



SANYO



All fasteners subject to metric dimension of International Organization for Standardization.

Portable Cassette Recorder with AM/FM Radio

MODEL MR-411^{F/E} SERVICE MANUAL

SANYO ELECTRIC CO., LTD.

INTERNATIONAL DIVISION : SANYO ELECTRIC TRADING CO., LTD.

OSAKA, JAPAN



SPECIFICATIONS

Recording system	AC bias, double track	Sensitivity	AM 150 μ V (maximum) FM 2 μ V (maximum)
Erasing system	DC erase	Transistors	2SB303 x 1, 2SB186 x 2, 2SB405 x 2 2SB185 x 1
Tape speed	1-7/8 isp.	Diodes	2SA101 x 1, 2SC668 x 1, 2SC772 x 4 1S188 x 8, 1S553 x 1
Recording time	60 min. on double track (C-60)	Thermistors	SDT-06 x 1
Rewind		Rectifiers	1S1849R or 10DC-1R x 1 DS-17 or 10DC-1 x 1
& F. forward time	1' 45"	Speaker	4" (10cm) P.D.S
Wow & flutter	0.3% RMS	Power source	DC: UM-2 x 4 (C-Cell x 4) AC: 120, 200, 240V 50/60 Hz (110/220V in Europe)
Output power	2 maximum	Dimensions	10-1/4"(W) x 7-1/8"(H) x 3-1/16"(L) (180 x 180 x 77 mm)
Signal to noise ratio	40 dB	Weight	5.06 lbs (2.3 Kg)
Frequency response	50 ~ 10,000 Hz		
Terminals	MIC 10K Ω AUX IN 220K Ω (RADIO IN 10K Ω in Europe) EXT. SP 8 Ω		
Frequency range	AM 535 ~ 1,605 KHz (510 - 1,605 KHz in Europe) FM 88 ~ 108 MHz (87.5 - 104 MHz in Europe)		

DISASSEMBLY INSTRUCTION

To remove the amplifier and mechanism from the cabinet;

1. Pull out the Tone, Select and Volume knobs.
2. Place the recorder front side down and remove one screw from the center of the cabinet back.
3. Depressing the cabinet bottom with both thumb, open the back cabinet. See Fig. 1 below.
4. Remove two fastening screws that hold chassis to cabinet.

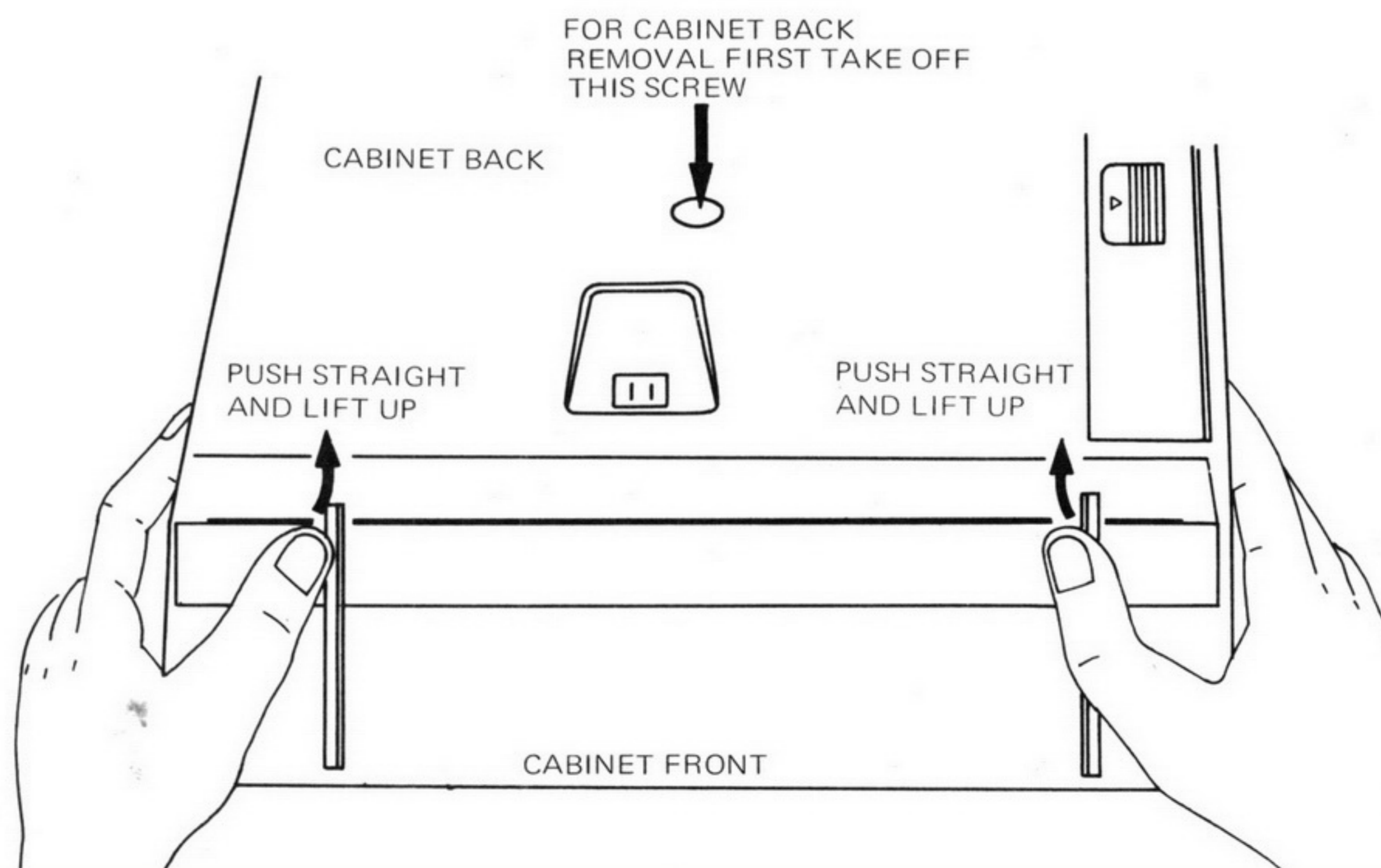
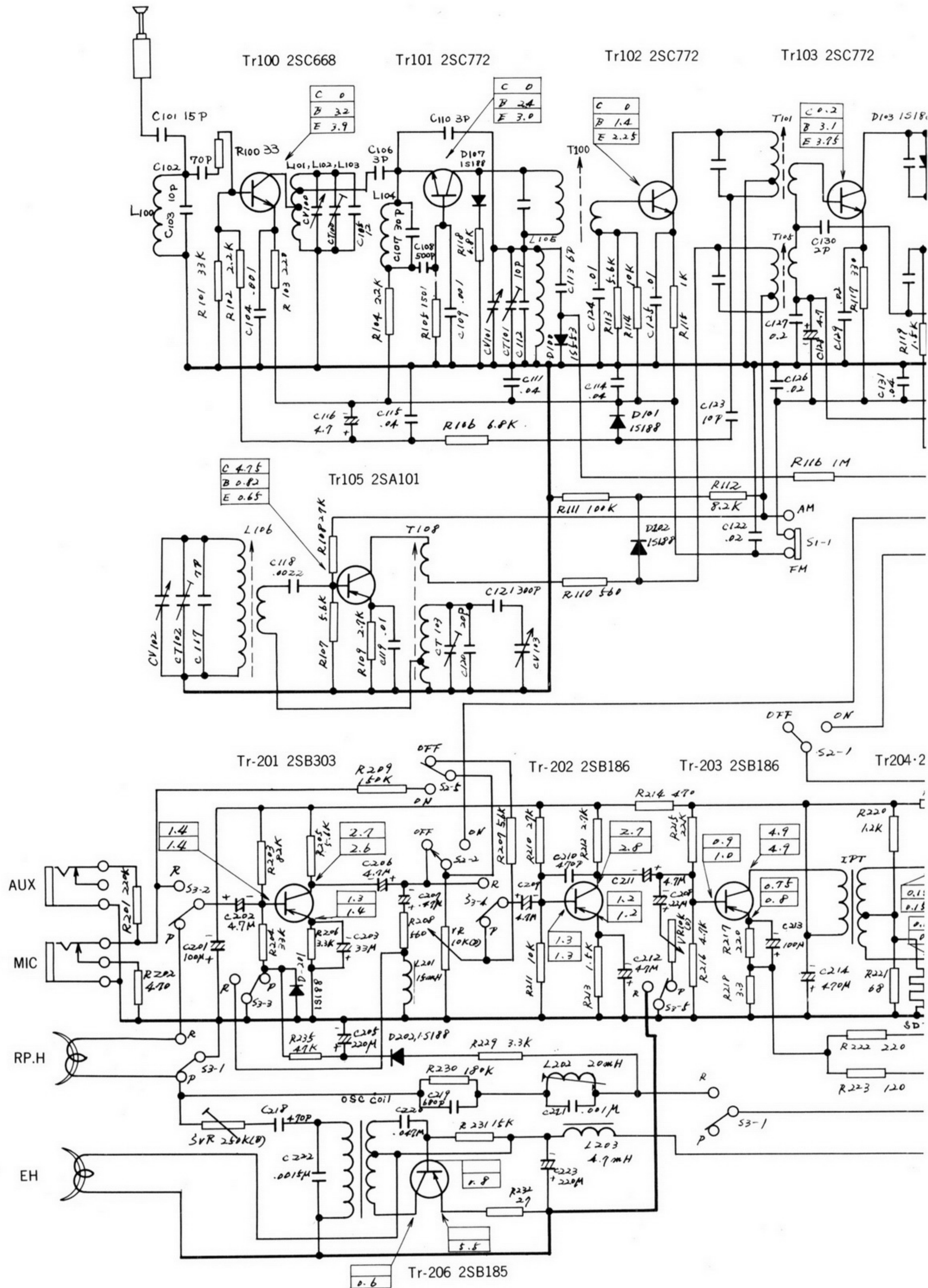


Fig. 1

CIRCUIT DIAGRAM



NOTE

- 1) S1-1 ~ S1-3 : AM-FM SELECT SW "FM" POSITION
- 2) S2-1 ~ S2-4 : RADIO NO-OFF SW "OFF" POSITION
- 3) S3-1 ~ S3-9 : RECORDING SW "OFF" POSITION
- 4) S4-1 : MONITOR "OFF-SOFT-LOUD"
- 5) ALL RESISTOR VALUES IN OHMS K=10³
- 6) ALL CAPACITOR VALUES IN FARADS U=10⁻⁶ P=10⁻¹²
- 7) S5 : "AC" "DC" Changing SW
- 8) Values indicated in are DC Voltage to the chassis, upper is play lack and lower is Recording mode.
And all voltage are negative unless otherwise noticed.

