/4" stereo headphone output
- ◆ A optical digital output lets you record directly to a computer, standalone CD recorder or other digital device
- ◆ A MIDI output allows you to sync the BR-532 with your drum machine, groove sequencer or computer

Two Types Of Editable Stereo Effects

- ◆ The first effect is an **Insert Effect** that can be applied during tracking with a wide variety of COSM amp models and effects patches designed specifically for recording guitar, bass, vocals and keyboards without relying on external amps and processors
- ◆ The second effect type is a **Loop Effect** which allows you to apply spatial effects like reverb, chorus, flanging and doubling to individual playback tracks during mixdown. Each playback track has its own send control for adjusting the depth of the effect for that track

Truly Portable

- ◆ A built-in microphone allows you to capture ideas anytime, anyplace even when you don't have a mic with you
- ◆ Up to 7 hours of on-the-go recording using 6 "AA" alkaline batteries (included) — an optional PSA-120 AC adapter is available

Rhythm Guide

- ◆ The built-in Rhythm Guide, with tap tempo button and dedicated volume fader, provides 8 drum kits using real PCM-based sounds and patterns, in a variety of styles, that can be used during recording and even bounced along with the four playback tracks
- ◆ Multiple patterns can be combined to create a full rhythm track

Additional Features

- ◆ 20 character by 2 line backlit LCD display
- ◆ An Auto Sub Mix switch on the rear panel, allows you to monitor the line inputs while recording from the guitar or mic inputs
- ◆ The Phrase Trainer lets you slow the tempo of guitar licks without changing pitch
- ◆ The Center Cancel function removes lead vocals from a mix
- ◆ A built-in chromatic guitar and bass tuner is available via a dedicated tuner button
- ◆ A 1/4" footswitch jack accommodates start and stop playback, punch in/out recording and effects bypass



ONE HOUR FREE PARKING

AT 349 W. 34th STREET (with purchase of \$100 or more)

ROLAND / BOSS

BR-1180 / 1180CD

Digital Recording Studios

The BR-1180 is an affordable digital workstation that offers ten playback tracks and 80 Virtual Tracks plus a stereo mixdown track — all recorded to an internal 20GB hard drive. Using the optional CD-RW drive (included with the BR-1180CD) for burning your music to CD, you've got a powerful system with true all-in-one flexibility. Other features include a large icon-based user interface, phantom power for the XLR mic inputs, MIDI controllable faders and recallable mixer/effects scenes. The built-in rhythm guide lets you assemble great sounding drum parts using high quality PCM sounds. You can also import .Wav loops and automatically match them to the tempo of your song, making it easier than ever to have a great sounding rhythm section.



BR 1180CD Bundled
with Discrete Drums CD
with professionally recorded
drum loops.

SAME FEATURES AS THE BR-532 PLUS—

- ◆ Two track simultaneous record and 10 playback tracks – tracks 1 - 8 are mono tracks, tracks 9 and 10 are combined as a stereo pair
- ◆ A dedicated stereo Master Track delivers easy digital mixdown and track bouncing
- ◆ 80 Virtual Tracks (8 per track) for working out different arrangements and capturing the perfect solo
- ◆ The internal 20GB hard drive supports 16-bit linear uncompressed recording as well as Roland's proprietary modes

Internal CD-RW Drive

- ◆ The optional user-installable CD-RW drive (included with BR-1180CD) provides high speed data backup and audio CD creation of your mixes. You can also use the CD-RW drive to import .WAV files such as drum loops to be used within a playback track or the rhythm track.

Enhanced Mixing and Transport Functions

- ◆ Each playback track has its own volume fader (channels 9 and 10 share a single fader) as well as pan and two bands of sweepable EQ
- ◆ You can store and recall up to 8 mixer and effects setting configurations per song
- ◆ MIDI input allows you to control and automate fader movements from an external controller or sequencer
- ◆ 1000 markers help indicate you instantly navigate thru your song along with audio scrubbing function make it easy to do quick and precise edits.

Input and Output Flexibility

- ◆ Two XLR and 1/4" TRS mic inputs with switchable phantom power available to the XLR inputs
- ◆ 1/4" expression pedal input (compatible with the Roland EV5) allows realtime control of effects parameters such as Wah-Wah

Icon-Based User-Interface



- ◆ 64 x 40mm icon-based backlit LCD interface simplifies the recording, bouncing and mixing process by providing concise visual information of the current status

Rhythm Guide and Loop Phrase Sequencer

- ◆ The Loop Phrase Import feature allows you to create and edit loop-based audio phrases within an audio track. You can also import loop-based phrases (including .Wav files imported via CD-RW) into the rhythm guide for a fast way to arrange them to fit your song's form and tempo.
- ◆ Additional rhythm patterns can be loaded via MIDI as Standard MIDI Files.

Effects

- ◆ One Insert Effect and two Loop (send/return) Effects processors – one for chorus/delay and the other for reverb
- ◆ COSM Speaker modeling

Mastering Tool Kit



- ◆ The Mastering Tool Kit provides nine fully-editable processing stages including EQ, multi-band dynamics and limiting designed specifically to help you create the perfect final mix
- ◆ The signal first enters the EQ section which includes a five band parametric EQ, Low Cut Filter and Enhancer. The signal is then split into three frequency bands (Low, Mid, High) each with its own level control. Each frequency band is then sent to its own Expander and Compressor and then into a mixer section which allows you to readjust the volume of the three frequency bands. Finally the signal is sent to a limiter and a soft clip algorithm for achieving level maximizing for your mix without distortion.
- ◆ The final signal can be dithered between 8 and 24 bits.

APPROX. TOTAL RECORDING TIMES IN MINUTES			
Uncompressed (16-bit): 60 hours			
MT1:	120 hours	MT2:	160 hours
LV1:	190 hours	LV2:	240 hours

ROLAND

VS-1824CD

MULTITRACK RECORDERS

526

24-bit Digital Studio Workstation

The VS-1824CD is an affordable all-in-one 24-bit virtual studio with 18-track playback, 28-channels of automated digital mixing, onboard effects (including COSM guitar amp, microphone and speaker modeling), precision editing functions and built-in CD burning capabilities. Up to eight tracks can be recorded simultaneously using a wide range of high quality inputs including two XLR mic inputs with phantom power, six 1/4" TRS mic/line inputs and a dedicated 1/4" guitar input. Even with all of this power and sophistication, the VS-1824CD is surprisingly easy to operate with many of the system's most important and innovative features available with only a single button push and Roland's own EZ-Routing functions that take you step-by-step through the process of configuring recording, mixing, bouncing and mastering set-ups.



FEATURES

True 18-Track Recording

- ◆ 18 simultaneous playback tracks, 8 simultaneous recording tracks and a total of 288 Virtual Tracks (16 per track)
- ◆ Dedicate any pair of tracks to create your final two-track mix
- ◆ Internal 10GB hard drive provides enough space for an album's worth of songs.
- ◆ 24-bit A-to-D and D-to-A converters combined with the 24-bit MT Pro recording mode provides true 24-bit signal path.

28 Channel Mixer with AutoMix Automation

- ◆ 18 playback channels plus 10 input channels available for tracking or for adding external synths, samplers and effects alongside your audio tracks during mixdown.
- ◆ Choice of 3-band EQ on up to 16 channels or 2-bands EQ on all 28 channels.
- ◆ All mixer settings including fader levels, pan, EQ and effects can be stored as scenes and easily recalled. There are eight mixer scenes available per song.
- ◆ The onboard Auto-Mix function makes it possible to automate level changes and panning in realtime.
- ◆ Automix data can be edited using an event list and copied to other locations.

Track Editing

- ◆ Time Compression / Expansion can be applied to single or multiple tracks by as much as 75 to 125%.
- ◆ Graphic waveform display and scrubbing (with a resolution as fine as 1/3000 second) allow you to find precise editing points.
- ◆ 999 levels of Undo/Redo

Inputs and Outputs

- ◆ Balanced XLR Mic inputs with switchable phantom power (channels 1 and 2)
- ◆ Balanced 1/4" TRS mic/line inputs (channels 3-8) and a 1/4" Hi-Z guitar input
- ◆ Four Aux sends using RCA connectors.
- ◆ Coaxial and Optical S/PDIF digital I/O
- ◆ Independent L/R Master and Monitor outputs using RCA connectors
- ◆ 1/4" headphone output
- ◆ A 25 pin SCSI connector is provided for adding external storage devices
- ◆ MIDI In, Out/Thru connectors allow you send and receive MTC (MIDI Time Code) or MIDI Clock for synchronizing with an external MIDI sequencer or even a second VS recorder
- ◆ A 1/4" foot switch input can be assigned to allow manual punch in/out, transport start/stop, mark point selection and more.

Effects

- ◆ A VS8F-2 effects board provides two stereo effects processors (four mono) with 240 preset and 200 user effects patches based on a wide variety of effects types including reverb, delay, chorus, flanger, dynamics, EQ, Voice Transformer, COSM guitar amp and mic modeling and more.
- ◆ A second board can be added for a total of 4 stereo/8 mono simultaneous effects.
- ◆ The Mastering Tool Kit includes a multi-band compressor and offers several templates for creating polished mixes.

Built-In 24x4x4 CD-RW Drive

- ◆ Create audio CDs and backup data as well as import drum loops and other CD audio data using the CD Capture function.
- ◆ Audio CD images can be created and saved to the hard disk which significantly speeds up the CD writing process.

Recording Time (at 2 GB, 1 track)

Rec. Mode	48.0 kHz	44.1 kHz	32.0 kHz
MTP	742 min.	808 min.	1,114 min.
CDR	370 min.	404 min.	556 min.
MAS	370 min.	404 min.	556 min.
MT1	742 min.	808 min.	1,114 min.
MT2	990 min.	1,078 min.	1,484 min.
LIV1	1,188 min.	1,292 min.	1,782 min.
LIV2	1,484 min.	1,616 min.	2,228 min.



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LCD Display

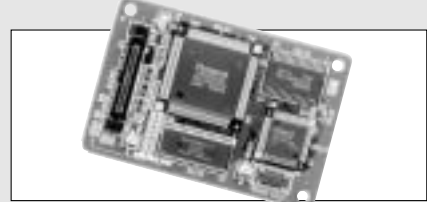
- ◆ The large, angled 320 x 240 dot backlit LCD display uses icons, event lists, text and metering to provide simple navigation and a visual indication of the unit's current status
- ◆ Six function keys, under the display, switch between screens and execute commands

EZ-Routing

- ◆ EZ-Routing Step Editing functions provide a step-by-step guide that walks you through the required setup procedures required for recording, mixing, bouncing and mastering
- ◆ Quick Editing allows you to jump directly to specific parameters when preparing to record, mix, bounce and master
- ◆ 4 preset EZ-routing templates are provided for you to edit and then store to any of 29 user templates locations for later use

MORE ABOUT THE VS8F-2 EFFECTS BOARD

- ◆ The VS8F-2 is a user-installable dual stereo (four mono) effects board that provides the VS-1824CD and VS-2480(CD) with 250 Preset and 200 User effects patches based on 36 of Roland's best effects algorithms, configured in single and multiple algorithm chains
- ◆ Single algorithm patches include many studio essentials like reverb, chorus and delay; while multiple algorithm chains include guitar and vocal multis that use a combination of COSM modeling and standard effects
- ◆ A number of processing effects have also been included to provide a broad creative palette for which to process tracks such as Lo-Fi processing, a Voice Transformer and Vocoder
- ◆ Each V-Studio includes a single VS8F-2 effects board plus you can add a second board to the VS-1824CD and up to seven more boards into the VS2480/VS-2480CD



COSM Speaker Modeling

- ◆ COSM Speaker Modeling simulates the sound of a variety of well known reference monitors (when used with Roland's 24-bit Digital Reference Monitors) for creating mixes that translate in a variety of listening environments

Onboard Mastering Tools

- ◆ A Mastering Tool Kit with split-frequency compression, enhancers, limiters and parametric EQ designed to give your mixes more punch and attitude.

VS-CDR3 CD Recorder Option

- ◆ The VS-CDR3 is an external multi-session 40x read/16x write/10x rewrite CD recorder option available for the VS-2480 as well as many of Roland's legacy V-Studios.
- ◆ Includes Toast (Mac) and EZ CD Pro (PC) CD burning software, a SCSI cable and blank CD-R and CD-RW discs.



DR-10 / DR-20 Dynamic Mics

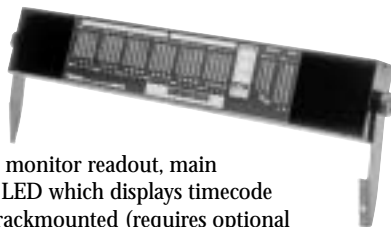


- ◆ Professional-quality dynamic mics with cardioid polar pattern
- ◆ Frequency response from 60 - 15k Hz
- ◆ Talk switch for on/off control
- ◆ Includes hardshell carrying case with mic clip and cable

MB-24

Level Meter Bridge

Gives VS-2480 users super-accurate, 10-segment LED metering for up to 94 channels (24 simultaneously), plus a monitor readout, main readout, track status indicators, and an LED which displays timecode and bar/beat information. Can also be rackmounted (requires optional VS-24MBA adapter for use with VS-2480/2480CD).



ADA-7000 8-Channel A/D-D/A



A 2U rackmount analog I/O expander for R-BUS-ready products like Roland's VS-2400CD and VS-2480 digital workstations. It features 24-bit and up to 96kHz A-to-D and D-to-A conversion via 8 balanced XLR/TRS inputs with RCA and balanced XLR outputs.

AE-7000 AES/EBU Interface



A 1U rackmount box that converts signals between R-BUS and AES/EBU for up to 8 channels of simultaneous digital I/O. It is the perfect solution for integrating products like Roland's VS-2400CD and VS-2480 digital workstations with other professional equipment adhering to the AES/EBU format, such as ProTools. Word Clock is also supported.

The **RBC-1** (3') and **RBC-5** (15') R-BUS cables for exchanging up to eight channels of two-way, 24-bit digital audio between the ADA7000 or AE7000 and the VS2400CD and VS2480(CD).

ROLAND

VS-2400CD

MULTITRACK RECORDERS

528

Digital Studio Workstation

The VS-2400CD is a Digital Studio Workstation that delivers professional 24-track recording, 48 channel automated mixing, effects and CD burning at an affordable price. Many of the VS-2400CD's features have been inherited from Roland's flagship workstation, the VS-2480CD including premium analog components, motorized faders, mouse-based "Drag and Drop" editing and a VGA Monitor output that provides powerful software control. The VS-2400CD even has some unique features of its own such as RSS 3-D panning and V-LINK that allows the VS-2400CD to integrate with Edirol video products thus allowing you to trigger video images via MIDI events. One VS8F-2 effects board is already installed and there's room for one more for a total of four simultaneous stereo effects. An internal, low-profile CD burner comes standard, giving you everything they need to burn CDs or even import .WAV files directly into a song.



VS-2400CD shown with optional VGA monitor

ALL OF THE FEATURES OF THE VS-1824CD PLUS—

24-bit/96kHz Sound Quality

- ◆ 24-track playback up to 24-bit (12 tracks at 96kHz) and 384 Virtual Tracks (16 V-tracks per track) for "comping" the perfect lead vocal or solo.
- ◆ Eight simultaneous record tracks are available right out of the box. You can achieve 16-track simultaneous record tracks when interfacing with the built-in 8 channel R-Bus port.
- ◆ 24-bit A-to-D and D-to-A converters and 56-bit internal processing provide lots of headroom and dynamic range

Flexible 48-Channel Mixing with Motorized Faders

- ◆ The VS2400's 48-channel, fully automated digital mixer consists of the 16-channel Input mixer, 24-channel Track mixer and eight effect returns.
- ◆ Thirteen motorized faders instantly update to their proper level position as soon as you select the channel group you want to control.
- ◆ Scene memories of all mixer parameters can be stored and recalled at the push of a button. There are 100 mixer scenes available per project.
- ◆ Dedicated 4-band EQ (2 shelving and 2 peaking) and dynamics on 32 channels.

Inputs and Outputs

- ◆ Eight XLR mic, 1/4" TRS line inputs with switchable phantom power that allow condenser mics to be used with the mic inputs.
- ◆ Channel 8 can be switched to accept an unbalanced 1/4" Hi-Z instrument.
- ◆ Coaxial and optical S/PDIF digital inputs and outputs.
- ◆ Independent left and right balanced 1/4" TRS Monitor and Master outputs.
- ◆ Left and right balanced 1/4" TRS Aux A and Aux B outputs.
- ◆ An R-Bus port allows you to add 8 more input channels via XLR / 1/4" TRS (ADA-7000) or AES/EBU (AE-7000) R-BUS interfaces.
- ◆ MIDI In, Out/Thru connectors not only provide MTC, MIDI clock and MMC functionality, they also allow the VS-2400CD to act as a MIDI control surface or be operated from an external device.



Simultaneous Record / Playback Tracks

Sample Rate	Recording Format	Record	Playback
48/44.1/32kHz	M24, M16, CDR	16tr	16tr
48/44.1/32kHz	MTP, MT1/2, LIV, LV2	16tr	24tr
96, 88.2, 64 kHz	M24, M16, CDR	8tr	8tr
96, 88.2, 64 kHz	MTP, MT1/2, LIV, LV2	8tr	12tr



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ROLAND

VS-2400CD

MULTITRACK RECORDERS

529

Mouse-Based Editing

- ◆ "Drag-and-drop" Copy, Move, Exchange, Insert, Cut and Erase editing using the included mouse and the LCD display or use an optional VGA monitor which serves as the ultimate graphic "Information Display" for navigating playlists, mixer settings, and EZ Routing
- ◆ Graphic waveform display and scrubbing features makes finding edit points a snap
- ◆ 999 levels of Undo to back you up
- ◆ A second PS-2 input accommodates an optional ASCII keyboard for quick and efficient naming of tracks and phrases.

Onboard Effects

- ◆ Two stereo effects processors expandable to four via additional VS8F-2 Effects Expansion Boards.

RSS 3-D Panning

- ◆ The RSS Panning function provides dedicated 3-D panning without complicated editing. Using this function, you can create a 3-D sound field with up to six mono sources and write it into the Automix.

R-BUS Options

- ◆ ADA-7000 8 channel 24-bit A-to-D and D-to-A converter with balanced XLR/ 1/4" TRS inputs for connecting additional microphones or instruments
- ◆ AE-7000 AES/EBU Interface
- ◆ An 8-channel R-BUS port allows you to expand the I/O in a variety of analog/digital formats and provides the ability to record up to 16 tracks simultaneously. You can also use the R-BUS port to exchange eight channels of 2-way audio and MIDI data between your V-Studio and a PC.

V-LINK

- ◆ V-LINK is a video synchronization and control protocol that is a built-in component of many of the latest generation of products from Roland including the VS-2400CD.
- ◆ V-LINK allows you to trigger video clips from MIDI events, or you can use the V-Fader function to control parameters such as color balance and brightness.

VGA MONITOR SCREENS



A



B



C



D



E

A. Software-style, mouse controlled graphic waveform editing

B. Edit levels, panning and more for all 24 tracks using the Track Mixer screen

C. The Playlist screen provides a global view of your arrangement and allows drag-and-drop editing of audio regions using the mouse

D. EZ Routing - Simply drag a "virtual" audio cable from source to destination

E. Access individual channel parameters (EQ curves, compressor settings, effects and more) using the Channel View

APPROXIMATE RECORDING TIMES

(at 10GB Partition, conversion in 1 track, unit: minutes)

Recording Mode	Sample Rate					
	96kHz	88.2kHz	64kHz	48kHz	44.1kHz	32kHz
M24	662	721	993	1,324	1,442	1,987
MTP	1,989	2,165	2,983	3,977	4,329	5,966
M16	994	1,082	1,491	1,989	2,165	2,983
CDR	994	1,082	1,491	1,989	2,165	2,983
MT1	1,989	2,165	2,983	3,977	4,329	5,966
MT2	2,651	2,885	3,976	5,302	5,771	7,953
LIV	3,181	3,462	4,772	6,362	6,925	9,543
LV2	3,977	4,329	5,966	7,955	8,658	11,932

*In "CDR" recording mode, two tracks are always used in a pair (channel link is on), so recording time is half the above-listed.

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ROLAND

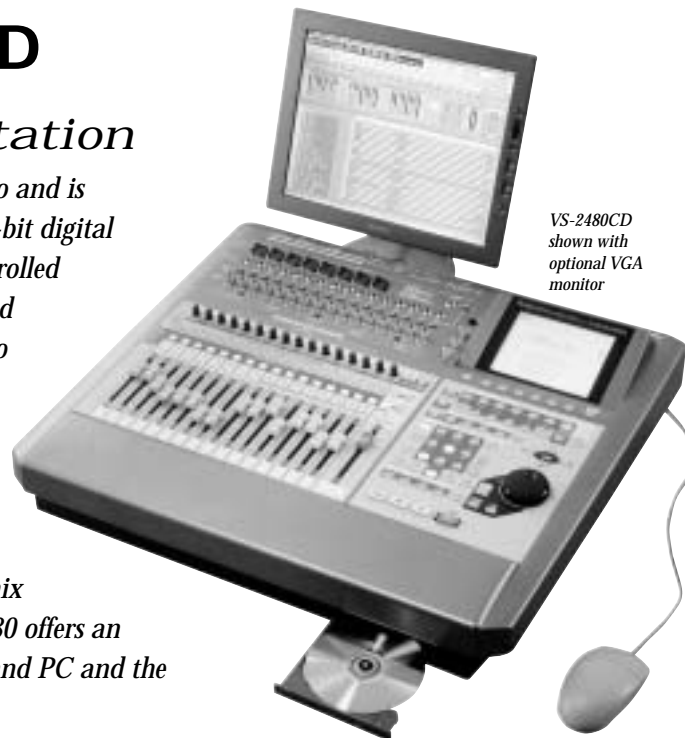
VS-2480HD / VS-2480CD

MULTITRACK RECORDERS

530

24-Track Digital Studio Workstation

The VS-2480 is Roland's top-of-the-line, self-contained V-Studio and is Roland's first recording workstation to offer 24 tracks of true 24-bit digital recording, with an unprecedented 64 channel digital mixer controlled by 17 motorized faders, dynamics for 48 channels, 4-band EQ and filtering for each channel and two stereo effects expandable up to 8. Analog inputs included 8 XLR mic/line inputs with phantom power and 16 balanced 1/4" mic/line inputs. 24 Phrase Pads allow you to trigger and sequence samples directly from disk. All of these advanced features are greatly enhanced by full mouse-based editing capabilities using the large LCD display or an optional VGA monitor. You can even mix in 5.1 surround sound — ideal for DVD production. The VS2480 offers an optional CD-RW drive with CD burning software for the Mac and PC and the VS-2480CD adds an internal CD-RW drive.



VS-2480CD shown with optional VGA monitor

ALL OF THE FEATURES OF THE VS-2400CD PLUS—

- ◆ 16-track simultaneous recording makes it possible to capture a full band in a single take.
- ◆ The VS-2480CD ships with a fixed 80GB internal hard drive and is compatible with large-capacity 3.5" IDE hard drives up to 128GB.
- ◆ The VS-2480HD includes a 40GB internal IDE hard drive

64 Channel

Fully Automated Mixer

- ◆ 64 channel mixer – 24 input channels, 24 playback tracks, 8 Aux master channels and 8 FX return channels
- ◆ 48 channels of dynamics processing and 4-band EQ plus Filter per channel
- ◆ 16 rotary knobs can be switched between controlling a channel's panning and Aux sends 1-8 or as a single channel strip for direct control over a channel's dynamics and EQ
- ◆ 17 motorized faders can be layer switched for controlling all available channels.
- ◆ Route any signal just about anywhere you want— such as to internal or external effects

Expandable I/O

- ◆ 16 simultaneous inputs (standard) including eight XLR connectors with phantom power and 16 balanced 1/4" TRS inputs not to mention the ubiquitous dedicated 1/4" guitar input. Each input has a sensitivity knob that can accommodate mic and line level signals and a switchable 20dB pad
- ◆ Eight balanced 1/4" TRS jacks assignable as 8 direct outputs or in pairs as dedicated Monitor, Master, Aux A and Aux B outputs
- ◆ Dual 1/4" TRS headphone outputs
- ◆ Dual R-Bus ports allow you to add 16 additional inputs via 8 channel XLR/ 1/4" TRS or AES/EBU R-BUS interfaces

Effects

- ◆ Includes one VS8F-2 effects board which provides access to two high quality stereo effects processors (4 mono).
- ◆ You can add optional VS8F-2 Effect Expansion Boards for up to eight stereo or 16 mono effects

Phrase Pad Sequencer

- ◆ The Phrase Pad function allows you to trigger up to 24 different audio phrases such as one-shot SFX or vocals directly from disk
- ◆ Each phrase is assigned to one of the 24 Track Status/Phrase buttons located above each fader
- ◆ Phrase Pad performances can be sequenced and played backed alongside audio tracks and bounced onto audio tracks

Additional Features

- ◆ Word Clock input (BNC) slaves to a master clock for jitter free recording
- ◆ A SMPTE input makes it possible to sync the to video.
- ◆ Equipped for 5.1 Surround Mixing – panning is made easy using the included mouse or using the optional VE-7000 Channel Edit Controller's built-in joystick.
- ◆ A built-in Realtime Spectrum Analyzer helps you tune your EQ to compensate for the room's dynamics and create more accurate mixes.

Rear view of the VS-2400CD



EQUIPMENT LEASING AVAILABLE

ROLAND

DS-30A • DS-50A • DS90A

24-bit/96kHz Digital Reference Monitors

Roland's 24-bit Digital Nearfield Reference Monitors were designed to be the perfect match for the BOSS and Roland digital studios as well as any computer-based or standalone digital workstation. Each monitor employs a bass reflex cabinet and a 2-way bi-amplified design. An active crossover system feeds each amplifier delivering an ultra-flat response that is sure to aide in creating accurate mixes. The DS series monitors 24-bit/96kHz digital inputs are a no-brainer for the all-digital production environment and help eliminate the noise and hum problems associated with analog cabling. The DS-30A are the most affordable way to add pristine 24-bit/96kHz digital monitoring to your studio. They are ultra-compact monitors that utilizes a 30-watt bi-amp design with a 5" propylene low frequency driver and a 1" soft dome tweeter — ideal for any application where a smaller high-quality monitor is needed. The DS-50A feature a more powerful 50W bi-amp design with a 5" polypropylene woofer and a .75" soft dome tweeter. The DS-90A are the ideal nearfield reference monitor if you need a monitor system with a small footprint and their wider frequency response allows them to take advantage of the COSM Speaker Modeling features found in the Roland and Boss workstations. The DS-90A are Roland's most powerful nearfield monitors and are the reference standard monitors for use with COSM Speaker Modeling. They employ a 90W bi-amped design with a 6.5" polypropylene cone and 1" soft dome tweeter. If you're looking for a premier monitoring system, with the widest possible frequency response, for your V-Studio workstation, look no further than the DS-90A.



DS90A



MULTITRACK RECORDERS

531

They All Feature

- ◆ Compact 2-way near-field reference monitors with built-in bi-amplifier design
- ◆ Specially designed bass-reflex cabinets deliver an exceptional flat frequency response with minimal phase shifts and distortion
- ◆ Custom active crossover circuitry delivers crystal-clear sound and flat frequency response.
- ◆ 24-bit/96kHz coaxial and optical digital inputs
- ◆ Analog balanced XLR connections and TRS 1/4" input
- ◆ Magnetically shielded drivers for use in proximity to CPU monitors.
- ◆ Adjustable Input, Low Frequency, and High Frequency levels

The DS-30A Features

- ◆ 5" polypropylene cone LF driver and a 1" soft dome HF driver.
- ◆ 78 Hz to 20 kHz frequency response ± 3 dB
- ◆ Third order active crossover at 2.3kHz
- ◆ 30W bi-amplified design – 20 W LF amplifier, 10W HF amplifier
- ◆ 11 $\frac{1}{2}$ x 6 $\frac{1}{8}$ x 9 $\frac{7}{8}$ " (HxWxD)
- ◆ Weighs 13 lbs. 8 oz.

The DS-50A Adds-

- ◆ Compatible with COSM Speaker Modeling found in select Roland V-Studios and V-Mixers
- ◆ 5" polypropylene cone LF driver and a .75" soft dome HF driver.
- ◆ 68 Hz to 22 kHz frequency response ± 3 dB
- ◆ Third order active crossover at 2.3kHz
- ◆ 50W bi-amplified design – 30 W LF amplifier, 20W HF amplifier
- ◆ 12 $\frac{1}{4}$ x 7 $\frac{3}{4}$ x 10 $\frac{1}{2}$ " (HxWxD)
- ◆ Weighs 17 lbs. 11 oz.

The DS-90A Adds-

- ◆ 6.5" polypropylene cone LF driver and a 1" soft dome HF driver.
- ◆ 48 Hz to 20 kHz frequency response ± 3 dB
- ◆ Fourth order active crossover at 2.6kHz
- ◆ 90W bi-amplified design – 60 W LF amplifier, 30W HF amplifier
- ◆ 14 $\frac{1}{2}$ x 9 x 15" (HxWxD)
- ◆ Weighs 33 lbs. 1 oz.

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ROLAND

COMPARISON CHART

MULTITRACK RECORDERS

532

	BR-532	BR-1180	BR-1180CD	VS-1824CD	VS-2400CD	VS-2480HD	VS-2480CD
Recording							
Simultaneous Recording	2	2	2	8	8 (16 w/ R-Bus)	16	16
Simultaneous Playback	4	10	10	18	24	24	24
Recording Media	Smart Media	20GB HD	20GB HD	10GB HD	40	40GB HD	80GB HD
Approx Max Record Time (Minutes)	90	4000	4000	4,000	6,500	6,500	13,000
Virtual Tracks	32	80	80	288	384	384	384
Phrase Pad Playback with Sequencer	-	-	-	-	-	✓	✓
Digital Mixer							
Channels	6	11	11	28	48	64	64
Scenes	0	8	8	8	100	100	100
Dynamics/EQ per channel	-	2	2	No/3 bands	Yes/4-band	Yes /5 bands	Yes/5 bands
Fader Grouping, Channel Copy	-	-	-	✓	✓	✓	✓
Total Inputs	4	-	-	10	20	36	36
Total Mic Inputs	2	2	2	8	8	16	16
XLR's with Phantom Power	1/No	2	2	2	-	8	8
Guitar Input	✓	✓	✓	✓	✓	✓	✓
Total Outputs	4	4	4	12	22	32	32
8 Channel R-Buss Digital I/O Ports	-	-	-	-	1	2	2
EZ Routing	-	-	-	✓	✓	✓	✓
Word Clock Input	-	-	-	-	-	✓	✓
Automation							
Real-Time	-	via MIDI	via MIDI	✓	✓	✓	✓
Snapshot (Scene)	-	✓	✓	✓	✓	✓	✓
SMPTE Timecode Input	-	-	-	-	-	✓	✓
Effects							
On-Board (Stereo)	1 insert/ 1 loop	1 insert/ 2 loop	1 insert/ 2 loop	2	2	2	2
Optional Effects (Stereo)	-	-	-	2	2	6	6
COSM Amp Modeling	✓	✓	✓	✓	✓	✓	✓
COSM Mic Modeling	-	✓	✓	✓	✓	✓	✓
Speaker Modeling	-	✓	✓	✓	✓	✓	✓
Mastering Tool Kit	-	✓	✓	✓	✓	✓	✓
RSS Panning	-	-	-	-	✓	-	-
User Interface							
Mouse-based control	-	-	-	-	✓	✓	✓
ASCI Keyboard Output	-	-	-	-	✓	✓	✓
VGA Monitor Output	-	-	-	-	✓	✓	✓
Editing							
UNDO	1	999	999	999	999	999	999
Markers	0	100	100	1000	1000	1000	1000
Locate Points	3	100	100	64	100	100	100
CDR Capability							
CDR Support	-	Optional	Built-In	Built-In	Built-In	Optional	Built-In
Track at Once	-	w/ Option	✓	✓	✓	w/ Option	✓
Disc at Once	-	w/ Option	✓	✓	✓	w/ Option	✓
CD Track Edit	-	-	-	✓	✓	w/ Option	✓
Miscellaneous							
.WAV File Import/Export	✓	✓	✓	✓	✓	w/ Option	✓
Built-in Guitar Tuner	✓	✓	✓	-	-	-	-
PCM Rhythm Guide	✓	✓	✓	-	-	-	-
Free Logic VS Software	-	-	-	✓	-	-	-
Discrete Drums Loop CD	-	✓	-	-	-	-	-

TASCAM

POCKET STUDIO 5

Compact Digital Multitrack Recorder

The Pocketstudio 5 is a low-cost portable digital multitrack recorder that allows you to playback up to four tracks of digital audio, recorded to readily available Compact Flash cards (a 32MB card is included). An internal MIDI tone generator allows you to arrange and playback the patterns of 100 onboard Standard MIDI Files for use as backing tracks for your compositions. Other features include computer interfacing via a built-in USB port over 100 internal effects, a built-in condenser mic and the ability to run for 2 hours using six "AA" batteries.



FEATURES

- ◆ Four audio playback tracks available for recording vocals, guitars and other instruments
- ◆ 16 bit A-to-D and D-to-A converters and 24-bit internal processing at a sample rate of 44.1 kHz
- ◆ All information (audio tracks, MIDI files) is stored on readily available Compact Flash cards between 8 MB and 128 MB – a 32 MB card is included
- ◆ Six faders provide volume control of the four playback tracks, the tone generator and the master output
- ◆ Each of the four playback tracks as well as the two inputs have Bass and Treble EQ with sweepable frequency control and ± 12 dB boost and cut
- ◆ Pan controls are also available for the 4 playback tracks
- ◆ Final stereo mix down is created using the MP3 file format
- ◆ Runs for two hours using six alkaline AA batteries (an AC adapter is also included)
- ◆ A built-in condenser mic and a headset microphone deliver true portability

Inputs and Outputs

- ◆ Two simultaneous analog inputs with trim controls and overload indicators
 - > Input A is a 1/4" guitar/line level input
 - > Input B has a choice of an 1/8" mic input or a 1/4" mic/line level input
- ◆ 1/8" stereo line level output
- ◆ 1/8" stereo headphone out with level control

Editing

- ◆ Eight user-defined marker points allow you to quickly access the different sections of a song
- ◆ Two additional marker points can be used for Auto punch in and out and repeat playback Manual Punch in and out is also supported
- ◆ Cut, Copy and Paste editing of audio and MIDI tracks (with undo) using bars/beats
- ◆ **Two Track Bouncing Modes** –
 - Mode 1** (Bouncing) four playback tracks (with or without the tone generator)
 - Mode 2** (Bounce +) allows you to combine the two inputs along with four playback tracks (with or without the tone generator)

Internal Synth Module

- ◆ An internal high-quality General MIDI compatible tone generator, with 16 multi-timbral parts, 128 instruments, 5 drum kits, as well as chorus and reverb, can be used to play back Standard MIDI file sequences alongside the four audio tracks. Each of the 16 parts has independent control over level, pan as well as chorus and reverb send levels
- ◆ 100 standard MIDI files are available in a variety of musical styles to provide a solid foundation for building backing tracks for your compositions
- ◆ Each MIDI file contains six standard song components or patterns (Intro, Verse 1, Verse 2, Fill 1, Fill 2 and end)
- ◆ The key and running order of each pattern, as well as the tempo and instrumentation of the songs can all be changed



Over 100 High Quality Effects

- ◆ Two multi-effects are available during recording (one effect for each of the two inputs) –
 - > The effect for Input A is primarily for use with guitars (either electric or acoustic) and bass and includes a variety of amp simulators and distortion effects that are combined with reverb, chorus, flange or delay
 - > The effect for Input B is primarily meant for use with vocals and other instruments including drums and percussion
- ◆ A separate reverb effect is also available for use with the audio tracks during mixdown

Conveniences

- ◆ A built-in USB port allows you to transfer files between the Pocket 5 and a Macintosh or Windows computer
- ◆ MIDI input connector allows you to control the internal tone generator using a MIDI keyboard
- ◆ Large LCD display navigated by a multifunction cursor pad and data wheel
- ◆ Tape-style transport controls
- ◆ Built-in guitar tuner

8-Track Digital Portastudio

The 788 brings together 8 tracks of direct to hard disk recording and editing, a full featured and flexible digital mixer, two assignable effect processors and optional CD burning capabilities with the ease of use and affordability of a Portastudio. The hard disk recorder offers 250 virtual tracks per song, and non-destructive editing with 999 levels of undo and redo giving you plenty of room to experiment without fear of over doing it. The mixing section offers complete routing flexibility with the ability to control 18 simultaneous inputs at mixdown — 8 playback tracks, 6 analog inputs, and 2 stereo effects. The powerful effects can be configured as stereo effects, dynamics, or even as a multi-effect processor for guitar effects. Once you've created the perfect mix, you can use an approved SCSI CD-R or CD-RW drive to burn audio CDs directly from the 788.



FEATURES

Recording Section

- ◆ Audio is all recorded with Tascam's own hard disk recording engine that provides 8 tracks of uncompressed 16-bit or 24-bit recording and playback at 44.1kHz
- ◆ Includes an internal 7.5 gigabyte hard drive
- ◆ A SCSI-2 connector is provided allowing you to record and playback to/from an optional, external hard drive up to 64GB
- ◆ 250 Virtual Tracks are provided per song allowing you to record multiple takes and choose the overall best performance or create the perfect take by editing together the best phrases from different takes

Punch In/Out

- ◆ Executing overdubs and manual punching is as simple as a single button push or, for hands free punching you can use an optional RC-30P punch pedal
- ◆ The Auto Punch feature lets you rehearse and punch in and out at exact locate in/out points. Auto Punch points can also be created using the last Manual Punch points
- ◆ The Auto punch will allow you to loop record up to 99 takes that can be auditioned and selected at a later time
- ◆ The Last Take Load function allows you to recall your last Auto-Punch session so you can audition them all over again

Digital Mixing Section

- ◆ 8 full featured channels, 6 input submixer channels and an 8 channel cue mix
- ◆ Seven channel faders are provided for controlling six mono channels and a stereo pair of channels assigned from the input connectors, or from the recorded tracks
- ◆ Each of the 8 mixer channels feature —
 - > Input-to-channel assignment (input or track), Digital pad/gain, 3-band EQ, Level, Pan, Solo, Effect and Aux sends
- ◆ The Effect and Aux sends are assignable pre- or post-fader allowing optimal setup and routing flexibility
- ◆ The pre-EQ, Digital pad/gain control allows you to attenuate signals up to 42dB and increase signals up to 6dB, in 6dB intervals
- ◆ Channels may be linked in stereo pairs, allowing them to share control settings
- ◆ The six submixer inputs are available during mixdown for combining synths, samplers and drum machines with the 8 audio tracks

3-Band EQ

- ◆ High and Low sweepable shelf bands and a parametric mid band with selectable "Q" are provided for each of the 8 mixer channels —

Boost/Cut (per band)	±12 dB
Low frequency range	32 Hz–1.6 Hz
Mid frequency range	32 Hz–18 kHz
Mid Q Control	0.25/0.5/1/2/4/ 8/16
High frequency range	1.7 kHz–18 kHz

Routing & Scene Memory

- ◆ You can store and recall up to 128 commonly used input assignment (routing) patterns to a user-library available to all songs.
- ◆ Each song has a 10 scene library where you can store and recall all of the mixers routings and settings. Saved settings include — Input assignments, EQs, Effect levels, settings and assignment, Aux send levels, Pan, Digital pad/gain, as well as Cue mixer, Fader and Submixer settings.

Pre-Master Function

- ◆ Contents of the recorded tracks, as well as inputs from the sub-mixer can be mixed down to the stereo outputs, which can be fed to the analog or digital outputs for mixdown cassette or DAT
- ◆ Alternately, you can "pre-master" or bounce a stereo mix that includes all 8 tracks, the 6 inputs, plus the two effect processors to the hard disk. This will allow you to audition and trim a mix before committing it to tape or disc using the optional CD burner



Inputs & Outputs

- ◆ 24-bit A-to-D and D-to-A converters
- ◆ 6 Analog Inputs —
 - > Four 1/4" TRS (balanced or unbalanced) analog mic/line inputs – the fourth input can be switched to accept a high impedance guitar input that can access the internal effects
- ◆ A 1/4" stereo Aux Input is available for plugging in a drum machine, synth or effects processors
- ◆ Any input can be easily assigned to any mixer channel by simultaneously pressing the buttons for the input and the channel
- ◆ Separate outputs are provided for the monitor and stereo mix sections, allowing you to monitor at different levels without affecting the recording or mixdown levels
- ◆ The stereo output is also duplicated as a S/PDIF digital output, allowing you to mix down digitally to a DAT, MD or standalone CD recorder
- ◆ A stereo Aux Send output can be used with an external effect processors or for additional headphone mixes



MIDI I/O Synchronization

- ◆ Generate and chase MIDI Clock, Song Position Pointer or MIDI Time Code (MTC) for locking up drum machines, sequencers and other studio devices including another 788
- ◆ A tempo map containing tempo and time signature information can also be transmitted and received over MIDI

CD-Recording

- ◆ An optional external CD-RW burner (32x12x10) allows you to burn CDs from mastered tracks - and provides a cost effective way of backing up valuable data.
- ◆ You can also import and export .Wav files using ISO-9660 formatted discs
- ◆ Audio can be recorded one track at a time, leaving the CD open for more songs to be added later - or you can choose multiple songs to be recorded in one complete pass, making a 100% Red Book-compliant CD ready for mass duplication

Non-Destructive Editing

- ◆ Track editing functions include —
 - > COPY->PASTE, COPY->INSERT, MOVE->PASTE, MOVE->INSERT, OPEN, CUT, SILENCE, CLONE TRACK and CLEAN OUT
- ◆ The most common editing functions (COPY, MOVE, and SILENCE) are all located on the surface while some of the more advanced functions are accessible in the Track Edit menu
- ◆ Besides editing tracks individually, It is also possible to edit across tracks, or on multiple tracks
- ◆ 999 levels of undo / redo with an undo history list allow you to freely experiment with different edits without fear of losing anything
- ◆ Track scrubbing and waveform displays (with multiple zoom controls) help you easily find precise edit points



Waveform / Jog View

Locate Functions

- ◆ Controls for locate points are provided on the surface of the unit, along with standard project navigation keys like Return to Zero
- ◆ Up to 999 location marks can be assigned in each song. These markers are stored in a list that can viewed by time or the location marker title
- ◆ Timing for locate points can be expressed in Absolute Time, MTC or in musical terms (Bars and Beats)
- ◆ Direct location lets you use the cursor keys and the dial to locate a specified position
- ◆ The Last Recording Position (LRP) function allows you to return instantly to the point where recording last started — ideal for playing back a track you just recorded, retaking a bad performance or if you need to overdub different tracks at the same position

Built-in Effects

- ◆ Two high quality effect engines capable of producing a wide range of high quality effects including reverb, delay, chorus, pitch shifter, flanger, phaser, and reverb + gate
- ◆ A library of user definable presets allows you to store up to 128 customized patches for recall at any time
- ◆ **Effect 1** can serve as a stereo effect processor, accessed from individual channel sends, or as a multi-effect processor, assigned to a specific input
- ◆ Multi-effects can consist of up to five simultaneous effects – although tailored for guitar and bass they can also be used for other instruments as well
- ◆ An independent library with 128 user definable presets is also provided for the multi-effect processor
- ◆ **Effect 2** can also serve as a stereo effect processor, or it can be assigned as independent dynamic processors across every channel on the mixer or as a single stereo dynamic processor on the stereo output
- ◆ The dynamics also have a 128 user definable preset library
- ◆ Effect and Aux Sends can be assigned as pre or post fader, allowing them to be configured for effect and monitor routing purposes
- ◆ Separate routing and scene memories can store and recall your favorite settings

Conveniences

- ◆ A repeat playback function allows you to loop a section of a song based on selected IN and OUT points
- ◆ The Slow Speed Audition (SSA) function allows you to play back a pair of tracks at the same pitch, but at a slower tempo. This is an ideal rehearsal tool when combined with repeat playback function
- ◆ A varispeed control allows you to play back and record at speeds $\pm 6\%$ of the original – ideal for overcoming differences in tuning
- ◆ A built-in metronome provided a useful tempo guide. The metronome sound can be generated by it's own internal source or an external MIDI device

YAMAHA

AW16G

MULTITRACK RECORDERS

536

16-Track Digital Audio Workstations

Although the AW16G is Yamaha's most affordable digital audio workstation, it still must be considered an all out professional recording system – sacrificing a few of the frills but not audio quality!

Features include 16 playback and 8 simultaneous record tracks of uncompressed 16-bit audio at 44.1kHz, a 36 channel mixer controlled by 13 (45mm) faders, dual stereo effects processors plus mastering effects and dynamics and 4-band parametric EQ on every channel (a unique feature indeed at this price point). Eight mic/line inputs are provided including two XLR inputs with phantom power and a 1/4" Hi-Z instrument input. The included 20GB internal hard drive provides 4,000 total track minutes of audio storage (enough room for over 50 five minute songs while the built-in CD-RW drives audio CD and data backup capabilities complete the all-in-one workstation picture.



FEATURES

- ◆ 8 simultaneous record tracks, 16-track playback with 144 virtual tracks (8 per track)
- ◆ 16-bit (uncompressed) audio resolution at a sampling frequency of 44.1kHz (± 6%)
- ◆ 24-bit A-to-D and D-to-A converters and 32-bit internal processing
- ◆ Built-in 2.5" 20GB IDE hard disk

36 Channel Mixer

- ◆ 36 simultaneous inputs, controlled by 13 (45mm) faders, are available at mixdown including 16 playback channels, 8 mic/line inputs, 4 internal effect returns and 4 stereo quick loop sampler pads
- ◆ Each channel (except for the effect returns) has 4-bands of fully parametric EQ, dynamics (compression, expansion, gate and ducking), bus assign and pan as well as channel on/off, pad and phase reverse
- ◆ The 8 bus outs include two busses, two external Auxes and two stereo effect sends
- ◆ A 96 Scene Memory allows you to store all mix parameters for all channels and recall them at the touch of a button. You can create different scenes for each section of a song or A/B compare mixes
- ◆ You can also save the entire configuration of a single channel's settings to the dedicated 64 Preset Channel Library
- ◆ Independent Dynamics and EQ Libraries each containing 40 Factory and 88 User Presets tailored to specific applications.

- ◆ Two onboard digital effects processors using the same DSP found in other AW series workstations have access to 40 Preset and 88 User patches ranging from Reverb, Delay, Modulation, Distortion, Dynamics to Multi-effect combinations



Quick Loop Sampler

- ◆ Up to 44 seconds of stereo audio samples can be assigned to 16 flash memory locations, independent of the 16 audio tracks, and triggered via 4 stereo sample pads – ideal for recording drums, loops and sound effects
- ◆ A CD-ROM with over 250MB of professionally produced drum kits, loops and other stereo samples is included
- ◆ The Slice function will automatically sync loops to match the BPM of the current song without changing their pitch

Effects

- ◆ An Input Channel library, with 40 presets, offers a variety of amp and speaker simulators along with many traditional and not so traditional effects designed specifically for capturing professional sounding vocals, acoustic and electric guitars, and bass tracks
- ◆ 13 types of studio-quality mastering effects are available on the main outputs for adding presence and punch to your final mix

Inputs and Outputs

- ◆ Eight analog inputs are available for recording or submixing synths and effects during mixdown including — two phantom powered XLR inputs, six 1/4" TRS mic/line inputs and a hi-Z instrument input
- ◆ A pair of unbalanced 1/4" outputs are provided for stereo monitoring and a second pair of unbalanced 1/4" stereo/aux outputs can be used for accessing external effects and headphone mixes a 1/4" stereo headphone output is also provided
- ◆ Optical S/PDIF digital I/O



For Any Inquiries Regarding Your Order, Call Our Customer Service:
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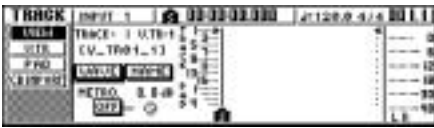
AW16G

Easy To Set Up and Use

- ◆ Route input sources to the tracks you want to record to by pressing the respective Input and Track buttons. The graphic display shows the connections you've made
- ◆ Display 240 x 64 dot backlit LCD

Track Editing

- ◆ Non-destructive track editing functions include erase, delete, insert, copy, move and exchange



- ◆ A number of destructive editing capabilities are also available including time compression and expansion in a range of 50% to 200% and pitch change \pm one octave
- ◆ There is also one level of Undo
- ◆ Locate points include Start, Out RTZ, A/B, Last Record In/Out
- ◆ 99 Marker points can be assigned and quickly accessed using locate commands
- ◆ Manual and Auto punch I/O

Built-In CD-RW Drive

- ◆ Burn final mixes directly to inexpensive CD-R media or back up your recording session data directly to the highspeed CD-RW drive
- ◆ A Song Marking feature that lets you split a single song files into separate tracks – invaluable for indexing long jam sessions
- ◆ Compatible with the backup file formats of both the AW4416 and the AW2816
- ◆ You can also import from audio CD and import/export audio in WAV file format

MIDI In, Out and Thru

- ◆ Synchronize with synths, drum machines and sequencers using MTC, MIDI clock and MMC commands
- ◆ Use faders as a control surface for Cubase, Logic and Sonar
- ◆ Remote mode allows you to create remote programming templates by sending MIDI control data from an external device into the AW16G. Controller assignments can then be used for realtime parameter control (i.e. the filter cutoff of a synth).

Sound Clip – Idea Sketchpad

- ◆ Sound Clip function allows you to capture and experiment with musical ideas at a moments notice, without having to configure time-consuming input routings, track assignments and other setups
- ◆ Up to 180 seconds of looped recording time is provided using special memory allocation, separate from the 16 record tracks – Just plug in, hit record, and go
- ◆ Phrases can then be copied to a track, or assigned to a sample pad



Additional Features

- ◆ Built-in metronome follows an internal tempo map
- ◆ Magnetically shielded, so you can use them near computer monitors and speakers without having to worry about electromagnetic interference

ACCESSORIES FOR THE AW16G, AW2816 and the AW4416

- FC5**
Punch Pedal**14.99**
- ADP25H**
Hard drive tray to use
multiple hard drives**49.95**
- AW4416 Quick Start Video**.....**24.95**

- ADAT Cable**
15' ADAT optical cable
(2 required for input and output) **Call**
- TDIF Cable** – 15' Tascam I/O cable ...**Call**
- RH5MA**
Professional monitor headphones.....**49.95**

- AW16G Bag**
Canvas carry bag for the AW16G**44.95**
- AW2816 Case**
Custom Case for the AW2816**179.95**
- AW4416 Case**
Hard carry case for the AW4416**199.95**



YAMAHA

AW2816 / AW4416

MULTITRACK RECORDERS

538

16-Track Digital Audio Workstations

The AW2816 and AW4416 are compact console-style Digital Audio Workstations that deliver fully professional multi-track recording, mixing, non-destructive editing, effect processing as well as an internal CD-RW drive option for CD mastering and archiving — Complete music production systems, right at your fingertips! Both units offer sixteen tracks, plus a stereo mixdown track, of uncompressed 16- and 24-bit recording and playback directly to/from an included internal 20 gigabyte hard drive. The AW2816's 28 input x 18 bus mixer and the AW4416's 44 input x 20 bus mixer each provide features that meet or exceed the power and performance of the now-legendary Yamaha 02R Digital Mixer including EQ and Dynamics on every channel, fully automatable motor-driven faders and an intuitive all-digital patching system. The state-of-the-art 24-bit A-D and D-A converters employed on each of the unit's inputs and outputs as well as the 32-bit internal mix processing (44-bit for the 4-band parametric EQs) ensure that the pristine sound quality of the 16-track-plus-stereo 24-bit hard disk recorder is maintained throughout the production process. Both units also feature the same extensive non-destructive audio editing capabilities at the song, track. The two available stereo multi-effect processors, based on the Yamaha ProR 3, can be individually assigned as channel inserts or in a send/return configuration. A number of optional I/O interface cards are available for each unit that provide direct connectivity with all types of digital and analog gear — the AW2816 has one expansion slot while the AW4416 has three. The AW4416 also features 8 built in polyphonic sample pads and a special recording track which can be used to trigger and sequence loops, sound effects or even for flying in background vocals.



FEATURES

16 Track Hard Disk Recorder

- ◆ Sixteen tracks of uncompressed audio recording and playback with selectable word lengths of 16-bit or high resolution 24-bit and sample rates of 44.1 or 48 kHz
- ◆ 16 independent record/playback tracks each with up to 8 virtual tracks plus a stereo mixdown/bounce track provide a total of 130 tracks
 - > Virtual tracks can be used to record alternate takes of a part. The best take can then be selected or the best phrase of multiple takes can be edited together to create the final track
 - > The stereo mixdown/bounce track allows all 16 tracks to be mixed down directly to disk, including effects and automation, as a single stereo track
- ◆ 8 tracks can be recorded simultaneously on the AW2816 or 16 tracks on the AW4416

Mixer Sections

- ◆ The AW2816's 28 inputs are comprised of
 - > 8 freely assignable input channels derived from 8 analog inputs, digital stereo inputs and 8 channel Option I/O slot inputs
 - > 16 hard disk playback channels
 - > 2 stereo effect return channels
- ◆ The AW4416 adds 16 freely assignable inputs derived from 8 analog inputs, digital stereo inputs, (3) 8 channel Option I/O slot inputs and 8 sampling pad inputs for a total of 24 input channels and 44 total inputs
- ◆ The AW2816's offers 18 mix busses 8 group buses, 6 AUX buses, the stereo bus and the stereo SOLO bus — The AW4416 adds two more aux busses for a total of 20 mix busses
- ◆ The input channels and the 16 playback tracks feature individual Attenuation, Phase (polarity) Reverse, Channel Delay, Dynamics, Bus Assign, 4-band Parametric EQ, Pan and Channel ON/OFF (mute)
- ◆ Mixer channels and busses are controlled via smooth and responsive 60mm motorized faders (8 on the AW2816 and 16 on the AW4416) that represent actual levels when using automation or switching between mix layers or scenes



EQUIPMENT LEASING AVAILABLE

YAMAHA

AW2816 / AW4416

Analog Inputs & Outputs

- ◆ Eight balanced high quality analog inputs are provided right out of the box –
 - > Channels 1 & 2 feature two balanced XLR / 1/4" TRS mic/line inputs with switchable phantom power
 - > Channels 3-8 offer balanced 1/4" TRS jacks for microphone or line input
 - > Channel 8 also offers an unbalanced 1/4" Hi-Z input that allows direct connection of an electric guitar or bass
- ◆ Unbalanced RCA L/R main outputs and balanced 1/4" TRS L/R monitor outputs are provided as well as a 1/4" TRS headphone output with level controls
- ◆ Four unbalanced 1/4" TS Omni outputs, assignable from the 4 aux sends on each mixer channel, are ideal for an external effects processor or for creating alternate monitor mixes for headphones

24-Bit Coaxial Digital I/O

- ◆ Allows you to mix and transfer audio files between mastering decks, samplers and computer-based audio systems

Open-ended Expandability

- ◆ Optional Yamaha Mini-YGDAI cards can provide up to 8 channels of additional I/O in a wide range of formats including mLAN, ADAT lightpipe, T-DIF, AES/EBU and Analog
- ◆ Performance enhancing cards are available from 3rd party companies including the AP8AD and AP8DA AD/DA converter cards from Apogee as well as the Y56K DSP card from DSP developer Waves which provides on-board access to industry-standard processors such as the L1 mastering limiter and TrueVerb high resolution reverb

Scene Memory and Automation

- ◆ Up to 96 individual scenes, containing complete control and parameter setups, can be saved within each song
- ◆ Scenes can be fully automated to change on the time axis within the song
- ◆ Fader movements and parameter changes can be recorded and reproduced in real time using the built-in "Automix" functions
- ◆ An Event List allows you to edit the time position, value and channel status of individual automix events
- ◆ Up to sixteen automixes can be written to special memory areas within a song and recalled at any time. Data for the sixteen automixes in memory are saved on the hard disk as part of the current song

Synchronization

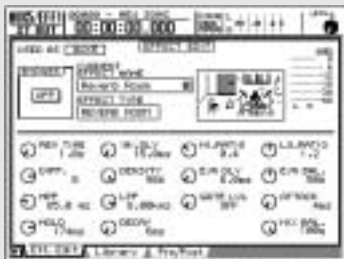
- ◆ Can act as either master or slave for synchronization via MTC or MIDI CLOCK for virtually unlimited system expansion and is also MMC compatible, allowing remote transport control via MIDI control change and parameter change messages



AW2816 rear panel

Built-In Multi-Effects

- ◆ Two stereo effect processors, utilizing custom Yamaha DSP LSIs, provide a wide range of ambience, delay, modulation, distortion, and amp simulator effects
- ◆ Effects can be used in an Aux send/return configuration or inserted directly into an input channel or the stereo bus
- ◆ A preset "Effect Library" provides a broad range of setups that can be used as is or as a starting point for your own variations
- ◆ Edited effects programs can be stored in any of the effects libraries 86 user locations



Effect Edit View

Reverb Effects:	Reverb Hall, Reverb Room, Reverb Stage, Reverb Plate, Early Ref, Gate Reverb, Reverse Gate
Delay Effects:	Mono Delay, Stereo Delay, Modulation Delay, Delay LCR, Echo
Modulation Effects:	Chorus, Flanger, Symphonic, Phaser, Tremolo, Auto Pan, HQ Pitch, Dual Pitch, Rotary, Ring Mod, Mod. Filter
Guitar Effects:	Distortion, Amp simulate
Dynamic Effects:	Dyna. Filter, Dyna. Flange, Dyna Phaser
Combination Effects:	Rev+Chorus, Rev>Chorus, Rev+Flange, Rev>Flange, Rev+Sympo, Rev>Sympo, Rev>Pan, Delay+ER, Delay>ER, Delay+Rev, Delay>Rev, Dist>Delay
Other Effects:	Multi.filter

Optional Internal CD-RW Drive

- ◆ The CD-RW drive option allows you to use inexpensive, reliable CD-R or CD-RW media to take your projects from initial recording right through to creating audio CDs without leaving the digital domain as well as back up and retrieve valuable audio and mix data. You can also use the CD-RW drive to play back audio CDs or load audio and other data directly from CD-ROMs

Peripheral Connectivity

- ◆ A 50-pin SCSI-2 interface is provided for direct connection to a wide range of fixed and removable data storage devices including CD-RW drives
- ◆ MIDI In/Out/Thru jacks and a TO HOST interface provide direct connection to MIDI-capable computers and MIDI devices allowing you to automate mixer functions from an external MIDI controller or sequencer. MIDI controller data can be recorded as automix data for vastly enhanced automix versatility
- ◆ A footswitch jack makes it easy to punch in or out while playing an instrument

YAMAHA

AW2816 / AW4416

EQ and Dynamics On All Channels

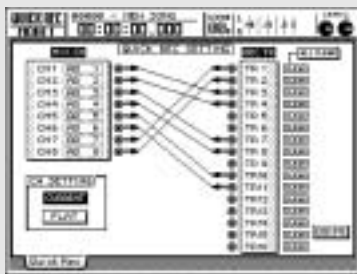
- ◆ 4-band fully parametric EQ and dynamics processing are provided for all input channels and the main stereo outputs. The stereo effects returns offer 4-band parametric EQ
- ◆ Separate EQ and Dynamics Libraries are provided, each containing 128 presets
 - > Presets 001 - 040 have been professionally configured for specific recording tasks
 - > Presets 041 to 128 are user presets where you can save your own setups

4-Band Fully Parametric EQ

- ◆ Each of the four bands features—
 - Frequency Range21 Hz–20.1 kHz
 - Boost/Cut Range±18 dB
 - Q Range Bandwidth.....10 – 0.10
- ◆ The HIGH and LOW EQ bands can be switched to shelving EQs by turning the Q knob fully clockwise or a Low or High Pass Filter by turning the Q knob counterclockwise



Digital Patch (In) View



Quick Record View

Dynamics

Compressor & Expander Parameters

Parameter	Value
Threshold (dB)	-54 to 0 (55 points)
Ratio	1.0:1 to ∞:1 (16 points)
Attack (ms)	0 to 120 (121 points)
Outgain (dB)	0 to +18 (36 points)
Knee	hard - 5 (6 points)
Release (ms)	6 ms to 46.0 sec (160 points)•

Companer Parameters

Parameter	Value
Threshold (dB)	-54 to 0 (55 points)
Ratio	1.0:1 to 20:1 (15 points)
Attack (ms)	0 to 120 (121 points)
Outgain (dB)	-18 to 0 (36 points)
Width (dB)	1 to 90 (90 points)
Release (ms)	6 ms to 46.0 sec (160 points)•

Gate and Ducking Parameters

Parameter	Value
Threshold (dB)	-54 to 0 (55 points)
Range (dB)	-70 to 0 (71 points)
Attack (ms)	0 to 120 (121 points)
Hold (ms)	0.02 ms to 2.13 (216 points)
Decay (ms)	6 ms to 46.0 sec (160 points)*

*@ 44.1kHz

Digital Patching

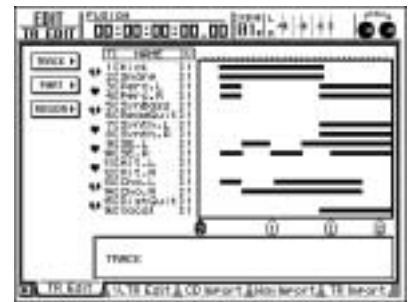
- ◆ Routing Inputs to the 16 hard disk recorder tracks and/or 18 mix buses is done entirely within the digital domain using an intuitive graphic interface. This provides an easy and efficient way of configuring seemingly complex record/mix setups while eliminating the signal loss inherent in analog patching systems
- ◆ Up to 20 different patch configurations can be saved in the internal "Patch Library" memory for instant recall
- ◆ Signal routing is aided by an graphic interface to ensure that the patching process is easy and intuitive

Quick Record

- ◆ The "Quick Record" function automatically sets up 8 record tracks (or up to 16 when an optional I/O card is installed) when starting work on a new song

Non-Destructive Editing

- ◆ All editing is non-destructive, meaning the original audio data is left untouched
- ◆ As many as 15 undo/redo levels are available, leaving plenty of opportunity to change your mind – even after several edits
- ◆ Basic operations such as copy and move
- ◆ Advanced editing functions including time compression/expansion (50% - 200%) and pitch change (±1 octaves) capabilities that give you extraordinary creative control



Song:

Name, Comment, Delete, Copy, Optimize, Protect

Track:

Name, Erase, Copy, Exchange, Slip, Append, Time Comp/Expand, Pitch Change, Import, Export

Part:

Erase, Delete, Copy, Move, Insert, Append, Time Comp/Expand, Pitch Change, Export Region Name, Erase, Delete, Copy, Move, Divide, Trim In/Out, Time Comp/Expand, Pitch Change, Import, Export

Locate & Auto-Punch Functions

- ◆ Intelligent location functions allow you to find locate points fast and easy —
 - > Direct key access to START, END RTZ, A, B, LAST REC IN, LAST REC OUT, and ROLL BACK points
 - > Up to 99 assignable locate points, which can be specified in time or measure numbers, are available per song
- ◆ A precision Wave Display allows you to search for locate or edit points by viewing the audio waveform
- ◆ A tempo-map coupled metronome provides a guide for creating precise auto punch-in/out points

YAMAHA

AW2816 / AW4416

AW4416 Additional Step-Up Features



Inputs and Outputs

- ◆ Channels 1 and 2 offer 1/4" TRS insert I/O that allow you to patch external analog signal processing devices
- ◆ Three Option I/O slots are provided on the rear panel allowing you to add 24 additional inputs and outputs to the system in a variety of analog and digital formats

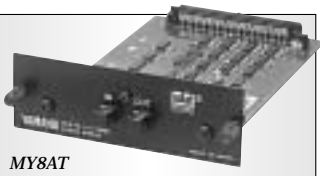


Sampling Pads

- ◆ 8 sample pads are provided allowing you to trigger drum loops, incidental hits and sound effects or fly in vocal choruses without taking up valuable hard disk playback tracks
- ◆ Samples can be assigned to the pads in a number of ways —
 - > Recorded directly from a mixer input channel
 - > Loaded from hard disk or other external SCSI device
 - > Imported from an audio CD or in WAV format from CD-ROM
- ◆ Up to sixteen sounds can be assigned to the eight pads by switching between the two available pad banks and each sample pad can be individually assigned to any of the 24 mixer input channels
- ◆ The sample pad section offers 8-notes of polyphony and the ability to load up to 90 seconds (approx. 8MB) worth of samples into the available RAM
- ◆ Sounds are sampled into the 8 pads at the same bit depth (16 bit or 24 bit) and sample rate (44.1 kHz or 48 kHz) as the current song
- ◆ Each sample pad can trigger a mono sample — stereo samples can be utilized by assigning the left and right audio regions to adjacent pads
- ◆ The playback start and end locations of a sample can be trimmed allowing you to eliminate unwanted portions of a sample
- ◆ A simple sequencer is provided that allows you to record and edit, with frame accuracy, the timing of trigger events that occur when you strike a pad
- ◆ Events can be moved, copied repeatedly as a pattern, or erased

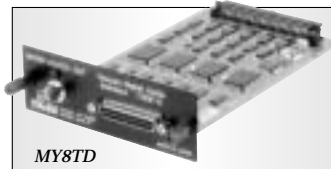
MULTITRACK RECORDERS

541

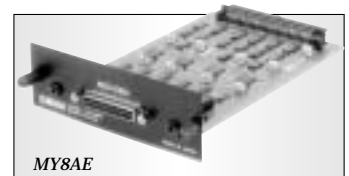


MY8AT

Interface Cards



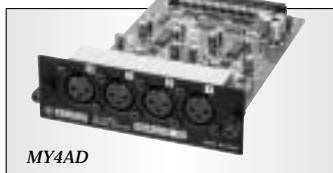
MY8TD



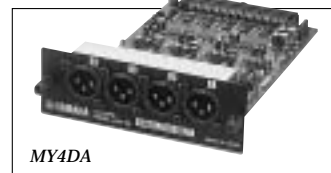
MY8AE



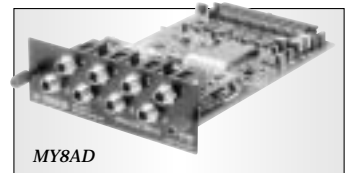
MY8mLAN



MY4AD



MY4DA



MY8AD

Card	Function	# of Inputs & Outputs	Format	Resolution / Sample Rate	Connector
MY8AT	Digital I/O	8/8	ADAT Lightpipe	24-Bit, 44.1/48 kHz	(2) Toslink
MY8TD	Digital I/O / Word Clock Out	8/8	T/DIF	24-Bit, 44.1/48 kHz	D-sub 25pin / BNC
MY8AE	Digital I/O	8/8	AES/EBU	24-Bit, 44.1/48 kHz	D-sub 25pin
MY8mLAN	Digital I/O / MIDI	8/8 (audio) 16/16 (MIDI)	mLAN	24-Bit, 44.1/48 kHz	IEEE 1394 (FireWire)
MY4AD	Analog Inputs	4 Inputs	Balanced	24-Bit	XLR
MY4DA	Analog Outputs	4 Outputs	Balanced	20-Bit	XLR
MY8AD	Analog Inputs	8 Inputs	Balanced	20-Bit	1/4" TRS

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ZOOM

PS-02



Self-Contained Palmtop Recording Studio

The Zoom PS-02 Palmtop Studio combines a "smart media" multi-track recorder, drum and bass machine, guitar multi-effect processor and amp modeler in a super compact device small enough to fit in your jacket pocket. As it is portable and self-contained, you can easily create a digital multitrack demo anytime, anywhere.

This new generation multi-track recorder uses a SmartMedia card and offers 3 audio tracks, a stereo drum track and a bass track for a combined 6 tracks of creative power. Even better, up to ten virtual takes per audio track let you hone a song until you get it just right. And digital technology ensures that the sound stays crisp even after multiple passes.

The PS-02 incorporates more than 200 rhythm patterns using realistic drum and bass sounds. Various patterns for intros, fill-ins, and endings let you build your own song configurations. You can program drum patterns and bass chord progression for up to 100 songs. 50 template songs are already contained in the unit, which can be used for practice or as stepping-stones for your own creations. The PS-02 features 50 built-in effects for all sorts of instruments, with the capability to use 6 modules and 8 types simultaneously. The patch memory with 60 preset and 60 user patches lets you create and store your own variations. For guitars, the Variable Architecture Modeling System developed for the GFX-8 Guitar Effects Processor is used, letting you record with genuine amp modeling sounds. A built-in microphone allows convenient vocal recordings, while a high-quality Mic-preamp with a direct connection of a dynamic microphone, allows high class recordings of vocals and any kind of instrument.

FEATURES

- ◆ Three available audio tracks are recorded directly onto a Smart Media card.
- ◆ Record and playback up to 3 separate audio tracks with the ability to digitally "bounce" tracks together.
- ◆ Each audio track offers 10 additional virtual tracks or "takes" to choose from.
- ◆ A bounce function available with panning capability allows you to overdub or mix audio tracks onto a buffer track for an endless number of audio tracks.
- ◆ Virtual Track function lets you record up to ten takes on each of the audio tracks. One of these takes can be selected and played back.
- ◆ You can get approximately 17 minutes of recording time in Stereo "Hi-Fi" mode with a 64MB memory card (32kHz) or over 2 hours in Mono "Long" mode with a 128MB memory card.
- ◆ A punch in/out function is also available.
- ◆ Stereo recording of a CD or MD source input via the AUX IN jack is also possible.

Inputs and Outputs

- ◆ 20-bit oversampling A-to-D and D-to-A converters
- ◆ Unbalanced 1/4" input with switchable gain settings for accommodating both guitar and mic level signals.
- ◆ Built-in dynamic microphone and Auto-chromatic tuner
- ◆ 1/4" stereo output jack and 1/8" mini stereo headphone output.
- ◆ 1/8" mini stereo aux input

Rhythm Track

- ◆ 2 internal tracks of drums and percussion and 1 internal track of bass sounds each with 256 preset patterns
- ◆ A selection of High-quality stereo drum patterns, drum kits and bass sounds can be sequenced as a basis for your recording.
- ◆ Incorporates more than 200 rhythm patterns using realistic drum sounds. Combine patterns and chords to create up to 100 songs – ideal for composition or practice.

24-bit Multi-Effects and Guitar Amp Modeling

- ◆ A variety of Zoom guitar-based multi-effects are provided as well as a number of guitar and bass modeling sounds using proprietary VAMS technology.
- ◆ A dedicated Vocal effects can be used with the PS-02's built-in dynamic microphone.
- ◆ Additional effects are available at mix-down and for mastering.
- ◆ 60 preset and 60 user effects programs are provided based on a total of 50 effects – up to 6 effects can be used per program.
- ◆ Back-lit LCD display
- ◆ Runs on the included power supply or up to 4 hours using 4 AAA batteries.
- ◆ Extremely compact size – 3.58 x 3.26 x 1.32" (HWD).
- ◆ Includes an 8 MB Smart Media card, power supply unit and a belt clip.





Four-Track Digital Recorder

With its simple 4 track cassette-like interface, the MRS-4 is truly digital recording made easy. Just turn the power on and start recording. Saving recorded audio to smart media cards, the MRS-4 can bounce tracks without degradation, giving you a virtually unlimited number of tracks. The custom back-lit LCD screen always displays all functions along with 8 points x 8 level meters (input 1 & 2, track 1-4, master L/R), and location in

Minutes/Seconds/m-Seconds plus optionally in Bars and Measures.

With the MRS-4, extensive digital editing tools are at your fingertips. Copy & Paste makes it a snap to create loops, erase any unnecessary parts or exchange data between tracks. Up to 50 marker points can be inserted anywhere in a song, A-B repeat from any point or block is possible, and manual and auto punch in/out capabilities are included.

Up to 2 tracks can be recorded simultaneously. With 8 virtual takes for each 4 physical tracks, you get up to 32 takes of recording. Save your work to the supplied 32MB Smart Media card, and get 17 track-minutes in Hi-Fi mode and 34 track-minutes in Long mode. With an optional 128MB card, you can record up to 135 track-minutes in Long mode. Stereo-Link function enables stereo sources (like synthesizer, sampler, drum machine) to maintain their surround-sound. Stereo bouncing is possible onto virtual takes even when the 4 playback tracks are full.

The MRS-4 is light-weight and compact, has a 2 way power supply as Battery and PSU, and will operate for over 5 hours with 4 AA batteries, allowing for flexible song writing anytime, anywhere.

FEATURES

- ◆ 4 tracks simultaneous playback tracks and 2 tracks simultaneous record tracks.
- ◆ 8 virtual takes per track, a total of 32 tracks can be recorded.
- ◆ The digital bounce feature allows you to internally mix the four playback tracks down to two tracks.
- ◆ 17 track-minutes of recording time in Hi-Fi mode (32kHz) using the supplied 32 MB Smart Media card, 34 track-minutes at Lo-Fi (16kHz)
- ◆ Five 45mm faders (four channel and one master)
- ◆ Two-band parametric EQ, pan and an effect send are provided for each channel.

Inputs and Outputs

- ◆ Two 1/4" inputs with continuously variable input gain to accommodate a wide variety of audio sources.
- ◆ Two 1/4" Aux inputs are provided also for accommodating line level signals
- ◆ Unbalanced RCA master outputs and a 1/4" stereo headphone output.

Editing

- ◆ Digital editing tools include Copy and Paste, Erase and Exchange.
- ◆ Manual and Auto Punch In/Out
- ◆ 50 marker points for transport position and A-B Repeat, from any point or any block.

Additional Features

- ◆ Large back-lit LCD displays two input levels, tracks 1-4 and Master L/R output levels.
- ◆ Location can be displayed either as Measure/Beat or Min/Sec/mSec.
- ◆ Built in metronome and chromatic tuner.
- ◆ Free downloadable "MRS-4 Card Manager" software can convert audio files for each track to/from WAV files and can be used with your desktop DAW software.
- ◆ Links with the Zoom MRT-3 RhythmTrak. The MRS-4 receives signal directly from the outputs of the MRT-3 and is synchronizes via MIDI clock.
- ◆ Runs on 4 "AA" batteries or an optional AC power supply.

Effects

- ◆ Insert effects include dynamic effects such as compression and limiting as well as guitar-based effects like cabinet Simulation and a mic preamp can be easily added to the tracks.
- ◆ Send effects such as Hall, Room, Doubling, Delay (Short and Long), Chorus (Mono and Stereo) are adjustable using the Track Parameter function.
- ◆ The Power, Boost and Vocal Mix Down effects can be used simultaneously with the send effects for a perfectly finished mix.

ZOOM

MRS-1266 & MRS-1266CD

MULTITRACK RECORDERS

544

Digital Multitrack Hard Disk Recorders

The MRS-1266 and MRS-1266CD represent Zoom's most advanced digital audio workstations. Both units feature ten tracks of 16-bit / 44.1kHz playback, 24-bit effects, plus two independent drum and bass tracks using the built in drum machine and bass synth. Both units accommodate six simultaneous record tracks from a variety of input sources including: two XLR mic inputs with switchable phantom power; two 1/4" instrument inputs; and six 1/4" line inputs. That's enough inputs and tracks to capture your whole band live. The MRS-1266CD includes an internal CD-R/W drive (optional on the MRS-1266) that allows you to back-up data from the internal 20GB hard drive as well as make audio CDs from your final mixes.



FEATURES

- ◆ Six track simultaneous record tracks and ten playback tracks: 8 mono and one stereo. A stereo master track is also provided for mixdown.
- ◆ Ten virtual tracks are provided for each of the ten audio tracks and the stereo master track. This allows the you to record multiple takes and pick the best performance. With a 20 GB hard drive, you can record up to 60 hours of music.
- ◆ The bounce function allows you to mix down the 10 ten audio tracks along with the drum and bass tracks into one or two new audio tracks. The target for the bounced tracks can be V-tracks or the dedicated master track.
- ◆ Audio is recorded using CD quality (uncompressed) 16-bit 44.1kHz to the included 20GB internal hard drive.
- ◆ All internal processing as well as A-to-D and D-to-A conversion is done at 24-bit.
- ◆ The optional internal CD-R/RW drive (included in the MSR-1266CD) allows you to create audio CDs of your mixes and back-up data.
- ◆ You can store up to 999 songs with 100 marker points per song and 100 sequence and manual scenes per song.

Mixer

- ◆ Twelve faders: channels 1 -8 are mono channels, 9/10 is a stereo channel, drum, bass, stereo master
- ◆ Each channel features a dual band EQ with sweepable frequency ± 12 dB boost and cut; two effect sends; pan and solo
- ◆ Besides the 10 playback tracks, there are six simultaneous inputs for accessing external synths and processors, and a stereo master channel for mixdown.

Inputs and Outputs

- ◆ Two XLR balanced mic inputs with switchable phantom power as well as two 1/4" unbalanced Hi-z instrument inputs and six 1/4" unbalanced line inputs.
- ◆ Stereo RCA main outputs and an optical S/PDIF digital output
- ◆ 1/4" stereo headphone output plus a 1/4" stereo sub out (each with dedicated level controls) that can be used for a second set of phones or for carrying a submix
- ◆ MIDI In and Out connectors will allow you to use an external MIDI controller and/or sequencer to program the 1266's drum and bass patterns, or you can use the MIDI out to control external devices.

Rhythm Section

- ◆ Built-in bass and drum Machine with 12 touch sensitive pads (a full chromatic scale), 30 note polyphony and a 20,000 note capacity.
- ◆ There are over 400 pre-programmed patterns included plus you can create over 500 of your own patterns per project.
- ◆ You can create your own original patterns using either step or real-time recording.
- ◆ 127 different sounding drum kits with 36 sounds per kit (12 pads x 3 banks) featuring the best of Zoom's critically acclaimed drum sounds. 26 high quality bass sounds, each with a 5 oct. range are also provided.
- ◆ Completed rhythm patterns can be processed with the insert and Send/Return effects and bounced to an audio track.

Phrase Import

- ◆ Pre-recorded drum beats, samples and phrases can be imported using the optional CD-R/RW drive.
- ◆ Up to 100 samples can be stored per project, and by cutting and pasting, loops can be created and dropped in and out or songs quickly and easily.



EQUIPMENT LEASING AVAILABLE

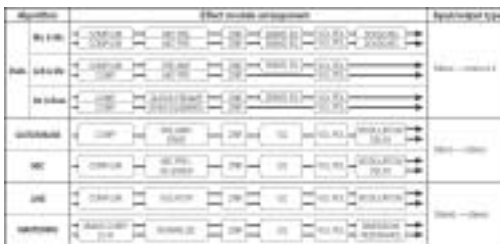
MRS-1266 & MRS-1266CD

24-bit Digital Multi-Effects

- ◆ There are two effects types available: an insert effect and two Send/Return Effects
- ◆ The **Insert effect** can be inserted into any input channel, track channel or on the master fader channel for mixdown.
- ◆ There are 94 different insert effects available based on five different algorithms including VAMS (Variable Architecture Modeling System) Guitar/Bass Amp Modeling, Microphone, Line, Dual input (guitar and vocal mic) and Mastering. Each algorithm is built from four major effect modules (compressor, pre-amp/drive, equalizer and modulation/delay).
- ◆ A total of six effect types can be chained together, and saved into any of the 280 patch locations available for each project.
- ◆ The two Send/Return effects allow you to add chorus/delay and reverb separately on each track via the send control available on each channel. There are 20 chorus/delay patches and 20 reverb patches available per project.

VAMS

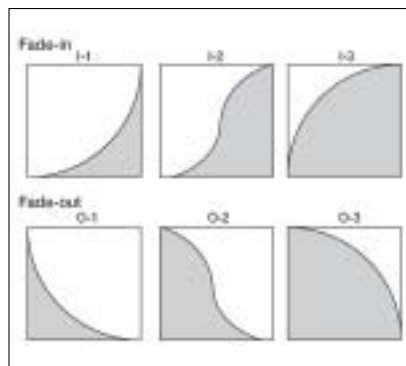
(Variable Architecture Modeling System) refers to ZOOM's amplifier modeling system. It accurately simulates the sound of classic amplifiers and cabinets. This hybrid analog / digital processing allows you to plug in a guitar, bass or any other instrument direct, and get a rich, accurate amp tone without having to mic a real cabinet.



This chart shows the structure of the various Insert effect algorithms including the six effects and the I/O routing available per algorithm. Each effect within each algorithm is fully editable.

Track Editing

- ◆ Auto and manual punch in and out recording. You can specify precise start and end points using the Scrub and Preview functions and practice the part using the A/B repeat function.
- ◆ Additional track editing features include: the ability to Trim the beginning or end of a specified track; combine usable portions of a different takes, Copy/ Erase/ Exchange whole tracks, and Copy/ Move/ Erase/ Reverse just a specified part of track.
- ◆ The time compression and expansion algorithms allows you to change the length of a specified track without affecting its pitch. You are given the choice of overwriting the existing audio track or pasting the modified track data to a new track.
- ◆ You can also set the Fade In or Out time of a track using any one of three fade curves.



Scene Memory Automation

- ◆ You can save fader positions, effects patches, send-return effects and key status as a "Scene".
- ◆ Up to 100 scene setting locations are available per project.
- ◆ You can automate level and effect changes by assigning specific scenes to different location markers within a song.

Logical User Interface



- ◆ Designed with ergonomics in mind with all of the functions and buttons logically positioned for easy, intuitive access. Level meters and tracking info is displayed on 96 x 63mm back-lit display. The ins and outs you use the most-guitar/bass, headphones, sub-out, expression pedal, and foot switch—are all located on the front of the chassis.

Additional Features

- ◆ An optional, user-installable USB interface will allow you to share audio data with a Windows or Macintosh computer and your favorite DAW software.
- ◆ Built-in auto chromatic tuner
- ◆ A footswitch jack can be used to start and stop the transport or can be switched to control punching in and out
- ◆ An expression pedal input can be used with the optional Zoom model FP02 expression pedal for controlling effects parameters.

Options

- ◆ **ZUSB-01** is a USB option card that allows you to connect the MRS-1266 or MRS-1266CD to your PC or Mac.
- ◆ **CD-01** - Optional (User Installable) CD-R/RW Drive Kit for the MRS-1266 allows you to master and burn your own CDs, backup and restore project data as well as import WAV/AIFF and Audio CD data.
- ◆ **FP02** - Expression pedal for controlling effects parameters.
- ◆ **FS01** footswitch for controlling start/stop and punch I/O.

