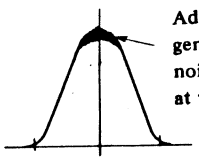
CAUTION

(1) At the article 1-(2). By the core of T101, T102, T103 and T105 let it be adjusted so that the gain will be max. And the wave form should be adjusted so that it will be the one of the Fig. 11. In this case, the output voltage at the surveying point of TP. 2 is weak, so let it be adjusted by connecting shown at Fig. 12, using V.T.V.M. Next, adjust it by T109 core, so that the wave form of Fig. 11 will dip just as Fig. 13 and at this time of adjustment stop the oscillation. (Oscillation variable capacitor is shorted.)



Adjust the output of genescope so that the noise will be out a little at the tip.

Fig. 11

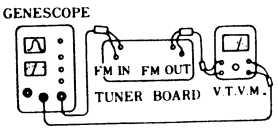
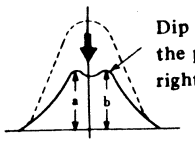


Fig. 12



Dip the wave form so that the peaks of left (a) and right (b) will be the same.

Fig. 13

(2) At the article 1-(3). Adjust so that it will be just as S curve of Fig. 14 with the secondary core (upper) of T107. And by the primary core (lower) of the T107, adjust it so that the gain will be max. In this case, A and B will be at the symmetry position of C, and adjust it as the straight line can be gained. At the time of adjustment of Caution (1) and (2), we use ceramic filter, so the center of the marker will not sometimes come on that of wave form. In this case, neglect the marker.

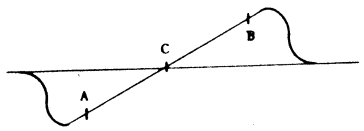


Fig. 14

7.2 FM MPX ALIGNMENT

Steps		Item	Measuring Instrument	Input Terminal	Output Terminal	Frequency	Adjust	Wave Form
1							VR107	Set the VR107 in the center.
2	(1)	19kHz 38kHz Tuning coil	FM signal generator 60dB at input Stereo signal generator pilot signal (19kHz) 8% modulated V.T.V.M.	Antenna terminal	TP 5	100MHz	L106, L109	Adjust L106 and L109 so that 19kHz. output wave form becomes max.
	(2)				TP 6		L107	Adjust L107 so that the (38kHz) output wave form becomes max.
3	(1)	Separation	1. FM signal generator 100MHz, 60dB at input 2. Stereo signal generator Main signal 92% modulated Pilot signal 8% modulated V.T.V.M.	Antenna terminal	FM OUT (L) or SP OUT (L)	100MHz		Set the tuning knob so that pointer of meter will become max.
	(2)						L109	After making the signal of L ch and Pilot, adjust L109 so that the output wave form of L ch become max.
	(3)						VR102	After making the signal of R ch and Pilot, adjust VR 102 so that the output wave form of L ch becomes min.
	(4)							Optimize VR102 so that the leak level of the L ch signal is equal to that of the R ch signal.
4		Lighting Level of STEREO Indicator Lamp	FM signal generator 100MHz 60dB at input Stereo signal generator pilot signal (19kHz) 5% modulated.	Antenna terminal	STEREO Indicator Lamp	100MHz	VR107	Adjust VR107 so that stereo indicator lamp will be lighted when the modulation degree of pilot signal is 5%.

7. GENERAL ALIGNMENT INSTRUCTION

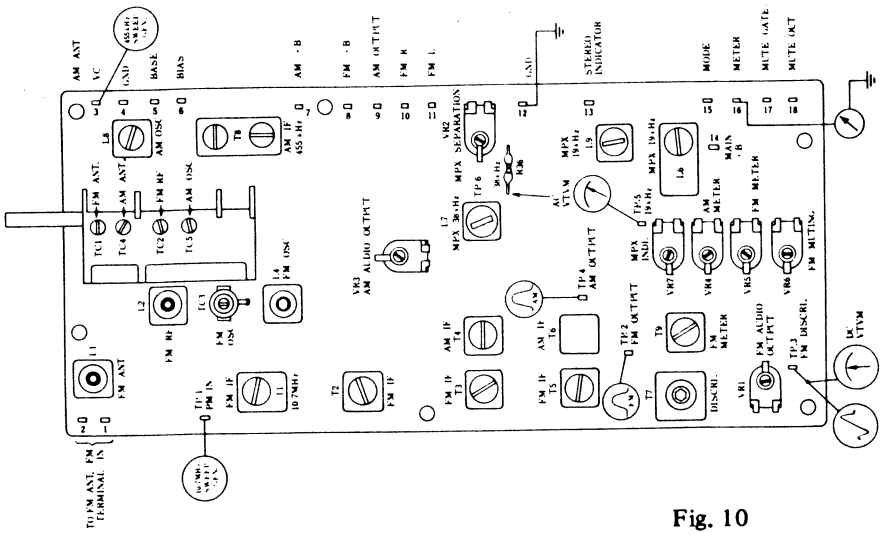
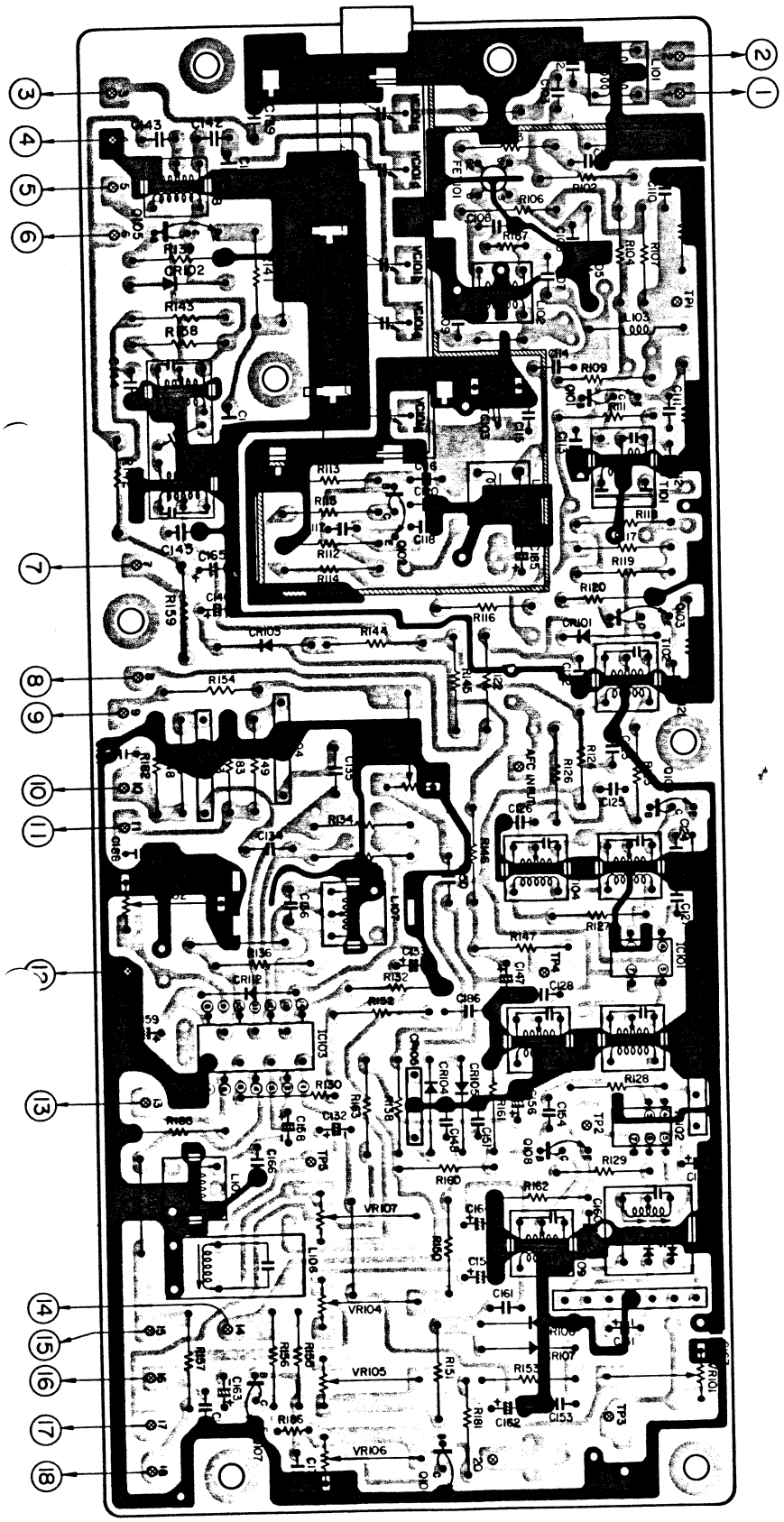


Fig. 10

7.1 FM TUNER ALIGNMENT

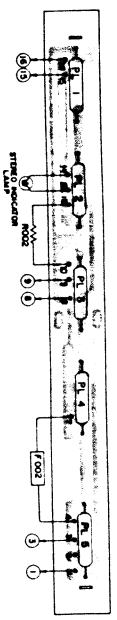
Steps	Item	Measuring Instrument	Input Terminal	Output Terminal	Frequency	Adjust	Wave Form
1 (1)	IF Amplifier	10.7MHz±150kHz Sweep Generator	TP 1	TP 2		T107 (upper) T109	Core Max.
1 (2)						T101, T102 T103, T105	CAUTION (1)
1 (3)	"S" curve		TP 1	TP 3		T107 (lower) T107 (upper)	CAUTION (2)
2	Discriminate	FM signal generator 100MHz 400Hz 100% modulated 60dB at input V.T.V.M.	Antenna terminal	TP 3 (DC balance meter)	100MHz	T107 (upper)	Adjust T107 so that pointer of Balance Meter will become 0V.
3	Distortion	FM signal generator 100MHz 400Hz 100% modulated 60dB at input Distortion meter	Antenna terminal	TAPE OUT (L) or SP OUT (L)	100MHz	T107 (lower)	Adjust T107 so that distortion will become min.
4 (1)	Covering	4.1 FM signal generator 90MHz 400Hz 100% modulated	Antenna terminal	TAPE OUT (L) or SP OUT (L)	90MHz (Turn the Dial pointer at 90MHz)	L104	Output Max.
4 (2)		4.2 FM signal generator 106MHz 400Hz 100% modulated			106MHz (Turn the Dial pointer at 106MHz)	TC103	
4 (3)							Repeat (1) & (2)
5 (1)	Tracking	5.1 FM signal generator 90MHz 400Hz 100% modulated, 10dB at input V.T.V.M.	Antenna terminal	TAPE OUT (L) or SP OUT (L)	90MHz	L101, L102	Output Max.
5 (2)		5.2 FM signal generator 106MHz 400Hz 100% modulated, 10dB at input V.T.V.M.			106MHz	TC101 TC102	
6	Tuning Meter	FM signal generator 98MHz 400Hz 100% modulated, 60dB at input	Antenna terminal	Tuning Meter	98MHz (Set the Tuning meter so that pointer will be max.)	VR105	Adjust VR105 so that pointer of Tuning meter will be 4.
7	Output	FM signal generator 98MHz 400Hz 30% modulated, 60dB at input	Antenna terminal	TAPE OUT	98MHz	VR101	Adjust the output to gain 200mV±2dB.
8	FM Muting	FM signal generator 98MHz 400Hz 100% modulated, 24dB at input	Antenna terminal	TAPE OUT (L) or SP OUT (L)	98MHz	VR106	Adjust VR106 so that a signal can occur then the input signal is 24±6dB.

8. TUNER PRINTED WIRING BOARD



① FM INPUT
② FM INPUT
③ FERRITE ANTENNA
④ EARTH
⑤ FERRITE ANTENNA
⑥ FERRITE ANTENNA
⑦ AM+B (12.8V)
⑧ FM+B (12.8V)
⑨ AM OUTPUT
⑩ FM OUTPUT (R)
⑪ FM OUTPUT (L)
⑫ EARTH
⑬ STEREO INDICATOR LAMP
⑭ +B (12.8V)
⑮ MODE SWITCH
⑯ SIGNAL METER
⑰ MUTE GATE
⑱ MUTE OUTPUT

9. LAMP PRINTED WIRING BOARD



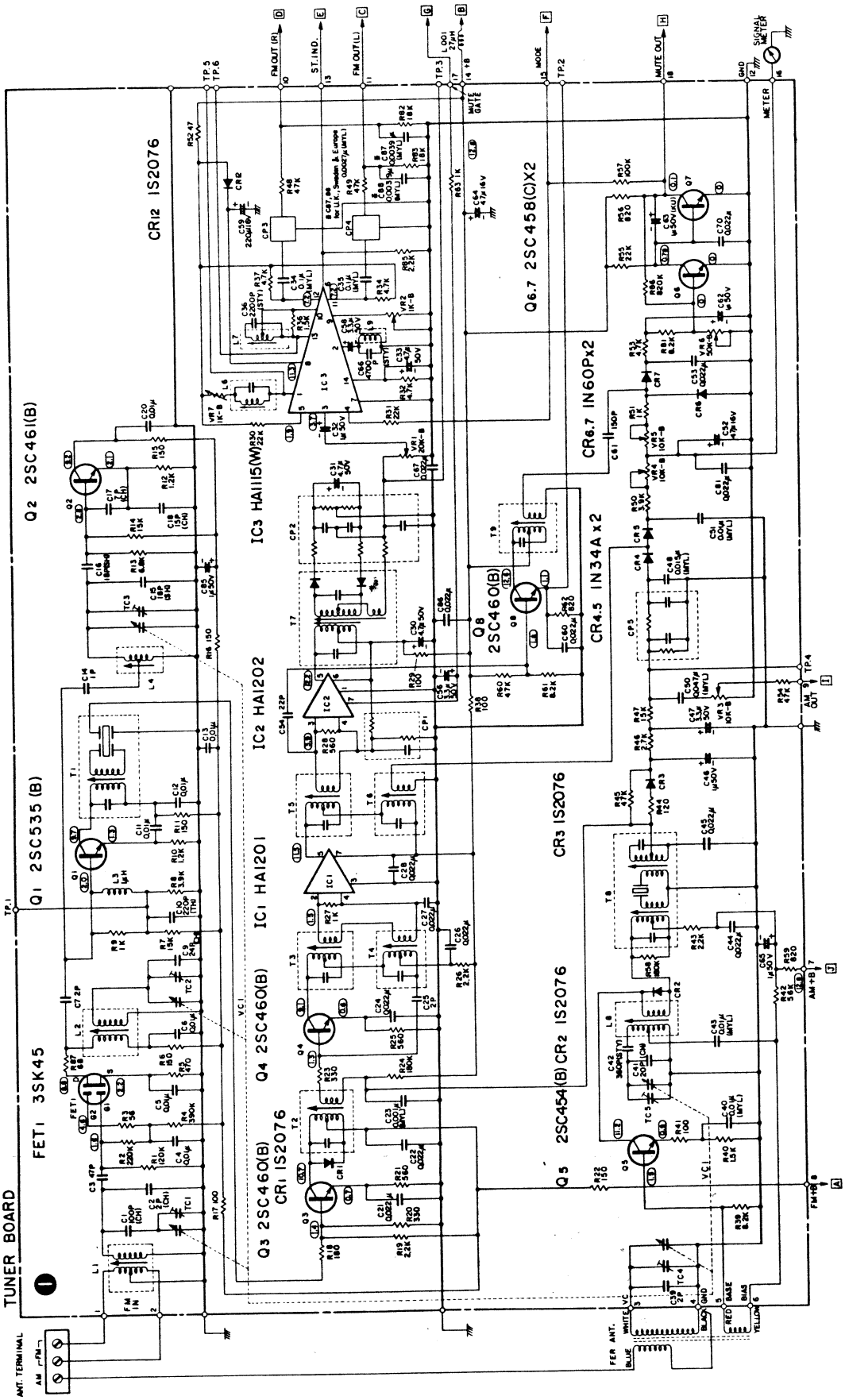
① POWER TRANSFORMER

③ POWER TRANSFORMER

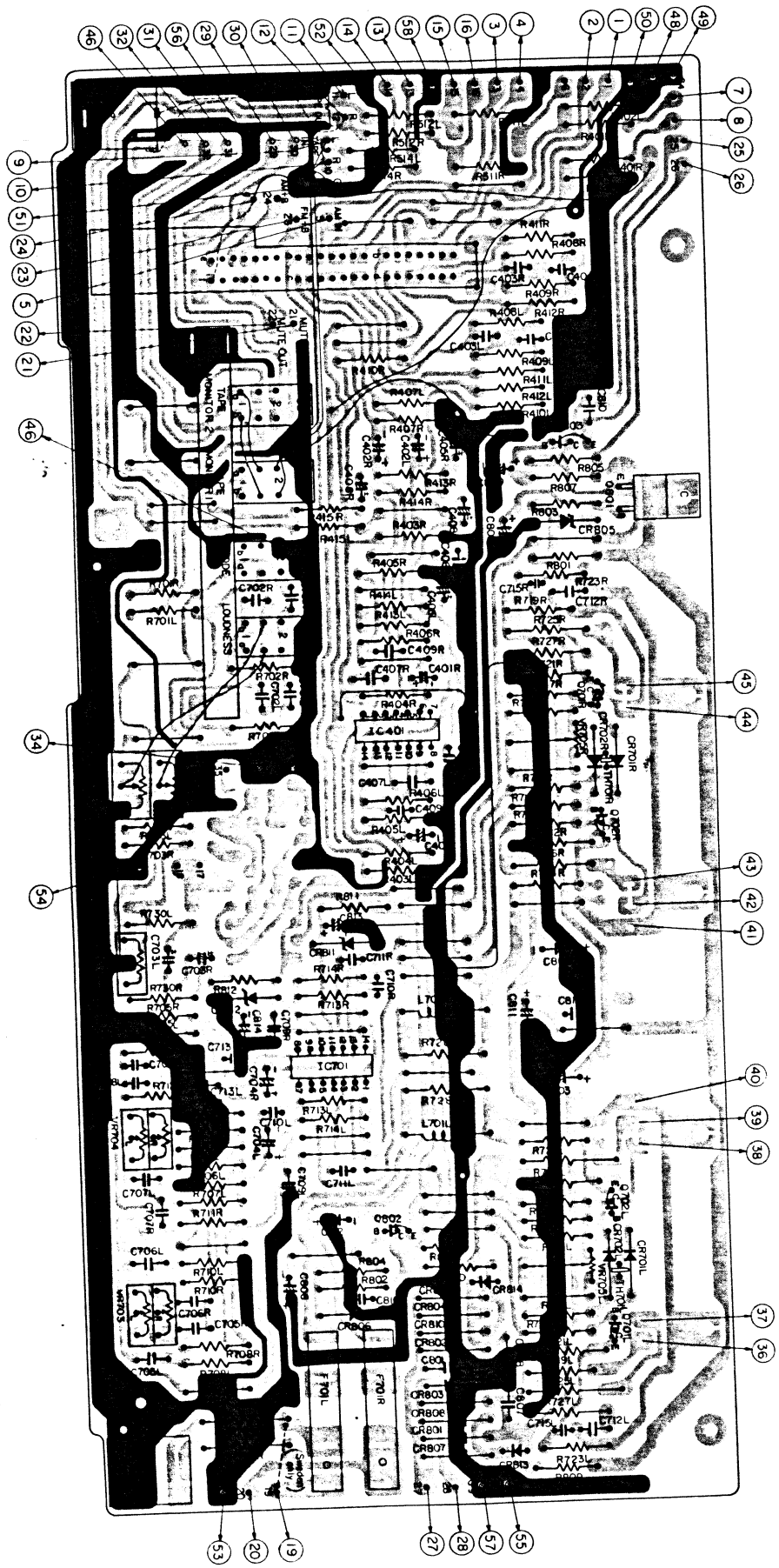
⑧ DIAL POINTER
⑨ DIAL POINTER

⑮ TUNER PRINTED WIRING BOARD (13)
⑯ AUDIO PRINTED WIRING BOARD (26)

10. TUNER CIRCUIT DIAGRAM



13. SR-502 AUDIO PRINTED WIRING BOARD



(1) PHONO INPUT (L)
(2) PHONO INPUT (R)
(3) FM INPUT (L)
(4) FM INPUT (R)
(5) AM INPUT

(7) AUX INPUT (L)
(8) AUX INPUT (R)
(9) TAPE-1 INPUT (L)
(10) TAPE-1 INPUT (R)
(11) TAPE-1 OUTPUT (L)
(12) TAPE-1 OUTPUT (R)
(13) DIN TERMINAL (3)
(14) DIN TERMINAL (5)
(15) DIN TERMINAL (7)
(16) DIN TERMINAL (4)

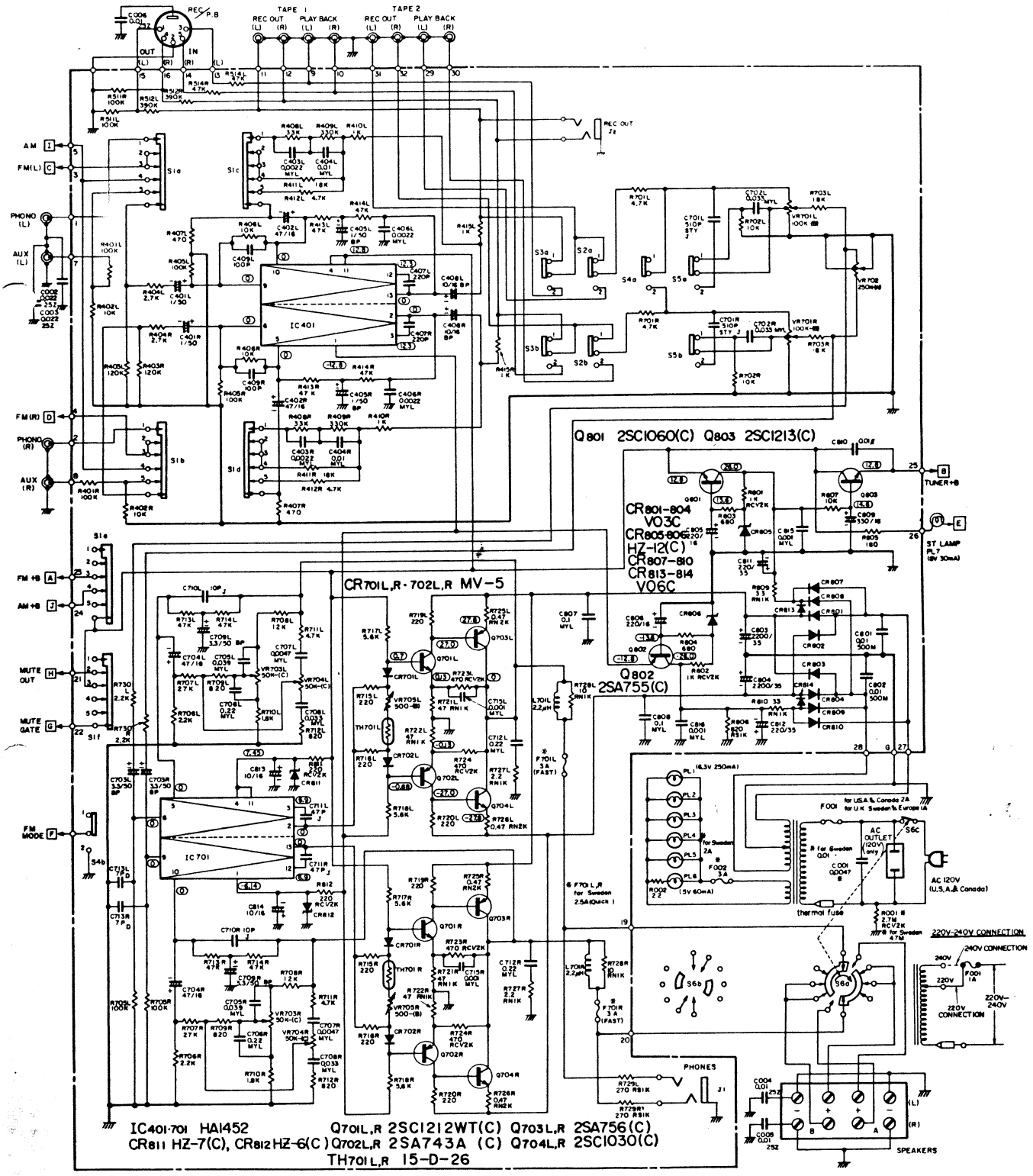
(19) ROTARY SWITCH (S 6)
(20) ROTARY SWITCH (S 6)
(21) MUTE OUTPUT
(22) MUTE GATE
(23) FM +B (12.8V)
(24) AM +B (12.8V)
(25) TUNER +B (12.8V)
(26) STEREO INDICATOR LAMP
(27) POWER TRANSFORMER
(28) POWER TRANSFORMER
(29) TAPE-2 INPUT (L)
(30) TAPE-2 INPUT (R)
(31) TAPE-2 OUTPUT (L)
(32) TAPE-2 OUTPUT (R)

(34) EARTH

(36) Q703L (BASE)
(37) Q703L (EMITTER)
(38) Q704L (BASE)
(39) Q704L (EMITTER)
(40) Q704L (COLLECTOR)
(41) Q704R (COLLECTOR)
(42) Q704R (BASE)
(43) Q704R (EMITTER)
(44) Q703R (BASE)
(45) Q703R (EMITTER)
(46) TUNER PRINTED WIRING BOARD (15)

(48) EARTH
(49) EARTH
(50) EARTH
(51) EARTH
(52) EARTH
(53) EARTH
(54) EARTH
(55) EARTH
(56) EARTH
(57) EARTH
(58) EARTH

14. SR-502 AUDIO CIRCUIT DIAGRAM



FUNCTION(S1a~f)	TAPE2(S2a,b)	TAPE1(S3a,b)	MODE(S4a,b)	LOUDNESS(S5a,b)	POWER/SPEAKERS(S6a~c)
1 PHONO	1 SOURCE	1 SOURCE	1 STEREO	1 OFF	1 POWER OFF
2 FU MUTE	(TAPE1—TAPE2)	2 TAPE2	2 MONO	2 ON	2 A SPEAKERS
3 FM	2 TAPE2	(TAPE1—TAPE2)			3 B SPEAKERS
4 AM					4 A+B SPEAKERS
5 AUX					5 PHONES