



SD-20M

4-Track Recorder for Installation



The SD-20M is a simple-to-use solid-state recorder at a breakthrough price. The 1-U rackmount includes a pair of microphone preamps with phantom power for direct microphone recording. Both the mic inputs and line inputs can be recorded simultaneously in four-track mode. The dual recording mode captures a copy of your audio at a lower level, as insurance against distorted takes.

The SD-20M includes a battery backup system: AA batteries can keep recording for hours in case of power loss. A wired remote or footswitch can be attached to control recording and playback. Variable speed playback allows the playback to be changed without affecting the pitch.

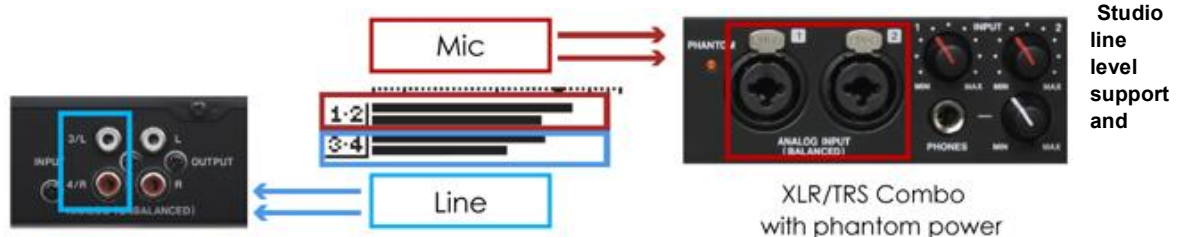
Designed for installations like schools, house of worship, and conferences, the SD-20M is a flexible, affordable solution for long-form recording.

Record four tracks simultaneously

Microphones or equipment with line-level output can be connected directly to the two XLR/TRS combo inputs on the front. Their levels can be adjusted with the dedicated knobs.

During the recording of a meeting, for example, while recording the line outputs of the meeting system equipment via the recorder's rear line inputs, you can simultaneously record two channels separately using microphones as a backup.

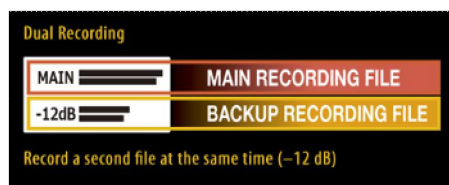
In a music classroom, studio or similar situation, you can easily set up a system for multitrack recording and other purposes using the line inputs for instruments with line output and the mic inputs for acoustic instruments.



phantom power

The two XLR/TRS combo inputs on the front are suited for balanced +4 dBu line level input from mixers and other devices. They also support condenser mics that require phantom power supply (48 volts). These features enable a wide range of setups. The locking mechanism also prevents the unintended disconnection of cables.

The RCA unbalanced inputs on the back support –10 dBV line level input from mixers and other devices. Together with the XLR/TRS combo jacks a variety of devices can be connected.



Dual recording creates a backup to avoid distortion

The dual recording function allows a file to be recorded simultaneously at a lower level in addition to the main recording. If the main recording should become distorted due to sudden loud noises, you can use the backup file recorded at a lower level.

(When the dual recording function is enabled, only two inputs can be used to record.)

Redundant power supply using batteries

In addition to the included AC adapter, the unit can also be powered by four AA batteries. If AC power is interrupted for any reason, the unit will automatically switch to the AA batteries and continue operating without affecting recording or playback.

Using batteries, you can even record anywhere in the field where no mains supply is available.



Easy media handling and flexible recording formats

This unit uses SD cards, which are very common and easy to obtain, as recording media. Audio files recorded with the SD-20M can easily be managed or copied like other data files using the SD cards themselves and a computer, for example.

Since the SD-20M supports SDXC cards with capacities up to 128 GB, you can continuously record even long meetings and rehearsals, for example, with peace of mind.

Record in WAV or MP3 format

The SD-20M can record in uncompressed WAV format (so-called linear PCM recording) with resolutions up to 24 bits / 96 kHz. This enables you to capture music concerts and other important events with high levels of audio quality.

You can keep the size of files created smaller by selecting the MP3 format. By using this format with a low bit rate, you can record for much longer amounts of time on the same card compared to when using WAV format. This can be helpful when recording meetings, discussions and other long events.



Convenient functions for your daily tasks

Start and stop recording automatically

The automatic recording function starts recording when an input signal is detected. For example, you can use this function to record a radio program. By setting a timer for a radio tuner and putting the recorder in standby, the SD-20M will start recording when the tuner turns on at the set time.

Set marks to easily locate to certain positions in a file

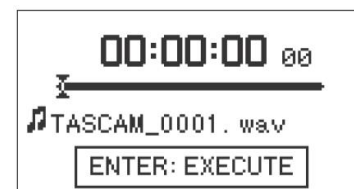
You can add up to 99 marks to a recording file as short cuts to the beginnings of songs, scene changes, etc. Moreover, marks can be added automatically in combination with the auto recording function. In this case, the SD-20M sets a mark each time the input level stays below a specified level for more than five seconds. To move to a mark position, use the skip buttons during playback or when stopped.

Divide files at a specified position

The SD-20M allows a recording file to be divided at a specified position. By setting marks between songs during a live recording, for instance, you can later easily divide that continuous live recording into single tracks.

Variable Speed Audition

The Variable Speed Audition (VSA) function allows you to change the speed during playback with this unit. Since the playback speed can be changed without affecting the pitch, this function is useful for language practice and meeting transcription.



Main Features

- Four-track solid-state recorder
- Stereo or four-track recording (two mic/line inputs + two line inputs)
- Two microphone inputs on XLR/jack combo jacks, compatible with +4 dBu line level, switchable phantom power (+48 V)
- Two RCA line inputs on rear side for tracks 3-4 (compatible with -10 dBV line level)
- Two recording formats supported:
 - WAV/BWF: 44.1–96 kHz, 16/24 bit
 - MP3: 32–320 Kbit/s
- Simple user interface
- Low-cut filter with three levels (40/80/120 Hz)
- File divide feature
- Dual recording function records a copy of your audio at a lower level for a distortion-proof safety track
- Variable speed playback changes speed without changing the pitch (0.5 times to 1.5 times in 0.1 increments)
- Auto-recording function to automatically start recording based on input level
- RCA stereo line outputs
- Standard stereo headphones output
- Remote jack for wired or footswitch control
- AA battery backup – keeps recording even after power loss
- SDXC media slot supports cards up to 128 GB
- Compact 1U rack-mountable chassis

Specifications

Ratings

Recording media	SD card (64 MB–2 GB) SDHC card (4 GB–32 GB) SDXC card (48 GB–128GB)
Recording/playback formats	BWF: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 16/24 bits WAV: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 16/24 bits MP3: 44.1/48 kHz, 32/64/96/128/192/256/320 Kbit/s
Number of channels	4 channels (stereo × 2)

Analogue audio inputs and outputs

Mic/Line input 1/2 (balanced)	Combo jacks: XLR-3-31 (1: GND, 2: HOT, 3: COLD) 6.3-mm standard TRS Jack (Tip: HOT, Ring: COLD, Sleeve: GND)
Set to MIC (phantom power supported)	
Input impedance	2.7 kΩ
Maximum input level	0 dBu (Gain: LOW)
Minimum input level	–67 dBu (Gain: HIGH)
Set to LINE	
Input impedance	10 kΩ or higher
Nominal input level	+4 dBu
Maximum input level	+20 dBu
Minimum input level	–12 dBu
Line inputs 3/L and 4/R (unbalanced)	RCA jack
Input impedance	10 kΩ or higher
Nominal input level	–10 dBV
Maximum input level	+6 dBV
Minimum input level	–26 dBV
OUTPUT jacks	RCA jack
Nominal output level	–10 dBV
Maximum output level	+6 dBV
Output impedance	200 Ω
Headphones output	6.3-mm standard stereo jack
Maximum output power	20 mW + 20 mW (32 Ω load, 0.1 % distortion)

Control input/output

Remote control connector	2.5-mm TRS micro jack
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Audio performance

Frequency response	20 – 20 kHz +1/–3 dB (Input 1-2 to output, Fs 44.1/48 kHz, JEITA*) 20 Hz – 40 kHz +1/–3 dB (Input 1-2 to output, Fs 96 kHz, JEITA*)
Distortion	0.01 % or less (Input 1-2 to output, Fs 44.1/48/96 kHz, JEITA*)
S/N ratio	100 dB or more (Input 1-2 to output, Fs 44.1/48/96 kHz, JEITA*)

*Based on JEITA standard CP-2150

Power supply and other specifications

Power supply	Dedicated AC adapter (TASCAM PS-P1220E) 4 AA batteries (alkaline, NiMH or lithium)
Power consumption	5 W (maximum)
Input current	1 A (maximum)
Dimensions (W × H × D)	483 mm × 45 mm × 300 mm
Weight	2.8 kg (including batteries) 2.7 kg (excluding batteries)
Operating temperature range	5–35 °C

Approximate battery operation time in hours:minutes (continuous operation)

Use conditions	A / N / L**
1-2 channels/line input, recording 2 channels, 44.1kHz/16-bit WAV	2:45 / 3:45 / 7:00
1-2 channels/mic input, phantom power used, recording 2 channels, 44.1kHz/16-bit WAV	1:45 / 2:30 / 5:15
1-2 channels/mic input, phantom power off, line input on channels 3-4, recording 4 channels, 44.1kHz/16-bit WAV	1:15 / 1:45 / 5:00

**A: Alkaline batteries (Evolta), N: NiMH batteries (eneloop), L: lithium batteries (Energizer Ultimate Lithium)

Design and specifications subject to change without notice.

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