

REALISTIC[®]

Service Manual

31-2061

STA-85
AM / FM STEREO RECEIVER
Catalog Number: 31-2061



CUSTOM MANUFACTURED FOR RADIO SHACK **TC** A DIVISION OF TANDY CORPORATION

CONTENTS

1. SPECIFICATIONS	3 & 4
2. BLOCK DIAGRAM	5
3. DISASSEMBLY INSTRUCTIONS	6
4. DIAL STRINGING DIAGRAM	6
5. ALIGNMENT PROCEDURE	7 – 9
6. LEVEL DIAGRAM	10
7. ALIGNMENT & CHECK POINTS	11
8. TROUBLESHOOTING	12 – 16
9. 0055 TUNER BOARD	17 & 18
10. 6053 AUDIO AMP BOARD	19 & 20
11. SEMICONDUCTOR LEAD IDENTIFICATIONS	21
12. ELECTRICAL PARTS LIST	22 – 29
13. MISCELLANEOUS PARTS LIST	30
14. SCHEMATIC DIAGRAM	SEPARATE SHEET
15. EXPLODED VIEW	SEPARATE SHEET

SPECIFICATIONS

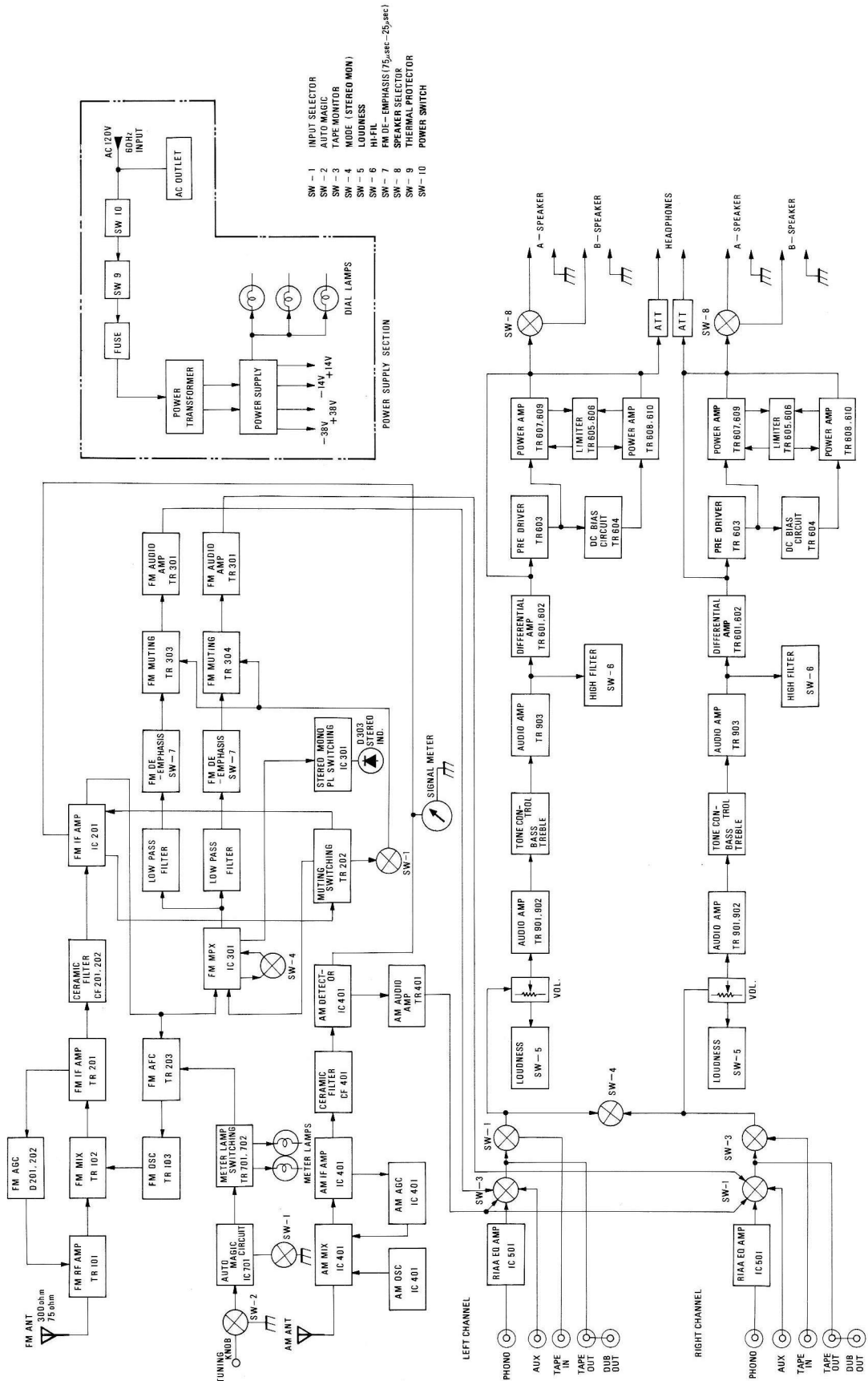
		NOMINAL	LIMIT	UNIT
FM SECTION				
1. TUNING COVERAGE		87.5–108.5	88–108	MHz
2. DIAL CALIBRATION ACCURACY	90 MHz		±250	kHz
	98 MHz		±350	kHz
	106 MHz		±250	kHz
3. USABLE SENSITIVITY		2.0	3.0	μV
(NOISE & DISTORTION –30 dB)		6	10	dBf
4. IMAGE REJECTION (at 98 MHz)		50	45	dB
5. IF REJECTION (at 90 MHz)		80	70	dB
6. FULL LIMITING (at –3 dB)		2.0	3.0	μV
7. IF BANDWIDTH (6 dB down)			±150	kHz
8. DISTORTION (1 mV INPUT)		0.3	0.8	%
9. SIGNAL-TO-NOISE RATIO (1 mV INPUT)		65	58	dB
10. DE-EMPHASIS 75 μsec. (at 50~10000 Hz)		±1.5	±2	dB
11. DISCRIMINATOR BANDWIDTH (Peak-to-Peak)		400	300	kHz
12. AFC HOLDING RANGE (with 1 mV signal)		±1000	±800	kHz
13. OUTPUT VOLTAGE	MONO	750	750±2 dB	mV
(at 75 kHz dev., 400 Hz mod., 1 mV input)	STEREO	650	650±2 dB	mV
14. MUTING THRESHOLD		5	4–16	μV
15. OVERLOAD THD (at 98 MHz, 100% mod.)		1	1.5	%
100 mV RF INPUT				
16. SPURIOUS RESPONSE at 98 MHz		80	70	dB
ANTENNA INPUT 3 μV, 1/2 IF, 103.35 MHz				
17. CAPTURE RATIO (1 mV INPUT)		2	3.5	dB
18. ALTERNATE CHANNEL SELECTIVITY		50	40	dB
(100 μV INPUT)				
MPX SECTION				
1. STEREO SEPARATION	100 Hz	38	27	dB
(100% mod., 1 mV input)	1 kHz	40	32	dB
	10 kHz	30	20	dB
2. DISTORTION		0.5	1.2	%
(100% mod. 1 mV input)	1 kHz			
3. STEREO BEACON SENSITIVITY (pilot 7%)		10	3–16	μV
4. RESIDUAL 19 kHz & 38 kHz (1 mV input)		50	40	dB
5. SUPPRESSION OF SCA INTERFERENCE			40	dB
(1 mV input)				
AM SECTION				
1. TUNING COVERAGE		510–1660	520–1620	kHz
2. DIAL CALIBRATION ACCURACY	600 kHz		±15	kHz
	1,000 kHz		±30	kHz
	1,400 kHz		±40	kHz
3. USABLE SENSITIVITY 600 kHz, 1000 kHz, 1400 kHz				
(400 Hz, 30% mod.,	Radiated	250	500	μV/m
noise & distortion –20 dB)	Direct	25	40	μV
4. IMAGE REJECTION (at 1,400 kHz)		35	30	dB
5. IF REJECTION (at 600 kHz)		30	25	dB
6. AGC FIGURE OF MERIT		45	30	dB
(from 100 mV/m at 1,000 kHz)				
7. DISTORTION		1.5	2.5	%
(400 Hz, 30% mod., 5 mV/m input)				
8. IF BANDWIDTH (6 dB down)			6–14	kHz
9. OUTPUT VOLTAGE		250	200	mV
(1 kHz 30% mod., 5 mV/m input)				

	NOMINAL	LIMIT	UNIT
10. AUDIO RESPONSE (5 mV/m input from 400 Hz to 3 kHz, 0 dB @1,000 kHz)	-4	-6	dB
11. SELECTIVITY 200 μ V/m	28	20	dB
12. SIGNAL-TO-NOISE RATIO (1000 kHz, with antenna input 5 mV/m)	40	32	dB
13. AM BEAT (input 5 mV/m)		10	%
AUDIO SECTION			
1. RMS OUTPUT POWER (distortion <0.3%, 20 Hz ~ 20 kHz)			
PER CHANNEL DRIVEN 8 Ω	50	40	W
4 Ω	55	45	W
BOTH CHANNELS DRIVEN 8 Ω	40	35	W
4 Ω	45	35	W
(IHF power @ 1 kHz, 8 Ω , \pm 1 dB)			
2. IM DISTORTION (at 25 W output 70/7,000 Hz 4/1)	0.2	0.5	%
3. HARMONIC DISTORTION (at 25 W output)			
100 Hz	0.1	0.15	%
1,000 Hz	0.1	0.15	%
10,000 Hz	0.2	0.3	%
4. FREQUENCY RESPONSE (AUX, 8 Ω load, 1 W output, 30 Hz ~ 20 kHz)	\pm 1	\pm 1.5	dB
5. INPUT SENSITIVITY (for 35 W output) PHONO	2.8	2.8 \pm 0.5	mV
AUX	180	180 \pm 40	mV
TAPE MON	180	180 \pm 40	mV
6. INPUT IMPEDANCE PHONO	50K		ohm
AUX	70K		ohm
TAPE MON	70K		ohm
7. TONE CONTROL BASS 100 Hz	\pm 10	\pm 10 \pm 2	dB
TREBLE 10 kHz	\pm 8	\pm 8 \pm 2	dB
8. EQUALIZATION RIAA: 30 ~ 15,000 Hz		RIAA \pm 2	dB
9. PHONO AMP OVER LOAD CAPABILITY (at 1%)	120	100	mV
10. HIGH FILTER 10 kHz	-6	-6 \pm 2	dB
11. LOUDNESS COMPENSATION (volume -30 dB) 10 kHz	4	4 \pm 2	dB
100 Hz	10	10 \pm 2	dB
12. CHANNEL SEPARATION (AUX input 100 ~ 10,000 Hz)	40	35	dB
13. SIGNAL-TO-NOISE RATIO (input shorted)			
PHONO	60	55	dB
AUX	70	60	dB
14. RESIDUAL NOISE	1.5	3	mV
15. LOAD IMPEDANCE		4-16	ohm
16. POWER SOURCE 120 Volts, 60 Hz AC*			
20 WATTS, No Signal			
170 WATTS, Full Signal			

* 220/240 VAC, 50 Hz for European and Australian Models.

NOTE: Nominal Specs represent the design specs; all units should be able to approximate these—some will exceed and some may drop slightly below these specs. Limit Specs represent the absolute worst condition which still might be considered acceptable; in no case should a unit perform to less than within any Limit Spec.

BLOCK DIAGRAM



DISASSEMBLY INSTRUCTIONS

1. **Removing chassis from wooden cabinet.** (Refer to Fig. A)
Remove the five screws (#58 & #66) from both sides of the wooden cabinet and back panel.
2. **Removing the Front Panel.** (Refer to Fig. A)
 - a) Remove the knobs from SELECTOR, SPEAKERS, BASS, TREBLE, Tuning and VOLUME.
 - b) Remove six screws (#65) from both side of Front Panel and remove panel.

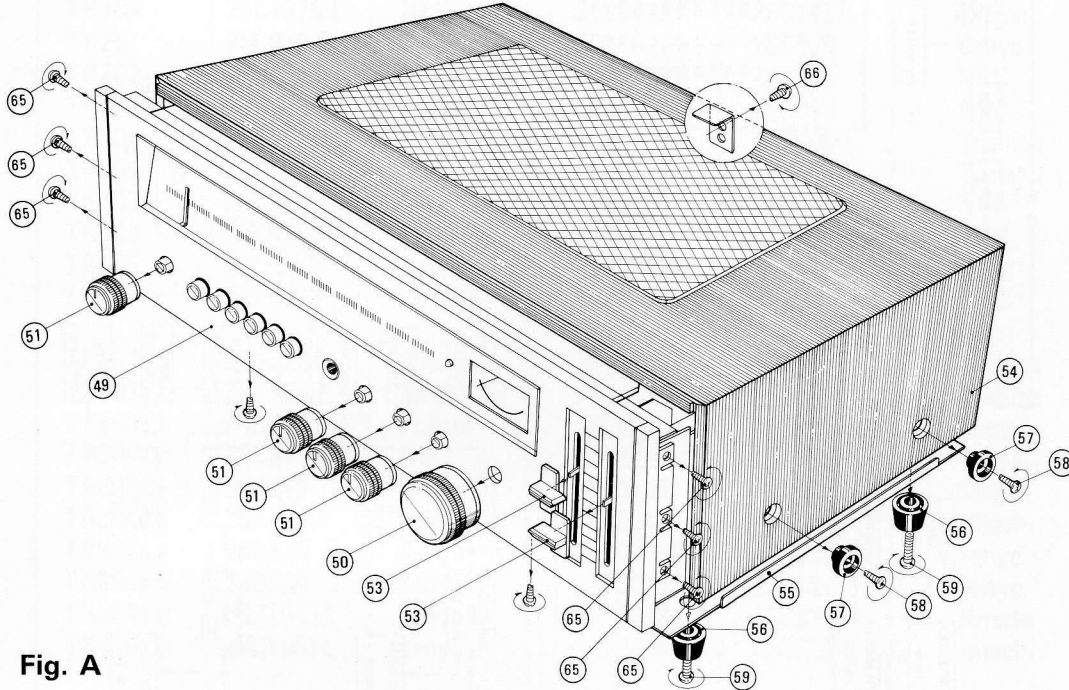
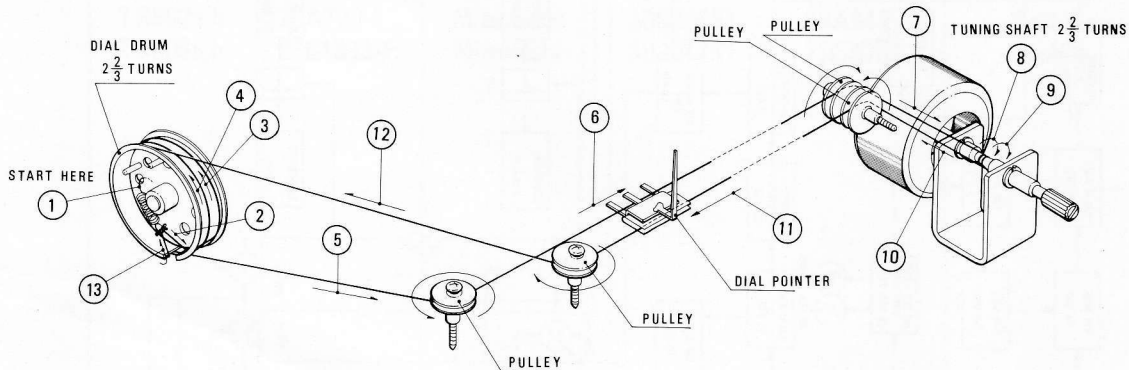


Fig. A

DIAL STRINGING DIAGRAM

Note: Tuning capacitor should be in fully closed position.



ALIGNMENT PROCEDURES

Do not attempt alignment unless the following equipment is available.

- | | | |
|------------------------|------------------------|----------------------|
| 1. AM Signal Generator | 4. FM Signal Generator | 7. Distortion meter |
| 2. Oscilloscope | 5. Stereo Modulator | 8. DC Voltmeter |
| 3. AC Voltmeter | 6. Audio Generator | 9. Frequency Counter |

Note: Remove line cord antenna from FM external antenna terminal when aligning.

AM IF & RF ALIGNMENT

Output of signal generator should be no higher than necessary to obtain an output reading. Signal Generator Modulation: 30% Set SELECTOR switch SW1 to AM.						
STEP	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	INDICATOR	ADJUSTMENT Refer Fig. 4.	REMARKS
1	Refer Fig. 1.	455 kHz (400 Hz Mod.)	Point of non-interference (on/about 600 kHz)	AC Voltmeter to TAPE OUT jack	T402 (IFT)	Adjust for maximum reading.
2	Same as Step 1	600 kHz (400 Hz Mod.)	600 kHz	Same as Step 1	L402 (OSC Coil) L451 (ANT Coil)	Same as Step 1
3	Same as Step 1	1400 kHz (400 Hz Mod.)	1400 kHz	Same as Step 1	TC105 (OSC Trimmer) TC104 (ANT Trimmer)	Same as Step 1
4	Same as Step 1	1000 kHz (400 Hz Mod.)	1000 kHz	Same as Step 1	VR402	Adjust for 160 mV Audio output.
5	Same as Step 1	1000 kHz (400 Hz Mod.)	1000 kHz	Receiver's SIGNAL Meter	VR401	Adjust for 70% reading of full scale with input of 5 mV/m.

Note: Remove line cord antenna from FM external antenna terminal when aligning.

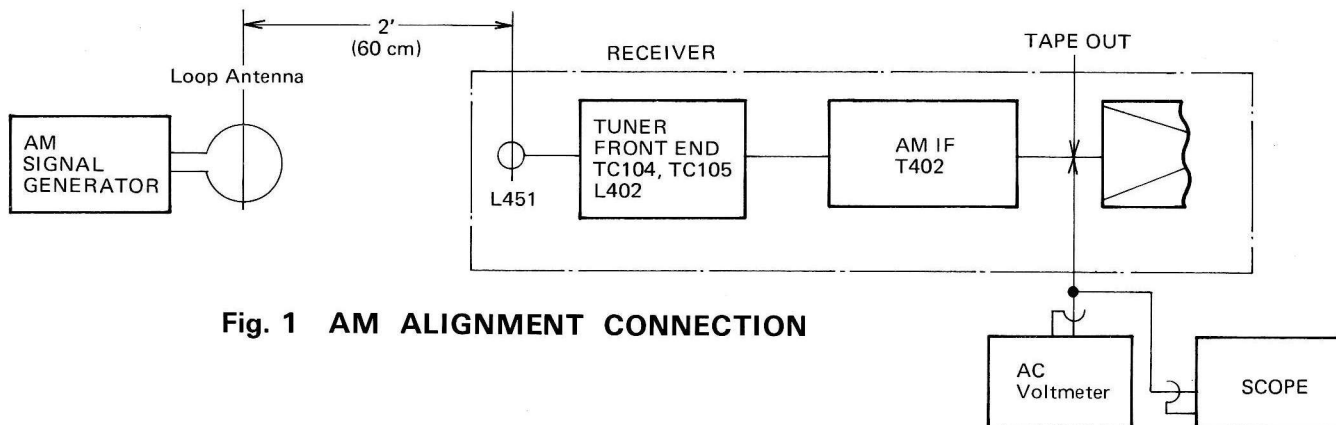


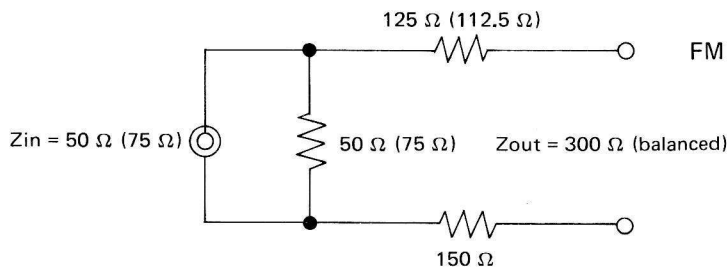
Fig. 1 AM ALIGNMENT CONNECTION

FM RF AND IF ALIGNMENT

Signal generator output should be no higher than necessary to obtain an output reading.
 Set Selector switch to FM.
 Signal Generator deviation: 75 kHz NOTE: Be sure to disconnect FM line cord antenna during alignment.

STEP	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	INDICATOR	ADJUSTMENT Refer Fig. 4.	REMARKS
1	Connect to FM Antenna Terminal through FM Dummy Antenna (300 Ω) Fig. 2	90 MHz (400 Hz Mod.)	90 MHz	AC Voltmeter connected to TAPE OUT jack	L101 (ANT. COIL) L102 (RF COIL) L103 (OSC. COIL)	Adjust for maximum reading on AC Voltmeter.
2	Same as Step 1	106 MHz (400 Hz Mod.)	106 MHz	Same as Step 1	TC101 (ANT. Trimmer) TC102 (RF Trimmer) TC103 (OSC. Trimmer)	Same as Step 1
Repeat steps 1 & 2 until no further improvement is possible.						
3	Same as Step 1	90 MHz (400 Hz Mod.)	90 MHz	Same as Step 1	T101 (IFT)	Same as Step 1
4	Same as Step 1	98 MHz (400 Hz Mod.)	98 MHz	DC Voltmeter connect across R211 (3.9 KΩ)	T201 (Bottom Core)	Adjust for zero reading on DC Voltmeter.
5	Same as Step 1	98 MHz (400 Hz Mod.)	98 MHz	Distortion Meter connected to TAPE OUT jack	T201 (Top Core)	Adjust for minimum distortion.
6	Same as Step 1	98 MHz (400 Hz Mod.)	98 MHz	Receiver's SIGNAL Meter	VR203	Adjust for 70% reading of full scale with input of 1 mV.
7	Same as Step 1	98 MHz (400 Hz Mod.)	98 MHz	Oscilloscope connect to TAPE OUT jack	VR204	Adjust so output just appears with an input signal level of 5 μV.

For European model, the lowest frequency of FM tuning range should not be below 87.5 MHz.



FM Dummy Antenna to 300 Ω antenna terminal of Receiver

Fig. 2 FM DUMMY ANTENNA

MPX ALIGNMENT

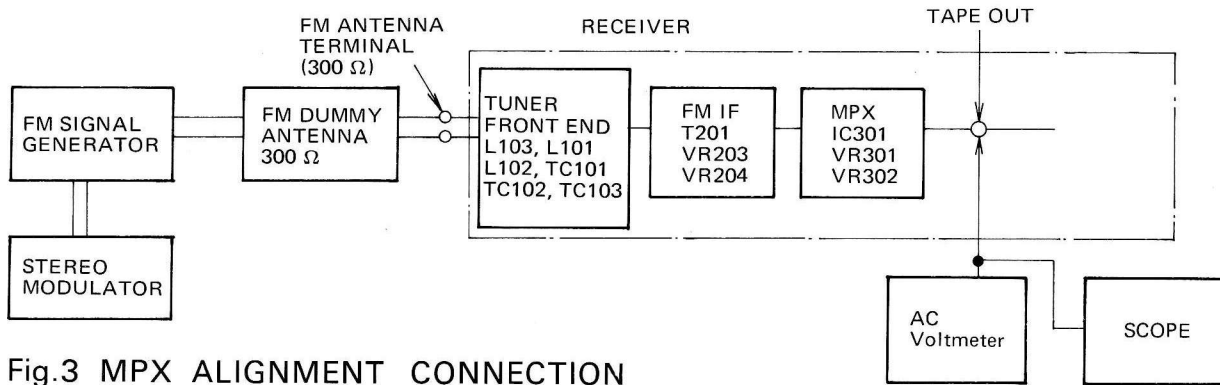


Fig.3 MPX ALIGNMENT CONNECTION

Set SELECTOR Switch to FM.
Tune for 98 MHz on band.
Signal Generator output level: 1000 μ V. Deviation: 75 kHz, at 100% modulation of composite signal.
Connect Signal Generator to FM Antenna Terminal through FM Dummy Antenna (300 Ω).

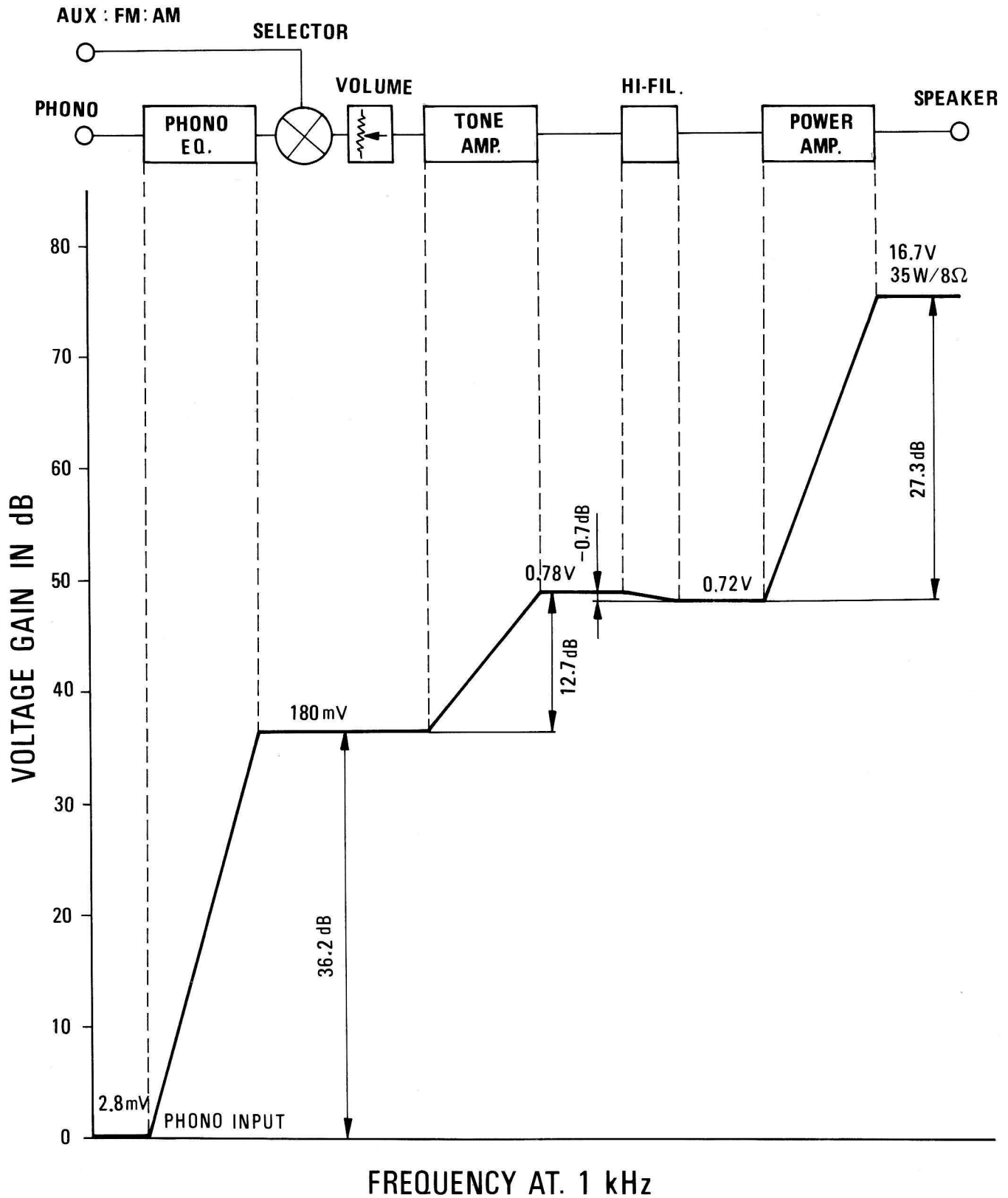
STEP	19 kHz (PILOT SIGNAL) MODULATION Level	SIGNAL GENERATOR Freq. Set to	OUTPUT INDICATOR Connected to	ADJUST Refer Fig. 4	ADJUST FOR	NOTE
1	8%	Composite 1 kHz R channel	AC Voltmeter to TAPE OUT jack of R channel			Adjust input for audio output of about 0.65 V
2	8%	Composite 1 kHz L channel	AC Voltmeter to TAPE OUT jack of R channel	VR301	Minimum	AC Voltmeter reading should be at least 30 dB below reading in step 1.
3	8%	Composite 1 kHz R channel	AC Voltmeter to TAPE OUT jack of L channel	VR301	Minimum	Same as Step 2.
4	PILOT OFF	Carrier only	Frequency Counter Connect to TP (#10 pin) of PCB 0055 and ground	VR302	19 kHz	

If you did not obtain -30 dB readings in steps 2 and 3 (compared with step 1), readjust VR301 until you obtain -30 dB reading for both steps 2 and 3.

MAIN AMPLIFIER ALIGNMENT

INDICATOR	ADJUSTMENT	REMARKS
DC Voltmeter	VR601 a, b	Adjust for 0.005 V ~ 0.015 V across R623 a, b with no signal

LEVEL DIAGRAM



ALIGNMENT & CHECK POINTS

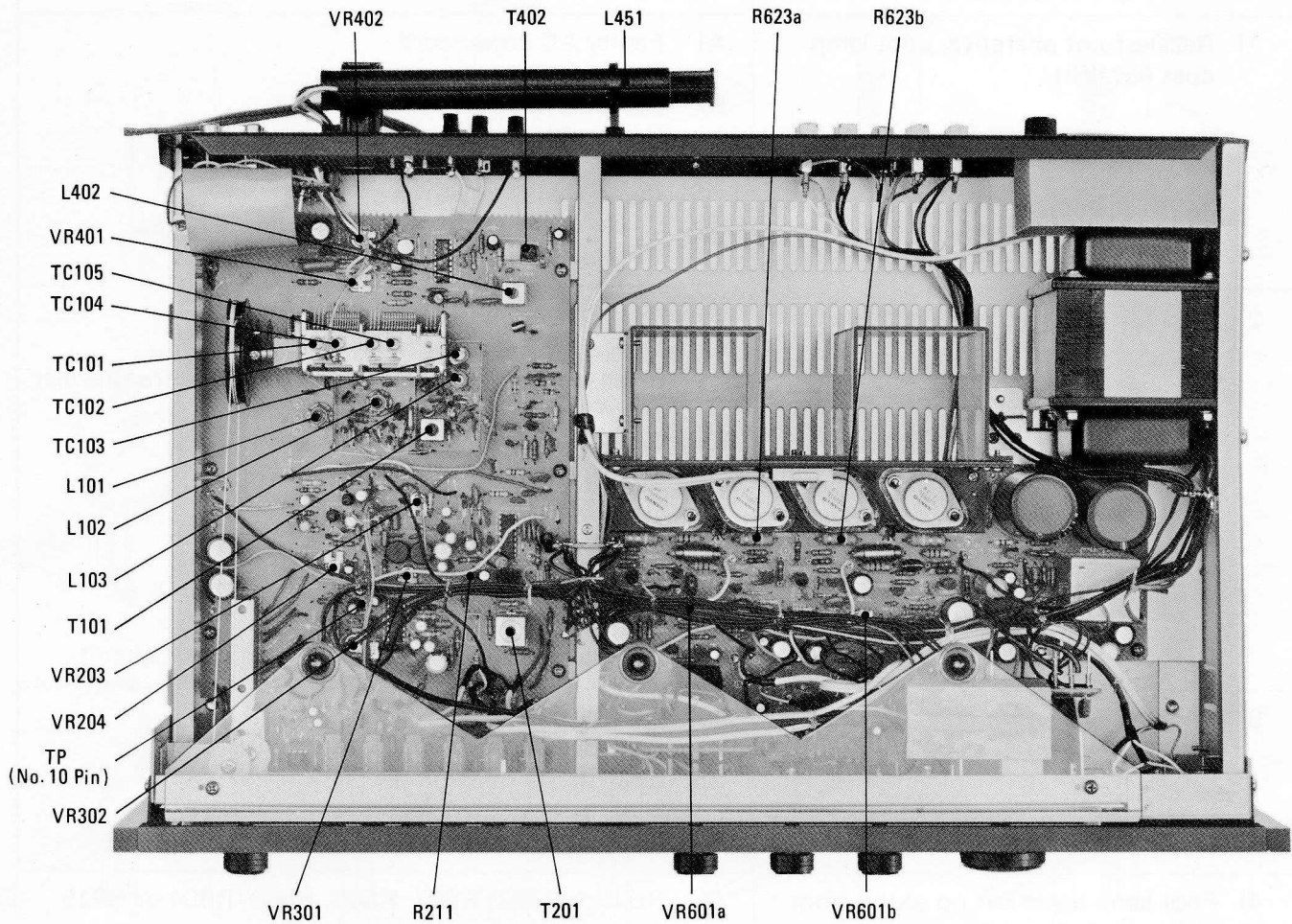
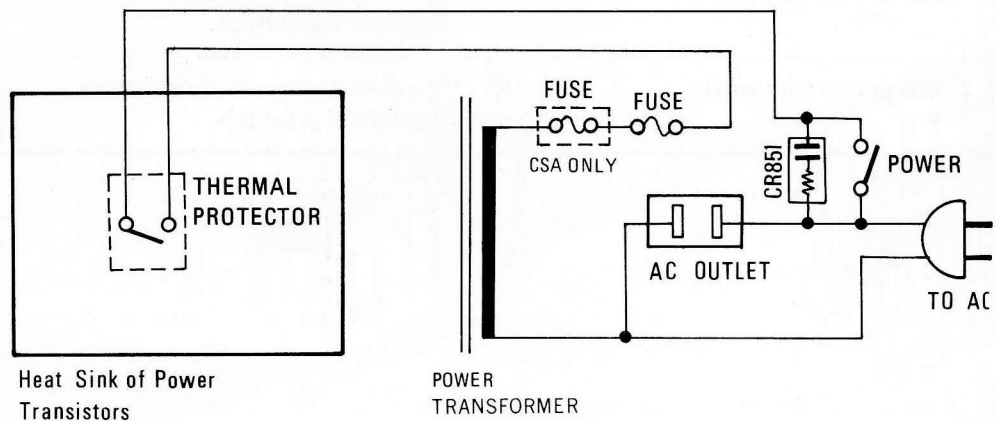


FIGURE 4

NOTE: This Receiver has built-in over load thermal protection for abnormal operation. When the temperature of the thermal protector (installed with heat sink) does rise abnormally ($90 \pm 5^{\circ}\text{C}$), the thermal protector will automatically cut out, and as soon as the temperature goes down sufficiently ($35 \pm 15^{\circ}\text{C}$), the thermal protector turns back on automatically. If the Receiver does turn itself off, check ventilation and speaker connections.



TROUBLESHOOTING

SYMPTOM	CAUSE AND REMEDY
1) Receiver not operative; pilot lamp does not light.	A) Faulty AC power cord Replace the cord. B) Defect in the power switch Replace the switch. C) Broken wire in the power transformer. Replace the transformer. D) Broken power fuse Replace the fuse.
2) Fuse blows when power is turned on.	A) Power Transformer T851 defective Replace the transformer. B) Short in the primary or secondary of the transformer circuitry Repair the short. C) Damaged rectifier D801 Replace the rectifier. D) Short-circuit in the rectifier circuit Repair the short. E) Short circuit in power transistor TR609a, b or TR610a, b Replace the defective transistor and check circuit.
3) Pilot lamp does not light.	A) Defective lamp(s) Replace lamp(s). B) Open in the transformer T851 tertiary winding Replace the transformer.
4) Pilot lamp lights but no sound from either channel.	A) Resistor R801, R807, R508, R509, R904 or R915 open Replace. B) Capacitor C507, C508, C801, C802, C807 or C808 defective Replace the defective capacitor(s). C) Diode D801 damaged Replace the diode. D) Open in secondary winding of the power transformer T851 Replace the transformer.
5) "A" Speakers do not work.	A) Speaker switch SW8 defective Replace the switch.
6) "B" Speakers do not work.	A) Speaker switch SW8 defective Replace the switch.

SYMPTOM	CAUSE AND REMEDY
7) One channel does not work with VOLUME at maximum, with a test signal applied to the center terminal of VOLUME control (VR551 or VR552) of the dead channel.	<p>A) Defect in transistor TR901, TR902 or TR903 of Audio Amp Board 6053 Locate and correct the defect.</p> <p>B) Defect in transistor TR601-TR610 of Audio Amp Board 6053 Locate and correct the defect.</p> <p>C) Break in copper foil of printed circuit board 6053 Repair or replace circuit board.</p> <p>D) Short in speaker output terminal Repair the short.</p> <p>E) Defective resistor R903, R904, R906, R907, R914, R915, R603-R606, R609, R610, R615, R620-R627 Replace the defective resistor(s).</p>
8) Same as 7 above but channel operates when test signal is applied as 7.	<p>A) Defective IC IC501 Replace the IC.</p> <p>B) Faulty resistor R503, R504, R508 or R509 Replace the faulty resistor(s).</p> <p>C) Faulty capacitor C501 or C506 Replace the faulty capacitor(s).</p> <p>D) Defective selector switch SW1 Repair or replace the switch.</p>
9) Speaker works normally but headphones do not work.	<p>A) Headphone plug does not mate with jack Replace the plug.</p> <p>B) Defective resistor R629a, b Replace the resistor.</p>
10) All inputs work normally except AUX input.	<p>A) Poor contact in AUX input jack Repair or replace the jack.</p> <p>B) Poor contact in selector switch SW1 Repair or replace the switch.</p>
11) PHONO input not operative.	<p>A) Poor contact in PHONO input jack Repair or replace the jack.</p> <p>B) Faulty selector switch SW1 Repair or replace the switch.</p> <p>C) Defective IC IC501 Replace the IC.</p>
12) TAPE OUT not operative.	<p>A) Defective contact in TAPE OUT jack Repair or replace the jack.</p>

SYMPTOM	CAUSE AND REMEDY
13) FM does not operate.	<p>A) Defective resistor R107, R114, R207, R316, R317 or R235. Replace the defective resistor(s).</p> <p>B) Short circuit in Tuner B+ circuit Repair the short.</p> <p>C) Poor contact in selector switch SW1 Repair or replace the switch.</p> <p>D) Defective diode D201 Replace the diode.</p> <p>E) Capacitor C301 defective Replace the capacitor.</p> <p>F) Defective transistor TR201 or IC IC201 Replace the defective component.</p> <p>G) Defective IFT T201 Replace the IFT.</p> <p>H) Defective capacitor C211 Replace the capacitor.</p> <p>I) Defective transistor TR101, TR102, TR103 or Coil L101, L102, L103 of Tuner Board 0055 Replace the defective component(s).</p> <p>J) Faulty lead-in Repair or replace the lead-in.</p>
14) Poor multiplex separation	<p>A) Improper adjustment Readjust T201, VR301 and VR302. (Refer to MPX ALIGNMENT on page 9)</p> <p>B) Defective IC IC301 Replace the IC.</p> <p>C) Variable resistor VR301 or VR302 defective. Replace the variable resistor(s).</p>
15) Stereo indicator does not light.	<p>A) Defective LED D303 Replace the LED.</p> <p>B) Defective IC IC301 or resistor R322 of Tuner board 0055 Replace the defective component(s).</p> <p>C) Defective diode D301 Replace the diode.</p>
16) FM volume not sufficient.	<p>A) If volume of both L and R channels not enough: Front End defective, or faulty transistor TR201, IC IC201, IFT T201 or diode D203, capacitor C211 or faulty TR301, TR302, IC301 or C301 of Tuner Board 0055 Replace the defective component(s).</p> <p>B) If sound of one channel not enough: Defective L301 in case of L channel, or defective L302 in case of R channel Replace the defective coil.</p>

SYMPTOM	CAUSE AND REMEDY
17) AM does not operate.	A) Damaged IC401 of Tuner Board 0055 Replace IC401. B) Defective L401, L404, T401 or T402 of Tuner Board 0055 Replace the defective component(s). C) Defective diode D401 or D402 of Tuner Board 0055 Replace the defective diode(s). D) One of resistors of Tuner Board 0055 Replace the defective part. E) One of capacitors of Tuner Board 0055 Replace the defective part. F) Selector switch SW1 defective Repair or replace the switch. G) Defective Tuning Gang Replace Tuning Gang. H) Damaged AM bar antenna Repair or replace the bar antenna.
18) LOUDNESS has no effect.	A) Defective LOUDNESS switch SW5 Replace the switch. B) Defective C701 or R703 Replace defective component(s). C) Defective VOLUME control VR551 or VR552 Replace.
19) STEREO-MONO not effective	A) Defective MONO switch SW4 Replace the switch.
20) TAPE MONITOR not effective	A) Defective TAPE MON switch SW3 Replace the switch. B) Poor contact in TAPE IN input jacks Repair or replace jack. C) Resistor R702 defective Replace the resistor.
21) BASS control has no effect.	A) VR902 defective Replace. B) Defective C908, C909 or R908, R910, R912 of Audio Amp Board 6053. Replace the defective component(s).
22) TREBLE control has no effect.	A) VR901 defective Replace. B) Defective C906, C907, R909, R911, R913 of Audio Amp Board 6053 Replace the defective component(s).
23) Excessive noise with PHONO input	A) Faulty IC IC501 Replace the IC. B) Faulty R501, R503, R504 or C501, C506 Replace the faulty component(s).

SYMPTOM	CAUSE AND REMEDY
24) Noisy VOLUME control	A) Defective VR551 or VR552 Replace the variable resistor. B) Defective capacitor C506, C901, C905 or C912 Replace the defective capacitor(s).
25) SIGNAL meter not functioning.	A) Defective meter Replace the meter. B) In case of FM reception, IC201, D204 or TH201 defective Replace the defective component(s). C) In case of AM reception, IC401 or VR401 defective Replace the defective component(s).
26) AUTO-MAGIC AFC has no effect when AUTO-M switch is ON. (White light behind the tuning meter does not change to red when the tuning control is touched.)	A) Transistor TR701, TR702 or IC IC701 defective Replace the defective component(s). B) Resistor R706, R715, R716 or R718 defective Replace the defective resistor(s). C) Diode D701, D702 or D852 defective Replace the defective diode(s). D) Capacitor C704 or C705 defective Replace the defective capacitor(s). E) Defective switch SW2. Replace the switch.
27) Red light does not light when the tuning control is released.	A) Defective transistor TR701 (open) or TR702 (short) Replace the defective transistor(s).
28) HI-FIL has no effect.	A) Defective switch SW6 Replace the switch. B) Defective capacitor C702 Replace the capacitor.

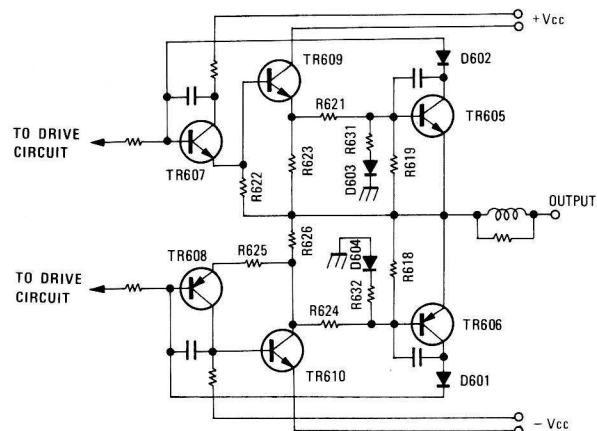
NOTE:

Transistors TR605 and TR606 protect the audio output stage when abnormally high current flows through TR609 and TR610, caused by excessive drive at input, or too low impedance load is connected at output. If increase of the current is excessive, the voltage across R623 and R626 will turn on TR605 and TR606 which are normally not biased "on".

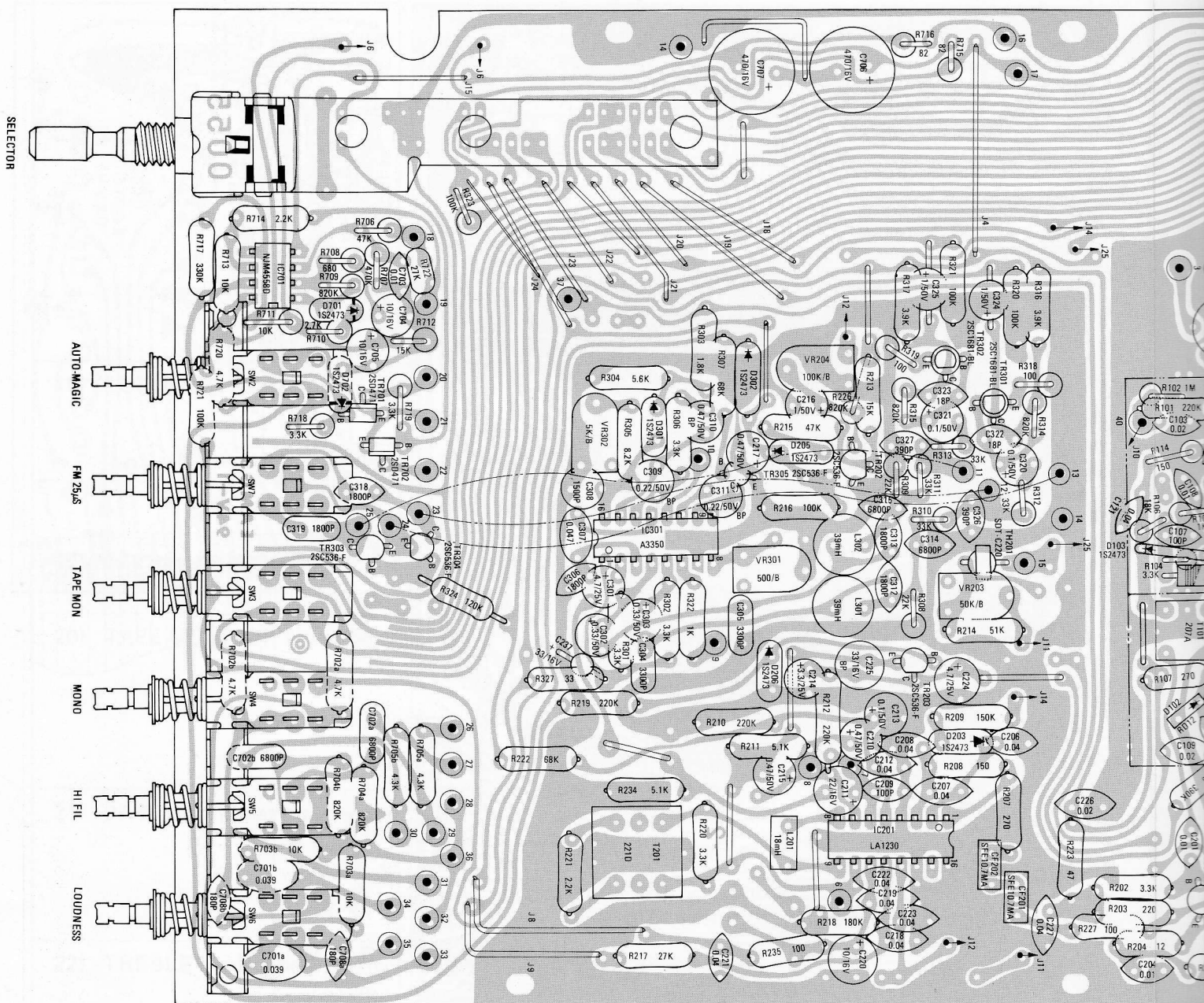
The collector potential of these transistors (through D601 and D602 diodes) reduce bias on TR607 and TR608, which causes output transistor current (TR609 and TR610) to reduce.

This performs two safety functions.

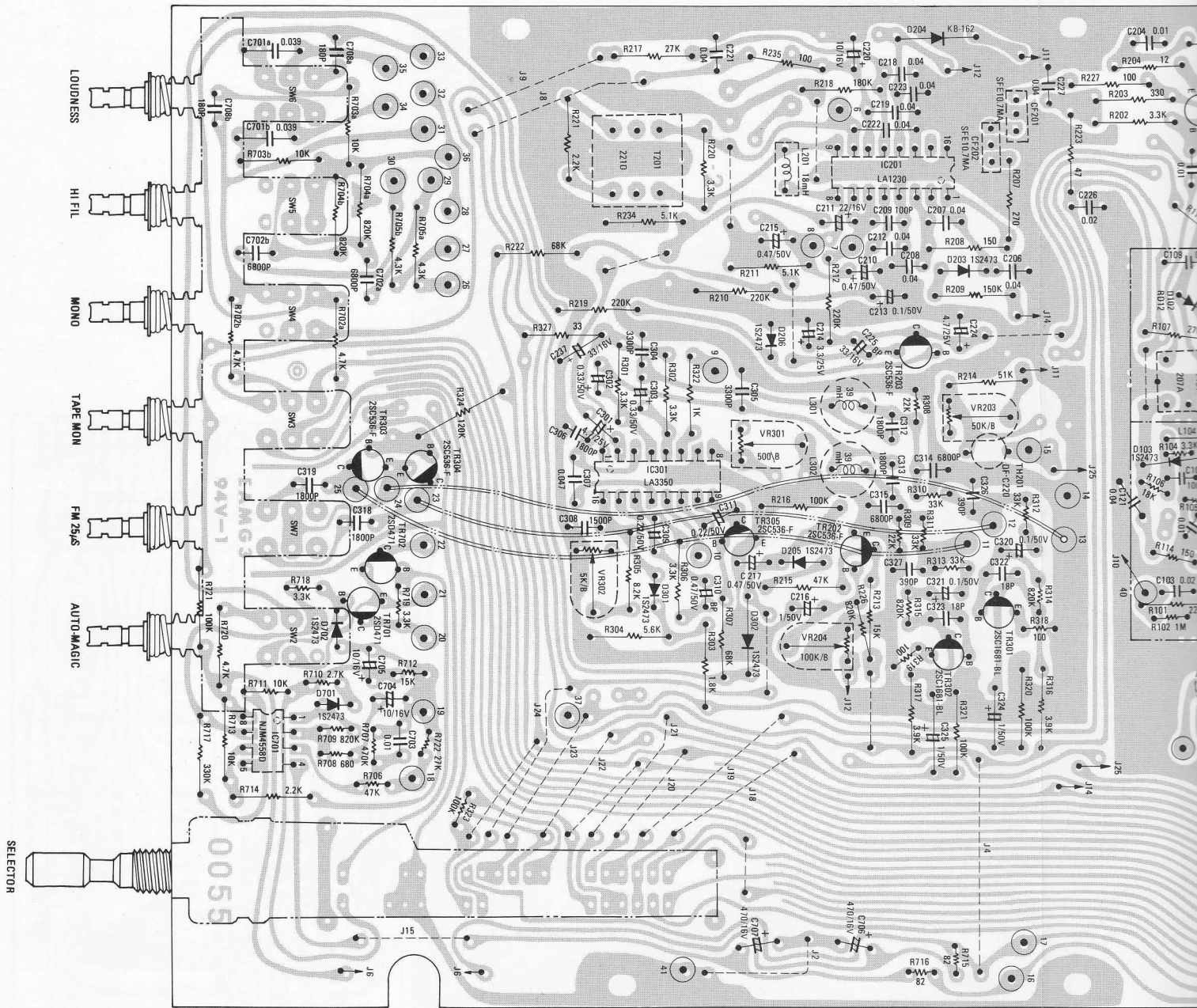
1. Protects the output circuit devices.
2. Protects the speakers from loud clicks, pops and excessive levels.



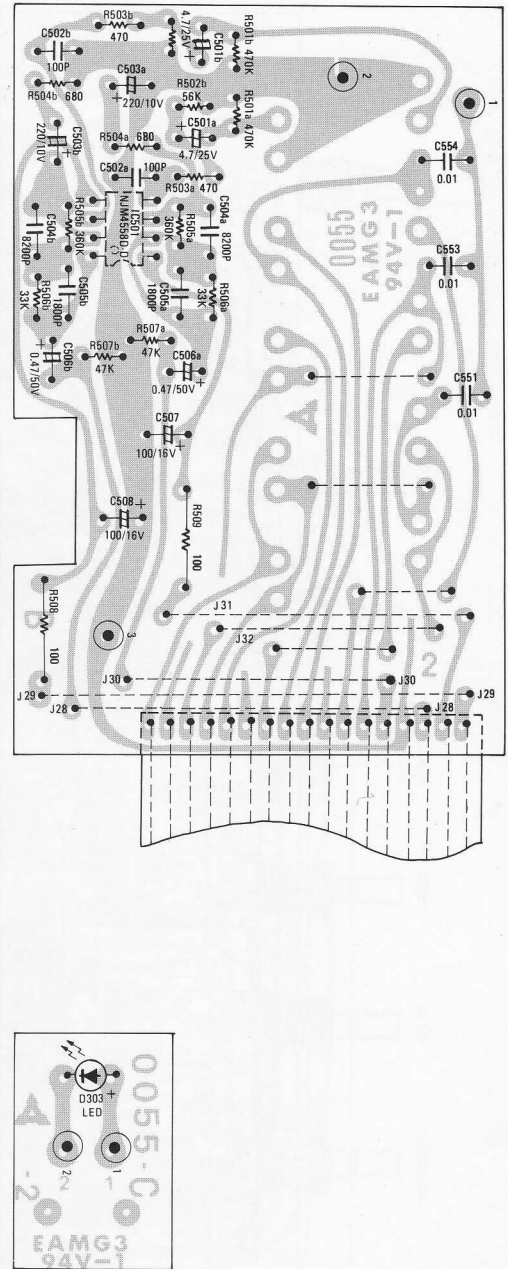
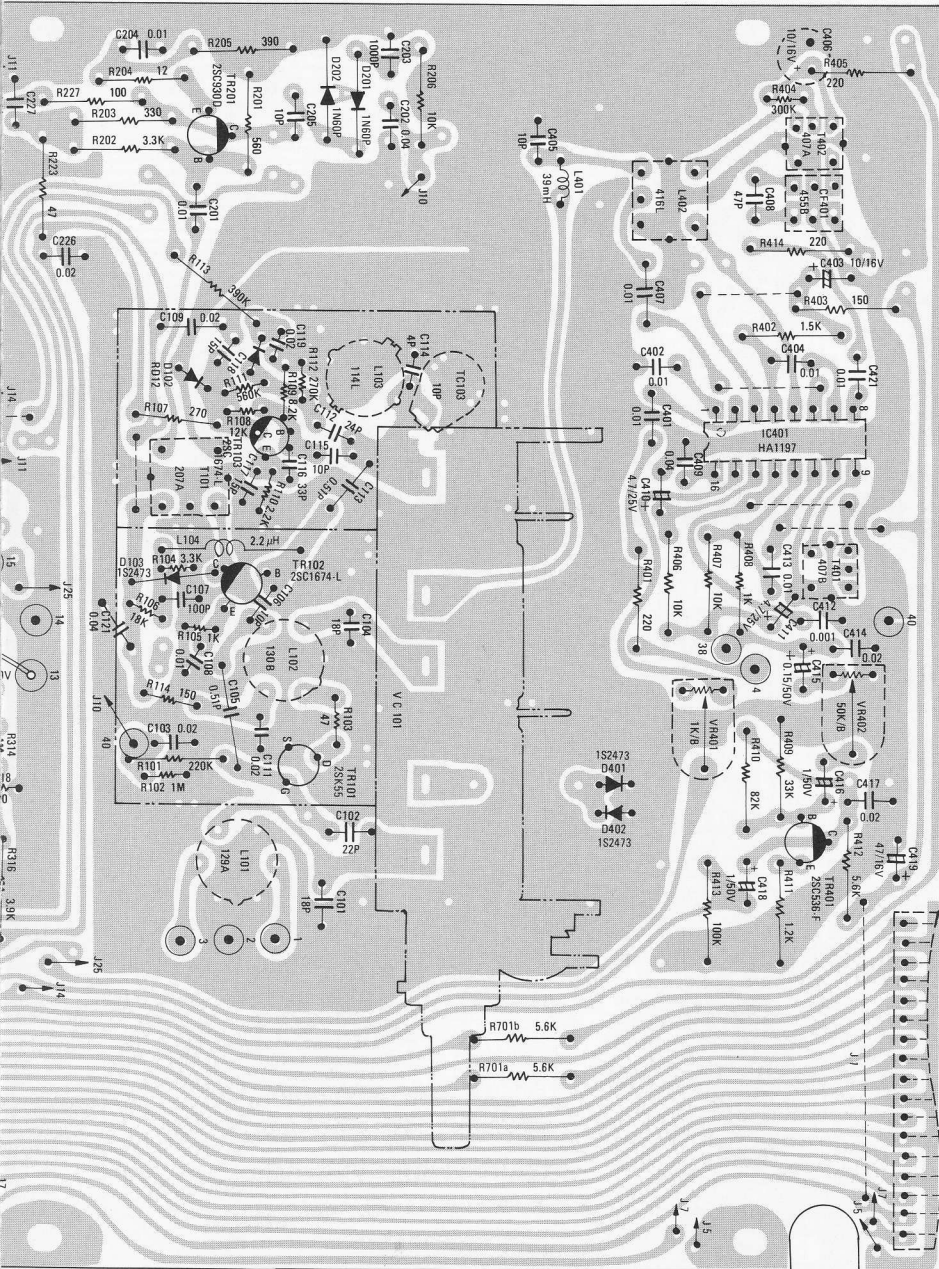
0055 TUNER BOARD



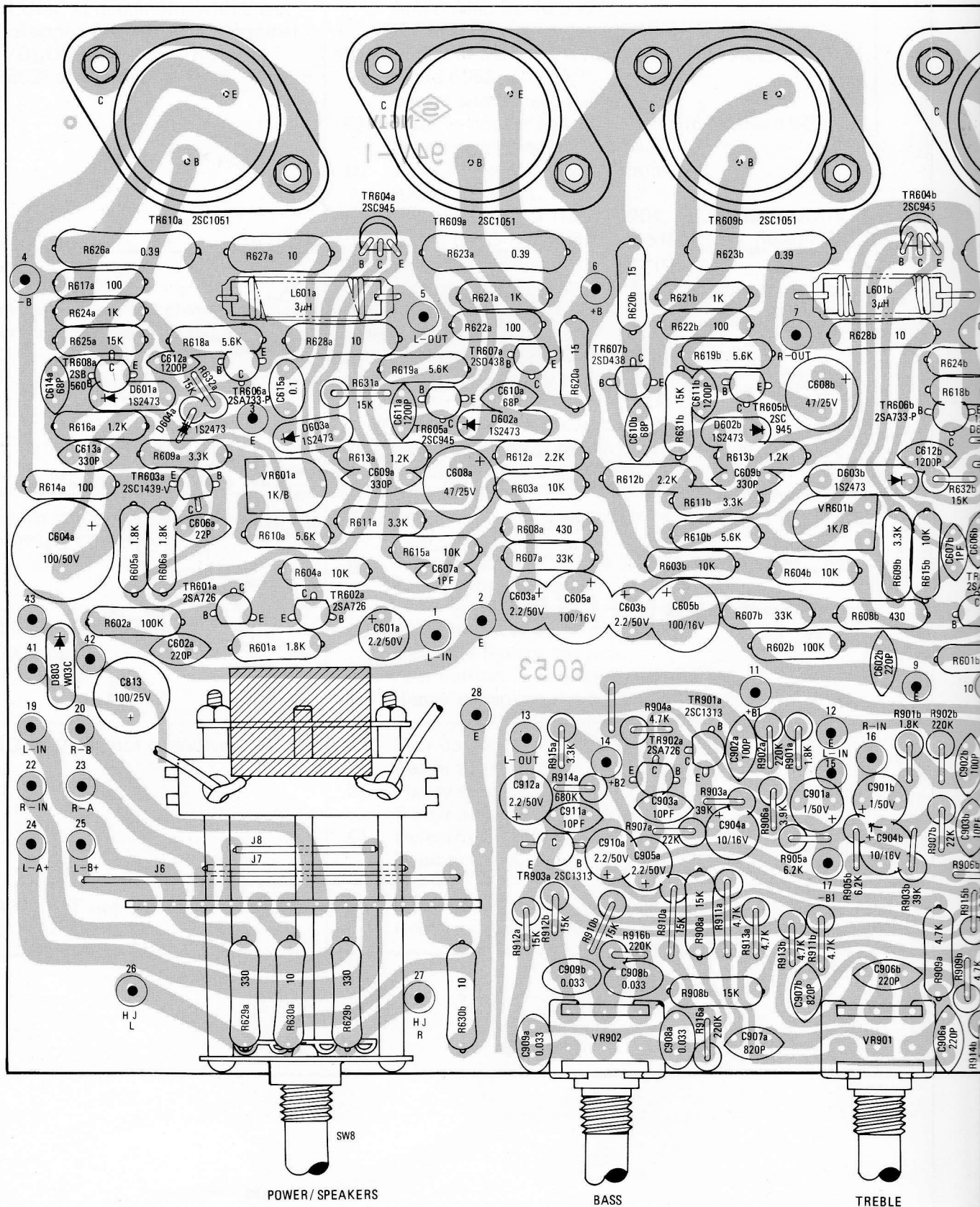
0055 TUNER BOARD (BOTTOM)



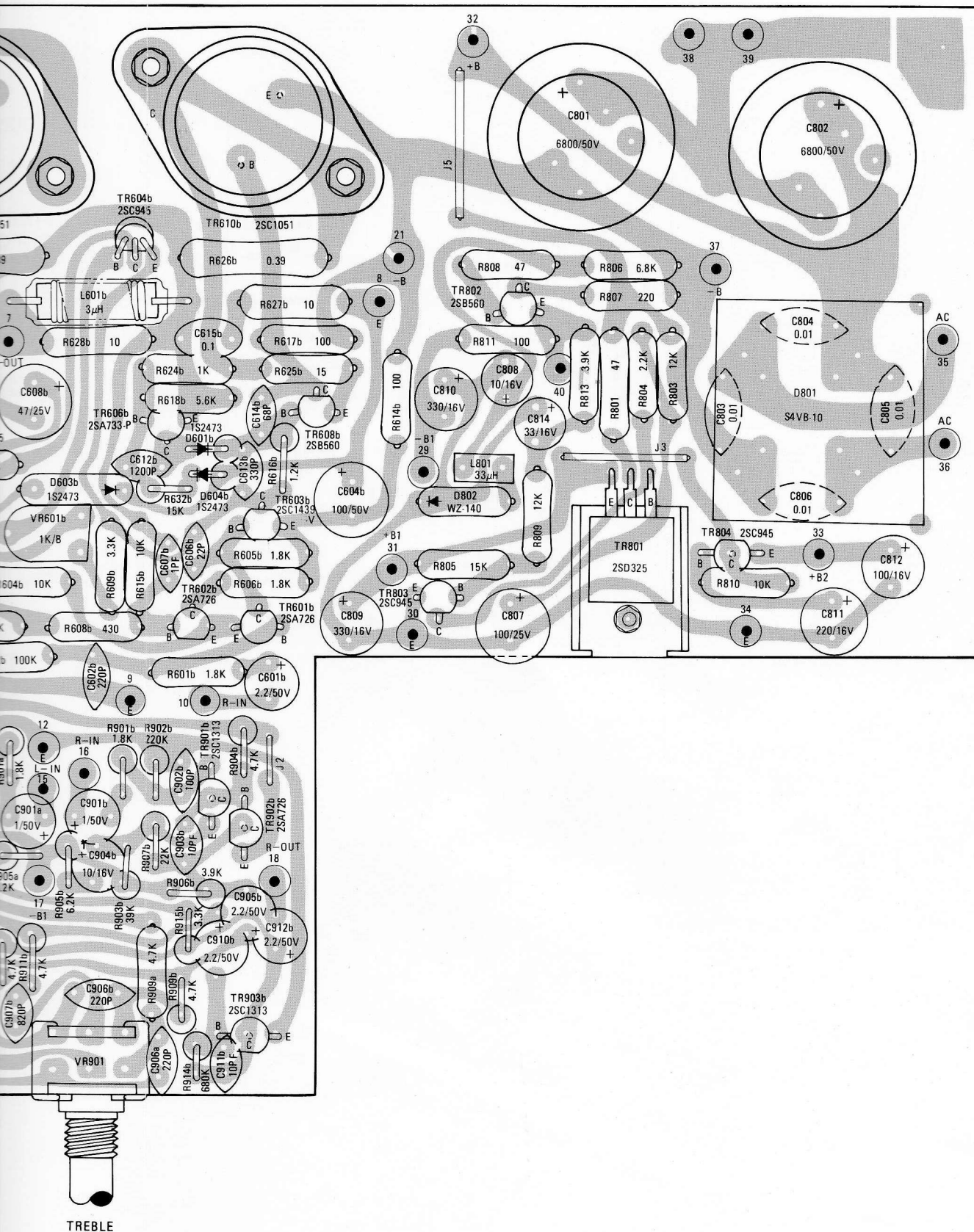
RD (BOTTOM VIEW)



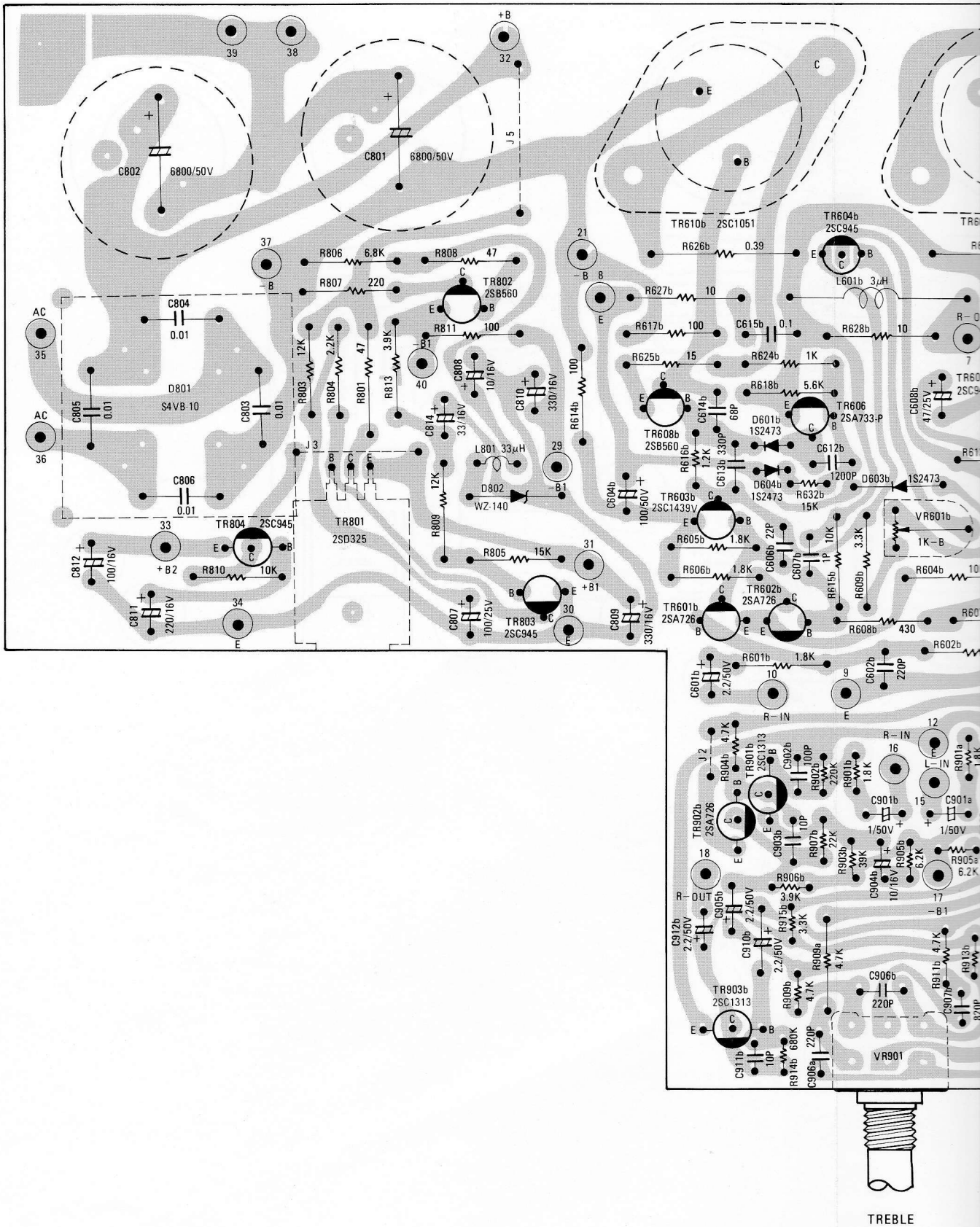
6053 AUDIO AMP BO



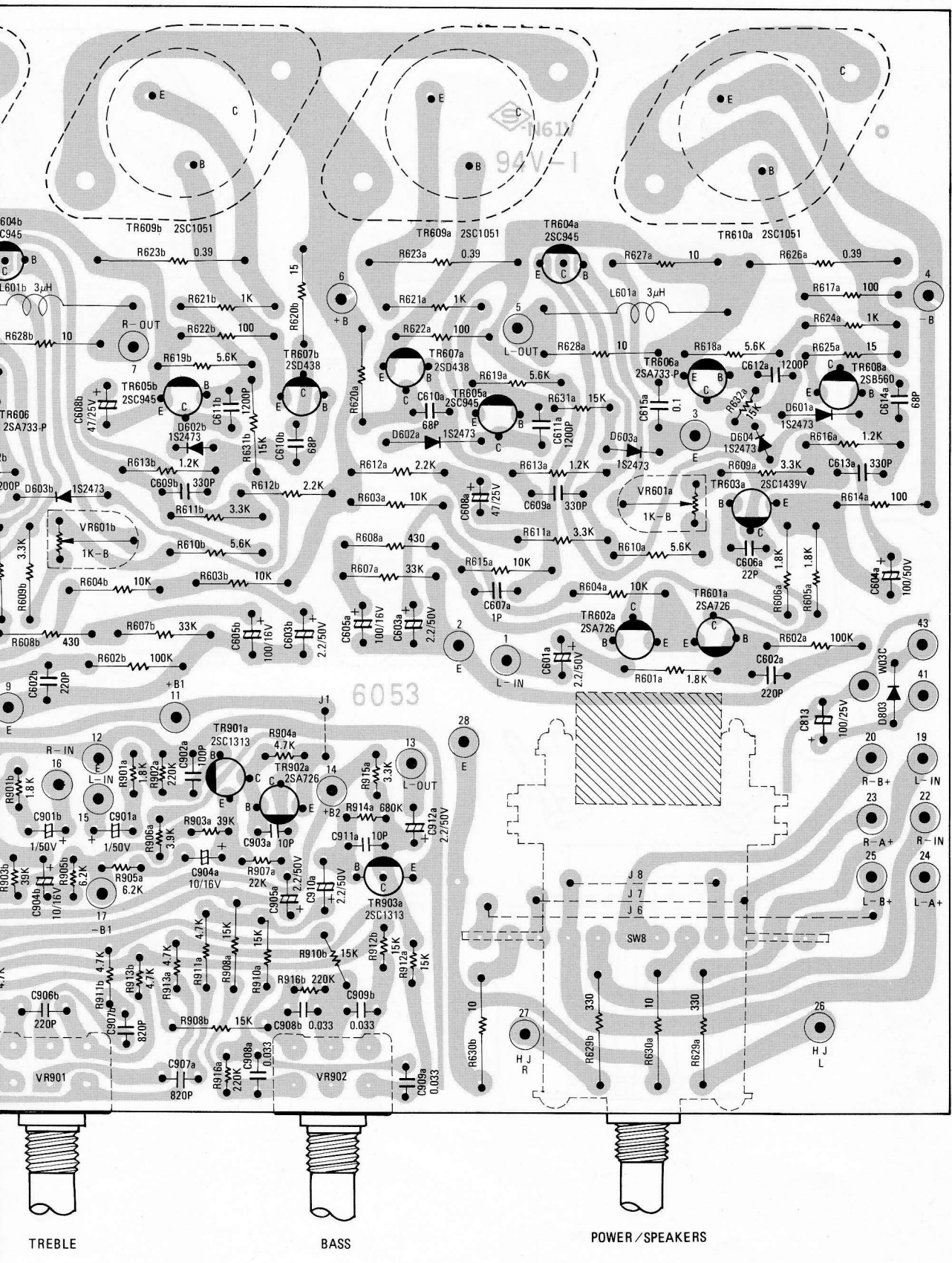
IO AMP BOARD (TOP VIEW)



6053 AUDIO AMP BOARD (BO

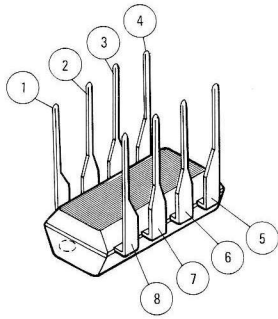


BOARD (BOTTOM VIEW)

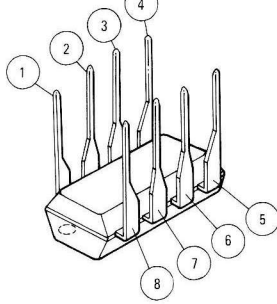


SEMICONDUCTOR LEAD IDENTIFICATIONS

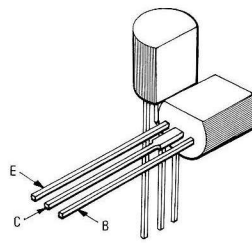
NJM4558D



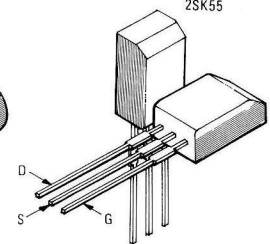
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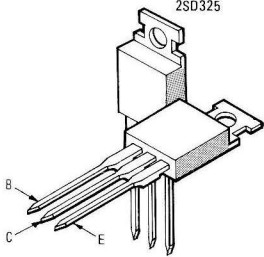
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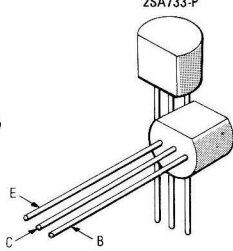
2SK55



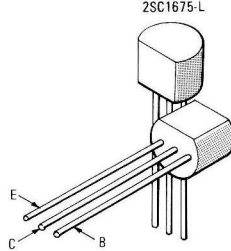
2SD325



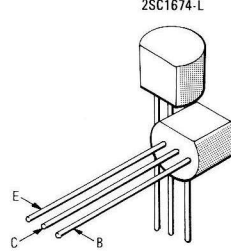
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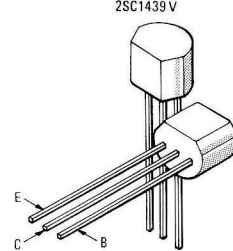
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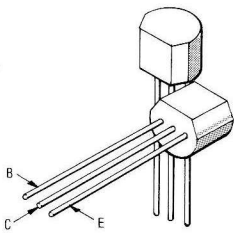
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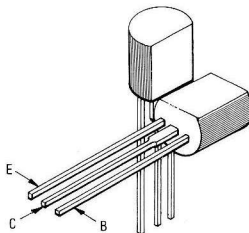
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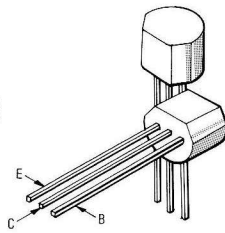
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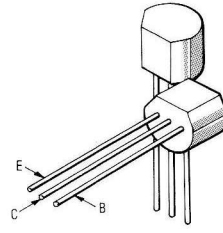
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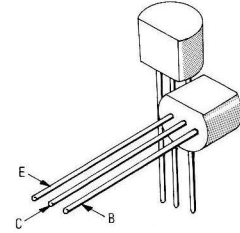
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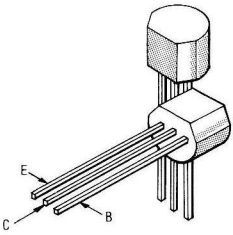
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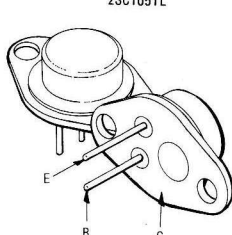
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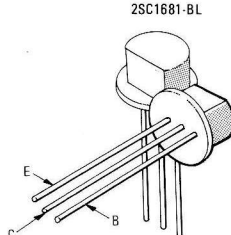
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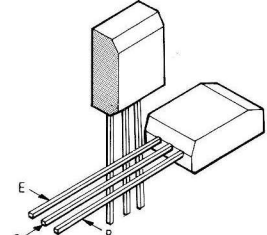
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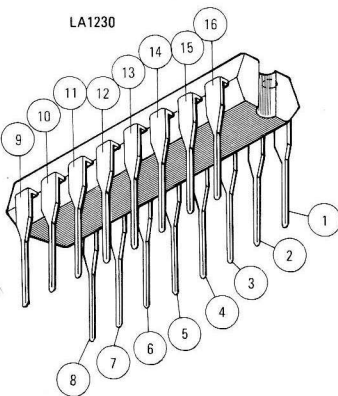
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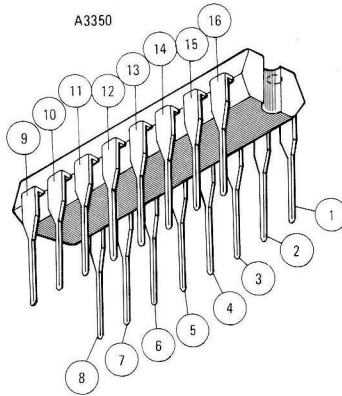
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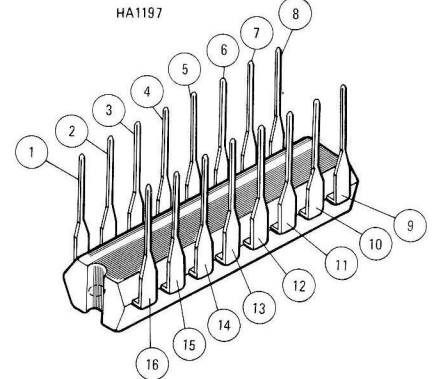
LA1230



A3350



HA1197



ELECTRICAL PARTS LIST

CAPACITORS				
Ref. No.	Value (F)	Voltage (V)	Tolerance (%)	Material
C101	18P	50	±10	Ceramic
C102	22P	50	±10	Ceramic
C103	0.02μ	25	±10	Ceramic
C104	18P	50	±10	Ceramic
C105	0.51P	50	±5	Ceramic
C106	10P	50	±5	Ceramic
C107	100P	50	±10	Ceramic
C108	0.01μ	25	±10	Ceramic
C109	0.02μ	25	±10	Ceramic
C111	0.02μ	25	±10	Ceramic
C112	24P	50	±5	Ceramic
C113	0.51P	50	±5	Ceramic
C114	4P	50	±10	Ceramic
C115	10P	50	±5	Ceramic
C116	33P	50	±10	Ceramic
C117	15P	50	±5	Ceramic
C118	0.02μ	25	±10	Ceramic
C119	0.02μ	25	±10	Ceramic
C121	0.04μ	25	±10	Ceramic
C201	0.01μ	25	±10	Ceramic
C202	0.04μ	25	±10	Ceramic
C203	1000P	50	±10	Ceramic
C204	0.01μ	50	±10	Ceramic
C205	10P	50	±5	Ceramic
C206	0.04μ	25	±10	Ceramic
C207	0.04μ	25	±10	Ceramic
C208	0.04μ	25	±10	Ceramic
C209	100P	50	±10 +75	Ceramic
C210	0.47μ	50	-10	Electrolytic
C211	22μ	16	+50 -10	Electrolytic
C212	0.04μ	25	±10	Ceramic
C213	0.1μ	50	+75 -10	Electrolytic
C214	3.3μ	25	+75 -10	Electrolytic
C215	0.47μ	50	+75 -10	Electrolytic
C216	1μ	50	+75 -10	Electrolytic
C217	0.47μ	50	+75 -10	Electrolytic
C218	0.04μ	25	±10	Ceramic
C219	0.04μ	25	±10	Ceramic

Ref. No.	Value (F)	Voltage (V)	Tolerance (%)	Material
C220	10μ	16	+50 -10	Electrolytic
C221	0.04μ	25	±10	Ceramic
C222	0.04μ	25	±10	Ceramic
C223	0.04μ	25	±10	Ceramic
C224	4.7μ	25	+75 -10	Electrolytic
C225	33μ	16	+50 -20	Electrolytic
C226	0.02μ	25	±10	Ceramic
C227	0.04μ	25	±10	Ceramic
C237	33	16	+50 -10	Electrolytic
C301	4.7μ	25	+75 -10	Electrolytic
C302	0.33μ	50	+75 -10	Electrolytic
C303	0.33μ	50	+75 -10	Electrolytic
C304	3300P	50	±10	Polyester
C305	3300P	50	±10	Polyester
C306	1800P	50	±10	Ceramic
C307	0.047μ	50	±10	Polyester
C308	1500P	50	±10	Polyestryrene
C309	0.22μ	50	+75 -10	Electrolytic
C310	0.47μ	50	+75 -10	Electrolytic
C311	0.22μ	50	+75 -10	Electrolytic
C312	1800P	50	±10	Ceramic
C313	1800P	50	±10	Ceramic
C314	6800P	50	±10	Ceramic
C315	6800P	50	±10	Ceramic
C316	Not Used			
C317	Not Used			
C318	1800P	50	±10	Polyester
C319	1800P	50	±10	Polyester
C320	0.1μ	50	+75 -10	Electrolytic
C321	0.1μ	50	+75 -10	Electrolytic
C322	18P	50	±10	Ceramic
C323	18P	50	±10	Ceramic
C324	1μ	50	+75 -10	Electrolytic
C325	1μ	50	+75 -10	Electrolytic
C326	390P	50	±10	Ceramic
C327	390P	50	±10	Ceramic
C401	0.01μ	25	±10	Ceramic
C402	0.01μ	25	±10	Ceramic
C403	10μ	16	+50 -10	Electrolytic

Ref. No.	Value (F)	Voltage (V)	Tolerance (%)	Material	Ref. No.	Value (F)	Voltage (V)	Tolerance (%)	Material
C404	0.01 μ	25	± 10	Ceramic	C608a,b	47 μ	25	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C405	10P	50	± 5	Ceramic	C609a,b	330P	50	± 10	Ceramic
C406	10 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C610a,b	68P	50	± 10	Ceramic
C407	0.01 μ	25	± 10	Ceramic	C611a,b	1200P	50	± 10	Ceramic
C408	47P	50	± 10	Ceramic	C612a,b	1200P	50	± 10	Ceramic
C409	0.04 μ	50	± 10	Ceramic	C613a,b	330P	50	± 10	Ceramic
C410	4.7 μ	25	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C614a,b	68P	50	± 10	Ceramic
C411	4.7 μ	25	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C615a,b	0.1 μ	50	± 10	Polyester
C412	0.001 μ	25	± 10	Ceramic	C701a,b	0.039 μ	50	± 10	Polyester
C413	0.01 μ	25	± 10	Ceramic	C702a,b	6800P	50	± 10	Polyester
C414	0.02 μ	25	± 10	Ceramic	C703	0.01 μ	25	± 10	Ceramic
C415	0.15 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C704	10 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C416	1 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C705	10 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C417	0.02 μ	25	± 10	Ceramic	C706	470 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C418	1 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C707	470 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C419	47 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C708a,b	180P	50	± 10	Ceramic
C420	Not Used								
C421	0.01 μ	25	± 10	Ceramic	C801	6800 μ	50	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C501a,b	4.7 μ	25	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C802	6800 μ	50	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C502a,b	100P	50	± 10	Ceramic	C803	0.01 μ	500	$\begin{smallmatrix} +100 \\ -0 \end{smallmatrix}$	Ceramic
C503a,b	220 μ	10	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C804	0.01 μ	500	$\begin{smallmatrix} +100 \\ -0 \end{smallmatrix}$	Ceramic
C504a,b	8200P	50	± 10	Polyester	C805	0.01 μ	500	$\begin{smallmatrix} +100 \\ -0 \end{smallmatrix}$	Ceramic
C505a,b	1800P	50	± 10	Polyester	C806	0.01 μ	500	$\begin{smallmatrix} +100 \\ 0 \end{smallmatrix}$	Ceramic
C506a,b	0.47 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C807	100 μ	25	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C507	100 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C808	10 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C508	100 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C809	330 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C551	0.15 μ	25	± 10	Ceramic	C810	330 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C552	0.01 μ	25	± 10	Ceramic	C811	220 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C553	0.01 μ	25	± 10	Ceramic	C812	100 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C554	0.01 μ	25	± 10	Ceramic	C813	100 μ	25	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C555	0.15 μ	25	± 10	Ceramic	C814	33 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C601a,b	2.2 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C901a,b	1 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic
C602a,b	220P	50	± 10	Ceramic	C902a,b	100P	50	± 10	Ceramic
C603a,b	2.2 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic	C903a,b	10P	50	± 10	Ceramic
C604a,b	100 μ	50	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C904a,b	10 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic
C605a,b	100 μ	16	$\begin{smallmatrix} +50 \\ -10 \end{smallmatrix}$	Electrolytic	C905a,b	2.2 μ	50	$\begin{smallmatrix} +75 \\ -10 \end{smallmatrix}$	Electrolytic
C606a,b	22P	50	± 10	Ceramic	C906a,b	220P	50	± 10	Ceramic
C607a,b	1P	50	± 10	Ceramic	C907a,b	820P	50	± 10	Ceramic
					C908a,b	0.033 μ	50	± 10	Polyester

Ref. No.	Value (F)	Voltage (V)	Tolerance (%)	Material
C909a,b	0.033 μ	50	± 10	Polyester
C910a,b	2.2 μ	50	$\begin{matrix} +75 \\ -10 \end{matrix}$	Electrolytic
C911a,b	10P	50	± 10	Ceramic
C912a,b	2.2 μ	50	$\begin{matrix} +75 \\ -10 \end{matrix}$	Electrolytic

CR COMPONENT			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
CR851	Spark Killer	C-0639	43000015

CERAMIC FILTERS			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
CF201	FM SFE10.7MA	C-0546	35300012
CF202	FM SFE10.7MA	C-0546	35300012
CF401	AM CFT455B	C-0869	35300023

COILS & TRANSFORMERS			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
L101	FM Ant. Coil 129A	CA-3865	35501291
L102	FM RF Coil 130B		35501302
L103	FM OSC Coil 114L	CA-4565	35501146
L104	Choke Coil 2.2 μ H	CB-2376	35500380
L201	Inductor 18mH	C-0713	35500310
L301	Choke Coil 39mH	CB-2375	35500370
L302	Choke Coil 39mH	CB-2375	35500370
L401	Choke Coil 0.8 μ H	CB-2121	35500070
L402	AM OSC Coil 416L	CA-4910	35504166
L451	AM Bar Ant. Coil		35400491
L601a,b	Choke Coil 3 μ H	CB-2377	35500300
L801	Choke Coil 33 μ H	CA-3100	35500160
T101	FM IFT 207A	CA-7830	35702071
T201	FM IFT 221D	CA-7833	35072214
T401	AM IFT 407B	CA-7835	35704072
T402	AM IFT 407A	CA-7834	35704071
T851	Power Transformer (UL)	TA-0654	35900250
T851	Power Transformer (CSA)		35900251

DIODES				
Ref. No.	Type No.	R/S Part No.	Mfr's Part No.	Manufacturer
D101	1S2687	DX-0302	30600560	JRC
D102	RD12E	DX-0403	30600650	NEC
D103	1S2473	DX-0299	30600410	Toyo Electronics
D201	1N60P	DX-0162	30600011	UNISON
D202	1N60P	DX-0162	30600011	UNISON
D203	1S2473	DX-0299	30600410	Toyo Electronics
D204	Not Used			
D205	1S2473	DX-0299	30600410	Toyo Electronics
D206	1S2473	DX-0299	30600410	Toyo Electronics
D301	1S2473	DX-0299	30600410	Toyo Electronics
D302	1S2473	DX-0299	30600410	Toyo Electronics
D303	LD64R	L-0858	30600961	Toyo Electronics
D401	1S2473	DX-0299	30600410	Toyo Electronics
D402	1S2473	DX-0299	30600410	Toyo Electronics
D601a,b	1S2473	DX-0299	30600410	Toyo Electronics
D602a,b	1S2473	DX-0299	30600410	Toyo Electronics
D603a,b	1S2473	DX-0299	30600410	Toyo Electronics
D604a,b	1S2473	DX-0299	30600410	Toyo Electronics
D701	1S2473	DX-0299	30600410	Toyo Electronics
D702	1S2473	DX-0299	30600410	Toyo Electronics
D801	S4VB10	DX-1027	30601051	Shindengen
D802	WZ-140	DX-0713	30600911	JRC
D803	W03C		30600871	Hitachi
D851	Not Used			
D852	S1VB-10		30601061	Shindengen

INTEGRATED CIRCUITS				
Ref. No.	Type No.	R/S Part No.	Part No.	Manufacturer
IC201	LA1230	MX-3210	30900380	Sanyo
IC301	A3350	MX-3215	30900310	Sanyo
IC401	HA1197	MX-3467	30900400	Hitachi
IC501	NJM4558D-D	MX-3449	30900363	JRC
IC701	NJM4558D	MX-3438	30900361	JRC

LAMPS			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
PL1	Meter Lamp 8V, 250mA		37008019
PL2	Meter Lamp 8V, 250mA (Blue)		37008043
PL3	Dial Lamp 8V, 300mA	L-0718	37008042
PL4	Dial Lamp 8V, 300mA	L-0718	37008042
PL5	Dial Lamp 8V, 300mA	L-0718	37008042

METER			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
M1	TUNING 250 μ A		60250011

P.C.BOARDS (ASSEMBLED)			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
0055A	Tuner	X-7629	97005510
0055B	Pre-Amplifier	X-7629	97005510
6053	Audio & Power Supply	X-7628	97605310
7149	Meter Lamp	X-7627	97714910

RESISTORS					
Ref. No.	Value (Ω)	R/S Part No.	Wattage (W)	Tolerance (%)	Material
R101	220K	NEE-0396	1/4	± 5	Carbon
R102	1M	NEE-0445	1/4	± 5	Carbon
R103	47	NEE-0099	1/4	± 5	Carbon
R104	3.3K	NEE-0230	1/4	± 5	Carbon
R105	1K		1/4	± 5	Carbon
R106	18K	NEE-0303	1/4	± 5	Carbon
R107	270		1/4	± 5	Carbon
R108	12K	NEE-0288	1/4	± 5	Carbon
R109	8.2K	NEE-0271	1/4	± 5	Carbon
R110	2.2K	NEE-0216	1/4	± 5	Carbon
R111	560K	NEE-0429	1/4	± 5	Carbon
R112	270K	NEE-0402	1/4	± 5	Carbon
R113	390K	NEE-0414	1/4	± 5	Carbon
R114	150	NEE-0142	1/4	± 5	Carbon
R201	560	NEE-0176	1/4	± 5	Carbon
R202	3.3K	NEE-0230	1/4	± 5	Carbon
R203	220	NEE-0149	1/4	± 5	Carbon
R204	12		1/4	± 5	Carbon
R205	390	NEE-0162	1/4	± 5	Carbon
R206	10K	NEE-0281	1/4	± 5	Carbon
R207	270	NEE-0155	1/4	± 5	Carbon
R208	150	NEE-0142	1/4	± 5	Carbon
R209	150K	NEE-0384	1/4	± 5	Carbon
R210	220K	NEE-0396	1/4	± 5	Carbon
R211	5.1K		1/4	± 5	Carbon
R212	220K	NEE-0396	1/4	± 5	Carbon
R213	15K	NEE-0297	1/4	± 5	Carbon
R214	51K	NEE-0344	1/4	± 5	Carbon
R215	47K	NEE-0340	1/4	± 5	Carbon
R216	100K	NEE-0371	1/4	± 5	Carbon
R217	27K	NEE-0316	1/4	± 5	Carbon
R218	180K	NEE-0387	1/4	± 5	Carbon
R219	220K	NEE-0396	1/4	± 5	Carbon
R220	3.3K	NEE-0230	1/4	± 5	Carbon
R221	2.2K	NEE-0216	1/4	± 5	Carbon
R222	68K	NEE-0354	1/4	± 5	Carbon
R223	47	NEE-0099	1/4	± 5	Carbon
R224	Not Used				
R225	Not Used				
R226	820K	NEE-0440	1/4	± 5	Carbon
R227	100	NEE-0132	1/4	± 5	Carbon
R228	Not Used				
R229	Not Used				
R230	Not Used				
R231	Not Used				
R232	Not Used				
R233	Not Used				
R234	5.1K		1/4	± 5	Carbon
R235	100	NEE-0132	1/4	± 5	Carbon

Ref. No.	Value (Ω)	R/S Part No.	Wattage (W)	Tolerance (%)	Material	Ref. No.	Value (Ω)	R/S Part No.	Wattage (W)	Tolerance (%)	Material
R301	3.9K	NEE-0237	1/4	± 5	Carbon	R602a,b	100K		1/4	± 5	Carbon
R302	3.9K	NEE-0237	1/4	± 5	Carbon	R603a,b	10K		1/4	± 5	Carbon
R303	1.8K	NEE-0210	1/4	± 5	Carbon	R604a,b	10K		1/4	± 5	Carbon
R304	5.6K	NEE-0257	1/4	± 5	Carbon	R605a,b	1.8K		1/4	± 5	Carbon
R305	8.2K	NEE-0271	1/4	± 5	Carbon	R606a,b	1.8K		1/4	± 5	Carbon
R306	3.3K		1/4	± 5	Carbon	R607a,b	33K		1/4	± 5	Carbon
R307	68K	NEE-0354	1/4	± 5	Carbon	R608a,b	430	NEE-0165	1/4	± 5	Carbon
R308	22K		1/4	± 5	Carbon	R609a,b	3.3K		1/4	± 5	Carbon
R309	22K		1/4	± 5	Carbon	R610a,b	5.6K		1/4	± 5	Carbon
R310	33K	NEE-0324	1/4	± 5	Carbon	R611a,b	3.3K		1/4	± 5	Carbon
R311	33K	NEE-0324	1/4	± 5	Carbon	R612a,b	2.2K		1/4	± 5	Carbon
R312	33K	NEE-0324	1/4	± 5	Carbon	R613a,b	1.2K		1/4	± 5	Carbon
R313	33K	NEE-0324	1/4	± 5	Carbon	R614a,b	100		1/4	± 5	Carbon
R314	820K	NEE-0440	1/4	± 5	Carbon	R615a,b	10K		1/4	± 5	Carbon
R315	820K	NEE-0440	1/4	± 5	Carbon	R616a,b	1.2K		1/4	± 5	Carbon
R316	3.9K	NEE-0237	1/4	± 5	Carbon	R617a,b	100		1/4	± 5	Carbon
R317	3.9K	NEE-0237	1/4	± 5	Carbon	R618a,b	5.6K		1/4	± 5	Carbon
R318	100	NEE-0132	1/4	± 5	Carbon	R619a,b	5.6K		1/4	± 5	Carbon
R319	100	NEE-0132	1/4	± 5	Carbon	R620a,b	15		1/4	± 5	Carbon
R320	100K	NEE-0371	1/4	± 5	Carbon	R621a,b	1K		1/4	± 5	Carbon
R321	100K	NEE-0371	1/4	± 5	Carbon	R622a,b	100		1/4	± 5	Carbon
R322	1K		1/4	± 5	Carbon	R623a,b	0.39	NEH-0006	2	± 10	Carbon
R323	100K	NEE-0371	1/4	± 5	Carbon	R624a,b	1K		1/4	± 5	Carbon
R324	120K	NEE-0375	1/4	± 5	Carbon	R625a,b	15		1/4	± 5	Carbon
R325	Not Used					R626a,b	0.39	NEH-0006	2	± 5	Metal
R326	Not Used					R627a,b	10	NEG-0063	1	± 5	Metal
R327	33		1/4	± 5	Carbon	R628a,b	10	NEG-0063	1	± 5	Metal
						R629a,b	330		1	± 5	Metal
R401	220	NEE-0149	1/4	± 5	Carbon	R630a,b	10		1	± 5	Metal
R402	1.5K	NEE-0206	1/4	± 5	Carbon	R631a,b	15K		1/4	± 5	Carbon
R403	150	NEE-0142	1/4	± 5	Carbon	R632a,b	15K		1/4	± 5	Carbon
R404	300K		1/4	± 5	Carbon						
R405	220	NEE-0149	1/4	± 5	Carbon	R701a,b	5.6K	NEE-0257	1/4	± 5	Carbon
R406	10K	NEE-0281	1/4	± 5	Carbon	R702a,b	4.7K	NEE-0247	1/4	± 5	Carbon
R407	10K	NEE-0281	1/4	± 5	Carbon	R703a,b	10K	NEE-0281	1/4	± 5	Carbon
R408	1K	NEE-0196	1/4	± 5	Carbon	R704a,b	820K	NEE-0440	1/4	± 5	Carbon
R409	33K	NEE-0324	1/4	± 5	Carbon	R705a,b	4.3K	NEE-0243	1/4	± 5	Carbon
R410	82K	NEE-0360	1/4	± 5	Carbon	R706	47K	NEE-0340	1/4	± 5	Carbon
R411	1.2K	NEE-0199	1/4	± 5	Carbon	R707	470K	NEE-0423	1/4	± 5	Carbon
R412	5.6K	NEE-0257	1/4	± 5	Carbon	R708	680	NEE-0183	1/4	± 5	Carbon
R413	100K	NEE-0371	1/4	± 5	Carbon	R709	820K		1/4	± 5	Carbon
R414	220	NEE-0149	1/4	± 5	Carbon	R710	2.7K	NEE-0224	1/4	± 5	Carbon
						R711	10K	NEE-0281	1/4	± 5	Carbon
R501a,b	470K	NEE-0423	1/4	± 5	Carbon	R712	15K	NEE-0297	1/4	± 5	Carbon
R502a,b	56K	NEE-0345	1/4	± 5	Carbon	R713	10K	NEE-0281	1/4	± 5	Carbon
R503a,b	470	NEE-0169	1/4	± 5	Carbon	R714	2.2K		1/4	± 5	Carbon
R504a,b	680	NEE-0183	1/4	± 5	Carbon	R715	82	NEE-0122	1/4	± 5	Carbon
R505a,b	360K	NEE-0412	1/4	± 5	Carbon	R716	82	NEE-0122	1/4	± 5	Carbon
R506a,b	33K	NEE-0324	1/4	± 5	Carbon	R717	330K	NEE-0410	1/4	± 5	Carbon
R507a,b	47K	NEE-0340	1/4	± 5	Carbon	R718	3.3K	NEE-0230	1/4	± 5	Carbon
R508	100		1/4	± 5	Carbon	R719	3.3K	NEE-0230	1/4	± 5	Carbon
R509	100		1/4	± 5	Carbon	R720	4.7K	NEE-0247	1/4	± 5	Carbon
						R721	100K	NEE-0371	1/4	± 5	Carbon
R601a,b	1.8K		1/4	± 5	Carbon	R722	27K		1/4	± 5	Carbon

Ref. No.	Value (Ω)	R/S Part No.	Wattage (W)	Tolerance (%)	Material
R801	47		1	±5	Metal
R802	Not Used				
R803	12K		1/4	±5	Carbon
R804	2.2K		1/4	±5	Carbon
R805	15K		1/4	±5	Carbon
R806	6.8K	NEE-0262	1/4	±5	Carbon
R807	220		1/4	±5	Carbon
R808	47		1/4	±5	Carbon
R809	12K	NEE-0288	1/4	±5	Carbon
R810	10K		1/4	±5	Carbon
R811	100		1/4	±5	Carbon
R812	Not Used				
R813	3.9K		1/4	±5	Carbon
R851	2.2M	NFF-0454	1/2	±10	Solid
R901a,b	1.8K		1/4	±5	Carbon
R902a,b	220K		1/4	±5	Carbon
R903a,b	39K	NEE-0330	1/4	±5	Carbon
R904a,b	4.7K		1/4	±5	Carbon
R905a,b	6.2K	NEE-0260	1/4	±5	Carbon
R906a,b	3.9K		1/4	±5	Carbon
R907a,b	22K		1/4	±5	Carbon
R908a,b	15K		1/4	±5	Carbon
R909a,b	4.7K		1/4	±5	Carbon
R910a,b	15K		1/4	±5	Carbon
R911a,b	4.7K		1/4	±5	Carbon
R912a,b	15K		1/4	±5	Carbon
R913a,b	4.7K		1/4	±5	Carbon
R914a,b	680K	NEE-0433	1/4	±5	Carbon
R915a,b	3.3K		1/4	±5	Carbon
R916a,b	220K		1/4	±5	Carbon

SWITCHES			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
SW1a-f	SELECTOR	S-1296	27100145
SW2	AUTO-M	S-1297	27200096
SW3	TAPE MON	S-1297	27200096
SW4	MONO	S-1297	27200096
SW5	LOUDNESS	S-1297	27200096
SW6	HI-FIL	S-1297	27200096
SW7	FM 25μS	S-1297	27200096
SW8a,b	SPEAKERS (Include Power SW)	S-0840	27100146
SW9	Thermal Switch	S-0841	30700220
SW10	POWER	S-0840	27100146

THERMISTOR			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
TH201	TD5-C220		30700120

TRANSISTORS

Ref. No.	Type No.	Manufacturer	Mfr's Part No.	Substitute	
				Type No.	Manufacturer
TR101	2SK55	Hitachi	30400131	2SK19	Toshiba
TR102	2SC1674-L	NEC	30201111	2SC1906	Hitachi
TR103	2SC1675-L	NEC	30201121	2SC1432	Hitachi
TR201	2SC930-D	Sanyo	30200271	2SC929	Sanyo
TR202	2SC536-F	Sanyo	30200131	2SC945	NEC
TR203	2SC536-F	Sanyo	30200131	2SC945	NEC
TR301	2SC1681-BL	Toshiba	30201132	2SC2089	Toshiba
TR302	2SC1681-BL	Toshiba	30201132	2SC2089	Toshiba
TR303	2SC536-F	Sanyo	30200131	2SC945	NEC
TR304	2SC536-F	Sanyo	30200131	2SC945	NEC
TR305	2SC536-F	Sanyo	30200131	2SC945	NEC
TR401	2SC536-F	Sanyo	30200131	2SC945	NEC
TR601a,b	2SA726F	Mitsubishi	30000451	2SA942	Toshiba
TR602a,b	2SA726-F	Mitsubishi	30000451	2SA942	Toshiba
TR603a,b	2SC1439-V	Fujitsu	30201272	2SC1951	Sony
TR604a,b	2SC945	NEC	30201031	2SC536	Sanyo
TR605a,b	2SC945	NEC	30201031	2SC536	Sanyo
TR606a,b	2SA733-P	NEC	30000425	2SA844	Hitachi
TR607a,b	2SD438	Sanyo	30300250	2SD600	Sanyo
TR608a,b	2SB560	Sanyo	30100041	2SB631	Sanyo
TR609a,b	2SC1051L	Sanyo	30200982	2SD631	Hitachi
TR610a,b	2SC1051L	Sanyo	30200982	2SD631	Hitachi
TR701	2SD471	NEC	30300280	2SC1384	Matsushita
TR702	2SD471	NEC	30300280	2SC1384	Matsushita
TR801	2SD325	Sanyo	30300151	2SD330	Sanyo
TR802	2SB560	Sanyo	30100041	2SB631	Sanyo
TR803	2SC945	NEC	30201031	2SC536	Sanyo
TR804	2SC945	NEC	30201031	2SC536	Sanyo
TR901a,b	2SC1313-F	Mitsubishi	30201161	2SC2089	Toshiba
TR902a,b	2SA726-F	Mitsubishi	30000451	2SA942	Toshiba
TR903a,b	2SC1313-F	Mitsubishi	30201161	2SC2089	Toshita

VARIABLE CAPACITORS			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
TC103 VC101	Trimmer ECV-1ZW10P31 Tuning Capacitor (with trimmers TC101, TC102, TC104 and TC105)	C-0424 C-4547	26010023 26250101

VARIABLE RESISTORS			
Ref. No.	Description	R/S Part No.	Mfr's Part No.
VR203	FM Meter Sensitivity 50 k Ω /B	P-6369	28100096
VR204	Auto-Stereo & Muting Level Control 100 k Ω /B	P-6368	28100063
VR301	MPX Separation 500 Ω /B	P-6475	28100073
VR302	PLL VCO Adjust 5k Ω /B	P-1604	28100060
VR401	AM Meter Sensitivity 1 k Ω /B	P-1609	28100059
VR402	AM Output Level Control 50 k Ω /B	P-6369	28100096
VR551	VOLUME Control 200 k Ω /B	P-1847	28200027
VR552	VOLUME Control 200 k Ω /B	P-1847	28200027
VR601a,b	Bias Adjust 1 k Ω /B	P-1609	28100059
VR901a,b	TREBLE Control 100 k Ω /B	P-4016	28000143
VR902a,b	BASS Control 100 k Ω /B	P-4016	28000143

MISCELLANEOUS PARTS LIST

Ref. No.	Description	R/S Part No.	Mfr's Part No.	Ref. No.	Description	R/S Part No.	Mfr's Part No.
1	P.C. Board Joint Wire		92000004	51	Knob for SELECTOR, BASS, TREBLE and POWER/ SPEAKERS	K-2819	29272001
2	10P Pin Jack	J-0927	33100500	52	Push Switch Knob	K-2820	29273001
3	Shield Plate (Larger)	RT-1223	09077001	53	Slide VOLUME Knob	K-2821	29274001
4	Shield Plate (Smaller)		09078001	54	Wooden Cabinet	Z-3871	85081001
5	Fuseholder FH002	F-1017	34032001	55	Bottom Plate	Z-3869	05052001
6	AC Outlet IRO2	J-6376	34048001	56	Plastic Foot	F-0183	74074001
7	AC Cord Strain Relief SR4P-4	HB-0954	74089001	57	Plastic Washer	HD-8217	84092001
8	AC Cord with Plug	W-1972	62110009	58	Screw M4x15	HD-3049	40640155
9	Ground Terminal X-PO701	HB-0953	53012300	59	Screw M5x15	HD-2119	40350151
10	Flat Washer 3x10x0.8		42100008	60	Screw M4x10		40330101
11	10P Screw Terminal	J-4430	53100240	61	Spring Washer M4	HD-8019	42250441
12	Fuse ST-6 2.5A 125A (UL)		38334215	62	Flat Washer M4	HD-8005	42120421
13	Nut M3 for GND Terminal	HD-7003	41113070	63	Heat Sink Plate	HH-0258	15091001
14	Spring Washer M3	HD-8017	42250341	64	Wire Wrap Pin 19mm	HB-0945	19043001
15	Line Cord Antenna	H-3533	63101001	65	Screw M3x8	HD-3028	40130081
16	Fiber for Line Cord Antenna	H-1901	75017002	66	Screw 3x8		40000120
17	Bar Antenna	CA-0293	35400491	67	Back Panel	Z-3868	11758A03
18	Bar Antenna Holder	HB-7157	84277001	68	Lug Terminal 1P1LIP	J-4438	51025002
19	Earth Lug	H-3532	51036001	69	Ground Lug	HB-4106	63319001
20	Plastic Rivet 2.5	HB-4802	84246001	70	Wire Bundler	H-3549	63075001
21	Antenna Terminal	J-4533	53032500	71	Dial Scale	G-0326	20103001
22	Front Chassis		03075001	72	Dial Drum	D-0342	21008003
23	VOLUME Control	P-1847	28200027	73	Pan Screw M3x10	HD-3029	40130101
24	Headphone Jack	J-0928	33031700	74	Pan Screw M3x6	HD-2055	40330061
25	Pulley Shaft 15mm	RT-1224	24001002	75	Dial Lamp Acryl Plate	HB-5131	71039001
26	Pulley Shaft 6mm	HB-5101	24003001				
27	Plastic Pulley	D-0250	84085001				
28	Fiber Washer	HD-8037	75048001				
29	Shield Plate for Tuning Shaft	HB-0963	75047001				
30	Tuning Shaft Assembly	D-3245	23053001				
31	Side Chassis		04020001				
32	Center Chassis		01096001				
33	Metal Fitting for Heat Sink	HB-7211	63386001				
34	Mounting Bracket for P.C.B.	HB-7210	63369001				
35	Power Transformer	TA-0654	35900250				
36	Meter Light Reflector Case	HB-7209	08057001				
37	Meter Filter (Red)	HB-5120	74122001				
38	Tuning Meter 250 μ A	M-0368	60250011				
39	Dial Pointer	D-1236	25047001				
40	Spring Coil for Dial Drum	RB-5314	19045001				
41	Angle Bracket for P.C.B.		63386001				
42	Heat Sink	HH-0257	15090001				
43	Thermal Protector	S-0841	30700220				
44	Metal Fitting for Thermal Protector	HB-5534	63359001				
45	Spring for Meter	HB-0958	19041002				
46	Light Shield Plate	HB-7213	73023501				
47	Insulation Fiber (Larger)	HB-7214	75093002				
48	Insulation Fiber (Smaller)	HB-7215	75094002				
49	Front Panel Assembly	Z-3870	10758A01				
50	Tuning Knob	K-2818	29271001				

RADIO SHACK  A DIVISION OF TANDY CORPORATION

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