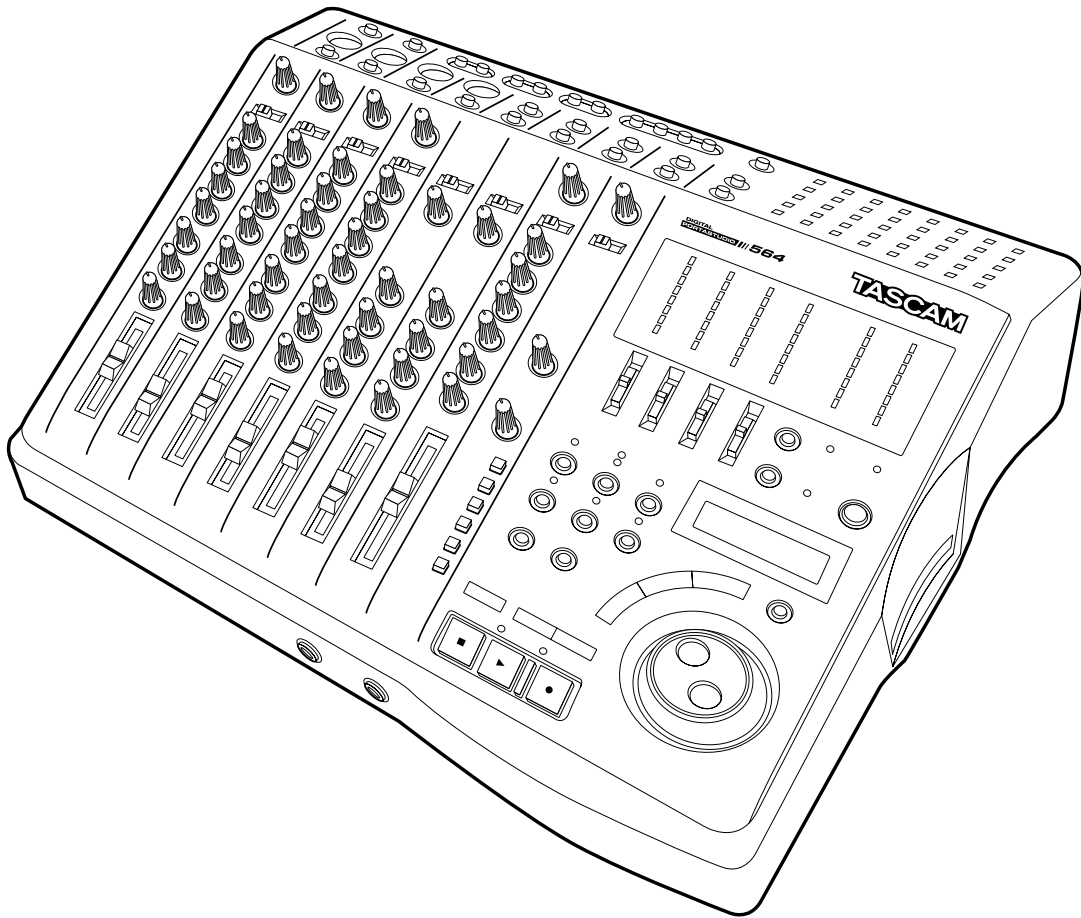# TASCAM ®

564 Digital Portastudio

PRELIMINARY

The Digital 4 Track With A Whole Lot More

You've heard all the hype. Digital this. Digital that. All of it beyond the scope of your wallet. No more! TASCAM's all-new 564 Digital Portastudio delivers digital audio recording, flexible and intuitive signal routing, MIDI Machine Control (MMC) capability and the operational ease-of-use that TASCAM Portastudios have long been famous for — all in a cost-effective package that will keep you smiling project after project.

Geared toward the musician who desires fast and flexible editing control, this exciting new MiniDisc recorder provides numerous random access functions including instantaneous locate capability, erase, copy, Black Out, Bounce Forward and a multitude of additional new features to make those recording sessions hassle-free and better sounding than ever. Of course, the new 564 comes with TASCAM quality, reliability and innovation. It's built tough, "It always works" — it's what musicians have come to rely on from TASCAM.

MD Data — The New Media For The Next Generation

MiniDisc (MD) is rapidly becoming the media of choice for numerous professional audio applications including broadcast, multimedia, theatrical and music environments. The MD Data format is a highly robust, optical media capable of handling 140MB (megabytes) of digital data — great for all your multitrack recording needs. And, it's highly transportable — you'll be able to remove, transport and archive your work as easily as working with tape. No complicated off-loading to free up a hard disk for the next project — simply pop in another MiniDisc and you're ready for that next session! Each inexpensive MD Data disc provides roughly 37 minutes of 4-track recording time.

The Only MD Multitrack With A Transport Designed For Multitrack Recording

Unlike other MD multitrack recorders, the 564 uses a custom designed transport optimized for multitrack recording. You won't find a PAUSE key on the 564 because it's not needed! The 564 is always in "Ready" mode! This custom transport delivers faster data loading, better shuttle capability and the ability to reposition
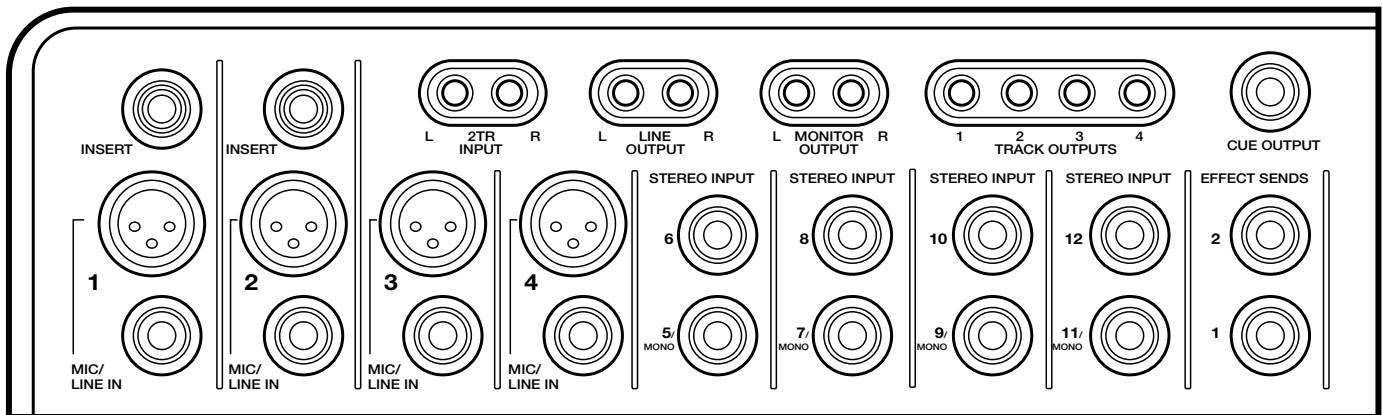
564 Back Panel

index points without the buffer limitation imposed by other units. This unique transport mechanism is also the reason that numerous editing functions exist on the 564 and nowhere else. Your work will proceed faster and with far less interruption of the creative process. When your music is on the line, why settle for anything less?

The Functionality of a Pro Studio

All the features you'd expect to find in the 564 Digital Portastudio are here. Auto Punch In/Out with rehearsal, 3-band EQ with sweepable mids, two AUX sends, two Insert points for additional signal processors, 4 mono channels, 4 stereo channels, balanced XLR inputs for use with high quality, professional, low impedance microphones plus a rotary control for jog and data entry functions. We've got more XLRs, more flexible EQ, more AUX sends and the first four channels enable you to double the number of mix positions at mixdown. With the 564, you even get a dedicated 2 track return. Check the facts — you won't find these features elsewhere!

The 564's integrated mixer provides a truly musical 3-band EQ with sweepable mids that let you zero in on exactly the frequency you're looking to alter. Add to this 4 mono channels and 4 stereo channels — and you've got inputs-a-plenty. You'll certainly appreciate the 4 balanced XLR mic inputs for use with that professional microphone you've had your eye on — other MD multitracks either have none or only two.

With the 564's Auto Punch capability, you can replace small segments of material hands-free while the recorder does all the work! This great feature keeps you focused on the creative task as opposed to being distracted by having to operate the recorder. You can rehearse to your heart's content, and when you're ready to give it your best shot, one more button press makes it all happen. Should you change your mind as you work, you'll really appreciate the 564's UNDO/REDO capability. With the 564 you can exercise this capability any time you deem necessary. Don't like that take? Undo it! Change your mind? Redo it! It's that easy!

Making precision edits or naming songs and patterns couldn't be easier. While we're on the subject of naming, the 564 even gives you more characters than other MD multitracks as well as 10 User Words. User Words are preset names (all of which are editable) to save you time while naming song elements! The 564

Digital Portastudio provides you with a big, easy-to-get-your-hands-on Jog/Data control that makes your work fast and effortless. It's easy to name all your various song components and keep tabs on all your musical elements. Name songs, the disc, patterns (segments of a track) — you're in control. Bottom line — the 564 has all the right stuff!

MD Delivers Editing Control You Never Dreamed Possible

MiniDisc technology enables users of the 564 Digital Portastudio to have tremendous editing control over their recordings. The 564 provides the ability to locate to any point instantly. Unwanted material can easily be erased. By placing an index marker, you can "divide" one segment into two, or even "combine" two segments into one by removing the index marker. Songs can be divided into as many as 20 Patterns by placing a series of Index markers throughout the song. That's more index points than you'll find on other MD multitracks.

All patterns and songs can be named, and you can even rearrange your music with a hot new feature called Index Programming. Index programming lets you reorder the series of patterns you've created within your composition. With our Index Programming, you've got 99 elements with which to rearrange your song. You won't find this elsewhere! Turn a four measure intro into an 8 measure intro or shorten a guitar solo — with the 564, you call the shots. With the Black Out feature, you can instruct the 564 to terminate playback at any position just prior to an index marker to create a new ending — without destroying the remaining data.

Creative flexibility abounds with the 564. You'll love the fact that when using Auto Punch, the 564 enables you to record up to 5 "takes" of a given track. Imagine capturing as many as five takes of a guitar solo before you decide which one is best. Now, you can sit back, listen to all 5 takes plus the original performance, and then commit the best performance to a track. Not all MD multitracks offer this 5 take capability! While you're rehearsing a section of material, the 564 even provides you with the ability to define the Repeat Interval so that you can get "repositioned" prior to each new loop. Again — the 564 gives you the best tools for the job!

Conventional Ping Pong — Of Course!
Bounce Forward — WOW!!

The 564 Digital Portastudio provides conventional Ping Pong Recording as well as the all new Bounce Forward function. Bounce Forward enables you to create a series of submixes, complete with effects and EQ, and carry that stereo mix "forward" to the next song location on disc. Should you later decide to go back to the original tracks, you'll be glad to know that they are still on disc in the original location!

A limitation of earlier cassette multitrack recorders was the necessity of bouncing (or ping-ponging) multiple tracks down to one for the purpose of freeing up additional track space for more musical parts. While this function works well and serves many useful purposes, the creation of a single mono track reduces one's freedom in terms of stereo imaging. On the 564, you have the ability to ping-pong tracks when they are musically similar and likely to share the same position in the stereo field, but you also have the flexibility to create a series of submixes, complete with EQ and effects to preserve the stereo imaging of your composition at its current state of development. Each MD Data disc has the capacity to handle 5 songs (or file names). These five files can be completely different songs or they can be five versions of the same project — and this is where the Bounce Forward function enters the picture.

Think of Bounce Forward as the ability to perform a series of submixes, complete with EQ and effects to contour your sound. Perhaps you've just completed your basic rhythm tracks (piano, bass, drums, rhythm guitar) on tracks 1 - 4. Rather than ping-pong, you can mix (or bounce forward) your rhythm tracks to a stereo mix on tracks 1 and 2 of file #2. In the process, you've freed up two more tracks for further recording while retaining the stereo mix and the original stereo imaging of each individual track. The Bounce Forward function has the capability of providing 12 first-generation musical parts by the completion of the fifth song file while retaining access to all original tracks.

Remember, you can easily rehearse the mix as much as you like before recording it to the tracks — so there's plenty of opportunity to listen and get it right. If, however, you decide you want to start over, just return to file #1 and retrieve the original four tracks. You've lost nothing! The creative possibilities for conventional ping-pong recording and the new Bounce Forward function make multitrack recording on the new 564 exciting and ripe with opportunity for artistic expression.

MIDI Users Take Note — Support For MIDI Machine Control

If you're a MIDI user, you can use your MMC (MIDI Machine Control) capable sequencer to control numerous functions of the 564. Finally, your recorder and MIDI system are locked and controlled from one convenient station — and you won't sacrifice a track for sync code! The 564 Digital Portastudio provides MIDI In, Out and Thru jacks for flexible integration into any MIDI environment.

All the major software-based MIDI sequencing applications now support MMC. Regardless of computer platform, you can now
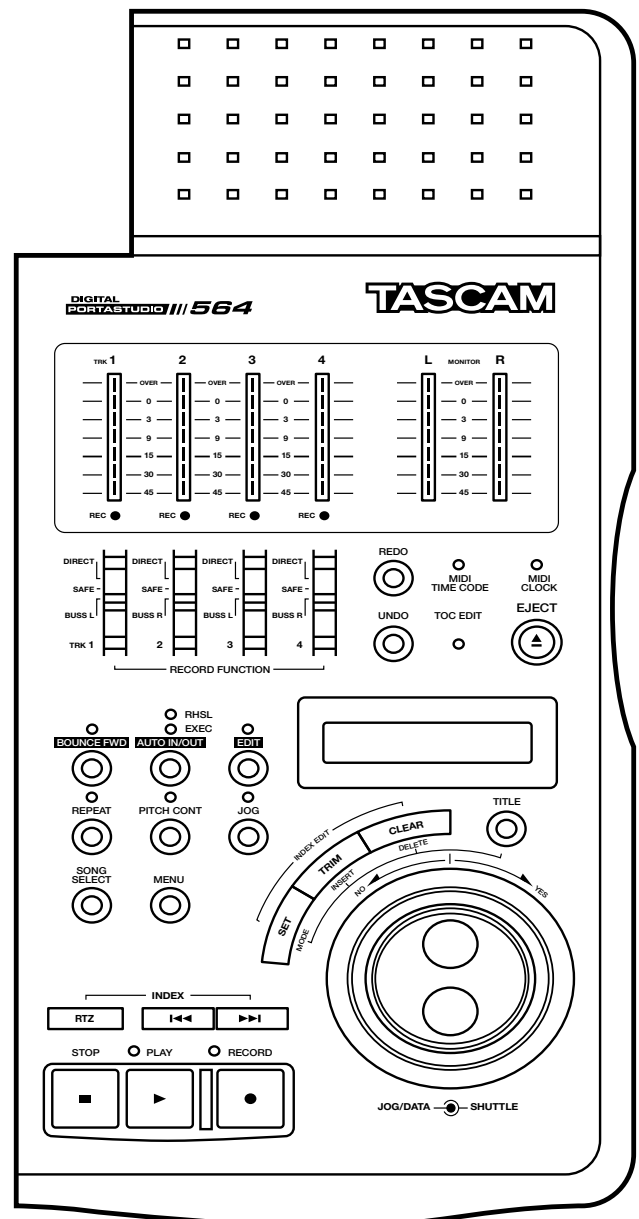
564 Right Panel

integrate your MIDI system with the 564 and control the entire system right from the computer! Instruct your sequencer to locate to measure #67 and the 564 positions itself accordingly. When you reach the end of the song, the computer stops both the 564 and the MIDI system. MMC makes the integration of recorder and MIDI system a breeze — enabling you to take advantage of the strengths of each system.

The new 564 Digital Portastudio also has provisions for tempo map programming with full support for multiple time signatures and MIDI Song Position Pointer. Now you have the freedom to create tempo and meter changes in either the 564 or your sequencer — whichever best suits your method of working. You'll be able to start from any position within your composition and feel confident knowing that your MIDI sequencer or drum machine is locked up and playing the correct data — regardless of song position.
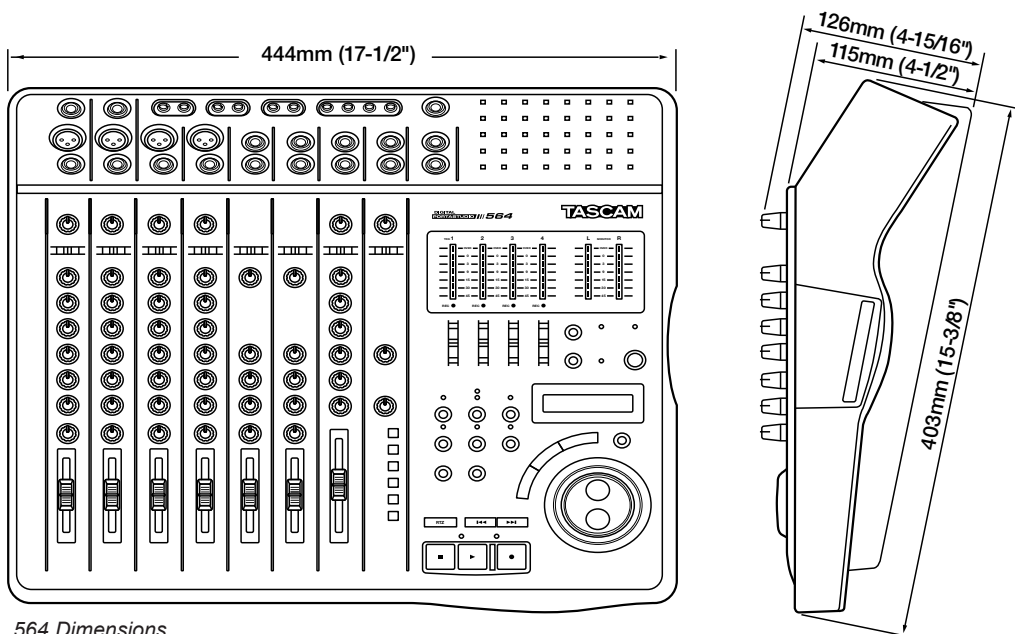
564 Dimensions
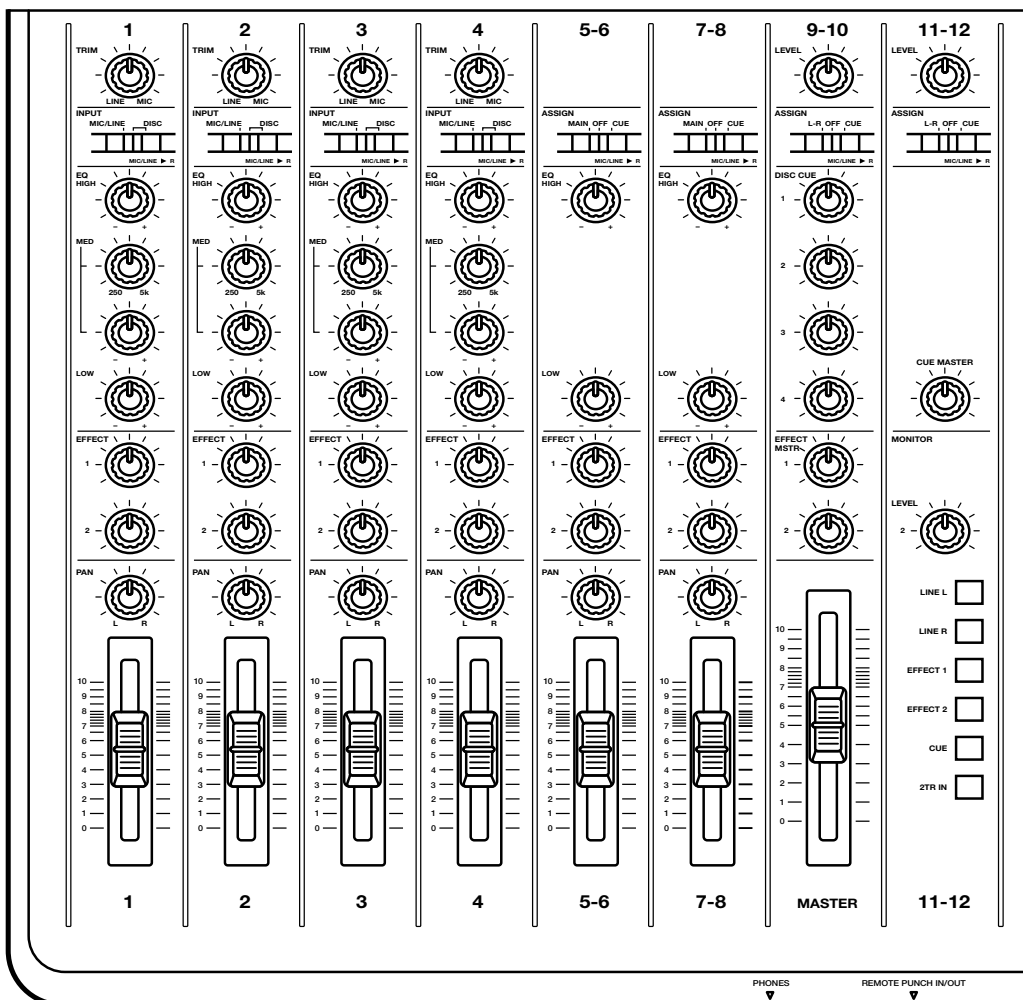
564 Channel Strips and Master Section

Never Sacrifice a Track for Sync Code!

The 564 takes the system's Absolute Time (ABS) and outputs it as MIDI Time Code or MIDI Clock. Depending on the synchronization capabilities of the external device (drum machine, sequencer, etc.), the 564 gives you everything you need to get your MIDI equipment talking to the 564. Best of all — you'll never have to sacrifice an audio track for your sync code!

Keeping Your Work In The Digital Domain

The 564 Digital Portastudio is the only MiniDisc based multitrack recorder that provides an S/PDIF digital output. Now you can archive digitally to DAT — all the while preserving the high-end clarity and punch of the original recording.

As DAT is arguably the most popular format for mastering these days, the 564 Digital Portastudio provides a digital output conforming to the Sony/Phillips Digital Interface protocol. Now you have the ability to transfer your compositions not only to DAT, but also to hard disk editing systems, MD Audio (2 channel format) or even CD-R (Compact Disc - Recordable).

Flexible, Versatile and Compact

The new TASCAM 564 Digital Portastudio puts random access recording technology and operational ease into one compact, feature-laden package at a price that makes sense.

- MD Data format for approximately 37 minutes of 4 track recording
- Sampling frequency of 44.1kHz
- S/PDIF Digital Output
- Bounce Forward function for multiple stereo submixes
- Conventional Ping Pong recording
- Support for MIDI Machine Control (MMC)
- Outputs either MIDI Clock or MIDI Time Code (MTC) without sacrificing an audio track
- 5 Virtual tracks (takes) per track
- Jog/Data control for editing functions
- Auto Punch In/Out with Rehearsal
- 4 balanced XLR mic inputs
- Instantaneous locate capability
- Index programming
- 4 mono, 4 stereo inputs
- 3-band EQ with Mid sweep on mono channels
- 2 AUX sends
- Backlit LCD display

SPECIFICATIONS

GENERAL

Usable discs	MD DATA (Record/Play), MD AUDIO (Play)
Recording format:	MD DATA System Audio Data Format
Playback formats:	MD DATA System Audio Data Format MiniDisc System
Pitch control:	±9.9%
Dimension (WxHxE):	444 x 126 x 403mm (17-1/2" x 4-15/16" x 15-7/8")
Weight:	6 kg (13.2 lbs)

ELECTRIC
[Mixer block]
I/O channels:

12 inputs:	MIC/Line x 4 STEREO INPUT x 4
5 outputs:	LINE OUT L/R, EFFECT OUT x 2, CUE OUT
4 track outputs:	TRACK OUT x 4
Digital outputs (S/PDIF):	DIGITAL OUTPUT X 1

MIC/LINE inputs (1/4" phone jack x 4, XLR x 4)

Input impedance:	10 kohms
Nominal input level:	-65 dBV (0.56 mV)/MIC 10 dBV (0.3 V)/LINE
Max. input level:	+6 dBV (2.0V)/TRIM in min. position

STEREO inputs CH 5 to 8 (1/4" phone jack x 4)

Input impedance:	20 kohms
Nominal input level:	-10 dBV (0.3 V)
Max. input level:	+6 dBV (2.0 V)

STEREO inputs CH 9 to 12 (1/4" phone jack x 4)

Input impedance:	8.2 kohms
Nominal input level:	-10 dBV (0.3 V)
Max. input level:	+6 dBV (2.0 V)

INSERT (1/4" phone jack x 2)
Input (RING)

Input impedance:	10 kohms
Nominal input level:	-10 dBV (0.3 V)
Max. input level:	+6 dBV (2.0 V)

Output (TIP)

Output impedance:	100 ohms
Nominal output level:	-10 dBV (0.3 V)
Min. load impedance:	2.0 kohms

2TR inputs (RCA pin jack x 2)

Input impedance:	22 kohms
Nominal input level:	-10 dBV (0.3 V)
Max. input level:	+6 dBV (2.0 V)

LINE outputs (RCA pin jack x 2)

Output impedance:	100 ohms
Nominal output level:	-10 dBV (0.3 V)
Min. load impedance:	2.0 kohms

EFFECT outputs (1/4" phone jack x 2)

Output impedance:	100 ohms
Nominal output level:	-10 dBV (0.3 V)
Min. load impedance:	2.0 kohms

TRACK outputs (RCA pin jack x 4)
  Output impedance: 100 ohms
  Nominal output level: -10 dBV (0.3 V)
  Min. load impedance: 2.0 kohms

CUE Output (1/4" stereo phone jack x 1)
  Output impedance: 1.0 kohms
  Nominal output level: -10 dBV (0.3 V)
  Min. load impedance: 10 kohms

MONITOR outputs (RCA pin jack x 2)
  Output impedance: 220 ohms
  Nominal output level: -10 dBV (0.3 V)
  Min. load impedance: 2.0 kohms

PHONES output (1/4" stereo phone jack x 1)
  Nominal load impedance: 30 ohms
  Max. output level: 100 mW

Equalizer
HIGH (Shelving)
  Standard frequency: 12 kHz
  Variation range: ±12 dB

MID (Parametric)
  Frequency: 250 Hz to 5 kHz
  Variation range: ±14 dB

LOW (Shelving)
  Standard frequency: 80 Hz
  Variation range: ±12 dB

Frequency response
  MIC input to
  LINE output: 20 Hz to 20 kHz, ±1 dB
  LINE input to
  LINE output: 20 Hz to 20 kHz, ±1 dB
  LINE input to
  EFFECT output: 20 Hz to 20 kHz, ±1 dB
  Line input to
  PHONES output: 40 Hz to 20 kHz, ±1 dB

S/N (20 Hz to 20 kHz, with BPF)
                         DIN AUDIO / IHF-A
Input (-65 dBV: MIC level)
  1 MIC to LINE output: 60 dB / 65 dB
  4 MIC to LINE output: 55 dB / 59 dB

Input (-10 dBV: LINE level)
  1 LINE to LINE output: 78 dB / 82 dB
  ALL ASSIGN to
  LINE output: 76dB / 80 dB

Distortion (22 kHz LPF = IHF-A)
  1 MIC input to
  LINE output: 0.01% or less (+6 dB input)
  1 LINE input to
  LINE output: 0.01% or less (+6 dB input)

Crosstalk: 67 dB (1 kHz, measures using 30 kHz
                          LPF at nominal input level)

[MD recorder block]
  Record/play channels: 4/4
  4-track recording: 37 minutes
  Max. recorded songs: 5 songs
  Sampling frequency: 44.1 kHz
  Quantization bits: 16 bits
  Audio Compression: ATRAC
  Error correction: ACIRC
  Overall frequency
  Response: 20 Hz to 20 kHz, ±1 dB
  Overall S/N: More than 87 dB (22 kHz LPF + IHF-A)
  Distortion: 0.009% or less (1 kHz input, 1 kHz
                          BPF + IHF-A)
  Channel separation: More than 75 dB (1 kHz input, 1 kHz
                          BPF + IHF-A)

Power requirements:
  U.S.A./CANADA: 120V AC, 60Hz
  U.K./EUROPE: 230V AC, 50Hz
  AUSTRALIA: 240V AC, 50Hz

Power consumption: 28 watts

Optional Accessories:
  Punch-in Footswitch
  PW-4Y / PW-2Y Insertion Cable

In these specifications, 0 dBV = 1V -10 dBV = 0.316 V
(which is approximated to 0.3 V)

Specifications and features subject to changes without notice or obligation.