SONY

Portable Stereo Tape Recorder

TC-510-2

Sony's Ultimate Portable Stereo Tape Recorder
Ideal for Field/Interview/Movie Applications
A new Sony for quality outdoor recording that's almost like having a portable professional studio. The compact TC-510-2 is especially designed for "on-the-go" recording, interviews and natural stereo recording. With DC operation, it works like a professional open-reel stereo tape deck featuring half-track 2-channel REC/PB, 3-head Tape/Source monitoring and other attractive features. Functionally designed to be controlled easily, quickly and accurately, the TC-510-2 is ideal for all outdoor audio applications.

A DC servo-controlled direct-coupled drive motor for greater accuracy. Precise speed regulation, smooth motor rotation, low noise & flutter regardless of battery voltage variation. Excellent servo is obtained with the adoption of IC.

Direct coupling of Sony's precisely engineered FET & FET head with FETs in the preamplification. Low distortion of 0.06%, frequency response of 20-27,000Hz (±3dB). SN ratio of 54dB (All with Sony's Ferri-chrome tape).

Microphone amplifier adopting FETs is directly coupled with microphone input for superior S/N ratio and better frequency response especially in low ranges.

DC voltage converter for wide dynamic range (DC-DC step-up converter). For out-of-door use, battery operation is indispensable. But 6 "D" size batteries only offer 12V. This converter increases the saturation level of the recording amplifier from 12V to ±24V. Better linearity is assured.

2-track 3-head system, 5" reel
In spite of the TC-510-2's portability, you can record and playback 2-tracks (stereo or monaural). Three-head system allows tape-source monitoring while recording.

Built-in amplifier and speaker
Recording can be monitored with the speakers built-in. When monitoring while recording is also possible. By connecting a microphone, you have a mini P.A. (public address) system with speaker On/Off switch.

Test button
Provides a 1kHz test tone (output level 1Vpp at 1.2kΩ) when pressed. (For checking the output levels of the head amplifier and the preamplifier.

All the controls are built-in and the unit is compact and lightweight. The main unit and the microphone are separated by a cord. With this feature, the microphone can be placed at any convenient location, ensuring optimal audio quality for outdoor recordings.

Extended dynamic range and excellent signal-to-noise ratio with the tape selector for Ferri-chrome tape
Ferri-chrome tape has 2-layers of magnetic substances on the tape width for high reliability, and the other for high frequencies. High output, wide dynamic range, high tape and smooth hour tesselation. The independent 3-step bias and equalization selectors allow optimum response with any kind of tape such as Fe-01 tape, SL tape and standard tape.

Microphone attenuator with 2-step selector (0, 24dB) for wider dynamic range. The -24dB position is particularly useful for field recording when sudden peaks are likely to occur. Bound of up to 140 phones can be recorded.

Microphone/Line input selector
Sony's limiter On/Off switch to control the wide dynamic range. Tape/Source monitor selector.

Battery check button

Shoulder strap

2 VU meters with On/Off illumination to conserve battery.

3-digit tape counter with zero reset button

DC 12V, 6 "D" size batteries, 2-hour continuous recording.

AC 220V with power supply AC-26 (optional).
Specifications

Power requirements:
DC 12V: 8 "D" size batteries, (2-hour continuous recording)
Rechargeable battery pack BP-55 (optional)
(12-hour recharging time with optional AC-26, 3-hour continuous recording)
Car/boat battery with car battery cord
DC-129 (optional)
AC 220V with power adaptor AC-26 (optional)

Recording system:
2-track 2-channel stereo recording and playback
2-track monaural recording and playback

Tape speeds:
19cm/s (7 1/2 ips), 9.5cm/s (3 1/2 ips)

Maximum recording time:
With 275m (900 ft) tape
22 minutes 30 seconds stereo at 19cm/s
45 minutes monaural at 19cm/s
45 minutes stereo at 9.5cm/s
90 minutes monaural at 9.5cm/s

Fast forward and rewind time:
120 seconds with 275m tape

Reel capacity:
5" reel (13cm)

Speaker:
44 x 94mm 3/4"

Output power:
500mW

Semiconductors:
4 ICs, 4 FETs, 56 transistors, 19 diodes

Heads:
Recording head-----1 Ferrite & Ferrite head
Playback head------1 Ferrite & Ferrite head
Erase head---------1 Ferrite head

Motor:
DC servo-controlled motor

Recoding bias frequency:
160kHz

Signal-to-noise ratio:
With Ferri-chrome tape
64dB, 60dB (DIN)
With SLH tape
61dB
With standard tape
58dB

Total harmonic distortion:
0.8% (with Ferri-chrome tape)

Frequency response:
With Ferri-chrome tape
19cm/s 20 - 32,000Hz
30 - 27,000Hz (2-3dB)
30 - 27,000Hz (DIN)
9.5cm/s 20 - 23,000Hz
30 - 18,000Hz (DIN)
With SLH tape
19cm/s 20 - 30,000Hz
30 - 25,000Hz (DIN)

With standard tape
19cm/s 20 - 25,000Hz
30 - 20,000Hz (DIN)

Wow and flutter:
19cm/s 0.03% ±0.05% (DIN)
9.5cm/s 0.09% ±0.12% (DIN)

Input jacks:
Microphone (phone jack x 2)
Line (phone jack x 2)

Output jacks:
Line (phone jack x 2)
Headphone (binaural jack)

Dimensions:
333(W) x 136(H) x 296mm(D)
(13 1/8 x 5 1/4 x 11 1/2"

Weight:
6.8kg (15 lb)

Supplied accessories:
Battery case
5" reel
Shoulder strap
Connecting cord RK-74
Head cleaning tips

Recommended optional accessories:
5" Ferri-chrome tape FeCr-5-275-BL
5" SLH tape SLH-5-275-BL
Carrying case LC-30
AC power adaptor AC-26
Car battery cord DCC-129
Rechargeable battery pack BP-55
Parabolic reflector PBR-400
Stereo headphone DR-5A, DR-7, DR-9, DR-11
Plug adaptor PC-2
Electret Condenser Microphone ECM-23,
ECM-270
Microphone mixer MX-510, MX-650
Head demagnetizer HE-2

Design and specifications subject to change without notice.

Wide variety of accessories

Ferri-chrome tape FeCr-5-275-BL
Carrying case LC-30
Car battery cord DCC-129
Parabolic reflector PBR-400
Stereo headphone DR-7
Electret Condenser Microphone ECM-23
Electret Condenser Microphone ECM-270
Microphone mixer MX-510, MX-650
Head demagnetizer HE-2

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