



HI-FI COMPONENTS

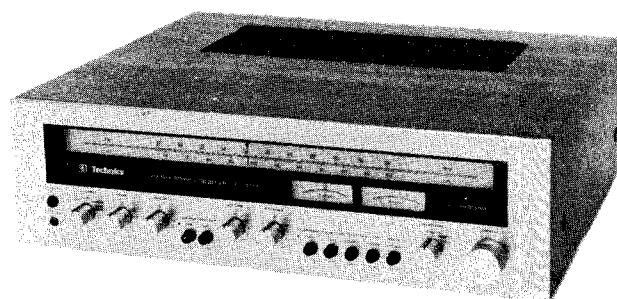


# Service Manual

## FM/AM STEREO RECEIVER



MODEL SA-5250



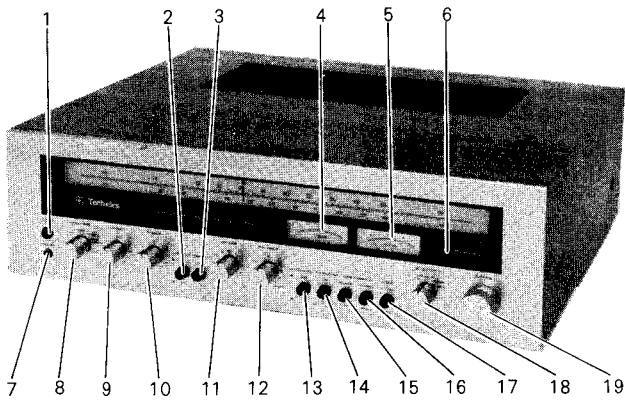
MODEL SA-5550

TECHNICAL SPECIFICATIONS (IHF)	SA-5250	SA-5550
<b>AMPLIFIER SECTION</b>		
1 kHz continuous power	34W+34W (4Ω) 27W+27W (8Ω)	80W+80W (4Ω) 62W+62W (8Ω)
20 Hz~20 kHz continuous power	26W+26W (4Ω) 23W+23W (8Ω)	72W+72W (4Ω) 58W+58W (8Ω)
Power bandwidth (both channels driven 8Ω)	5Hz~35kHz, -3dB	5Hz~45kHz, -3dB
Total harmonic distortion	0.5%	0.3%
Intermodulation distortion	0.7%	0.4%
Damping factor	20 (8Ω)10 (4Ω)	40(8Ω)20 (4Ω)
Input sensitivity and impedance	2mV/50kΩ	2mV/50kΩ
	180mV/40kΩ	180mV/40kΩ
	180mV/40kΩ	180mV/40kΩ
	180mV/40kΩ	180mV/40kΩ
S/N (IHF, A)	70 dB	70 dB
	90 dB	90 dB
Frequency response	RIAA standard curve ±0.5 dB	RIAA standard curve ±0.5 dB
	6 Hz~60 kHz, ±1 dB	5 Hz~80 kHz, ±1 dB
Tone control	50 Hz, +10 dB~-10 dB	50 Hz, +10 dB~-10 dB
	10 kHz, +10 dB~-10 dB	10 kHz, +10 dB~-10 dB
	50 Hz, +10 dB	50 Hz, +10 dB
Loudness control (volume at -30 dB)		150 Hz, -6 dB/oct.
Low filter		7 kHz, -6 dB/oct.
High filter		180 mV
Output voltage TAPE 1, 2 (REC OUT)	180 mV	180 mV
TAPE 1 REC/PLAY output	30 mV	30 mV
<b>FM TUNER SECTION</b>		
Frequency range	88~108 MHz	88~108 MHz
Sensitivity	1.9 μV	1.8 μV
Total harmonic distortion	0.4%	0.4%
	0.3%	0.2%
S/N	70 dB	70 dB
Frequency response	20 Hz~13 kHz, ±1 dB	20 Hz~5 kHz, ±1 dB
Alternate channel selectivity	70 dB	70 dB
Capture ratio	1.6 dB	1.6 dB
Image rejection at 98 MHz	50 dB	50 dB
IF rejection at 98 MHz	70 dB	70 dB
Spurious response rejection at 98 MHz	65 dB	65 dB
AM suppression	50 dB	50 dB
Stereo separation	40 dB	40 dB
	30 dB	30 dB
Leak carrier	-45 dB	-55 dB
<b>AM TUNER SECTION</b>		
Frequency range	520~1610 kHz	500~1610 kHz
Sensitivity	30 μV, 250 μV/m	30 μV, 230 μV/m
Selectivity	25 dB	25 dB
Image rejection at 1,000 kHz	45 dB	45 dB
IF rejection at 1,000 kHz	40 dB	40 dB
<b>GENERAL</b>		
Power consumption	270W	610W
Power supply	110/120/220/240V	110/120/220/240V
Dimensions (W×H×D)	16 1/2" x 5 1/2" x 13 1/2" (420×140×355) mm	18 1/2" x 5 1/2" x 15 1/2" (459×140×400) mm
Weight	18.3 lb. (8.3 kg)	22 1/2 lb. (12.8 kg)

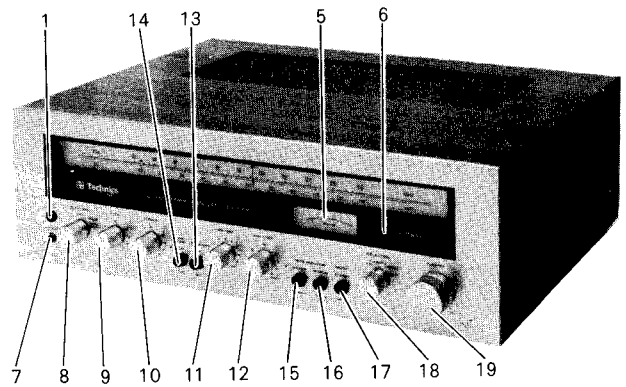
For accommodating future improvements, specifications are subject to change without notice.

**Matsushita Electric**  
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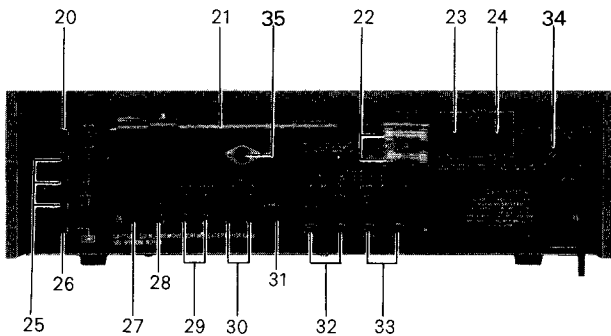
## LOCATION OF CONTROLS



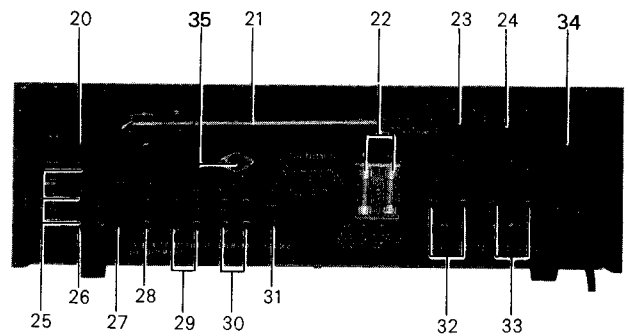
SA-5550



SA-5250



SA-5550



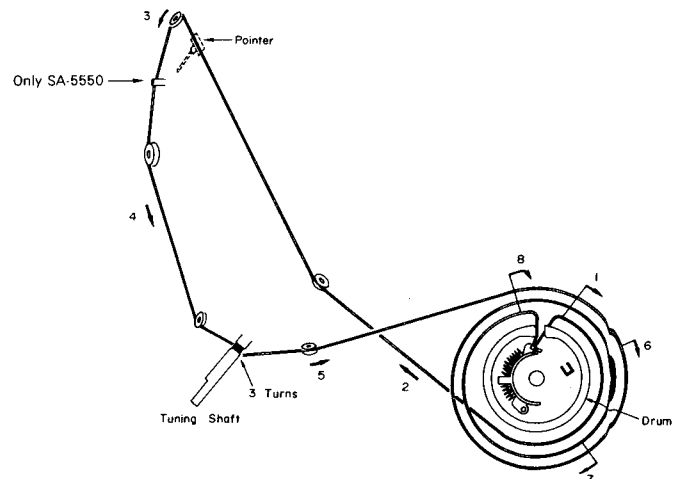
SA-5250

- |   |   |  |
|---|---|--|
| <ol style="list-style-type: none"> <li>1. POWER SOURCE SWITCH</li> <li>2. LOW FILTER SWITCH</li> <li>3. HIGH FILTER SWITCH</li> <li>4. FM TUNING METER</li> <li>5. SIGNAL METER</li> <li>6. STEREO INDICATOR (STEREO EYE)</li> <li>7. HEADPHONES JACK</li> <li>8. SPEAKERS SELECTOR SWITCH</li> <li>9. BASS CONTROL</li> <li>10. TREBLE CONTROL</li> <li>11. VOLUME CONTROL</li> <li>12. BALANCE CONTROL</li> </ol> | <ol style="list-style-type: none"> <li>13. LOUDNESS SWITCH</li> <li>14. FM MUTING SWITCH</li> <li>15. TAPE MONITOR (TAPE 1) SWITCH</li> <li>16. TAPE MONITOR (TAPE 2) SWITCH</li> <li>17. MODE SWITCH</li> <li>18. SELECTOR SWITCH</li> <li>19. TUNING CONTROL</li> <li>20. AM ANTENNA TERMINAL</li> <li>21. AM FERRITE CORE ANTENNA</li> <li>22. CIRCUIT PROTECTION FUSES</li> <li>23. AC OUTLET (Switched)</li> <li>24. AC OUTLET (Unswitched)</li> </ol> | <ol style="list-style-type: none"> <li>25. FM ANTENNA TERMINALS</li> <li>26. GROUND TERMINAL</li> <li>27. PHONO INPUT TERMINALS</li> <li>28. AUX INPUT TERMINALS</li> <li>29. TAPE MONITOR (TAPE 2) TERMINALS</li> <li>30. TAPE MONITOR (TAPE 1) TERMINALS</li> <li>31. 4CH MPX OUTPUT TERMINAL</li> <li>32. MAIN SPEAKER TERMINALS</li> <li>33. REMOTE SPEAKER TERMINALS</li> <li>34. VOLTAGE SELECTOR SWITCH</li> <li>35. TAPE MONITOR 1 DIN SOCKET</li> </ol> |
|---|---|--|

Not attach for England

## DIAL CORD INSTALLATION GUIDE

1. Dial cord length is  $90 \frac{3}{8}$ " (230cm).
2. Tuning gang is positioned at maximum capacity. (Frequency is minimum)
3. Arrow marks (1~8) indicate correct order and direction of stringing dial cord.



## ALIGNMENT INSTRUCTIONS.....READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

**Note :** The "IcQ" adjustment should be started 1~2 minutes after setting the power switch to the ON position.

CIRCUIT	DC VTVM CONNECTION	ADJUSTMENT POINTS	REMARKS
<b>MAIN AMP ALIGNMENT.....Only Model SA-5550</b>			
1	DC UNBALANCE Connect DC VTVM between point ⑤ and point ⑥ (Left and Right channels)	VR601 [Left and Right channel]	Make sure that DC VTVM becomes 0mV.
2	IcQ Connect DC VTVM between point ⑧ [Positive side] and point ⑤ [Negative Side]. (Left and Right channels)	VR602 [Left and Right channel]	Make adjustments so that the indication on DC VTVM becomes 3 mV.

MAIN AMP ALIGNMENT.....Only Model SA-5250			
3	IcQ Connect DC VTVM between point ⑥ [Positive side] and point ⑤ [Negative side]. (Left and Right channels)	VR601 [Left and Right channel]	Make adjustment so that the indication on DC VTVM becomes 5 mV.

**Notes :**

- |   |  |
|---|--|
| 1. Volume control .....Maximum<br>Variable (FM-IF Alignment)<br>2. Balance control .....Center<br>3. Mode switch .....Stereo<br>4. FM muting switch .....Off<br>5. Selector switch .....AM (AM Alignment)<br>FM Auto (FM Alignment) | 6. Tape monitor switch.....Source<br>7. Maintain line voltage at rated voltage.<br>8. Output of signal generator should be no higher than necessary to obtain an output reading. |
|---|--|

SIGNAL GENERATOR or SWEEP GENERATOR	RECEIVER DIAL SETTING	VTVM or SCOPE CONNECTION		ADJUSTMENT POINTS		REMARKS
CONNECTION	FREQUENCY	SA-5550	SA-5250	SA-5550	SA-5250	

AM ALIGNMENT								
4	High side through 0.001μF to TP5, Common to chassis.	455 kHz Set for England to 470kHz	Point of non-interference.	TP1	TP1	Coil T2 (1st IF) T3 (2nd IF)	Coil T1 (1st IF) T2 (2nd IF)	Adjust for maximum output.
5	Fashion loop of several turns of wire and radiate signal into loop of receiver.	600 kHz (30% Mod. with 400Hz)	600 kHz [15.7mm (5/8")]	Speaker terminals of set.		Coil T1 (OSC) L10 (ANT)	Coil L9 (OSC) L8 (ANT)	Adjust for maximum output.
6		1500 kHz (30% Mod. with 400Hz)	1500 kHz [191.3mm (7 17/32")]	Speaker terminals of set.		Trimmer CT5 (OSC) CT4 (ANT)	Trimmer CT4 (OSC) CT3 (ANT)	Adjust for maximum output. Repeat steps (5) and (6).

FM-IF ALIGNMENT								
7			Point of non-interference.	Speaker terminals of set		T101 (DISCRI) [Primary]	T102 (DISCRI) [Primary]	Adjust for maximum output noise.
8			Point of non-interference.	Between TP4 and 101 terminal		T101 (DISCRI) [Secondary]	T101 (DISCRI) [Secondary]	SA-5550...Adjust for center of tuning meter indication. SA-5250...Make sure that DC VTVM becomes 0V.

FM-RF ALIGNMENT								
9	Connect to FM antenna terminal through FM dummy antenna (300Ω).	90 MHz (100% Mod. with 400Hz)	90 MHz [29.2mm (1 1/8")]	Speaker terminals of set.		L6 (FM OSC Coil), L4 (FM DET Coil) L2 (FM ANT Coil)		Adjust for maximum output.
10		106 MHz (100% Mod. with 400Hz)	106 MHz [186.2mm (7 5/16")]	Speaker terminals of set.		Trimmer CT3 (OSC) CT2 (DET) CT1 (ANT)	Trimmer CT5 (OSC) CT2 (DET) CT1 (ANT)	Adjust for maximum output.

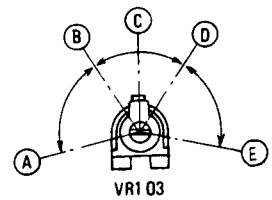
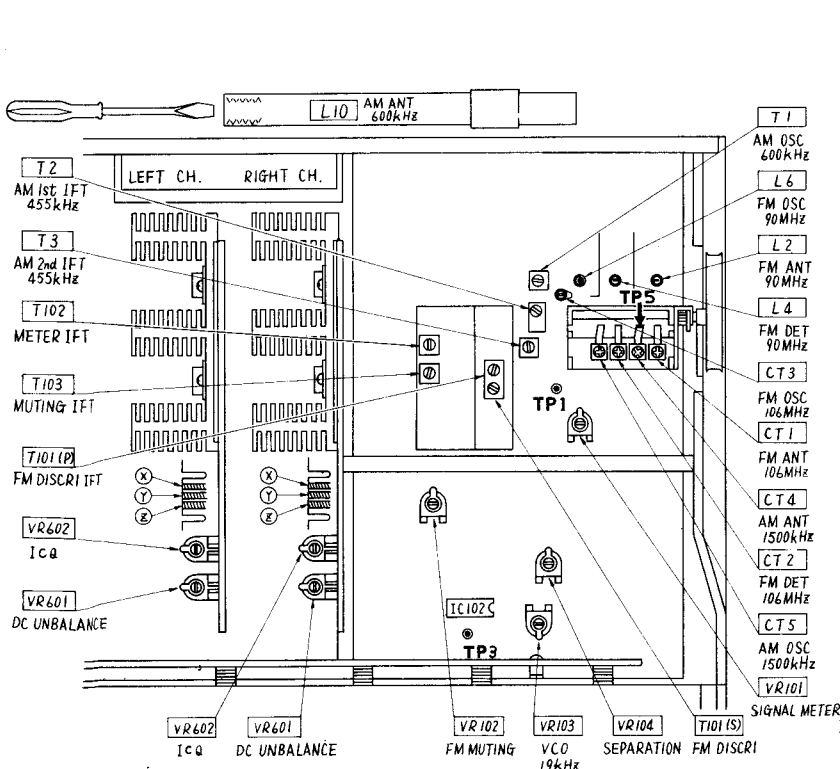
\* Use six cornered alignment tool for aligning FM OSC coil (L6).

FM-MONO DISTORTION ALIGNMENT								
11	Connect to FM antenna terminal through FM dummy antenna (300Ω).	98 MHz (100% Mod. with 400Hz)	98 MHz	Connect distortion meter to speaker terminals.		T101 (FM DISCRI) [Primary]	T102 [Primary]	Adjust for minimum distortion
12			Point of non-interference.	Connect DC VTVM to TP4 and 101 terminal.		T102 (FM DISCRI) [Secondary]	T101 [Secondary]	SA-5550...Adjust for center of tuning meter indication. SA-5250...Make sure that DC VTVM becomes 0V.

SIGNAL METER ALIGNMENT								
13	Connect to FM antenna terminal through FM dummy antenna (300Ω).	98 MHz (30% Mod. with 400Hz)	98 MHz	Signal meter of set.		T102	T104	Adjust for maximum indication.
14		[Output 22 dB]				T103	T103	Adjust for minimum indication.
15		98 MHz (30% Mod. with 400Hz)	98 MHz	Signal meter of set.		VR101	VR102	Adjust for about 4.7 point of signal meter indication.

SIGNAL GENERATOR		RECEIVER DIAL SETTING	VTVM or SCOPE CONNECTION		ADJUSTMENT POINTS		REMARKS
CONNECTION	FREQUENCY		SA-5550	SA-5250	SA-5550	SA-5250	
<b>MUTING LEVEL ALIGNMENT</b>							
<b>Note :</b> FM muting switch to ON position.							
16	Connect to FM antenna terminal through FM dummy antenna (300Ω).	98 MHz 100% Mod. with 400Hz [Output 28dB, IHF]	98 MHz (Input Level 16dB)	Speaker terminals of set.	VR102	VR101	Adjust so that output can be obtained.
<b>FM MPX PILOT ALIGNMENT</b>							
When use the frequency counter				When not use the frequency counter			
17	① 98 MHz Non-modulation mono signal applied to set. ② Connect the frequency counter through 100 kΩ resistor to TP3, Common to chassis. ③ Adjust VR103 to 19 kHz ± 100 Hz.			① Stereo signal applied to set or receive the FM stereo station. ② Adjust VR103 to lighting point of stereo indicator and sement contactor of VR103 as shown fig. 1.			
<b>Notes :</b>							
Stereo-modulator ..... Connect stereo-modulator output to EXT. MOD. terminal of signal generator.							
Inter OSC ..... 1 kHz Pilot signal modulation ..... 10%							
Signal generator ..... Frequency approximately/98 MHz, Output level/72dB (IHF), Modulation mode to FM							
1. Selector switch ..... FM Auto 3. Mode switch ..... stereo							
2. Balance control ..... Center 4. Maintain line voltage at rated voltage.							
SIGNAL GENERATOR CONNECTION		STEREO MODULATOR MODE and MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS		REMARKS	
<b>SEPARATION ALIGNMENT</b>							
18	FM antenna terminal through dummy antenna.	L (and R) 30% Mod.	VTVM across speaker terminals through low pass filter. Refer to fig. 2.	VR104		Adjust for minimum right (and left) output.	

## SA-5550 ALIGNMENT POINTS



- A~B, D~E: Stereo OFF Position.
- B~D: Stereo ON Position (Indicator Lighting)
- C: Adjust Point of Pilot Circuit.

Fig. 1

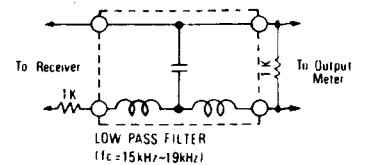
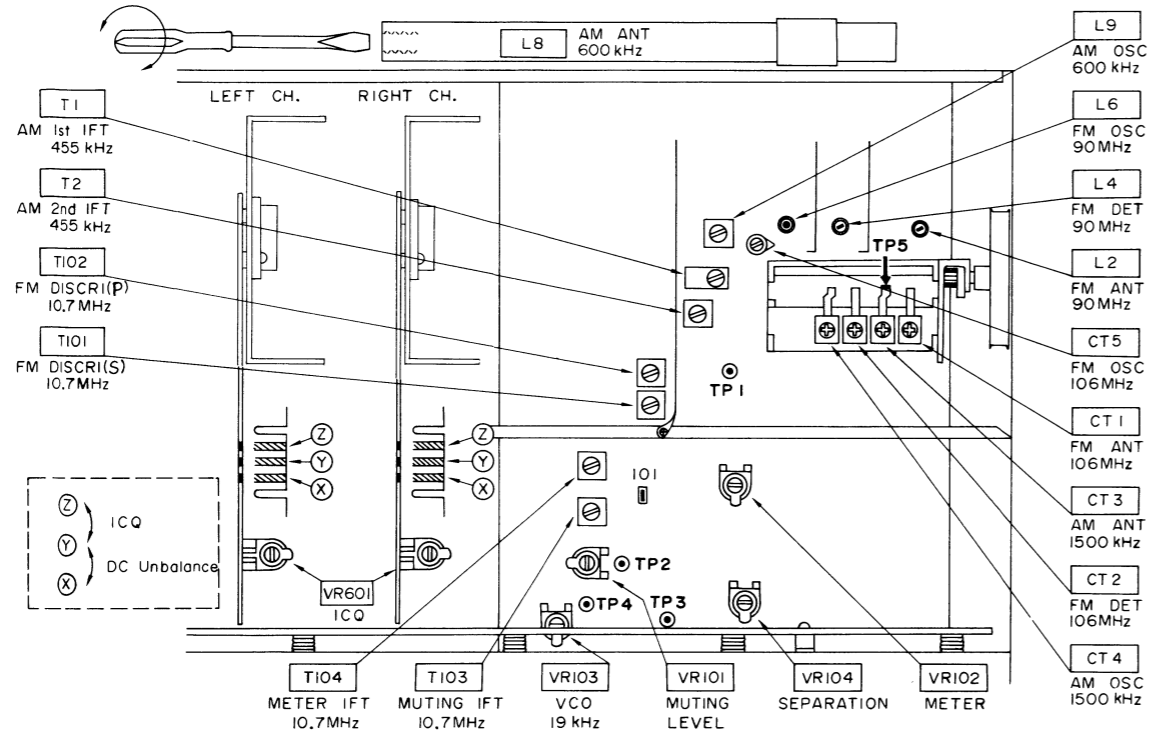
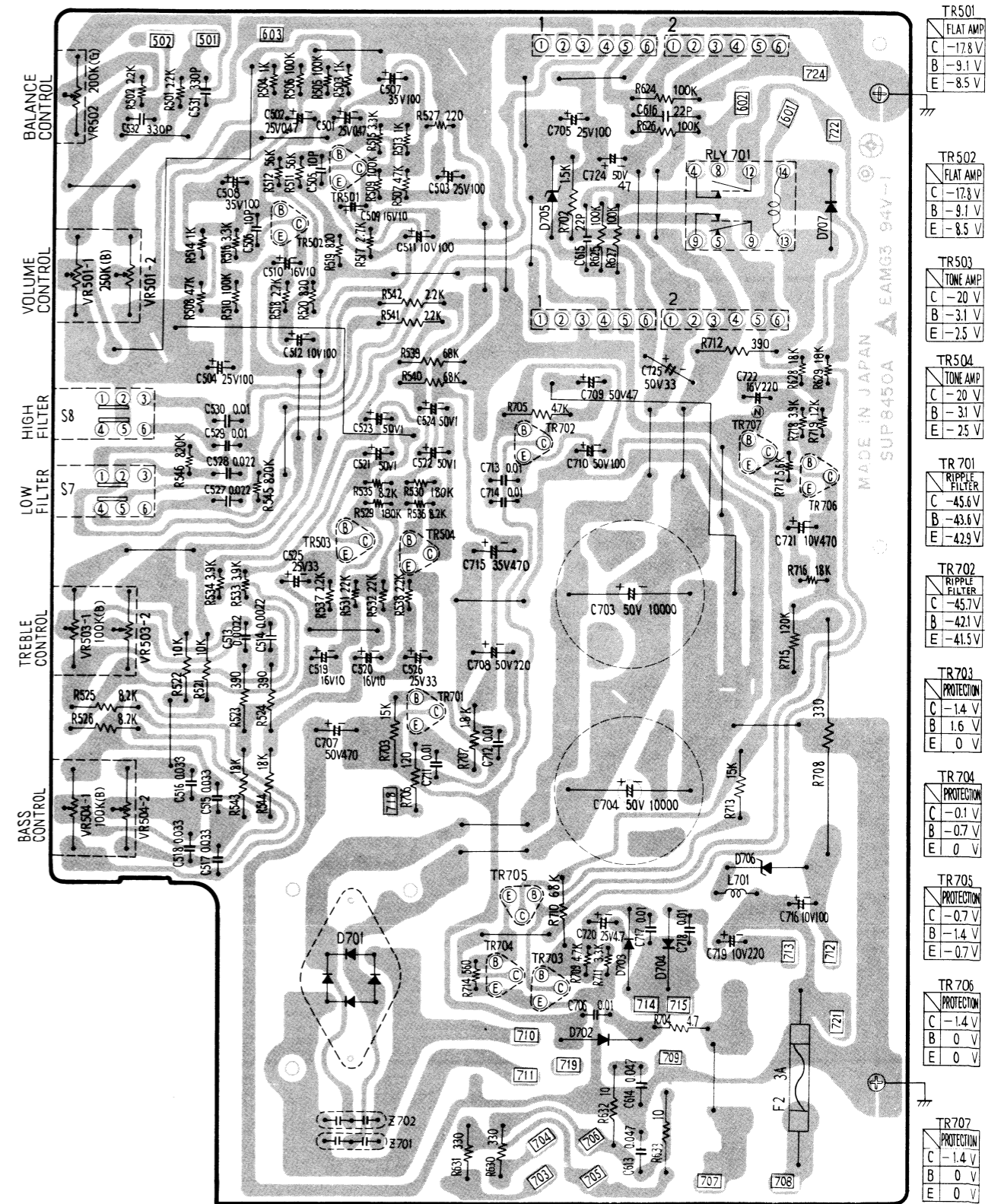
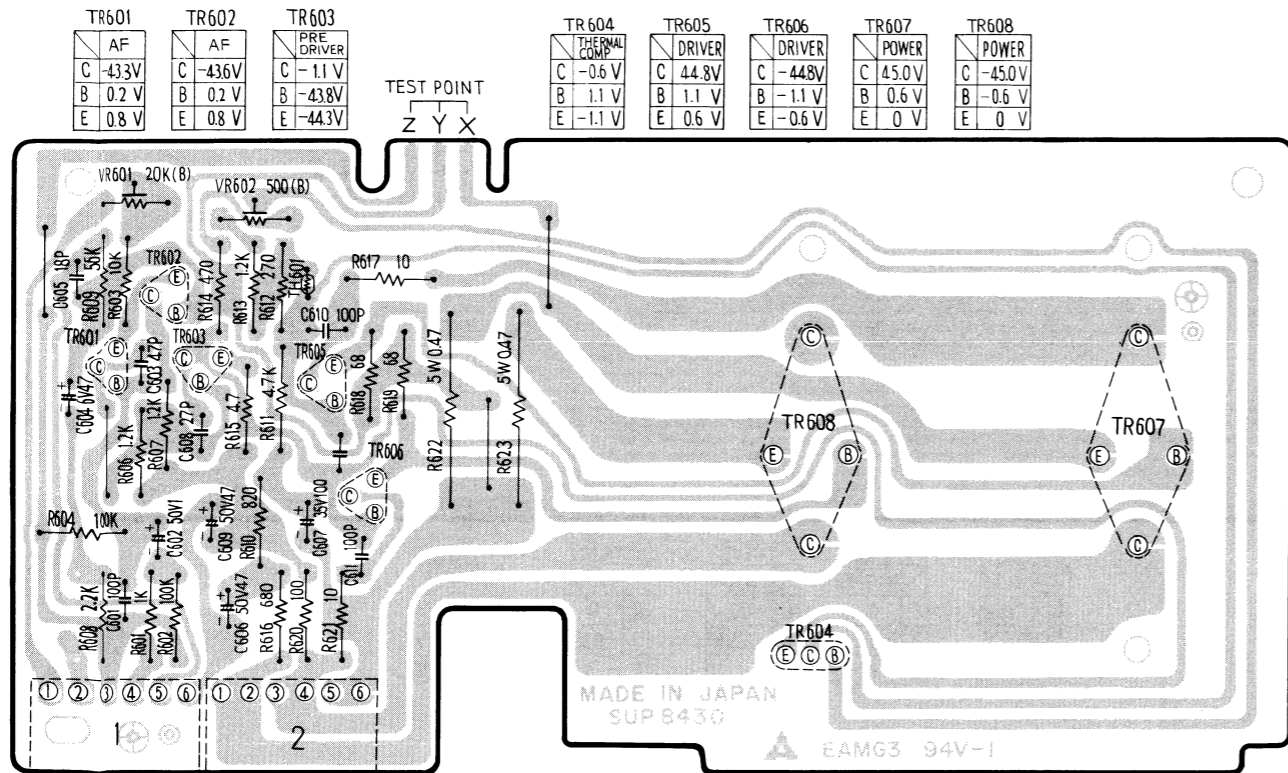


Fig. 2



(Left channel is same as Right channel.)

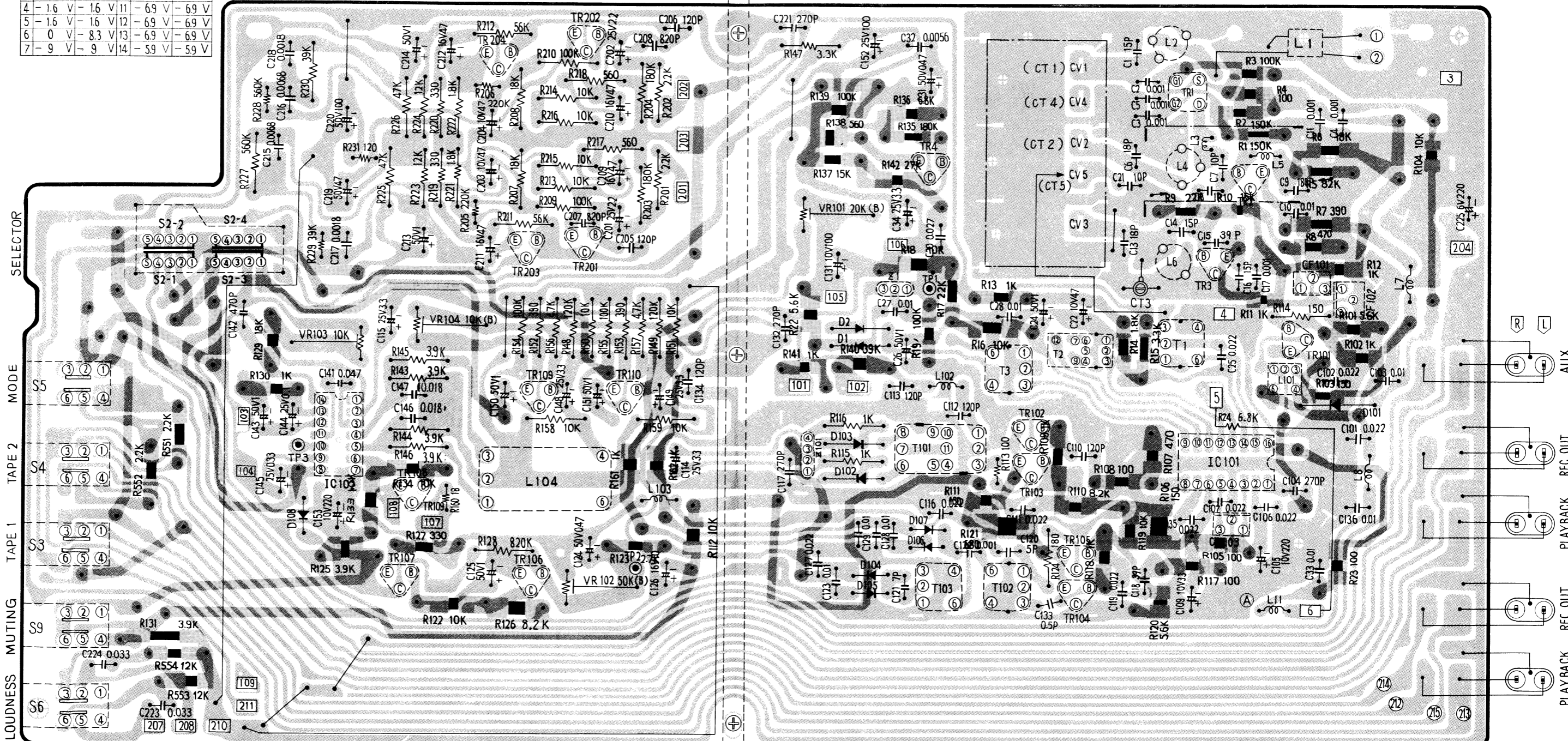


IC 102

	FM MONO	FM STEREO	FM MONO	FM STEREO
1	0 V	0 V	-6.8 V	-6.8 V
2	-6.2 V	-6.2 V	-7 V	-7 V
3	-4.5 V	-4.5 V	-7.5 V	-7.5 V
4	-1.6 V	-1.6 V	-6.9 V	-6.9 V
5	-1.6 V	-1.6 V	-6.9 V	-6.9 V
6	0 V	-8.3 V	-6.9 V	-6.9 V
7	-9 V	-9 V	-5.9 V	-5.9 V

TR204		TR203		TR202		TR201	
	AF		AF		AF		AF
C	-24.1 V	C	-24.1 V	C	-36.4 V	C	-36.4 V
B	-36.4 V	B	-36.4 V	B	-2.7 V	B	-2.7 V
E	-37.1 V	E	-37.1 V	E	-2.2 V	E	-2.2 V

TR4		TR3		TR2		TR1	
	AM-AF		FM-OSC		FM-MIX		FM-RF
C	-11.2 V	C	0 V	C	-0.7 V	D	0 V
B	-1.5 V	B	-4.1 V	B	-7.7 V	G1	-8.8 V
E	-0.9 V	E	-4.8 V	E	-8.4 V	G2	-4.4 V
						S	-8.6 V



TR110		TR109		TR108	
	FM-AF		FM-AF		FM-ST
C	-10.4 V	C	-10.4 V	C	-0.4 V
B	-1.5 V	B	-1.5 V	B	-8.1 V
E	-0.8 V	E	-0.8 V	E	0 V

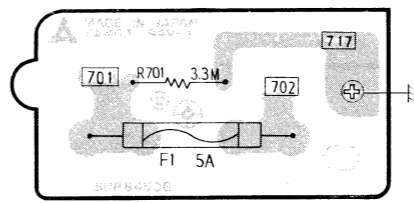
TR107		TR106	
	MUT-ON		MUT-OFF
C	-8.3 V	C	-3.4 V
B	-7.6 V	B	-8.9 V
E	-8.3 V	E	-9 V

TR105		TR104		TR103		TR102		TR101	
	MUTING		MUTING		FM-IF		FM-IF		FM-IF
C	-0.8 V	C	0 V	C	-0.7 V	C	0 V	C	0 V
B	-3.3 V	B	-3.3 V	B	-6.3 V	B	-6.3 V	B	-7.6 V
E	-4 V	E	-4 V	E	-7 V	E	-7 V	E	-8.3 V

IC101

	FM	AM
1	-4.8 V	0 V
2	-5.2 V	-5.1 V
3	-2.1 V	-6.1 V
4	0 V	0 V
5	-4.8 V	-5.6 V
6	-6.1 V	-4.8 V
7	-4.8 V	0 V
8	-1.1 V	-5.6 V

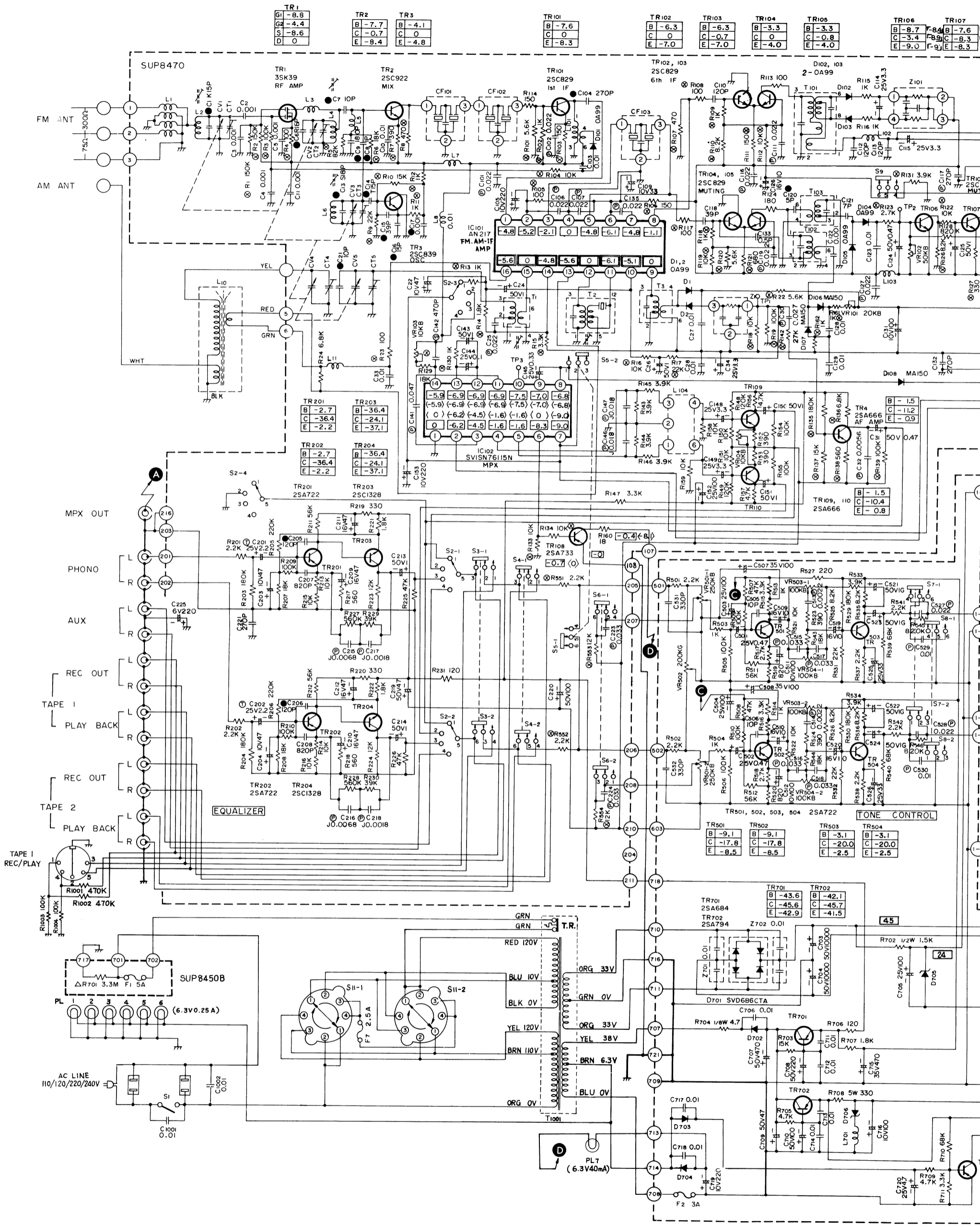
SA-5550 AC FUSE CIRCUIT BOARD



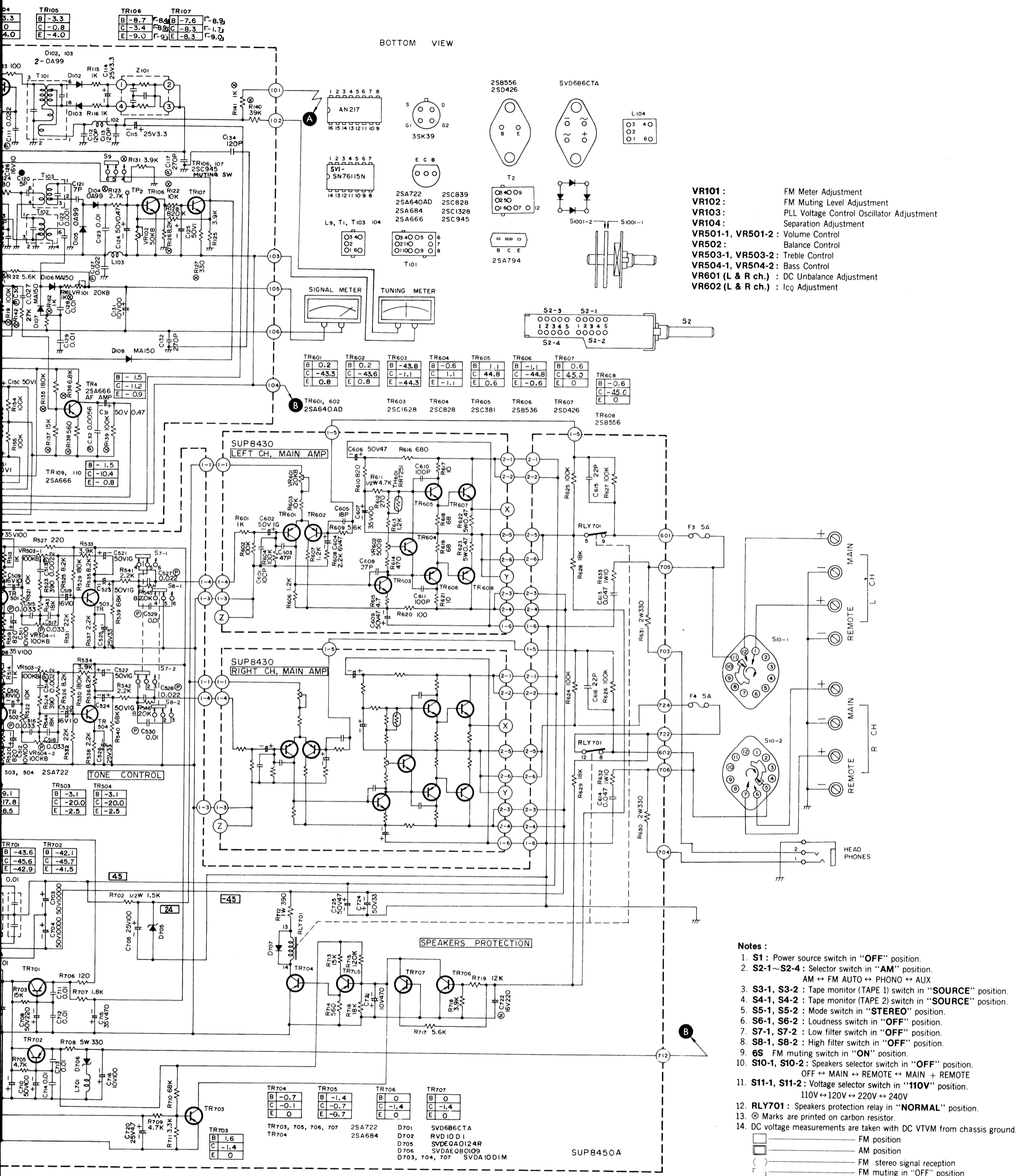
# Schematic Diagram .....

# Model SA-5550

(This schematic diagram may be modified at any time with the developer)



ified at any time with the development of new technology)



- VR101 : FM Meter Adjustment
- VR102 : FM Muting Level Adjustment
- VR103 : PLL Voltage Control Oscillator Adjustment
- VR104 : Separation Adjustment
- VR501-1, VR501-2 : Volume Control
- VR502-1, VR502-2 : Balance Control
- VR503-1, VR503-2 : Treble Control
- VR504-1, VR504-2 : Bass Control
- VR601 (L & R ch.) : DC Unbalance Adjustment
- VR602 (L & R ch.) : Icq Adjustment

- Notes :**
1. S1 : Power source switch in "OFF" position.
  2. S2-1~S2-4 : Selector switch in "AM" position.  
AM ↔ FM AUTO ↔ PHONO ↔ AUX
  3. S3-1, S3-2 : Tape monitor (TAPE 1) switch in "SOURCE" position.
  4. S4-1, S4-2 : Tape monitor (TAPE 2) switch in "SOURCE" position.
  5. S5-1, S5-2 : Mode switch in "STEREO" position.
  6. S6-1, S6-2 : Loudness switch in "OFF" position.
  7. S7-1, S7-2 : Low filter switch in "OFF" position.
  8. S8-1, S8-2 : High filter switch in "OFF" position.
  9. 6S : FM muting switch in "ON" position.
  10. S10-1, S10-2 : Speakers selector switch in "OFF" position.  
OFF ↔ MAIN ↔ REMOTE ↔ MAIN + REMOTE
  11. S11-1, S11-2 : Voltage selector switch in "110V" position.  
110V ↔ 120V ↔ 220V ↔ 240V
  12. RLY701 : Speakers protection relay in "NORMAL" position.
  13. ⊗ Marks are printed on carbon resistor.
  14. DC voltage measurements are taken with DC VTVM from chassis ground.
- FM position  
  AM position  
  FM stereo signal reception  
  FM muting in "OFF" position



# Schematic Diagram .....

# Model SA-5250

(This schematic diagram may be modified at any time with the develop

TR1	D 0
	G1 - 8.58
	G2 - 4.29
	S - 8.22

TR2	C - 0.54
	B - 7.32
	E - 8.04

TR3	C 0
	B - 3.87
	E - 4.58

TR101	C 0
	B - 7.27
	E - 7.98

TR102	C 0
	B - 6.2
	E - 6.9

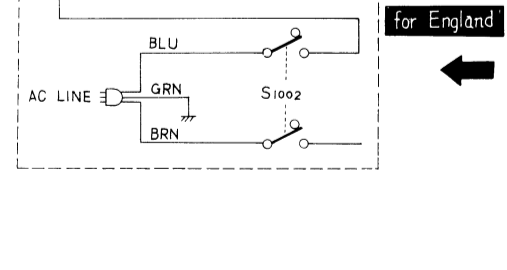
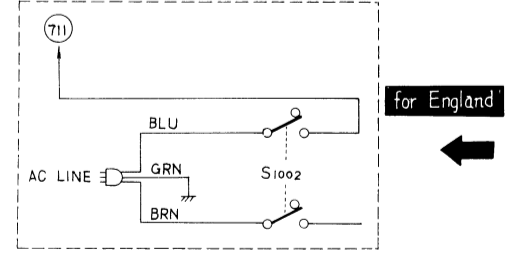
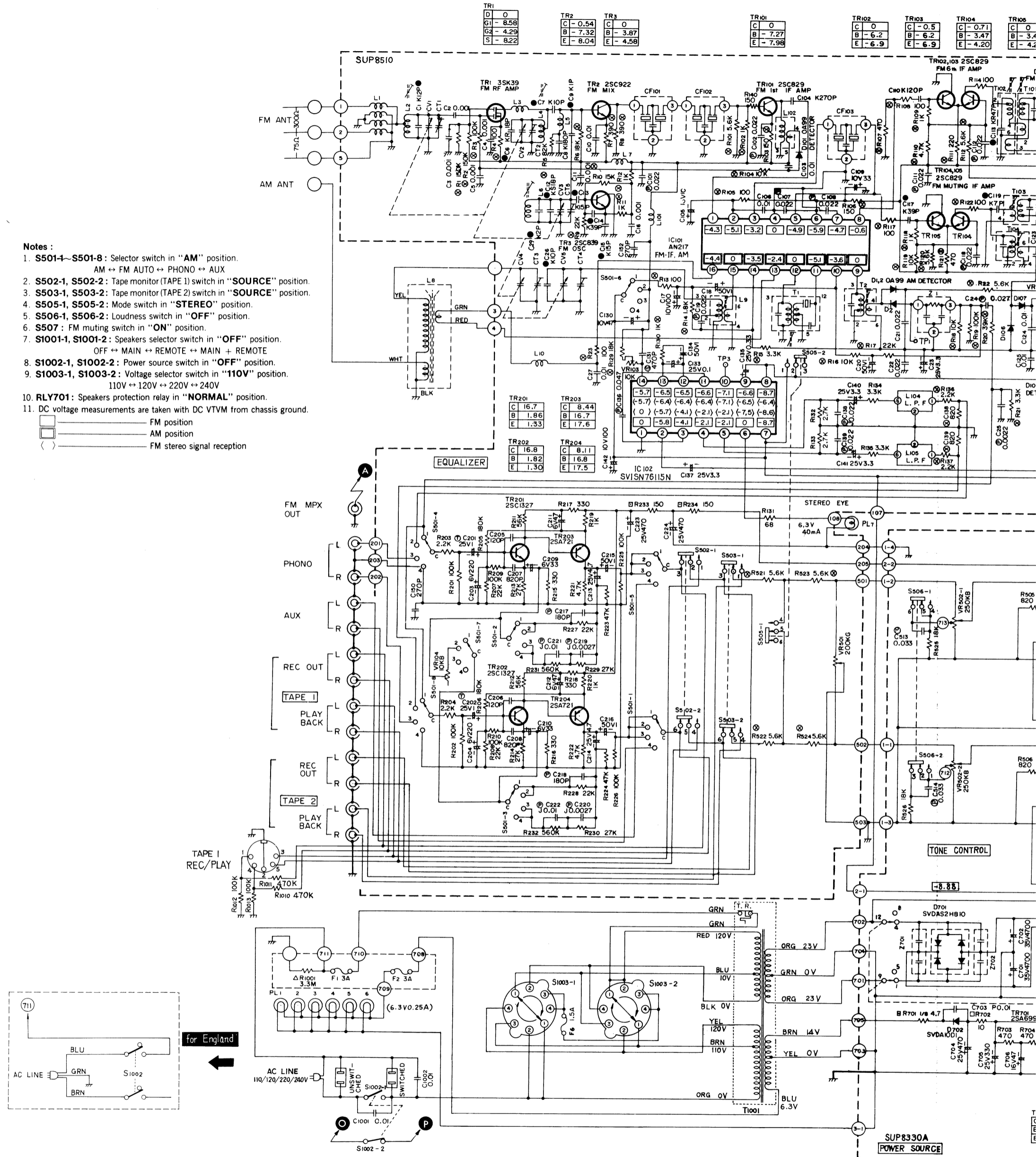
TR103	C - 0.5
	B - 3.47
	E - 6.9

TR104	C - 0.71
	B - 3.47
	E - 4.20

TR105	C 0
	B - 3.4
	E - 4.2

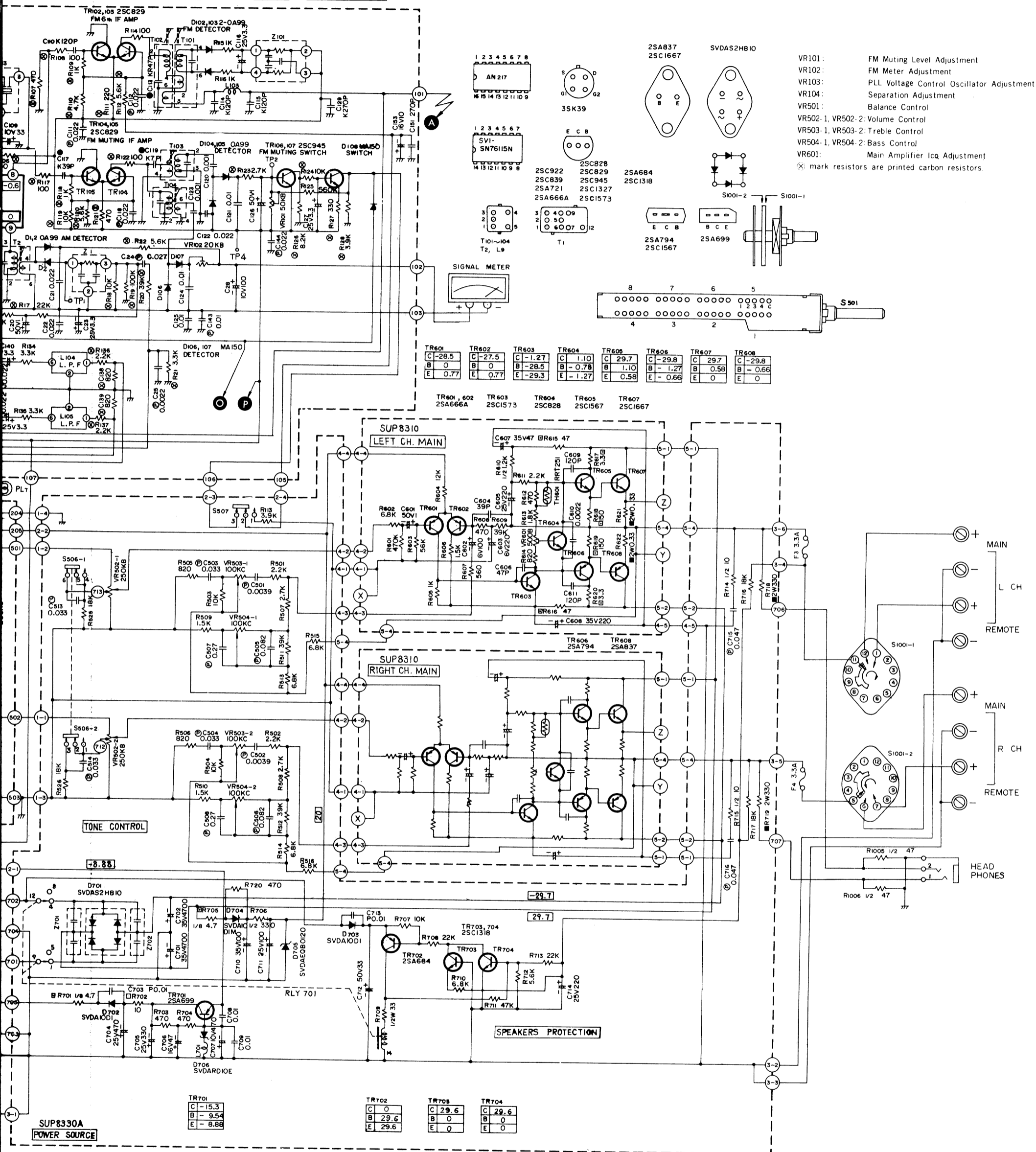
- Notes :**
- S501-1~S501-8: Selector switch in "AM" position.  
AM ↔ FM AUTO ↔ PHONO ↔ AUX
  - S502-1, S502-2: Tape monitor (TAPE 1) switch in "SOURCE" position.
  - S503-1, S503-2: Tape monitor (TAPE 2) switch in "SOURCE" position.
  - S505-1, S505-2: Mode switch in "STEREO" position.
  - S506-1, S506-2: Loudness switch in "OFF" position.
  - S507: FM muting switch in "ON" position.
  - S1001-1, S1001-2: Speakers selector switch in "OFF" position.  
OFF ↔ MAIN ↔ REMOTE ↔ MAIN + REMOTE
  - S1002-1, S1002-2: Power source switch in "OFF" position.
  - S1003-1, S1003-2: Voltage selector switch in "110V" position.  
110V ↔ 120V ↔ 220V ↔ 240V
  - RLY701: Speakers protection relay in "NORMAL" position.

- FM position  
 AM position  
 FM stereo signal reception



fied at any time with the development of new technology.)

TR102	TR103	TR104	TR105	TR106	TR107
C 0	C 0.5	C 0.71	C 0	C - 8.54	MUT ON MUT OFF
B - 6.2	B - 6.2	B - 3.47	B - 3.49	B - 7.94	C - 2.51 - 0.05
E - 6.9	E - 6.9	E - 4.20	E - 4.20	E - 8.58	B - 7.9 - 8.53
					E - 8.58 - 8.58



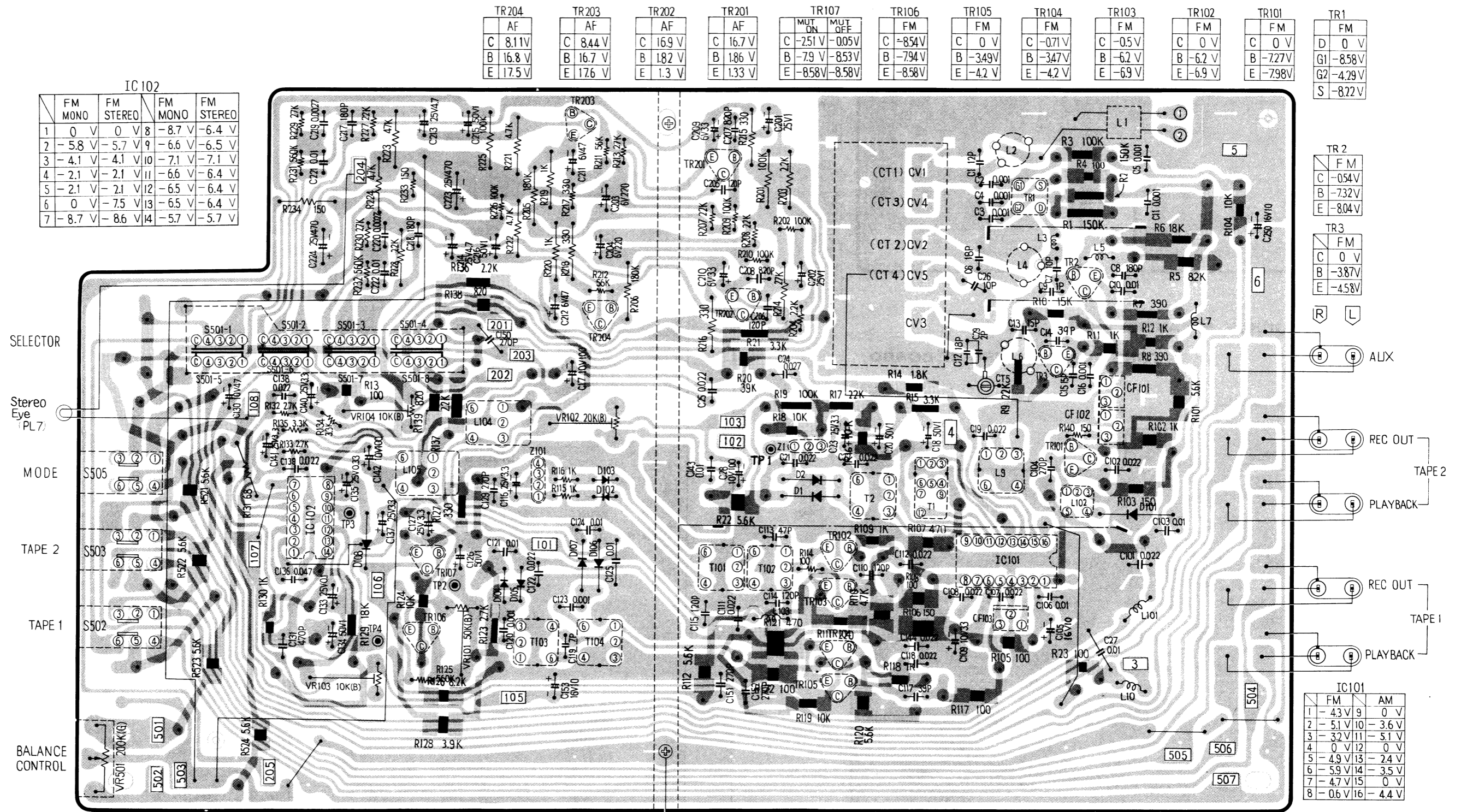
- VR101: FM Muting Level Adjustment
  - VR102: FM Meter Adjustment
  - VR103: PLL Voltage Control Oscillator Adjustment
  - VR104: Separation Adjustment
  - VR501: Balance Control
  - VR502-1, VR502-2: Volume Control
  - VR503-1, VR503-2: Treble Control
  - VR504-1, VR504-2: Bass Control
  - VR601: Main Amplifier IcQ Adjustment
- ⊗ mark resistors are printed carbon resistors.

TR601	TR602	TR603	TR604	TR605	TR606	TR607	TR608
C -28.5	C -27.5	C -1.27	C 1.10	C 29.7	C -29.8	C 29.7	C -29.8
B 0	B 0	B -0.78	B 1.10	B -1.27	B 0.58	B 0.58	B -0.66
E 0.77	E 0.77	E -29.3	E -1.27	E 0.58	E -0.66	E 0	E 0

TR601, 602	TR603	TR604	TR605	TR607
25A666A	25C1573	25C828	25C1567	25C1667

TR701
C -15.3
B - 9.54
E - 8.88

TR702	TR703	TR704
C 0	C 29.6	C 29.6
B 0	B 0	B 0
E 29.6	E 0	E 0



IC 102

	FM MONO	FM STEREO	FM MONO	FM STEREO
1	0 V	0 V	-8.7 V	-6.4 V
2	-5.8 V	-5.7 V	-6.6 V	-6.5 V
3	-4.1 V	-4.1 V	-7.1 V	-7.1 V
4	-2.1 V	-2.1 V	-6.6 V	-6.4 V
5	-2.1 V	-2.1 V	-6.5 V	-6.4 V
6	0 V	-7.5 V	-6.5 V	-6.4 V
7	-8.7 V	-8.6 V	-5.7 V	-5.7 V

TR 204	TR 203	TR 202	TR 201	TR 107	TR 106	TR 105	TR 104	TR 103	TR 102	TR 101	TR 1
AF	AF	AF	AF	MUT ON	FM	FM	FM	FM	FM	FM	FM
C 8.11V	C 8.44 V	C 16.9 V	C 16.7 V	C -2.51 V	C -8.54V	C 0 V	C -0.71V	C -0.5 V	C 0 V	C 0 V	D 0 V
B 16.8 V	B 16.7 V	B 1.82 V	B 1.86 V	B -7.9 V	B -7.94 V	B -3.49V	B -3.47V	B -6.2 V	B -6.2 V	B -7.27V	G1 -8.58V
E 17.5 V	E 17.6 V	E 1.3 V	E 1.33 V	E -8.58V	E -8.58V	E -4.2 V	E -4.2 V	E -6.9 V	E -6.9 V	E -7.98V	G2 -4.29V
											S -8.22V

TR 2

FM
C -0.54V
B -7.32V
E -8.04V

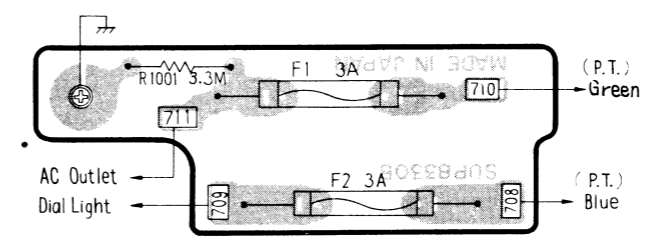
TR 3

FM
C 0 V
B -3.87V
E -4.58V

IC 101

	FM	AM
1	-4.3 V	0 V
2	-5.1 V	-3.6 V
3	-3.2 V	-5.1 V
4	0 V	0 V
5	-4.9 V	-2.4 V
6	-5.9 V	-3.5 V
7	-4.7 V	0 V
8	-0.6 V	-4.4 V

SA-5250 AC FUSE CIRCUIT BOARD



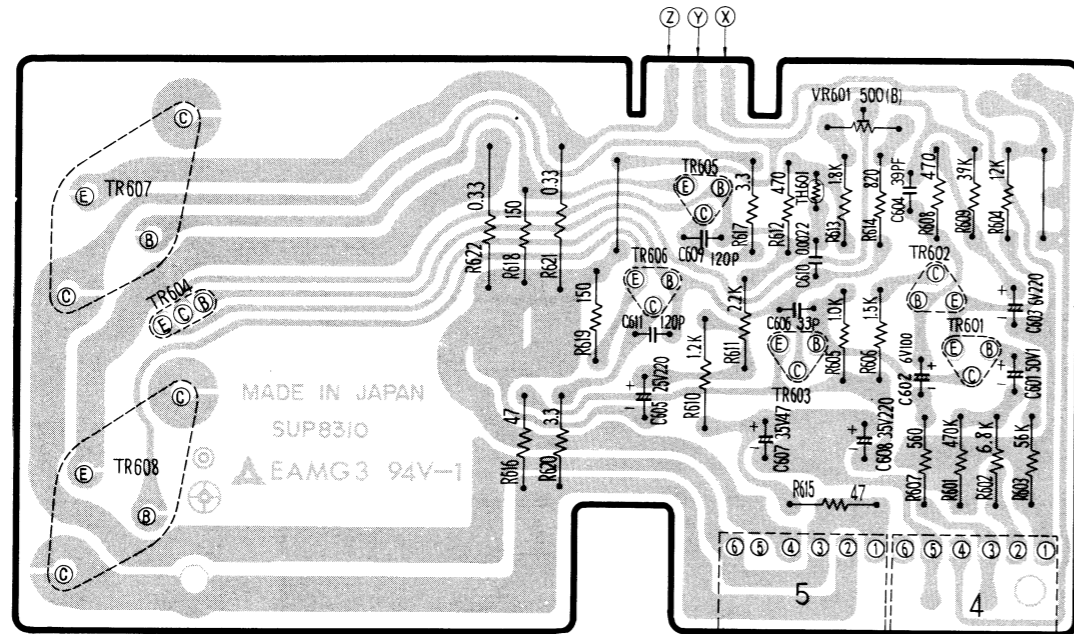
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MAIN AMPLIFIER CIRCUIT BOARD ..... L ch. or R ch.

TR607  
Power  
C 29.7V  
B 0.58V  
E 0V

TR604  
Thermal Comp  
C 1.1V  
B -0.7V  
E -1.27V

TR608  
Power  
C -29.8V  
B -0.66V  
E 0V



TR601  
Differential  
C -28.5V  
B 0V  
E 0.77V

TR602  
Differential  
C -27.5V  
B 0V  
E 0.77V

TR603  
Pre Driver  
C -1.26V  
B -28.5V  
E -29.3V

TR605  
Driver  
C 29.7V  
B 1.1V  
E 0.58V

TR606  
Driver  
C -29.8V  
B -1.27V  
E -0.66V

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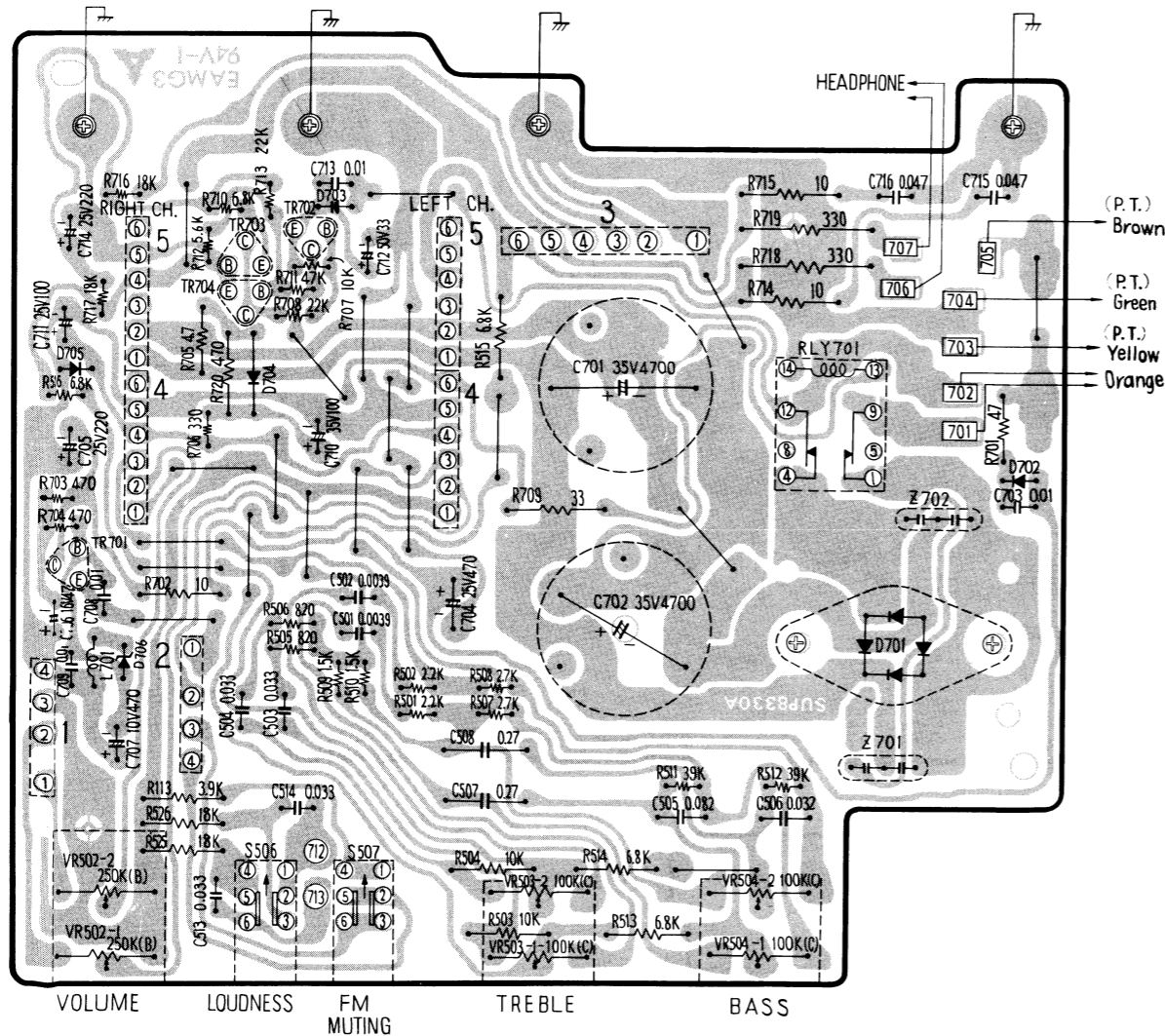
POWER SOURCE, SPEAKERS PROTECTION & TONE CONTROL CIRCUIT BOARD

TR704  
Speaker Protection  
C 29.6V  
B 0V  
E 0V

TR703  
Speaker Protection  
C 29.6V  
B 0V  
E 0V

TR702  
Speaker Protection  
C 0V  
B 29.6V  
E 29.6V

TR701  
Ripple Filter  
C -15.3V  
B -9.54V  
E -8.88V



SA-5550

REPLACEMENT PARTS LIST

NOTES: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.  
2. **SAFETY** Indicates that only parts specified by the manufacturer be used for replacement in critical circuits.

Ref. No.	Part No.	Description	Per Set Pcs.	Remarks	Ref. No.	Part No.	Description	Per Set Pcs.	Remarks
<b>INTEGRATED CIRCUITS</b>					<b>CERAMIC FILTERS</b>				
IC101	AN217BB	FM IF, AM RF & AM IF Amplifier	1		CF101, 102, 103	SVF107MA8A	FM IF Circuit, Red. 10.7MHz	each 3	
IC102	SVISN76115N	PLL Type FM MPX	1			SVF107MA8B	FM IF Circuit, Blue. 10.67MHz		
						SVF107MA8C	FM IF Circuit, Orange. 10.73MHz		
						SVF107MA8D	FM IF Circuit, Black. 10.64MHz		
					SVF107MA8E	FM IF Circuit, White. 10.76MHz			
<b>TRANSISTORS</b>					<b>RESISTORS</b>				
TR1	3SK39-Q	FM RF Amplifier	1		R(615) × 2	ERD14TJ4R7	4.7Ω, 1/4W, ±5%, Carbon	2	
TR2	2SC922-M	FM Mixer	1		R114	ERD14TJ151	150Ω, 1/4W, ±5%, Carbon	1	
TR3	2SC839-H	FM Oscillator	1		R124	ERD14TJ181	180Ω, 1/4W, ±5%, Carbon	1	
TR4, 109, 110	2SA666-Q	AM & FM AF Amplifier	3		R(612) × 2	ERD14TJ271	270Ω, 1/4W, ±5%, Carbon	2	
TR101 ~ 105	2SC829-C	FM-IF Amplifier	5		R219, 220	ERD14TJ331	330Ω, 1/4W, ±5%, Carbon	2	
TR106, 107	2SC945-P2	Muting Switching	2		R152, 153, 523, 524	ERD14TJ391	390Ω, 1/4W, ±5%, Carbon	4	
TR108	2SA733-MAP	Stereo Eye Switching	1		R(614) × 2	ERD14TJ471	470Ω, 1/4W, ±5%, Carbon	2	
TR203, 204	2SC1328-T	Equalizer Amplifier	2		R217, 218	ERD14TJ561	560Ω, 1/4W, ±5%, Carbon	2	
TR201, 202, 501, 502, 503, 504, 703, 705, 706, 707	2SA722-T	Equalizer, Tone Amplifier & Speaker Protection Switching	10		R(610) × 2	ERD14TJ821	820Ω, 1/4W, ±5%, Carbon	2	
TR(601,602) × 2	2SA640AD-R	Differential Amplifier	4		R115, 116, (601) × 2	ERD14TJ102	1kΩ, 1/4W, ±5%, Carbon	4	
TR(603) × 2	2SC1628-Y	Pre Driver Amplifier	2	○	R(614) × 2	ERD14TJ471	470Ω, 1/4W, ±5%, Carbon	2	
TR(604) × 2	2SC828-R	Thermo Compensation	2		R217, 218	ERD14TJ561	560Ω, 1/4W, ±5%, Carbon	2	
TR(605) × 2	2SD381-L9	Driver Amplifier (Use in Pairs)	2		R(610) × 2	ERD14TJ821	820Ω, 1/4W, ±5%, Carbon	2	
TR(606) × 2	2SB536-L9	Driver Amplifier (Use in Pairs)	2		R152, 153, 523, 524	ERD14TJ391	390Ω, 1/4W, ±5%, Carbon	4	
TR(607) × 2	2SD426-R	Power Amplifier (Use in Pairs)	2	○	R(614) × 2	ERD14TJ471	470Ω, 1/4W, ±5%, Carbon	2	
TR(608) × 2	2SB556-R	Power Amplifier (Use in Pairs)	2	○	R217, 218	ERD14TJ561	560Ω, 1/4W, ±5%, Carbon	2	
TR701, 704	2SA684-Q	Ripple Filter & Relay Driver	2		R(610) × 2	ERD14TJ821	820Ω, 1/4W, ±5%, Carbon	2	
TR702	2SA794-R	Ripple Filter	1		R115, 116, (601) × 2	ERD14TJ102	1kΩ, 1/4W, ±5%, Carbon	4	
<b>DIODES</b>					<b>THERMISTORS</b>				
D1, 2, 101, 104, 105	OA99	AM/FM, AGC & Muting Detector	5		TH(601) × 2	RRT251	Driver Circuit	2	
D102, 103	2-OA99	FM Discriminator	1 Pair		R148, 149, 715	ERD14TJ124	120kΩ, 1/4W, ±5%, Carbon	3	
D106 ~ 108	MA150	Meter Detector	3		R203, 204	ERD14TJ184	180kΩ, 1/4W, ±5%, Carbon	2	
D701	SVD6B6CTA	Rectifier	1	○	R227	ERD14TJ564	560kΩ, 1/4W, ±5%, Carbon	1	
D703, 704, 707	SVDA10D1M	Rectifier	3		R128	ERD14TJ824	820kΩ, 1/4W, ±5%, Carbon	1	
D705	SVDEQA0124R	24V Zener	1		R225, 226	ERD14TJ473	47kΩ, 1/4W, ±5%, Carbon	2	
D706	SVDAE0B0109	9V Zener	1		R113	ERD14VJ101	100Ω, 1/4W, ±5%, Carbon	1	
D702	RVD10D1	Rectifier	1		R231	ERD14VJ121	120Ω, 1/4W, ±5%, Carbon	1	
<b>COILS and TRANSFORMERS</b>					<b>SAFETY</b>				
L1	SLAA4W1-3	FM Balun Coil	1		R160	ERD14VJ180	18Ω, 1/4W, ±5%, Carbon	1	
L2	SLAA4N9	FM Antenna Coil	1		R714	ERD14VJ561	560Ω, 1/4W, ±5%, Carbon	1	
L3	RLQY25S5	Choke Coil	1		R519, 520	ERD14VJ821	820Ω, 1/4W, ±5%, Carbon	2	
L4	SLDA4N18	FM DET Coil	1		R503, 504, 513, 514	ERD14VJ102	1kΩ, 1/4W, ±5%, Carbon	4	
L5, 11	RLQY15G5	Choke Coil	2		R501, 502, 537, 538	ERD14VJ222	2.2kΩ, 1/4W, ±5%, Carbon	4	
L6	SLOA4N9	FM Oscillator Coil	1		R517, 518	ERD14VJ272	2.7kΩ, 1/4W, ±5%, Carbon	2	
L7, 8, 102, 103, 701	SLQX101-2D	Choke Coil	5		R515, 516, 711	ERD14VJ332	3.3kΩ, 1/4W, ±5%, Carbon	3	
L10	SLFA2E22	AM Antenna Coil	1		R533, 534, 718	ERD14VJ392	3.9kΩ, 1/4W, ±5%, Carbon	3	
L101	SLIA4B1	FM AGC Coil	1		R709	ERD14VJ472	4.7kΩ, 1/4W, ±5%, Carbon	1	
T1	SLOA2C6	AM Oscillator Coil	1		R717	ERD14VJ562	5.6kΩ, 1/4W, ±5%, Carbon	1	
T2	RL17W105S-T	AM 1st IF Transformer	1		R535, 536	ERD14VJ822	8.2kΩ, 1/4W, ±5%, Carbon	2	
T3	RL12C450P-T	AM 2nd IF Transformer	1		R719	ERD14VJ123	12kΩ, 1/4W, ±5%, Carbon	1	
T101	SLIA4D51-T	FM Discriminator	1		R628, 629, 716	ERD14VJ183	18kΩ, 1/4W, ±5%, Carbon	3	
T102, 103	SLIA4C241-T	Muting & Meter IF Transformer	2		R531, 532	ERD14VJ223	22kΩ, 1/4W, ±5%, Carbon	2	
L104	SLMA1Z3-K	Low Pass Filter	1		R229	ERD14VJ393	39kΩ, 1/4W, ±5%, Carbon	1	
T1001	SLT5S3	Power-Transformer	1	○ SAFETY	R507, 508	ERD14VJ473	47kΩ, 1/4W, ±5%, Carbon	2	
					R511, 512	ERD14VJ563	56kΩ, 1/4W, ±5%, Carbon	2	

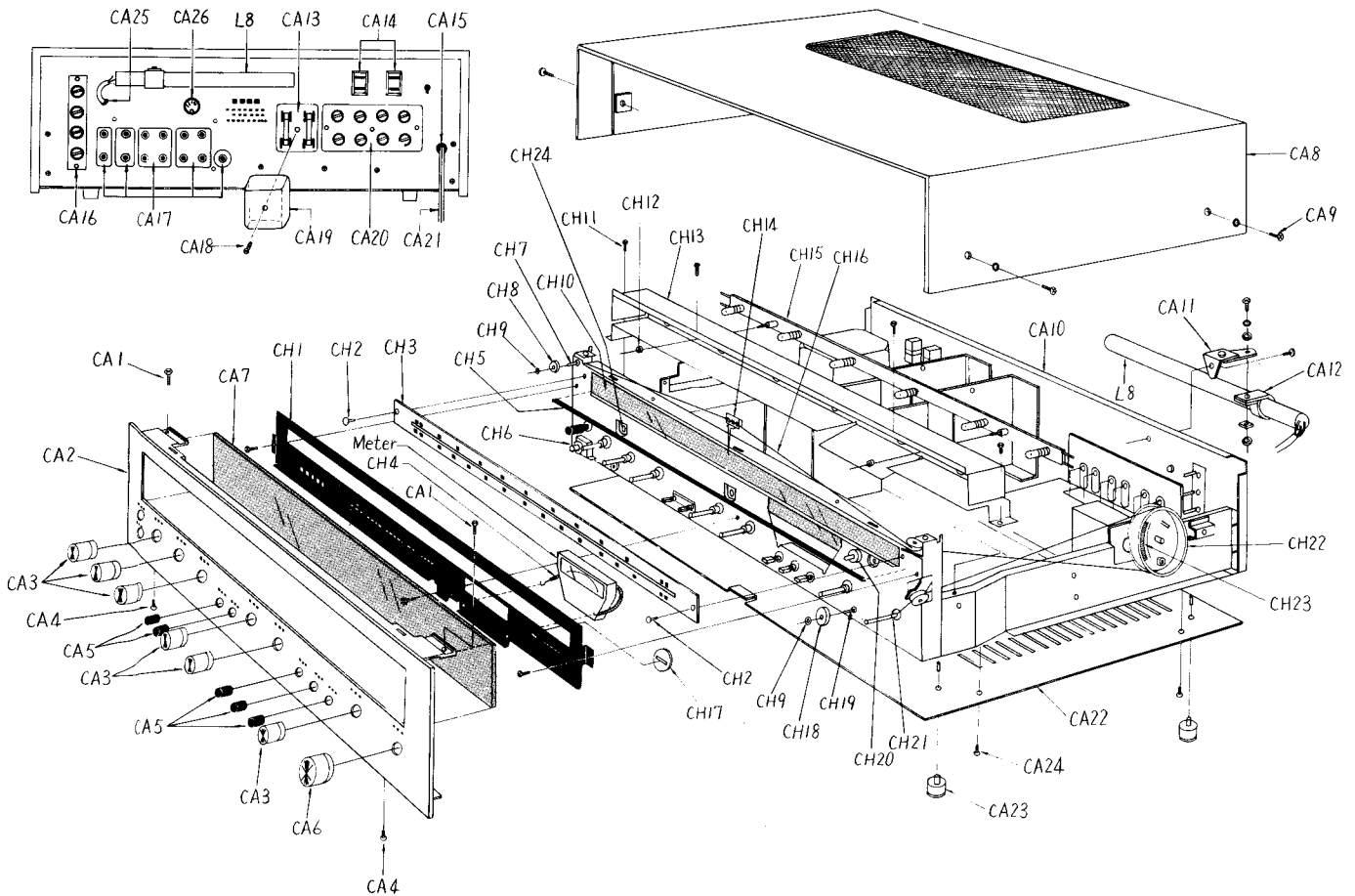




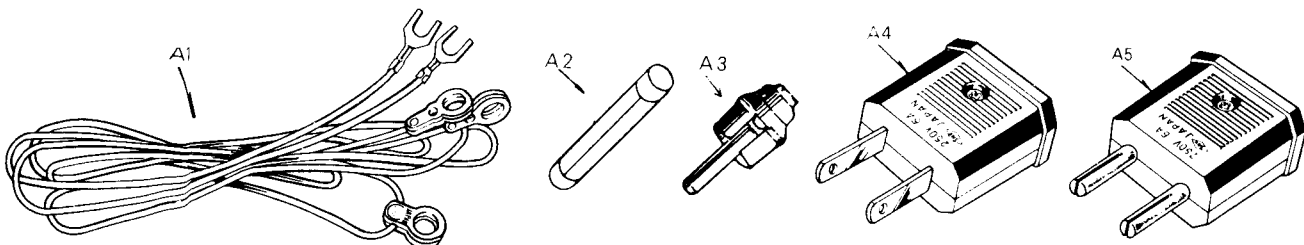
Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks	Ref. No.	Part No.	Description	Per Set (Pcs.)	Remarks
CH20	SHGA204	Rubber Cushion, Stereo Eye	1		P5	SPS3	Pad, Right Side	1	
CH21	SDTA10-2S	Tuning Shaft, with Flywheel	1		P6	SPS13	Pad, Bottom Board	1	
CH22	SDDA471S	Drum, Tuning	1		P7	SPN5085	Carton Box, Inner	1	○
CH23	SDSA4121	Spring, Drum	1		P8	SQF979	Printed Matter, Complete	1	○
	XXAR3H6S	Screw, Drum M'tg.	2		P9	SPG511	Carton Box, Outer	1	○
	SJS5405	4pin Socket, Lead Connector	2		P11	SPNA187	Pad, Upper Carton	1	
	SJS5603	6pin Socket, Lead Connector	2						
	SJS41	Pin Clamp(SJS5405, SJS5603)	14						
CH24	SHRA919	Lock Pin, Dial Light Filter	3						
<b>ACCESSORIES</b>									
A1	SSAA3	FM Antenna Cord	1						
A2	XBAS1A3301	Circuit Protection Fuse(3.3A)	2	XXXX					
A3	RJP5	Pin Plug	4						
A4	RJP16AS	AC Plug (Not Belong	1						
A5	RJP17AS	AC Plug for England	1						
<b>PACKING PARTS</b>									
P1	SPPA16-1	Soft Cover	1		P1	SPPA16-1	Soft Cover	1	
P2	SPS5	Pad, AM Bar Antenna	1		P2	SPS5	Pad, AM Bar Antenna	1	
P3	SPP163	Polyethylene Bag	1		P3	SPP163	Polyethylene Bag	1	
P4	SPS1	Pad, Left Side	1		P4	SPS1	Pad, Left Side	1	
					P5	SPS3	Pad, Right Side	1	
					P6	SPS13	Pad, Bottom Board	1	
					P7	SPG513	Carton Box	1	
					P8(Germany)	SQF979	Printed Matter (only for Germany)	1	○
					P8(England)	SQF983	Printed Matter (only for England)	1	○
					P9	.....	Deletion	.....	.....
					P11	.....	Deletion	.....	.....

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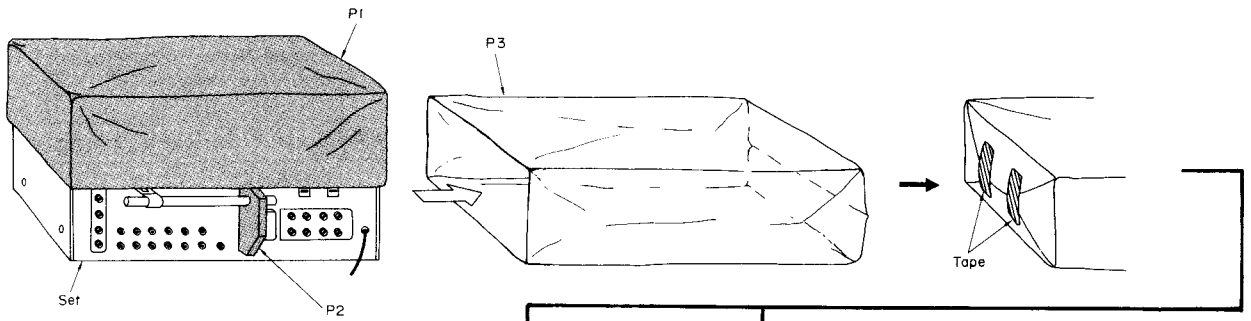
CABINET & CHASSIS PARTS LOCATION



ACCESSORIES



# PACKING PARTS



**SA-5250**

**SA-5550**

