# SONY®

# MDS-E12
**MiniDisc Recorder**

The Sony MDS-E12 is a rack-mountable MiniDisc® Recorder with an impressive range of features. Within its 1U height it provides a full range of digital and analog I/O, and includes RS-232C control, a track Multi Access function and Vari-speed playback.

MD**LP** MiniDisc

# Main Features

## ATRAC Type "R" technology

The latest version of ATRAC encode/decode DSP provides superb recording and playback quality.

## Wide Bit Stream technology for 20-bit precision

Handling signals during digital processing at a resolution of 20 bits brings a dramatic improvement in the accuracy with which ultra low-level signals are processed.
This brings the benefit of higher recording quality, with a wider dynamic range.

## Flexible input/output interfacing

Both coaxial connectors are provided for the IEC 60958 type II digital inputs and outputs. Unbalanced phono and balanced XLR connections are included for analog input and output signals.

## Rec level adjustment

Record level adjustable on both digital and analog inputs.
Analog : knob on rear panel / Set-up menu in digital domain, adjustable L/R balance
Digital  : Set-up menu in digital domain

## Relay REC/PLAY

Connectors allow several MDS-E12 recorders, or similarly equipped units, to be cascaded for continuous or extended recording applications.

## LP stereo recording mode

Incorporating the MDLP* standard, the MDS-E12 can record and playback in stereo for up to 320 minutes on an 80-minute disc. This is a very useful feature for recording extended meetings or conference proceedings, and for playback in PA applications. Combining this feature with the Relay function can provide recording and playback times of over 24 hours duration.

**\*MDLP :** MDLP provides two modes (MDLP2, MDLP4), 2 x and 4x recording. This technology is adopted in the ATRAC3® recording format.

## 10-point Multi Access function (Hot Start)

The first few seconds of up to 10 tracks are held in memory to provide an instant, hot start, from any of these tracks.

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## Vari-speed function

Provides variable-speed playback with pitch change.
 The disc including only Normal Stereo/Monaural source : ±12.5%, in 0.5% steps
 The disc including MDLP source : 0 – -12.5%, in 0.5% steps

## Operation using a PC keyboard.

An optional PC-compatible keyboard with a PS/2 interface can be connected for track naming, controlling as wired remote controller etc.

## Auto Track Marking/Auto Time Marking

When a single, long duration track is recorded, these features allow the track to be divided into segments of identical duration using Auto Track marking. Auto Time Marking then stores the segment start times by built-in clock for easy playback location. Segment duration can be set to be between 1 and 10 minutes.

## SF Edit

This feature enables recorded sound levels to be adjusted by rewriting tracks with a revised sound level. (SF Edit is not available in MDLP mode.)

## RAM Edit

The TOC of a disc, even a protected master disc, can be copied to RAM and edited.

## Other features
- Supplied Wired / IR Remote Commander
- Parallel I/O
- RS-232C Interface
- 24-bit AD/DA Converter.
- AUTO CUE/AUTO PAUSE/AC TIMER functions.
- Monaural Recording (MDLP2/4 is not available).
- Time Machine Recording (Max. 6 sec.).
- Music Sync Recording.
- Next Playback Track is available to reserve on playback (Next Track Play).
- Shuffle Play, Program Play, All Track Repeat Play, 1Track Repeat Play, A-B Repeat Play.
- Mark and Locate Play.
- Fluorescent display for excellent legibility.

### Editing functions
COMBINE /MULTI** TRACK COMBINE / UNDO
ERASE : ALL / TRACK / A-B / MULTI** TRACK
NAME  : IN / ERASE / ALL ERASE / COPY / ALL COPY
**MULTI means effective on several tracks at the same time.

The Sony MDS-E12 is a rack-mountable MiniDisc® Recorder with an impressive range of features. Within its 1U height it provides a full range of digital and analog I/O, and includes RS-232C control, a track Multi Access function and Vari-speed playback. An MDLP mode provides recording times of up to 320 minutes on a single disc and, if even this is not sufficient, Relay REC/PLAY connectors enable several units to be combined for continuous recording and playback in conference, broadcast, and other applications

## Front Panel



## Supplied Remote Control Unit RM-DR1E



The RM-DR1E dual mode remote controller connects to the 3.5 mm Control-S jack with a supplied 5 m cable, but also operates as a conventional IR remote when not connected to the Control-S jack.

## Remotes

| | |
|---|---|
| Control S : | 3.5 mm jack |
| Parallel remote : | 9-pin D-sub, female (milli standard) |
| | input-TTL, 10V max |
| | output-open collector 100 mA max |
| RS-232C : | 9-pin D-sub, male (inch standard) |
| Relay Record/Play : | IN / OUT 3.5 mm jack x 2 |

### Pin assignment of PARALLEL REMOTE port
Functions to be assigned are as follows.
The alternative functions are able to assign via the SETUP menu.

| Pin | | Preset Function | Alternative Functions |
|---|---|---|---|
| 1 | INPUT | PLAY | PLAY/PAUSE, PLAY, |
| 2 | INPUT | PAUSE | PAUSE, STOP, FF, REW, |
| 3 | INPUT | STOP | AMS+, AMS-, EJECT, REC, |
| 4 | INPUT | AMS+ | OFF, MARK, LOCATE |
| 5 | INPUT | AMS- | MUSIC SYNC, T.REC, |
| | | | FADER PLAY |
| | | | *TRACK PLAY (1Tr-20Tr) |
| 6 | GND | | |
| 7 | OUTPUT | PLAY | PLAY, PAUSE, |
| 8 | OUTPUT | PAUSE | NO DISC, REC, |
| 9 | OUTPUT | NO DISC | EDT, EOD, OFF |

*It is available to assign each pin (1-5) to play one track of No.1Tr-20Tr.
 e.g) At multi-access function on, maximum 5 tracks by using 1-5pin
 can instant start.

## Rear Panel

## Specifications

### Inputs

| | Connector type | Reference level | Maximum level | Impedance |
|---|---|---|---|---|
| ANALOG LINE IN | Phono | -10 dBu | +12 dBu | 47 Ω |
| | XLR-3-31 | +4 dBu | +24 dBu | 30 Ω |
| DIGITAL COAXIAL IN | Phono | 0.5 Vp-p ±20% | | 75 Ω |
| DIGITAL OPTICAL IN | Square optical connector | | | Optical wave length:660 nm |

### Outputs

| | Connector type | Reference level | Maximum level | Load impedance |
|---|---|---|---|---|
| ANALOG LINE OUT | Phono | -10 dBu | +8 dBu | More than 10 kΩ |
| | XLR-3-32 | +4/-10 dBu (Switchable) | +24/+10 dBu (Switchable) | More than 600 kΩ |
| DIGITAL COAXIAL OUT | Phono | 0.5 Vp-p | | 75 Ω |
| DIGITAL OPTICAL OUT | Square optical connector | -18 dBm (optical power) | | Optical wave length:660 nm |
| PHONES | Stereo jack | 0-10 mW adjustable | | 32 Ω |

## MDS-E12
**MiniDisc Recorde**

### General

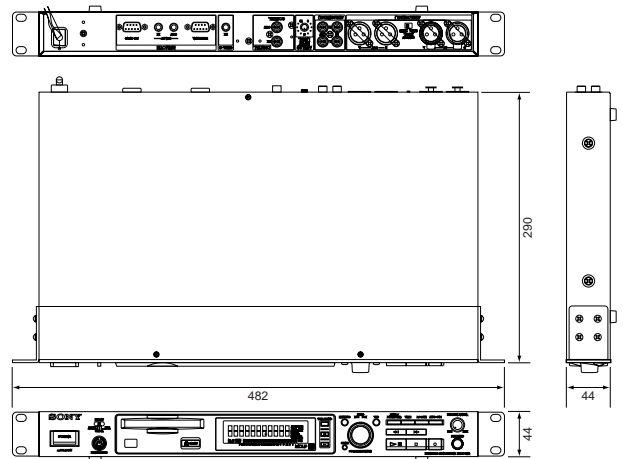| | |
|---|---|
| General | : MiniDisc Digital Audio System |
| System | : Stereo 2 Channels |
| Number of Channel | : semiconductor GaAlAs laser ($\lambda$= 780nm) |
| Laser | : 400 – 900 rpm |
| Rotational speed | : 44.1 kHz |
| Sampling frequency | : Adaptive Transform Acoustic Coding |
| Coding | Type R(ATRAC-R)/ATRAC3 |
| Wow and flutter | : below measurable limits (±0.001%W,Peak) |
| Frequency response | : 5 – 20 kHz ±0.5 dB |
| Dynamic range | : digital, 100 dB / analog, 98 dB |
| S/N ratio | : digital, 100 dB / analog, 98 dB |
| Power requirement | : 120/230 V AC, 50/60 Hz |
| Power consumption | : 18 W |
| Operating temperature | : 0°C – 40°C |
| Storage temperature | : -5°C – 60°C |
| Mass | : 3.5 kg |
| Dimensions | : 482(W) x 44(H) x 290(D) mm |
| Supplied accessory | : Wired / IR Remote Commander RM-DR1E CTRL-S connecting cable |

## Mounting the unit

This unit can be attached to a standard 19 inch rack (type EIA).
After detaching the four feet on the bottom of the unit,
mount the unit on the rack.

## Dimensions (Unit:mm)



290

482

44

44

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