Stereo Cassette Deck

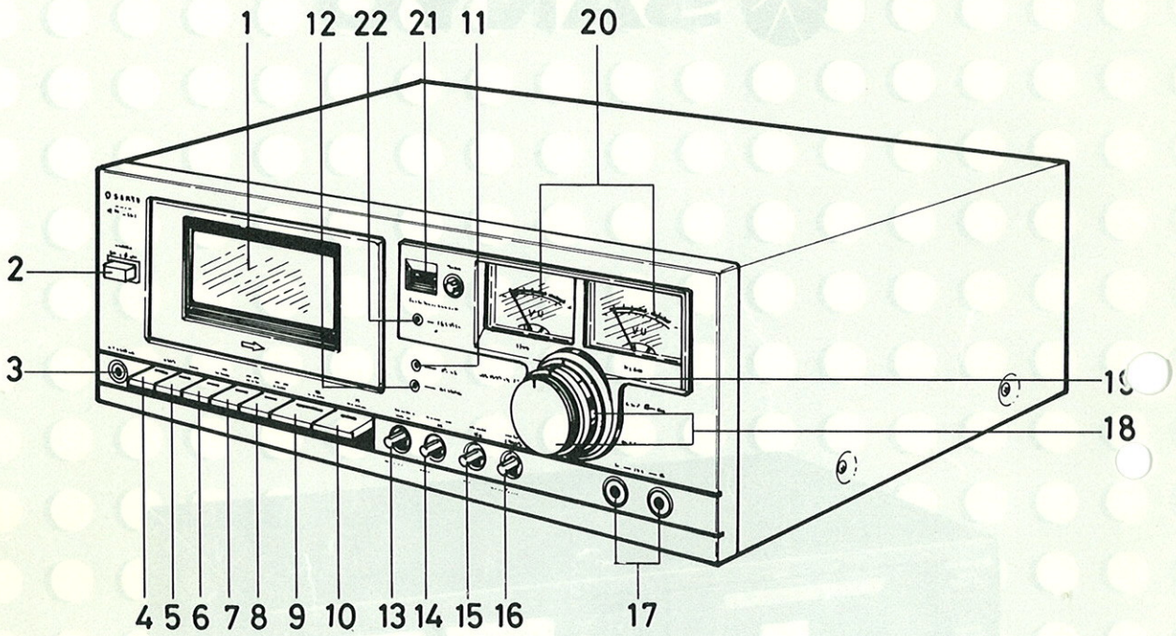
INSTRUCTION MANUAL

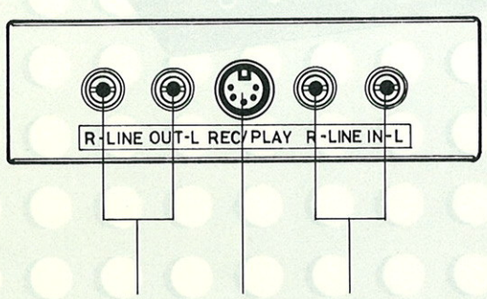
SANYO

ACE AUTO STOP DOLBY SYSTEM

RD-515Q

CONTROLS





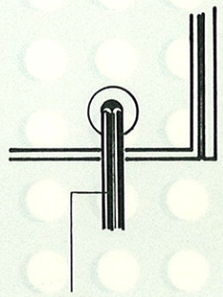
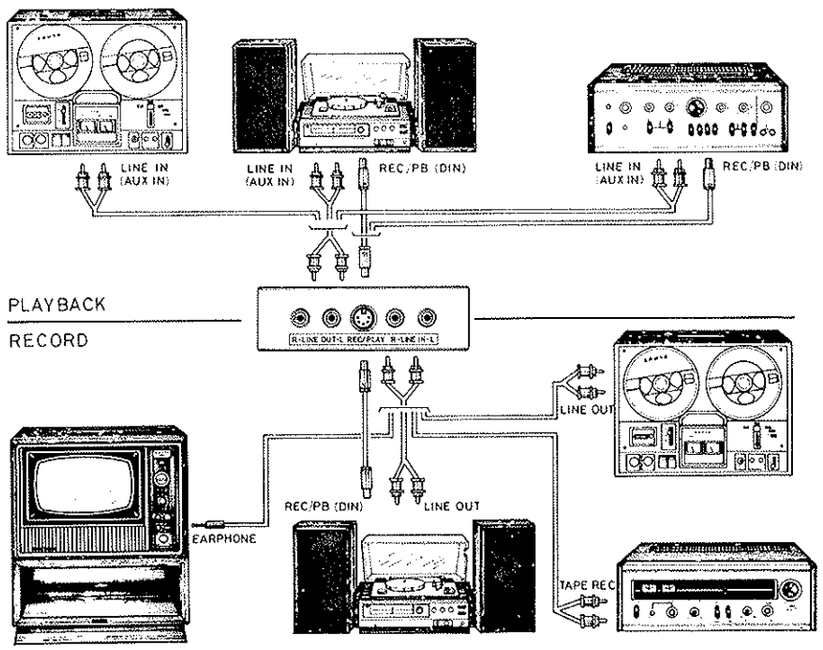
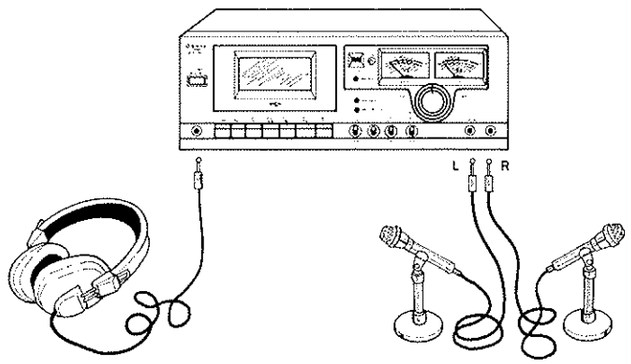


Fig. 1

1. Cassette compartment lid
   Power switch
   Turns the unit ON and OFF.
3. Headphones socket
   Provides for headphone monitoring during recording or private listening during playback. Accepts standard phone plug.
4. Eject button
   Press to eject the cassette.
5. Record button
   Press the RECORD and PLAY buttons to activate record circuit and the erase head.
6. Play button
   Press to start playback.
7. Rewind button
   Press to rewind the tape quickly.
8. Fast forward button
   Press to wind the tape forward quickly.
9. Stop button
   Press to stop the tape travel.
10. Pause button
    Press to momentarily stop the tape travel during recording and playback.
11. CrO_2 tape indicator lamp
12. Dolby NR indicator lamp
13. Tape select switch
    Selects proper recording equalization for the type of tape being used. As switch affects circuitry in both recording and playback, it must be set to proper tape type during both operating modes.
    CrO_2 . . . . . Chromium dioxide tape
    NORMAL . . . . . Standard tape
    Recommended brand of tapes are . . .
    CrO_2 . . . . . TDK, Memorex C-60
    NORMAL . . . . . Sanyo, BASF C-60
    When the switch is set to CrO_2 position the CrO_2 tape indicator lamp will light.
14. Dolby NR switch
    Activates the Dolby System noise-reduction circuit during recording and playback. Optimum music recording is achieved by placing the switch to ON. The Dolby NR indicator lamp will light up simultaneously.
15. Limiter switch
    Set this switch to ON to record without distortion caused by high signal peaks.
16. Input select switch
    Provides input selection for optimum input condition, in MIC/DIN position, the unit records signals from microphone/DIN (REC/PLAY) and in LINE IN position, records LINE IN signals.
17. Microphone input sockets
    Separate inputs for left and right channel microphones provide for stereo live recording.
18. Record level control knobs
    Separate controls provide of independent adjustment of each channel's recording level for precise adjusting and balancing of stereo signals.
19. Level index marker
    After adjusting the input levels, set the index marker to the position where level control knobs have been set. This marker is useful for repeating the recording, playing back, and re recording at the same input level.
20. VU meters
    Illuminated VU meters help to assure optimum recording levels and indicates relative playback levels.
21. Tape counter & reset button
    Use this tape counter to find desired position more quickly.
22. Record indicator lamp
23. Line output sockets
    Connect to tape monitor or auxiliary inputs of stereo recorder, amplifier or other stereo record system. Do not plug into tape head inputs.
24. DIN (REC/PLAY) socket
    Connect to REC/PLAY (DIN) socket of stereo amplifier or other stereo system. Accepts DIN type plug.
25. Line in sockets
    Connect the patch cords to these sockets and other ends to output of tuner, phonograph or equivalent.
26. Power cord
    Connect attached power cord to AC wall socket.





(not supplied) (not supplied)

Fig. 2

Inserting and Removing the Cassette

Open the cassette compartment lid by pressing the EJECT button. Insert the cassette with the full reel to the left (visible through the window) and tape slot at the bottom (Fig. 3). The cassette fits into the unit only in the correct position. To put the cassette in place, push the cassette compartment lid at top. Now the unit is ready to operate. To use the second track, press the STOP button and then press the EJECT button and remove the cassette. Turn the cassette over and re-insert it as previously described (Fig. 4).

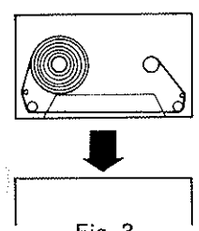


Fig. 3

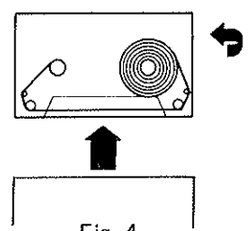


Fig. 4

Counter

The 3-digit counter built into this unit permits instant location of any point on a tape. When recording at the beginning of a cassette, set the counter to "000" by pressing the reset button. As you record various selections, make a note of the counter number at the beginning of each selection. To playback a particular selection, use the F FWD button to move the tape until the counter resisters the previously noted number for that selection. If the cassette has been removed from the unit, first rewind the tape completely and reset the counter to "000".

To Avoid Accidental Erasure

Whenever a recording is made, the sound previously recorded is erased automatically. To protect valuable recordings from accidental erasure, the unit and cassette are equipped with safety devices. To keep the recorded material permanently, break out the tabs on the back of the cassette with a knife or screw driver. To protect the TOP side of the tape from accidental erasure break out the right side tab. To record on a cassette from which the tabs have been removed, attach adhesive tape over the tab opening (Fig. 5). The RECORD button will not lock in when cassette tabs are removed.

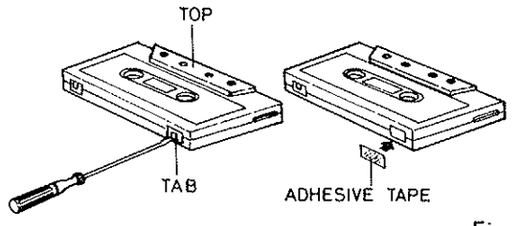


Fig. 5

Track System

When a cassette is inserted with "SIDE 1" facing you, recording or playback is done on tracks 1 and 2 (Fig. 6). The tracks 4 and 3 can be used by simply turning the cassette over and inserting it with "SIDE 2" facing you.

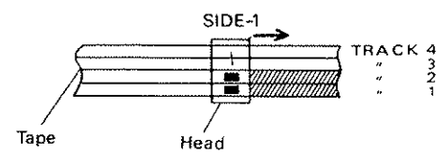


Fig. 6

The Dolby System . . . . . What it is

* Silence is an important part of music: The notes are only part of the music a composer writes. The silence between the notes is the rest of it. Real high fidelity means reproducing the silence as accurately as the sound.
* Recorded music has always included recorded noise. Since the earliest days of music recording, listeners have had to endure background noise. It is the hiss produced by recording tape. Scientists learned that no technique can ever remove all of the noise of a sound reproducing system. However, they also have learned that noise is only detected by the ear and brain of a listener under certain conditions. The Dolby System works in a way that is based upon recent research into both electronics and hearing.
* A circuit that listens to music: The Dolby System is based on a patented circuit which is "programmed" with information about the way noise is heard by a human listener when music is played at the same time. By playing the music through the Dolby System before it is recorded, and again when the recording is heard by the listener, the noise introduced by the recording process is reduced considerably.
* The word Dolby & Double D device are a trademark of Dolby Laboratries Inc. and this noise reduction system is manufactured under licence from Dolby Laboratries Inc.

OPERATION

Recording

1. Connect tape deck input and output jacks to the stereo receiver Tape Out and Line Input Sockets (Fig. 2).
2. Turn ON the power.
3. Press the EJECT button and insert the cassette into its compartment lid, then close the lid.
4. Set the TAPE SELECT switch for the type of tape being used.
5. Set the Dolby NR switch to ON or OFF.
6. Set the LIMITER switch to OFF.
7. Press the PAUSE button.
8. Press the RECORD and PLAY buttons simultaneously. The RECORD indicator lamp will light simultaneously.
9. Press the RESET button to set the counter numerals to "000".
10. Adjust the recording level with the record level control knobs so that the VU meter pointers deflect within "BLACK" areas (Fig. 7).

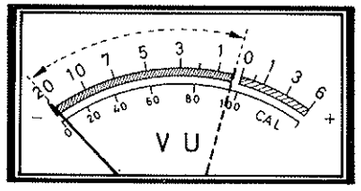


Fig. 7

11. Set the LIMITER switch to ON.
12. Re-press the PAUSE button to start recording.
13. To stop the recording, press the STOP button. When the end of the tape has been reached, the RECORD and PLAY buttons will be automatically released and the unit is put in the stop mode.

Fast Forward and Rewind

These buttons advance or rewind the tape rapidly, helping you to locate pre-recorded material or find the position at which you last stopped recording. When the end of the tape has been reached during fast forward or rewind mode, the reels will stop. Then the STOP button should be pressed.

Playback

1. Turn ON the power.
2. Insert the cassette into the cassette compartment lid.
3. Set the TAPE SELECT switch for the type of tape being used.
4. Set the Dolby NR switch to ON or OFF.
5. Press the PLAY button.
6. To stop the playback, press the STOP button. When the end of the tape has been reached, the PLAY button will be automatically released.

Erasing

The tape deck automatically erases previously recorded material on the tape cassette while it is recording. If you desire to erase the cassette without recording, set the record level control knobs to the MIN position and let the unit operate in the recor mode.

MAINTENANCE

To assure continued high performance from your ssette deck, periodically clean the heads and pinch oller whenever dust or reddish-brown oxide has accumulated. Failure to clean these parts will result in inferior sound quality, distortion of recording, deterioration of high frequency reproduction and inconsistent tape speed.

1. Open the cassette compartment lid by pushing the EJECT button.
2. Remove the cassette compartment lid (part of window) as figure 8.
3. Moisten a cotton applicator with cleaner and apply to the faces of both heads, rubbing gently until all traces of dirt or oxide are removed. Also clean the surfaces of the pinch roller and the capstan (Fig. 9).
4. Dry, clean, and polish the faces of the heads with a piece of cloth.

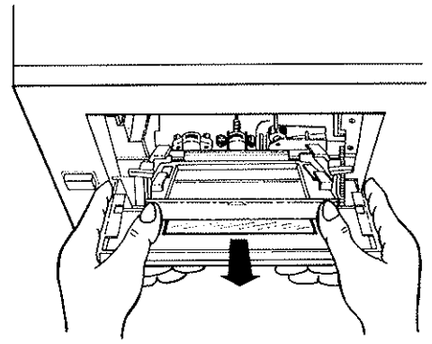


Fig. 8

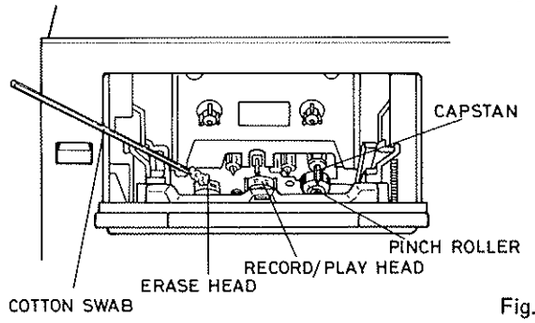


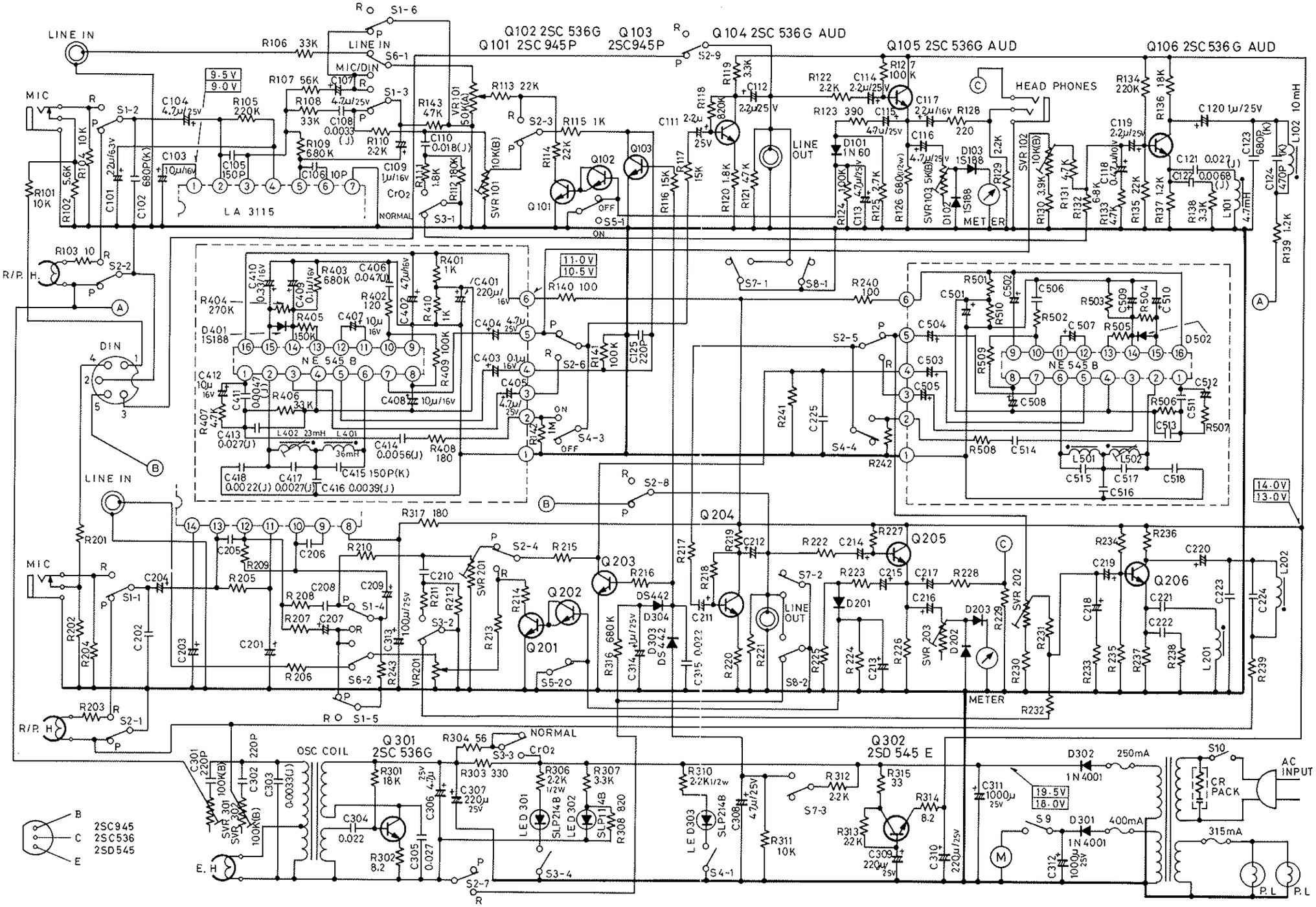
Fig. 9

SPECIFICATIONS

Tape	CrO_2 tape and Normal tape
ecording system	AC bias, 1/4 track stereo
rasing system	AC erasing, 1/2 track
Tape speed	1-7/8 ips. (4.75 cm/sec.)
Recording time	60 min. (C-60 cassette tape)
Rewind & Fast forward time	90 sec. (C-60 cassette tape)
Wow & Flutter	0.1% WRMS
Frequency response	30 – 16,000Hz (CrO_2 tape)
	30 – 13,000Hz (Normal tape)
Signal to noise ratio	58dB (Dolby switch ON)
	50dB (Dolby switch OFF)
input	MIC: 10k ohms (0.3mV)
	REC/PLAY: 10k ohms (1mV)
	LINE IN: 60k ohms (70mV)
Output	REC/PLAY: 3k ohms (0.7V)
	LINE OUT: 3k ohms (0.7V)
	HEADPHONES: 8 ohm to 10k ohms (30mV)
Power source	AC: 240V, 50Hz
Dimensions	15-9/16" (W) x 10-1/2" (D) x 6-3/16" (H) (395 x 265 x 157 mm)
Weight	Approx. 11 lbs. 11 ozs. (5.3kg)

* Specifications subject to change without notice.

MODEL RD 5150 SCHEMATIC DIAGRAM



S1-1 ~ 1-6 · · · · RECORD/ PLAY SWITCH
S2-1 ~ 2-9 · · · · ·
S3-1 ~ 3-4 · · · · · TAPE SELECT SWITCH
S4-1 ~ 4-3 · · · · · DOLBY NR SWITCH
S5-1 ~ 5-2 · · · · LIMITER SWITCH

S6-1 ~ 6-2 · · · INPUT SELECT SWITCH
S7-1 ~ 7-3 · · · PLAY SWITCH
S8-1 ~ 8-2 · · · STOP SWITCH
S9 · · · · · · · · MECH. SWITCH
S10 · · · · · · · · POWER SWITCH

(AS) 141–6–421T–29002B

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* Schematic diagram subject to change without notice.

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