

MODEL AVE-2400

AKAAT

I. TECHNICAL DATA

POWER AMPLIFIER SECTION

CONTINUOUS POWER OUTPUT 2-CHANNELS DRIVEN		40 watts per channel, minimum RMS, at 8 ohms from 20 to 20,000 Hz with no more than 0.15% total harmonic distortion.
POWER BANDWIDTH (IHF)		7 Hz to 40 kHz/8 ohms (Total Harmonic Distortion: 0.15%)
SIGNAL TO NOISE RATIO (IHF)	PHONO AUX	Better than 75 dB Better than 95 dB
RESIDUAL NOISE		Less than 0.5 mV at 8 ohms
CHANNEL SEPARATION (IHF)	PHONO	Better than 55 dB at 1,000 Hz
DAMPING FACTOR		More than 60 (1 kHz, 8 ohms)
OUTPUT	SPEAKERS HEADPHONE	A, B (4 to 16 ohms)/A+B (8 to 16 ohms) 4 to 16 ohms

PREAMPLIFIER SECTION

INPUT SENSITIVITY/IMPEDANCE	PHONO AUX TUNER TAPE MONITOR	3 mV/50 k ohms 150 mV/100 k ohms 150 mV/100 k ohms PIN: 150 mV/100 k ohms DIN: 150 mV/100 k ohms
OUTPUT LEVEL/IMPEDANCE	TAPE REC	PIN: 150 mV/100 k ohms DIN: 30 mV/180 k ohms
FREQUENCY RESPONSE	PHONO (RIAA EQUALIZATION) TUNER, AUX, TAPE MONITOR	30 Hz to 15 kHz +1 dB, -1 dB 7 Hz to 70 kHz +0 dB, -1 dB
TONE CONTROL	BASS TREBLE	± 9 dB at 100 Hz (400 Hz position), ± 6 dB at 100 Hz (200 Hz position) ± 9 dB at 10 kHz (2.5 kHz position), ± 6 dB at 100 Hz (5 kHz position)
LOUDNESS CONTROL		+10 dB at 100 Hz, +6 dB at 10 kHz (Volume control set at -30 dB position)
FILTER	HIGH LOW	-3 dB at 10 kHz -3 dB at 30 Hz

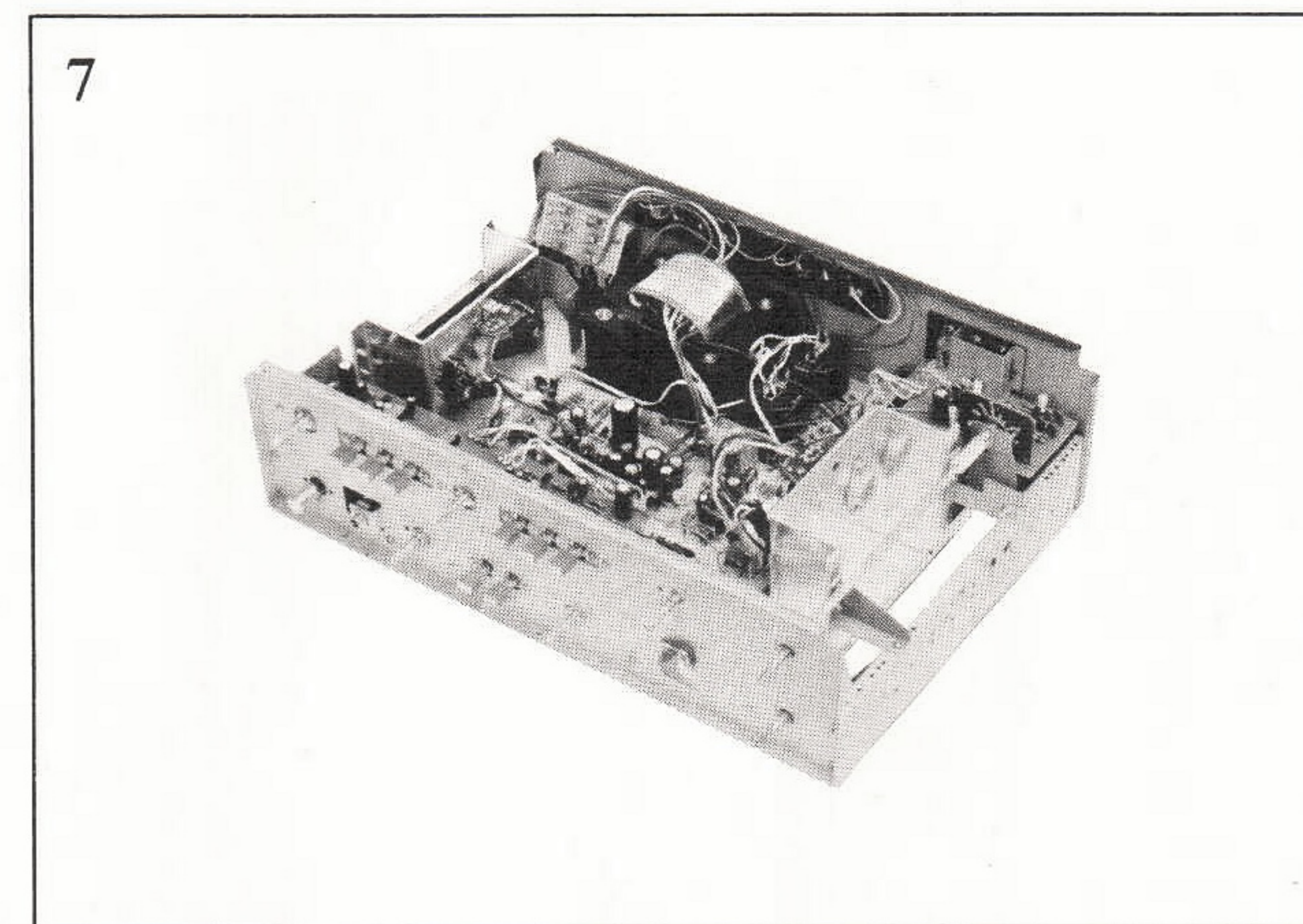
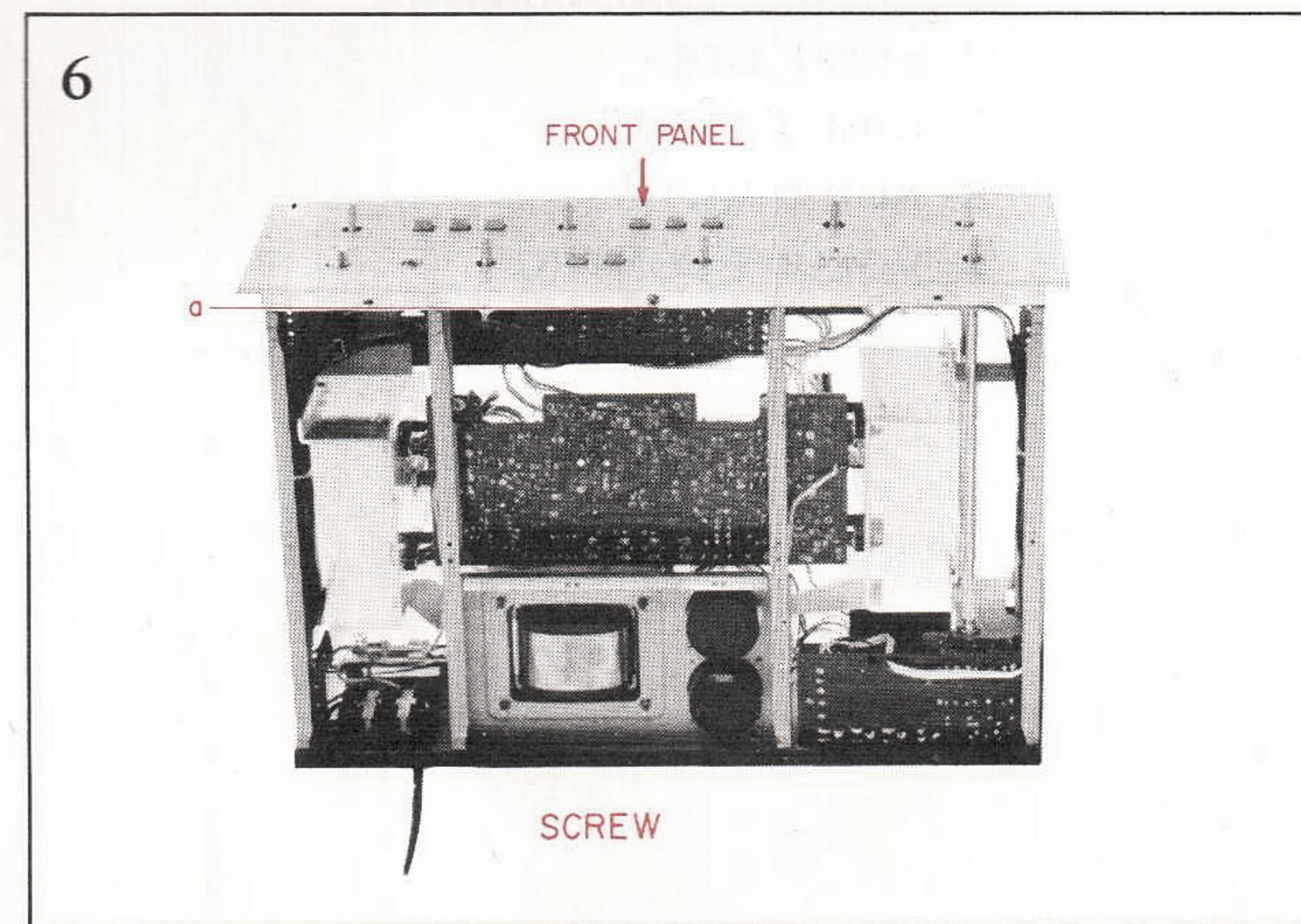
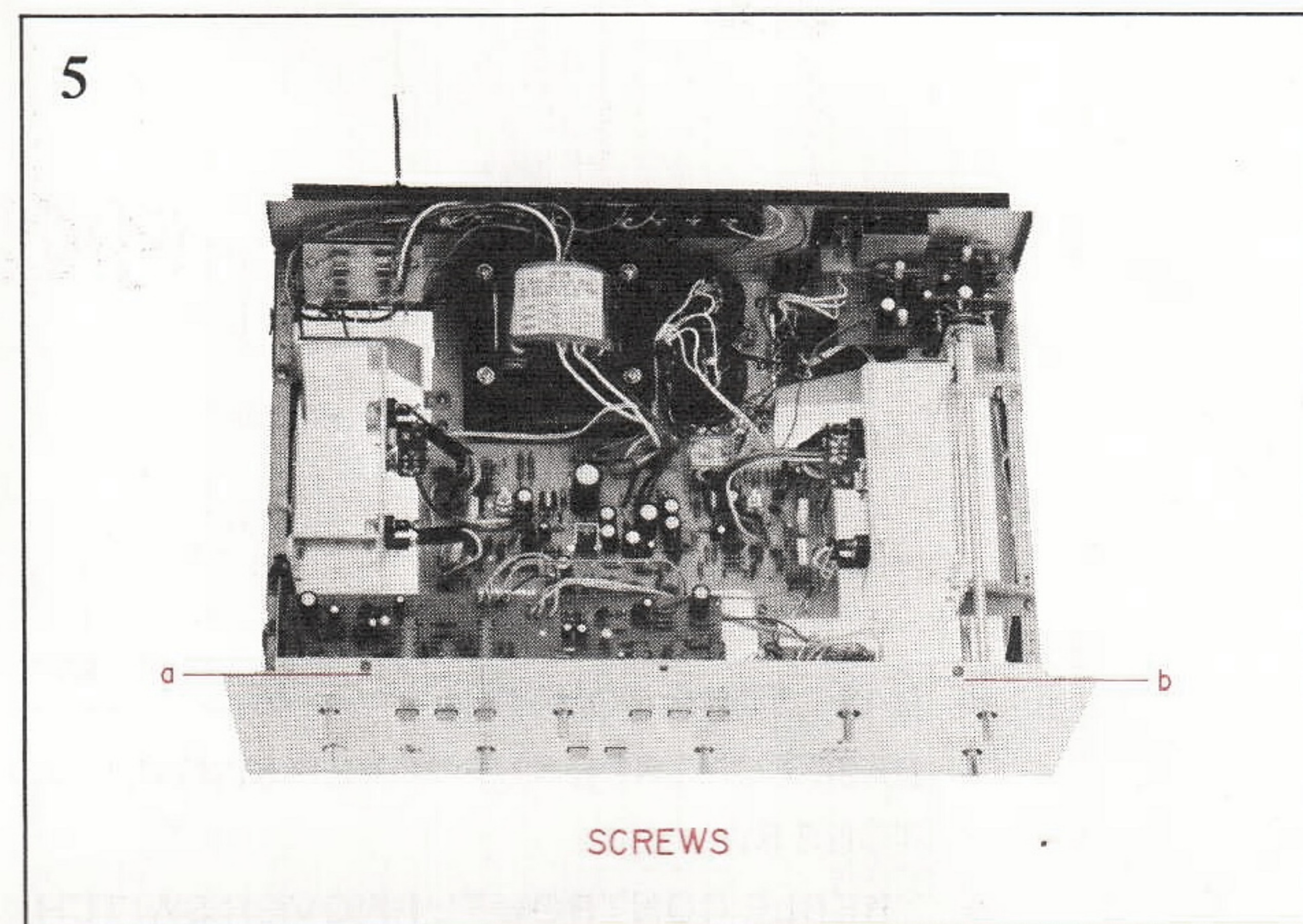
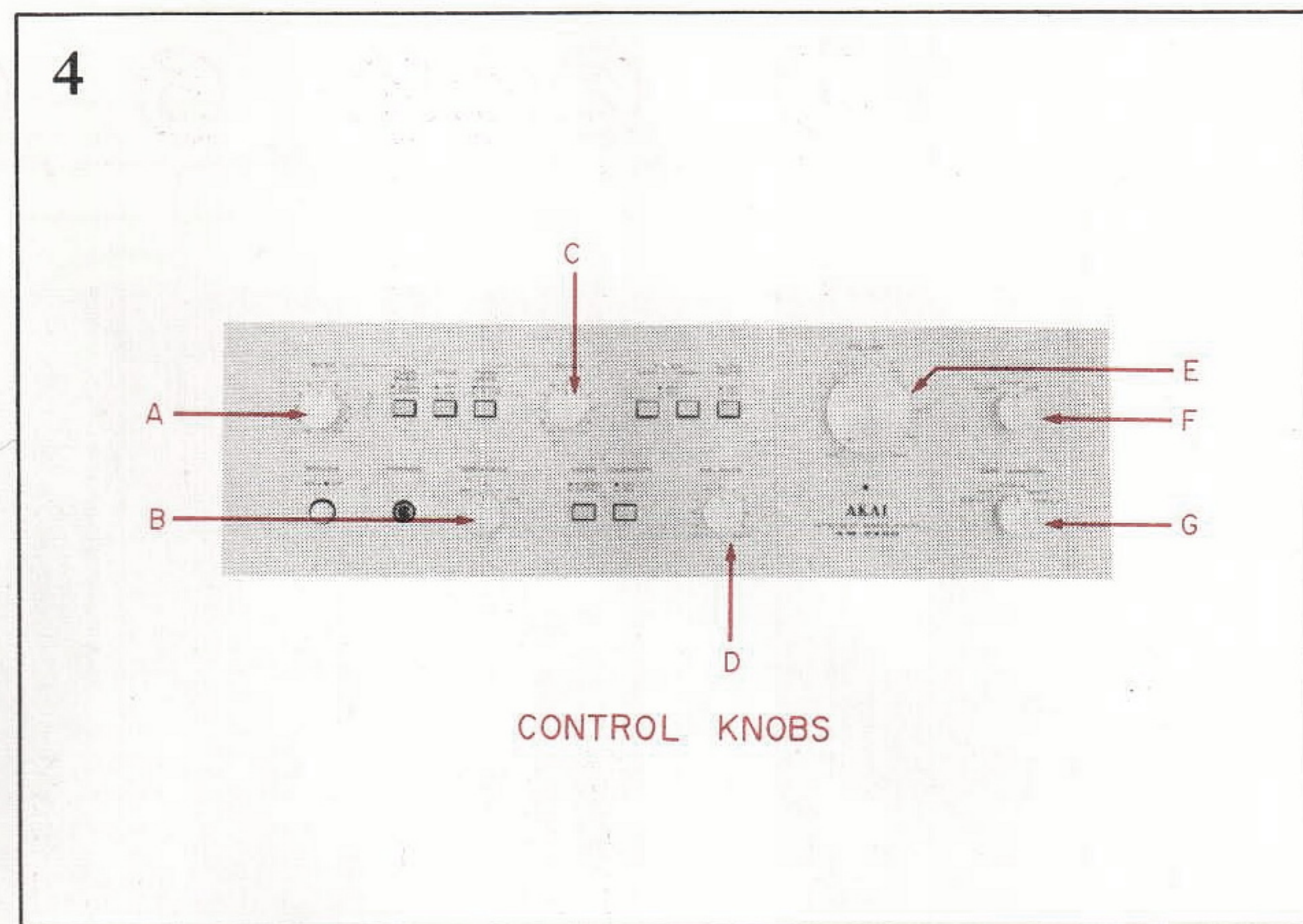
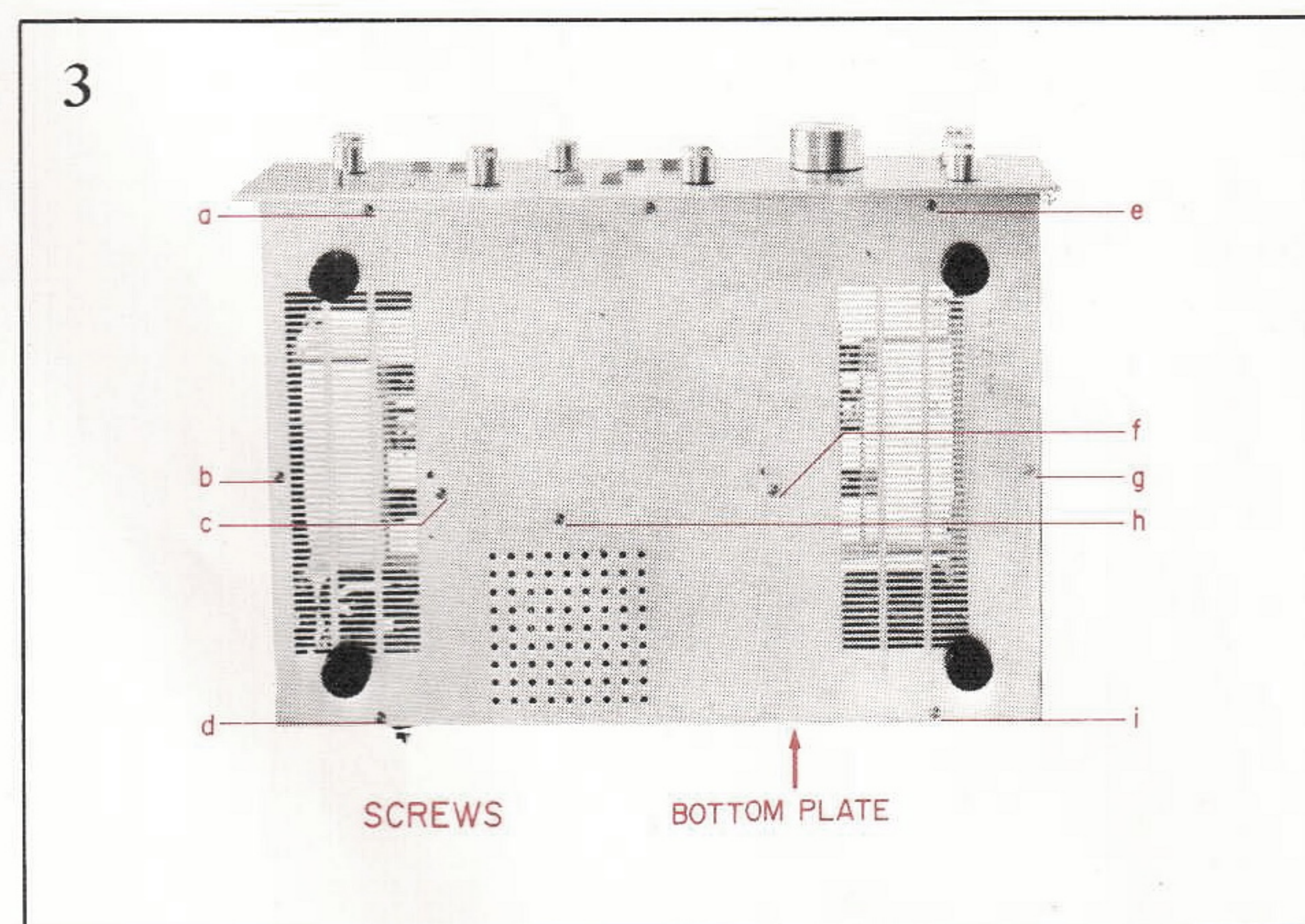
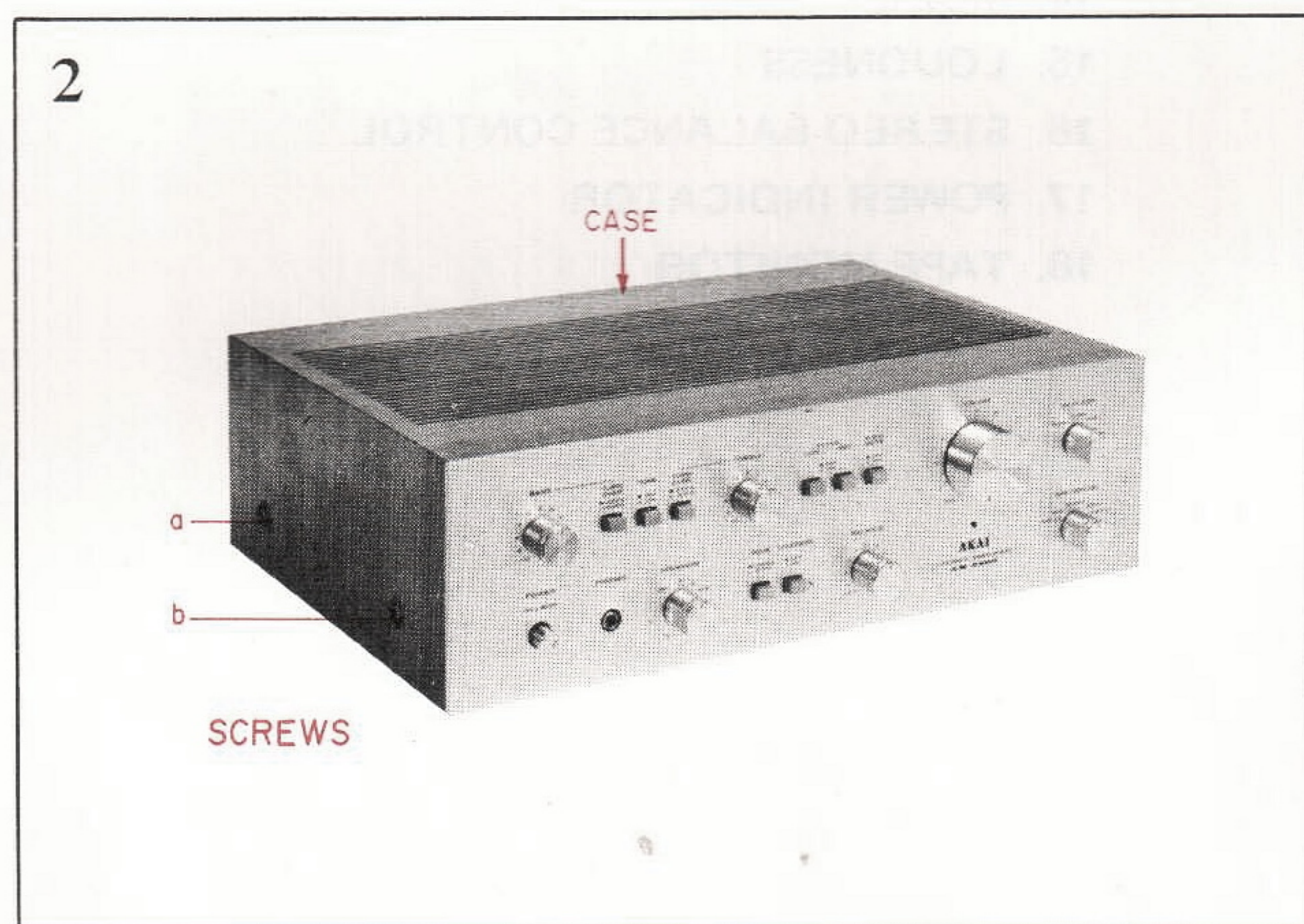
MISCELLANEOUS

SEMI-CONDUCTORS		Transistors: 33, Diodes: 15
POWER REQUIREMENTS		CSA, LA and LA Models: 120V, 60 Hz CEE Models: 220V, 50 Hz Other Models: 110/220/240V, 50/60 Hz Switchable
DIMENSIONS		440(W) x 141(H) x 331(D) mm (17.3" x 5.6" x 13")
WEIGHT		9.1 kg (20 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Reassemble in reverse order.



CONTROLS

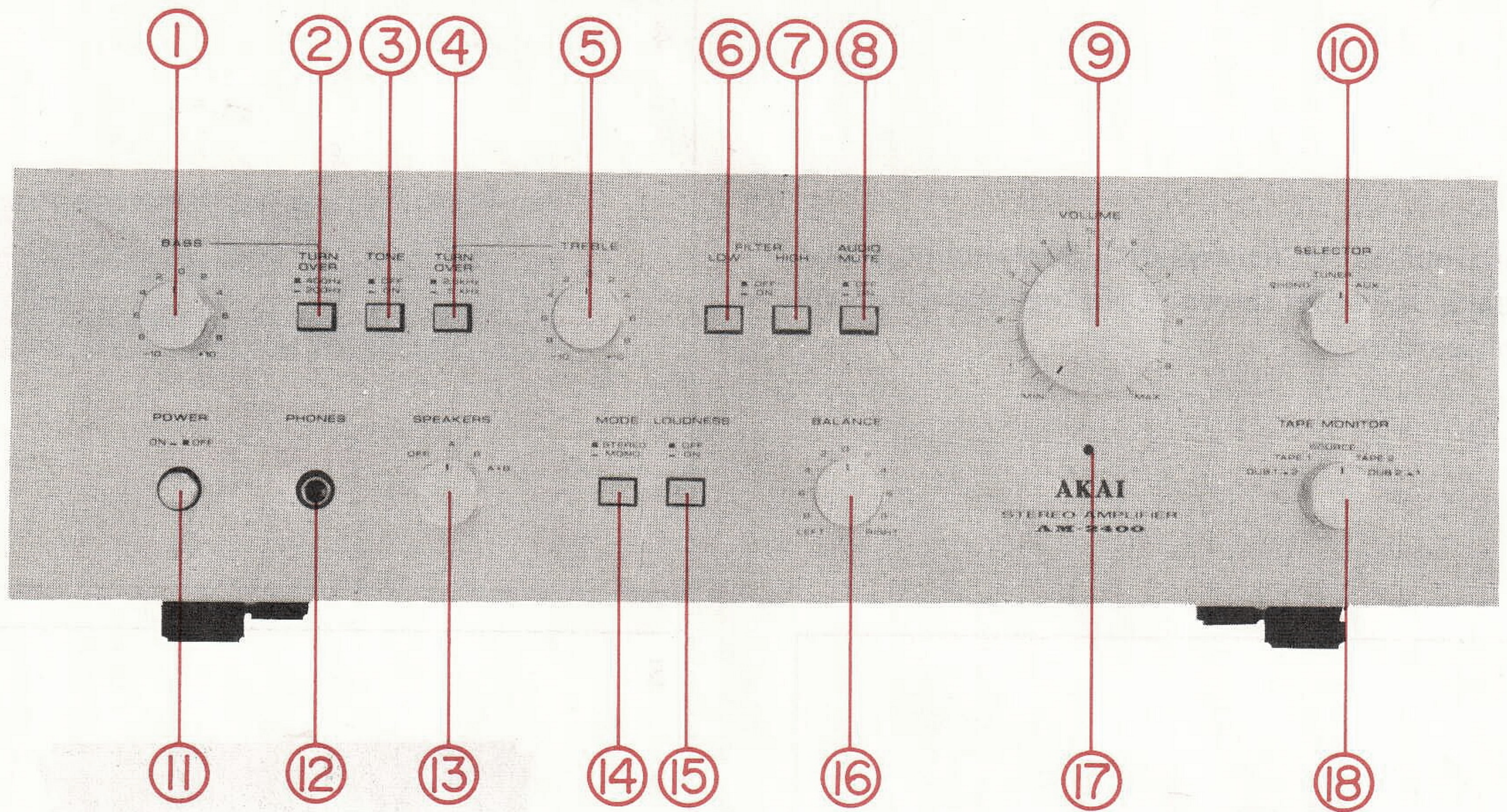


Fig. 1 Controls

1. BASS TONE CONTROL
2. BASS CONTROL TURNOVER SWITCH
3. TONE SWITCH
4. TREBLE CONTROL TURNOVER SWITCH
5. TREBLE TONE CONTROL
6. LOW FILTER
7. HIGH FILTER
8. AUDIO MUTE
9. VOLUME CONTROL

10. INPUT SELECTOR
11. POWER SWITCH
12. HEADPHONE
13. SPEAKER SYSTEM SELECTOR
14. MODE
15. LOUDNESS
16. STEREO BALANCE CONTROL
17. POWER INDICATOR
18. TAPE MONITOR

V. LEVEL DIAGRAM

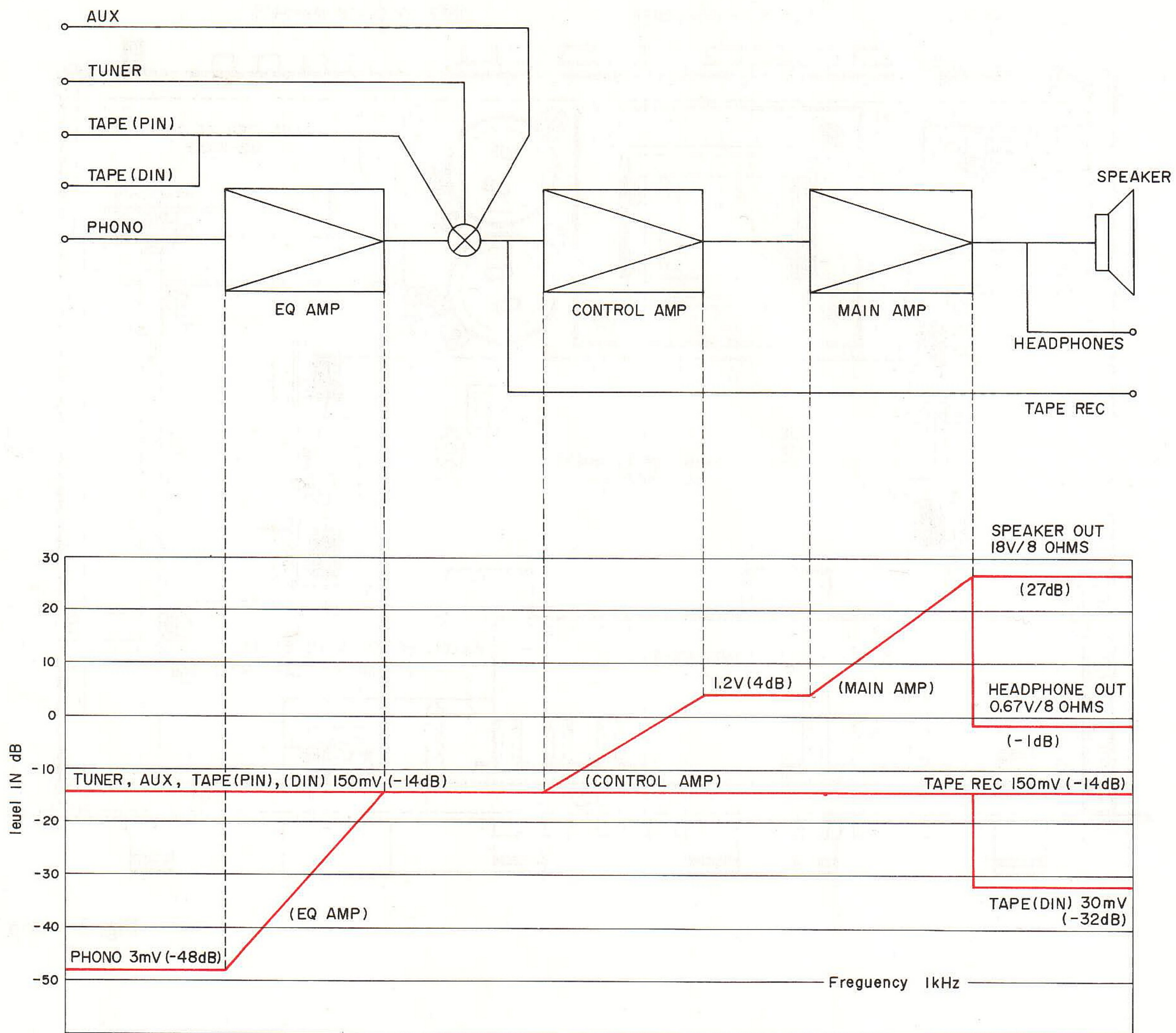


Fig. 3 LEVEL Diagram of Model AM-2400

IV. PRINCIPAL PARTS LOCATION

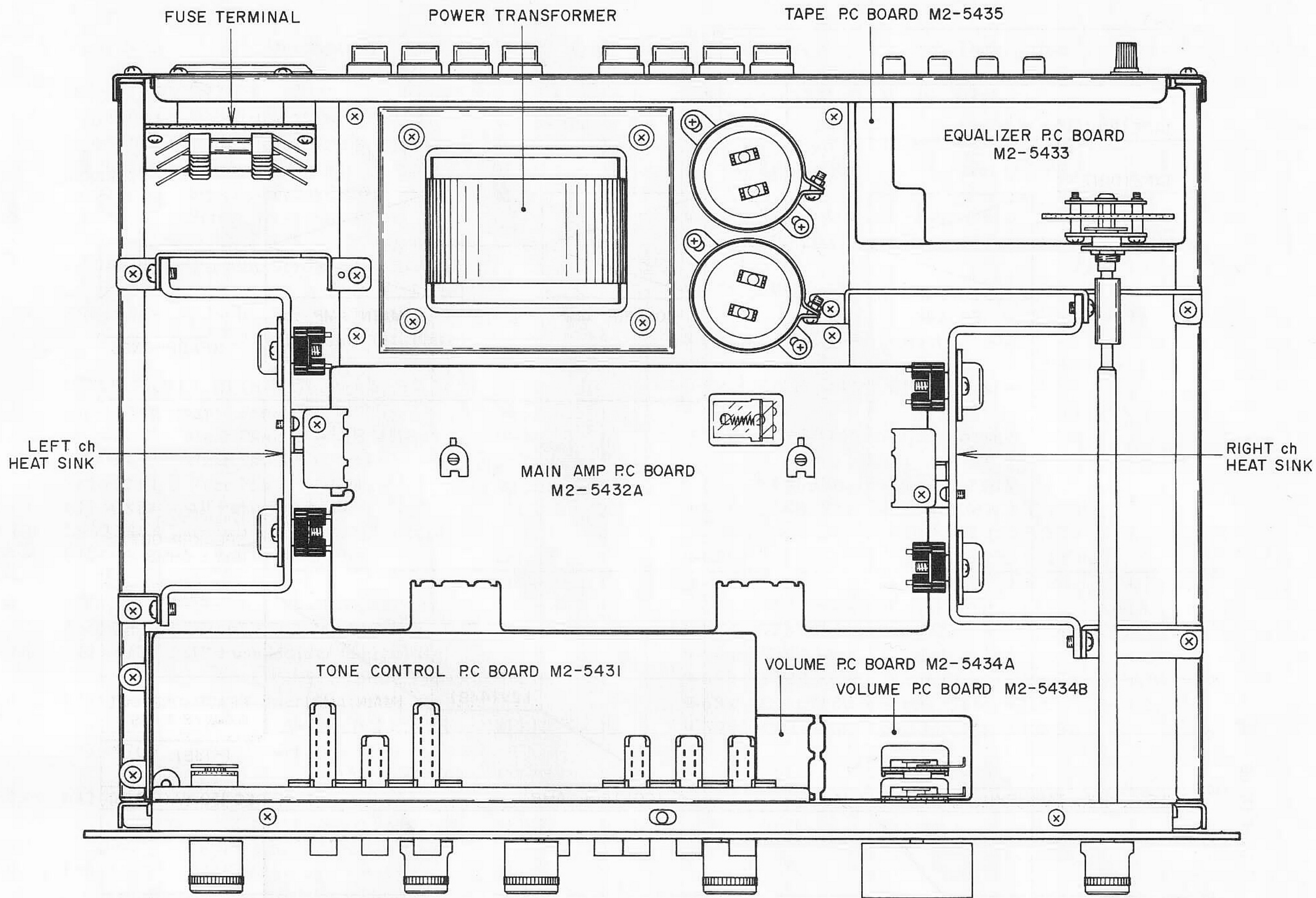


Fig. 2 Top View

VI. MAIN AMPLIFIER ADJUSTMENT

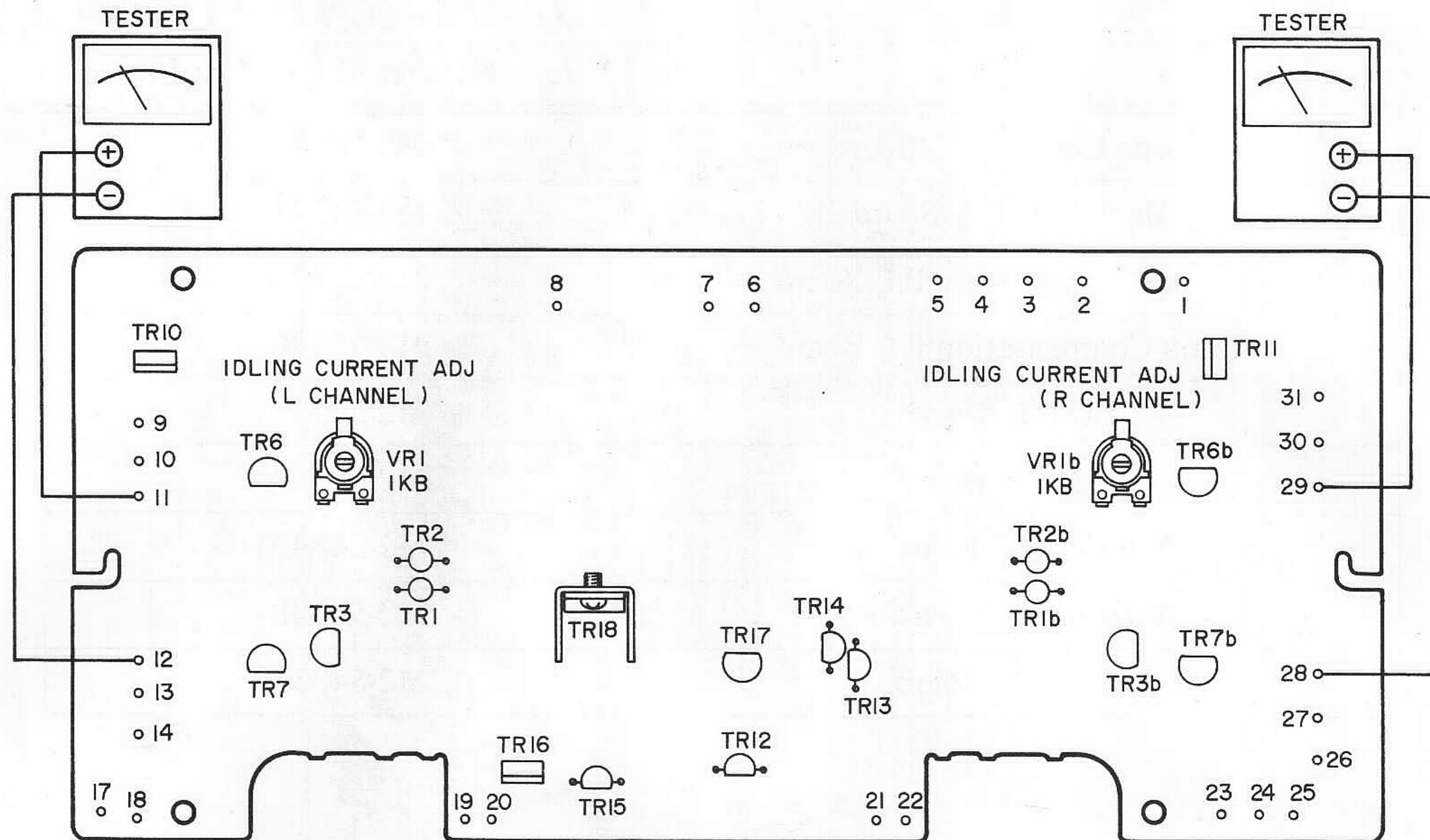


Fig. 4 Main Amplifier P.C Board M2-5432A

Idling Current Adjustment

Connect a tester to Main Amplifier P.C Board test point between PIN-11 and PIN-12 (LEFT channel) and PIN-28 and PIN-29 (RIGHT channel).

Adjust semi-fixed resistors VR1, VR1b until the voltage is 30 mV.

2. TONE CONTROL P.C BOARD (M2-5431) BLOCK

Symbol No.	Parts No.	Description	Schematic No.	Q'ty
2-1	BA235721	Tone Control P.C Board Comp. (M2-5431)		1
2-TR1,2	ET459810	Transistor 2SC1222(E)(F)	45-1-110	4
2-VR1	EV242267	Single axial 2 throw Vol. V16L4G3N 50kx2	36-22-19	2
2-SW1	ES242245	Push SW. 3FT-0001FF4920	25-5-230 25-5-231	1
2-SW2	ES242256	Push SW. 3FT-0002FF4920		1
2-2	ZS417216	Screw, pan head 3x4		4
2-3	ZS325495	Tapping Screw #2 3x6 (BR)		1
2-4	ZW273802	Toothed Lock Washer		1
2-C7	EC243393	Solid Aluminum/C. (Vert. Type) 0.22 μ F(K) 10WV	24-19-2	2
2-C8	EC243371	Solid Aluminum/C. (Vert. Type) 0.15 μ F(K) 10WV	24-19-2	2
2-C15	EC243371	Solid Aluminum/C. (Vert. Type) 0.15 μ F(K) 10WV	24-19-2	2

3. MAIN AMP P.C BOARD (M2-5432A) BLOCK

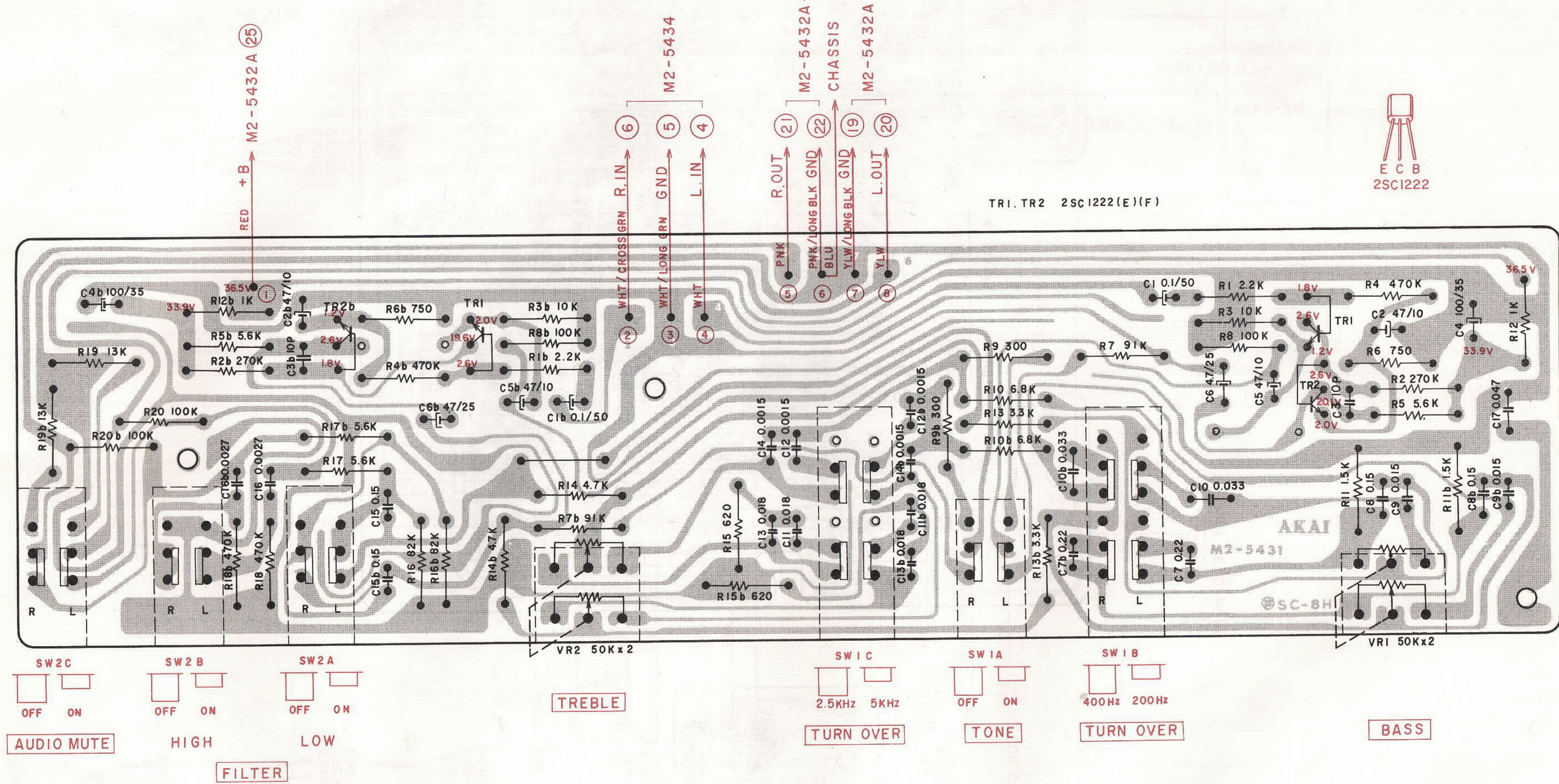
Symbol No.	Parts No.	Description	Schematic No.	Q'ty
3-1	BA235765	Main Amp P.C Board Comp. (M2-5432A)		1
3-2	BA270415	Main Amp P.C Board Comp. (M2-5432A) (CEE)		1
3-TR1,2	ET204221	Transistor 2SA640-1 (E)(F)(G)(H)	45-1-168	4
3-TR3	ET240671	Transistor 2SD438 (E)(F) RED	45-1-252	2
3-TR6	ET240671	Transistor 2SD438 (E)(F) RED	45-1-252	2
3-TR7	ET240660	Transistor 2SB560 (E)(F) RED	45-1-251	2
3-TR10,11	ET240636	Transistor 2SC1940 (K)(L)(M)	45-1-241	2
3-TR12	ET557965	Transistor 2SA733 (Q)(R)	45-1-124	1
3-TR13to15	ET520841	Transistor 2SC711 (E)(F)(G)	45-1-67	3
3-TR16	ET666404	Transistor 2SD571 (K)(L)	45-1-218	1
3-TR17	ET240660	Transistor 2SB560 (E)(F) RED	45-1-251	1
3-TR18	ET452531	Transistor 2SD313 (E)(F)	45-1-105	1
3-D2to8	ED214457	Silicon Diode 1S2472	45-3-41	7
3-D13	ED245430	Silicon Diode GP08D	45-2-68	1
3-D14	ED240377	Zener Diode RD36E(C)	45-6-72	1
3-D15	ED245430	Silicon Diode GP08D	45-2-68	1
3-D16to19	ED245417	Silicon Diode GP20G	45-2-70	4
3-VR1	EV484863	Semi-fixed/Vol. V10K8-4-2 1k Ω	36-10-250	2
3-L1,2	EO650823	Phase Equalizer Coil 2.2 μ H(K)	23-1-239	2
3-R19,20	ER622978	Metal Plate/R. MPC71F1 5W 0.47ohm(K)	35-16-48	4
3-R46	ER389687	Metal Oxide Film/R. 1W 220ohms(K)	35-15-10	1
3-R47	ER245531	Metal Oxide Film/R. 2W 1.5k(K)	35-15-8	1
3-R52,53	ER389687	Metal Oxide Film/R. 1W 220ohms(K)	35-15-10	2
3-C2	EC538244	Solid Aluminum/C. (Vert. Type) 0.47 μ F(M) 10WV	24-19-2	2
3-C21	EC662128	Solid Aluminum/C. (Vert. Type) 2.2 μ F(M) 25WV	24-19-2	1
3-3	EZ223132	Heat-sink Plate	T2-5022	1

4. TEMP. COMPENSATION P.C BOARD (M2-5432B), (M2-5432C) BLOCK

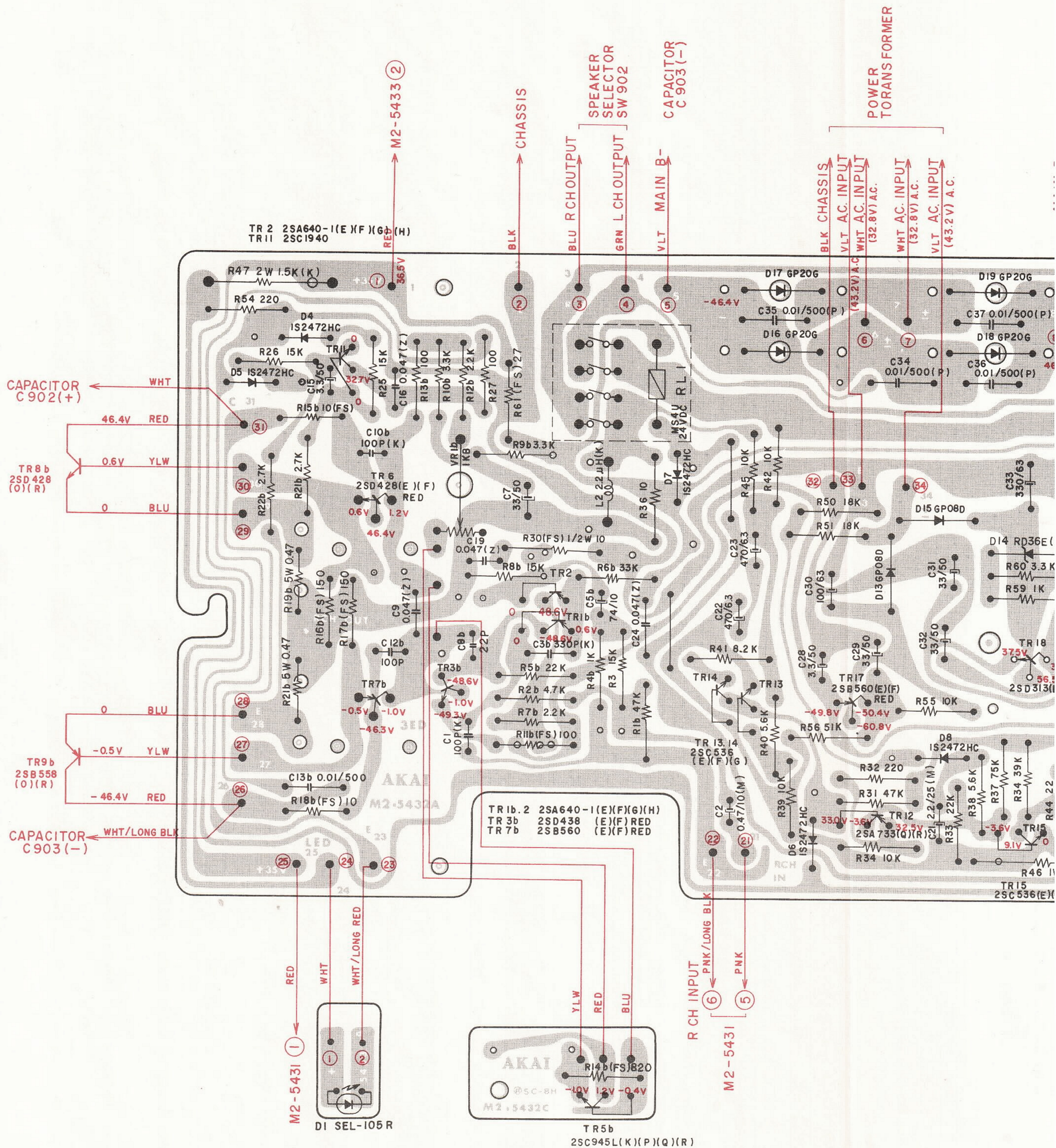
Symbol No.	Parts No.	Description	Schematic No.	Q'ty
4-1	BA235798	Temp. Compensation P.C Board Comp. B (M2-5432B)		1
4-2	BA235800	Temp. Compensation P.C Board Comp. C (M2-5432C) (AM-2400/2600/2800)		1
4-TR5	ET635218	Transistor 2SC945L(K)(P)(Q)(R)	45-1-85	1

2. COMPOSITION OF VARIOUS P.C BOARDS

1) TONE CONTROL P.C BOARD M2-5431



2) MAIN AMP P.C BOARD M2-5432A
 TEMP COMPENSATION P.C BOARD M2-5432B, M2-5432C
 LED P.C BOARD M2-5433A

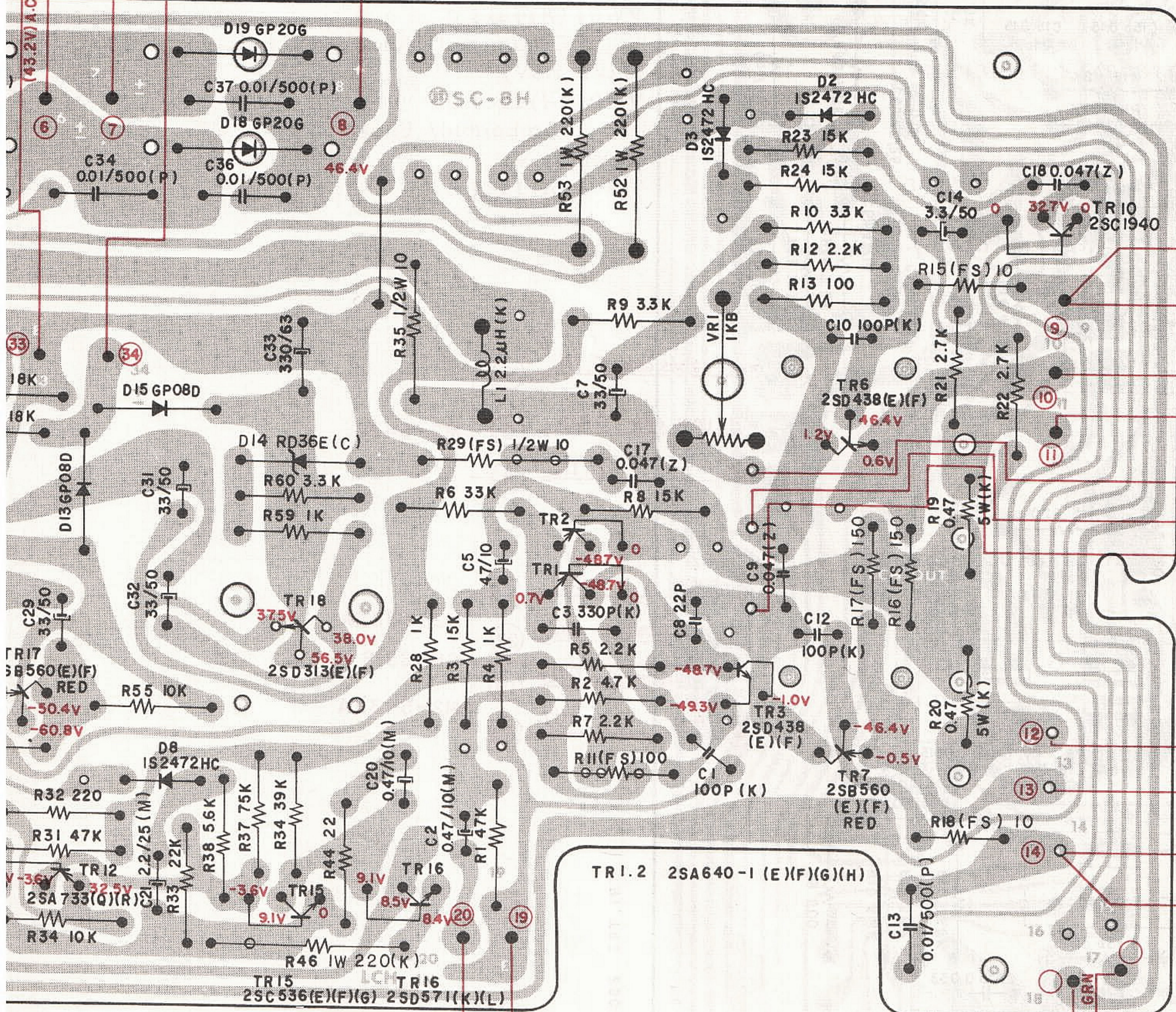
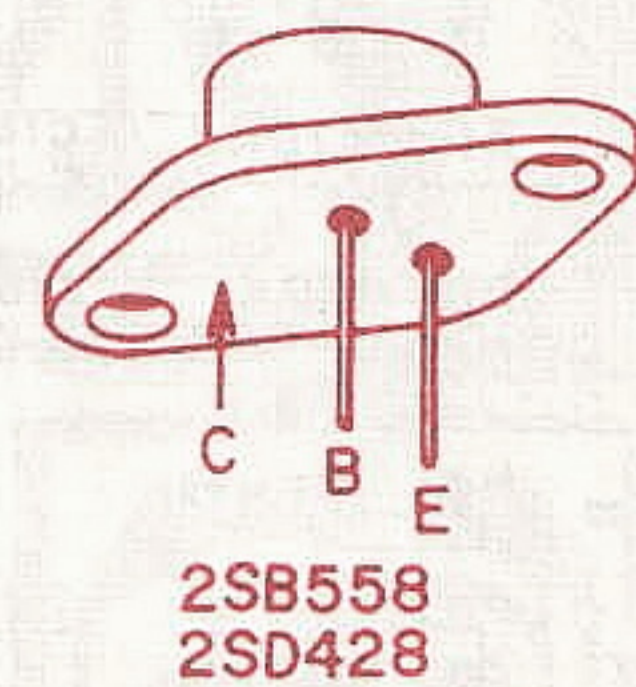


POWER TORANSFORMER

CAPACITOR C902(+)

VLT AC INPUT (43.2V) A.C.
WHT AC INPUT (32.8V) A.C.
WHT AC INPUT (32.8V) A.C.
VLT AC INPUT (43.2V) A.C.

ORG MAIN B+



WHT → CAPACITOR C902(+)

RED → 46.4V

YLV → 0.6V

BLU → 0

BLU → TR8 2SD428 (O)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

YLV → TR5 2SC945L (K)(X)(P)(Q)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

RED → TR5 2SC945L (K)(X)(P)(Q)(R)

WHT/LONG RED → CAPACITOR C903(-)

L CH INPUT
YLW
YLW/LONG BLK

M2-5431

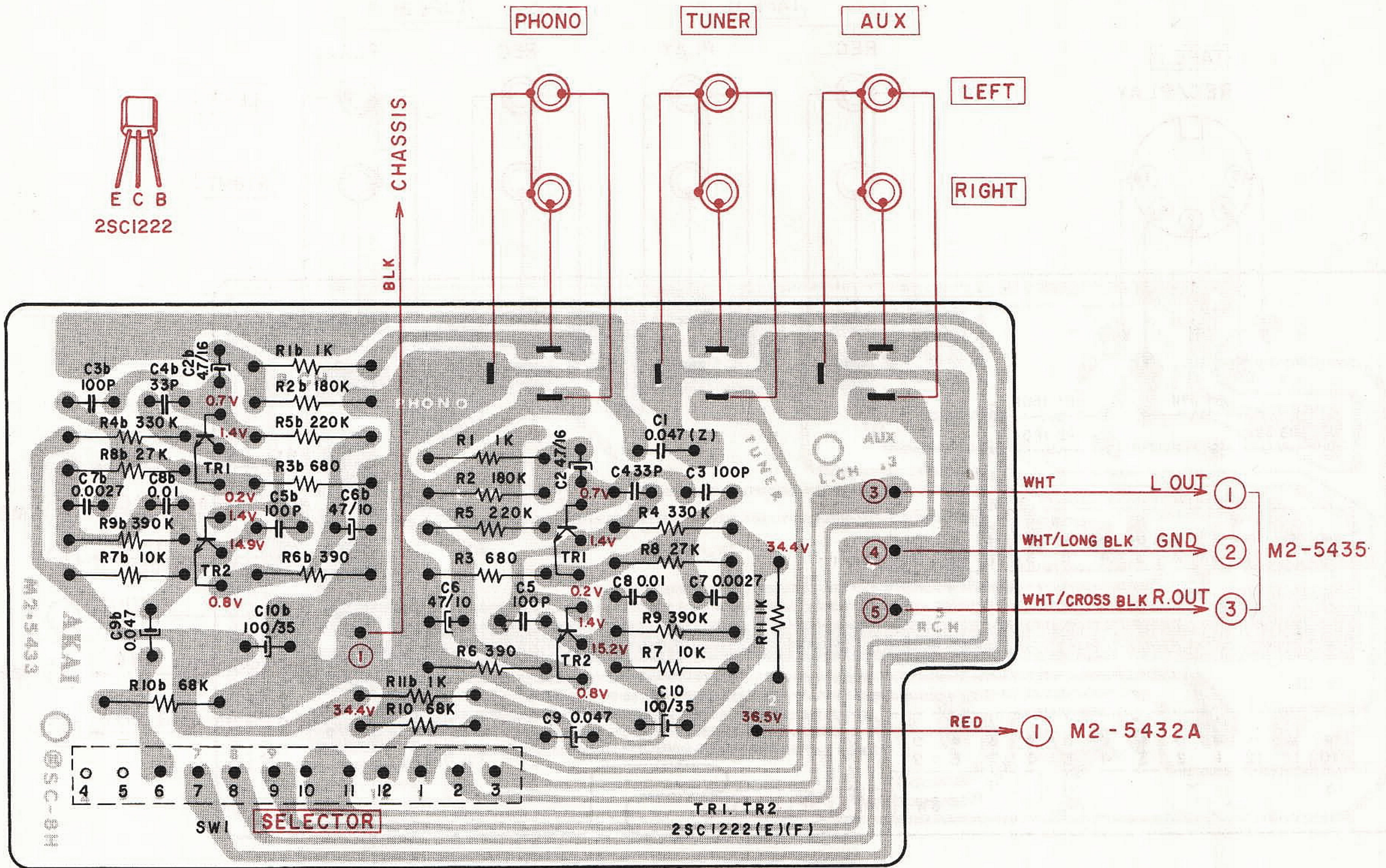
J901 HEADPHONE

AKAI SC-6H BOARD

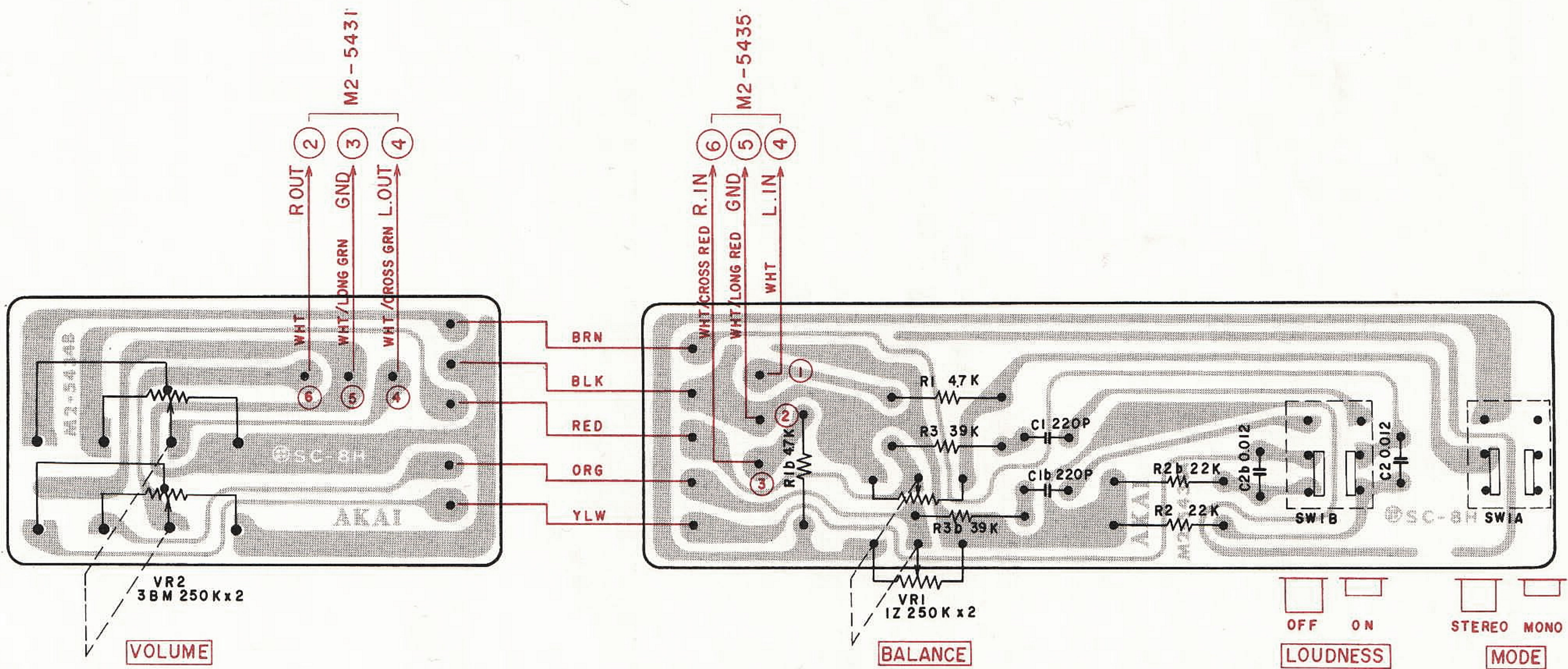
42-101 (D12-5432)

3) EQ P.C BOARD M2-5433

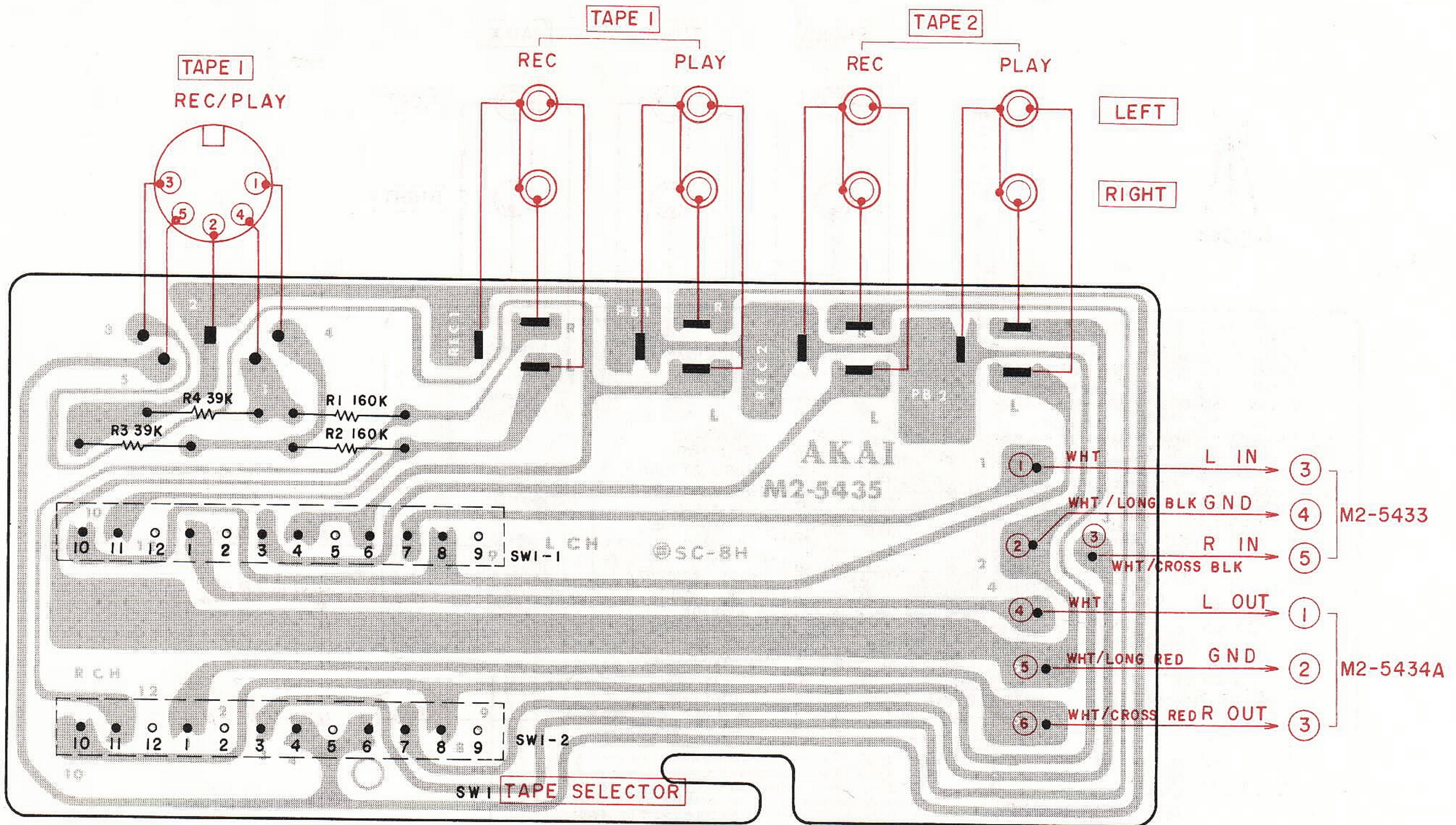
EQ P.C BOARD M2-5433

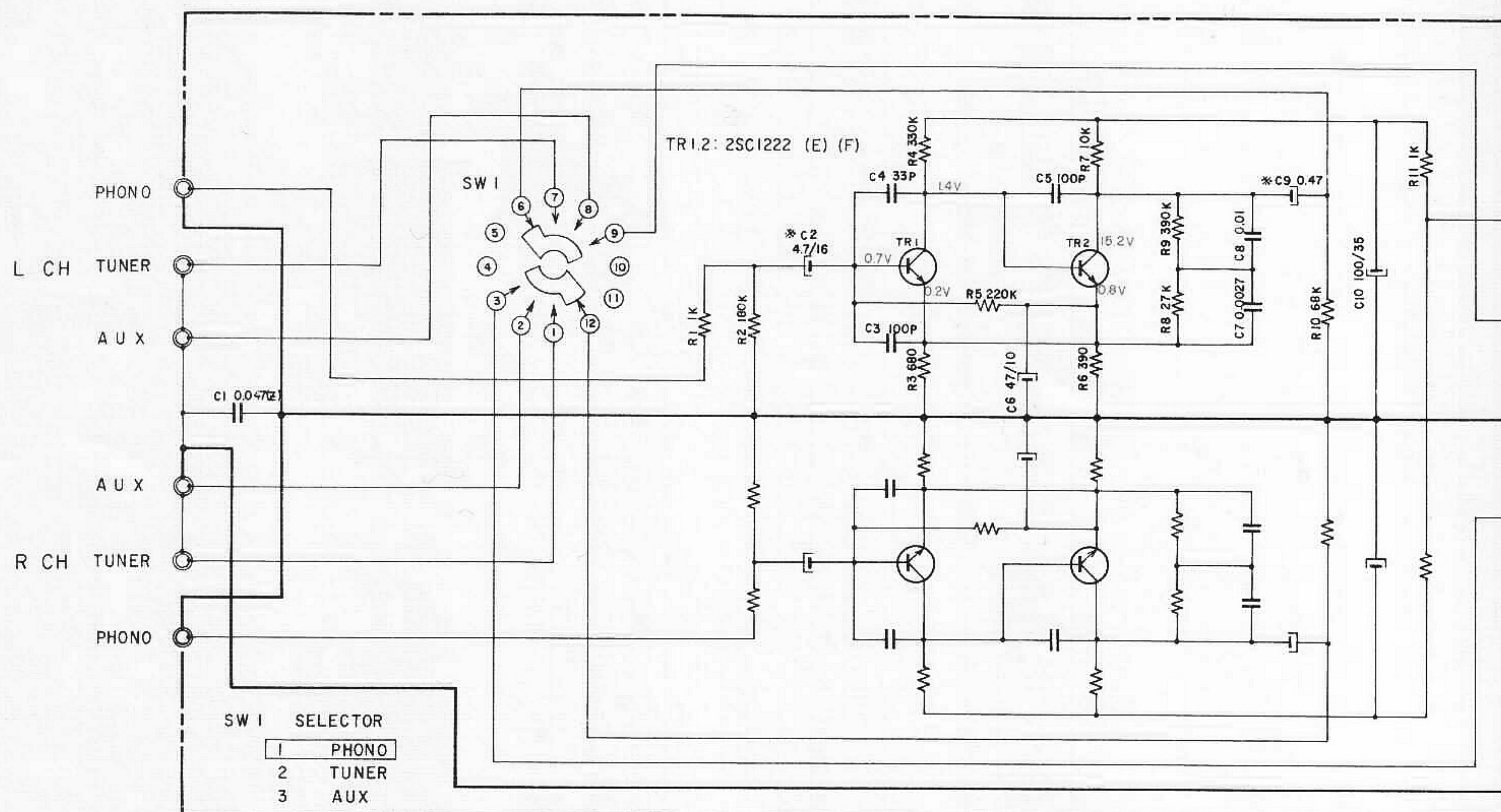


4) VOLUME P.C BOARD M2-5434A, M2-5434B

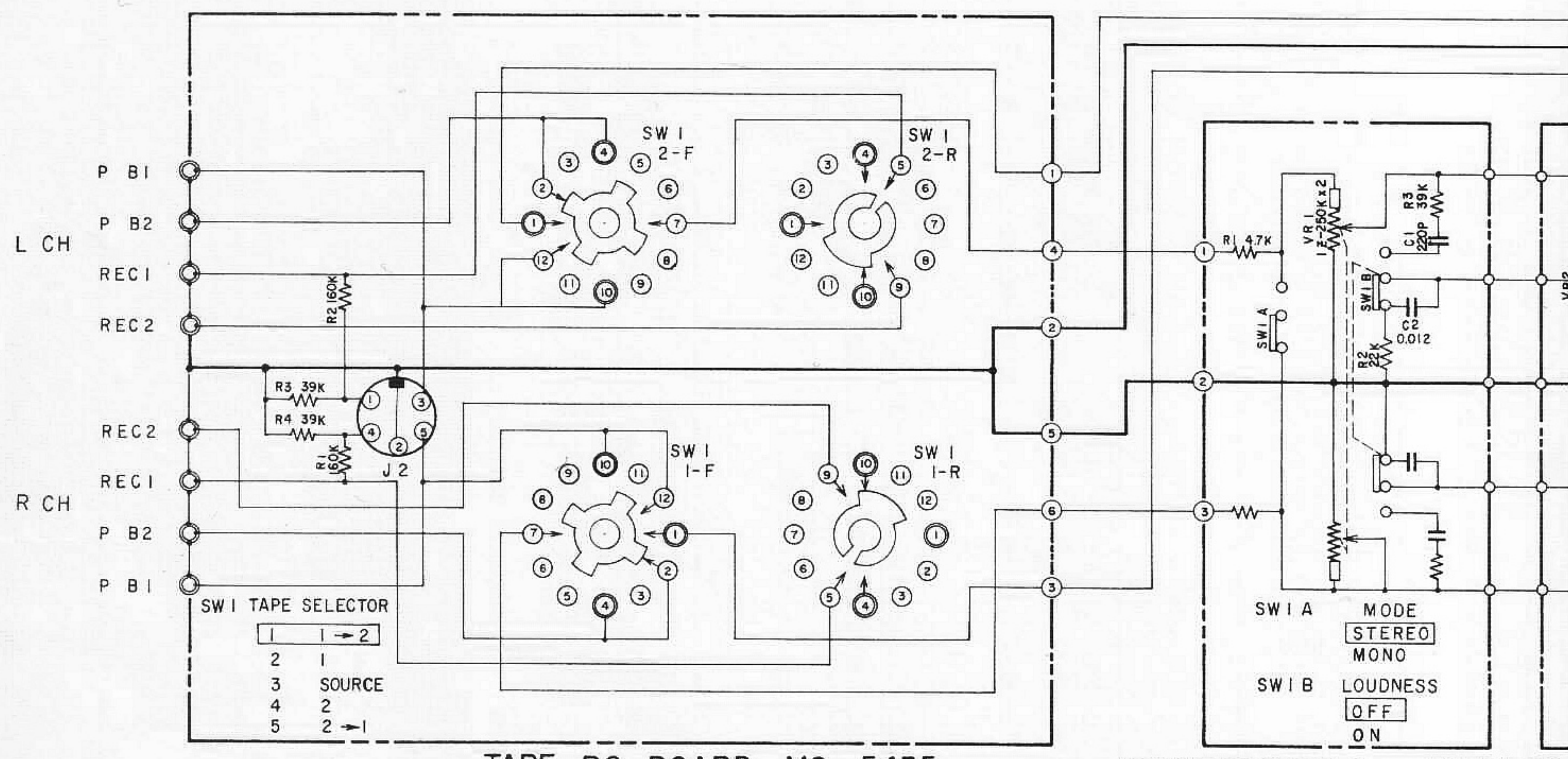


5) TAPE P.C BOARD M2-5435



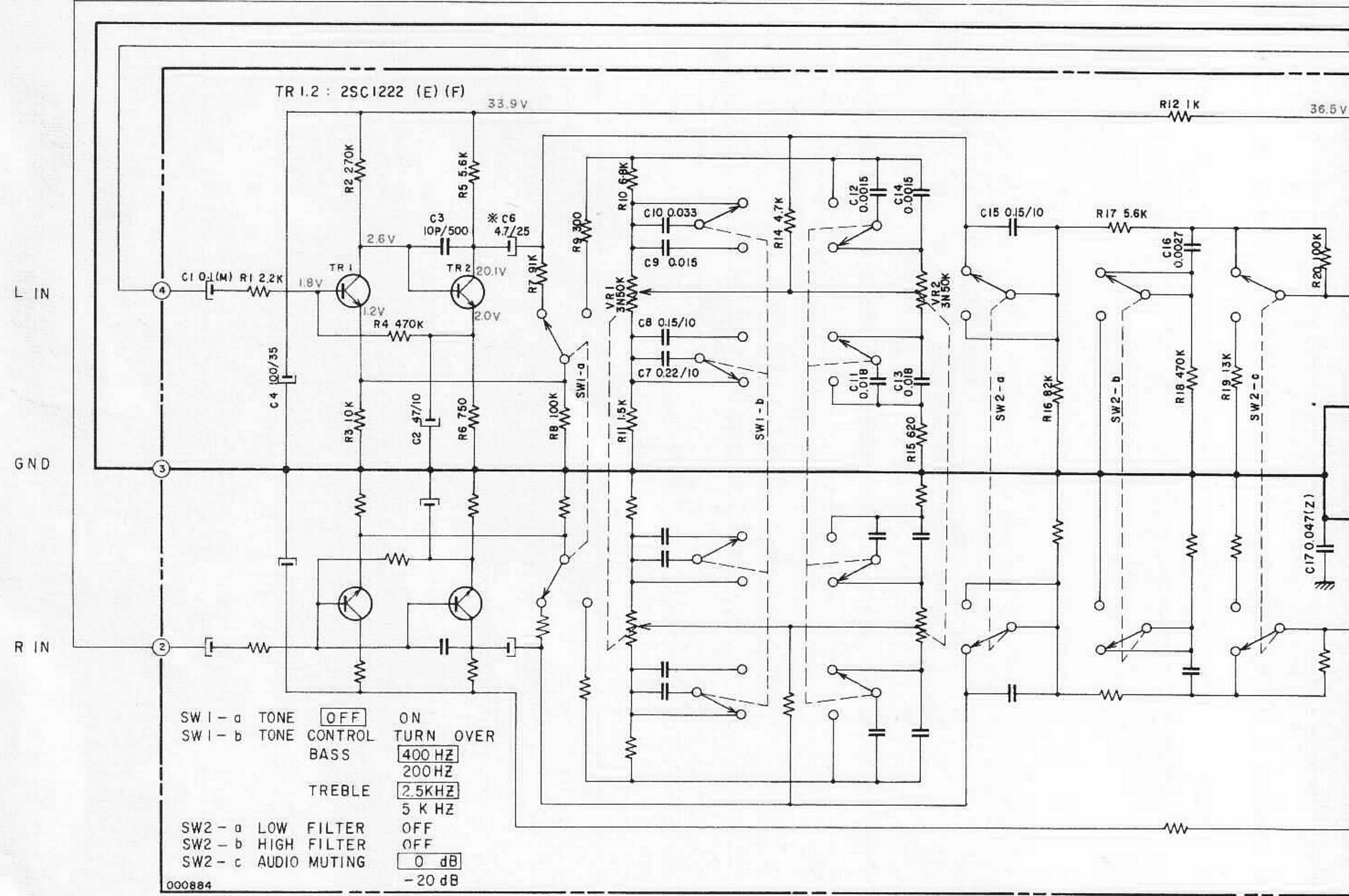


EQ P.C BOARD M2-

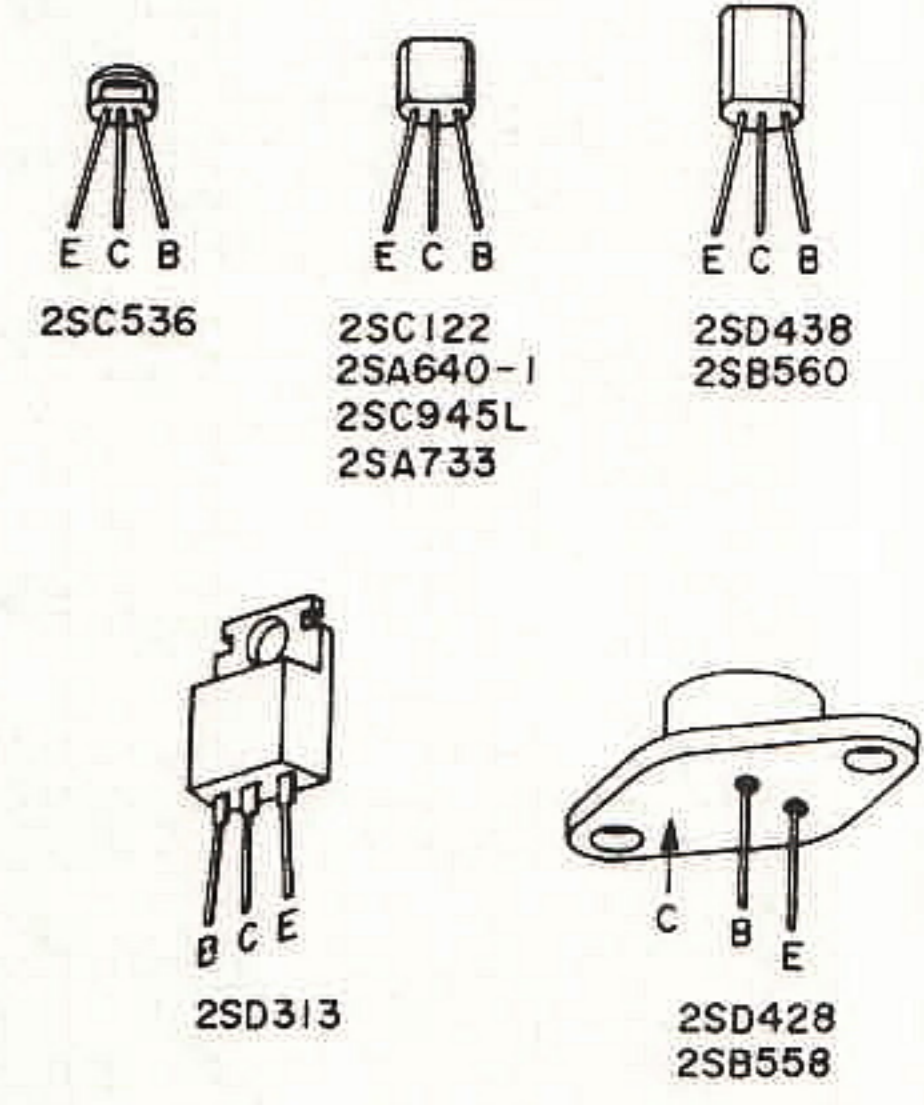
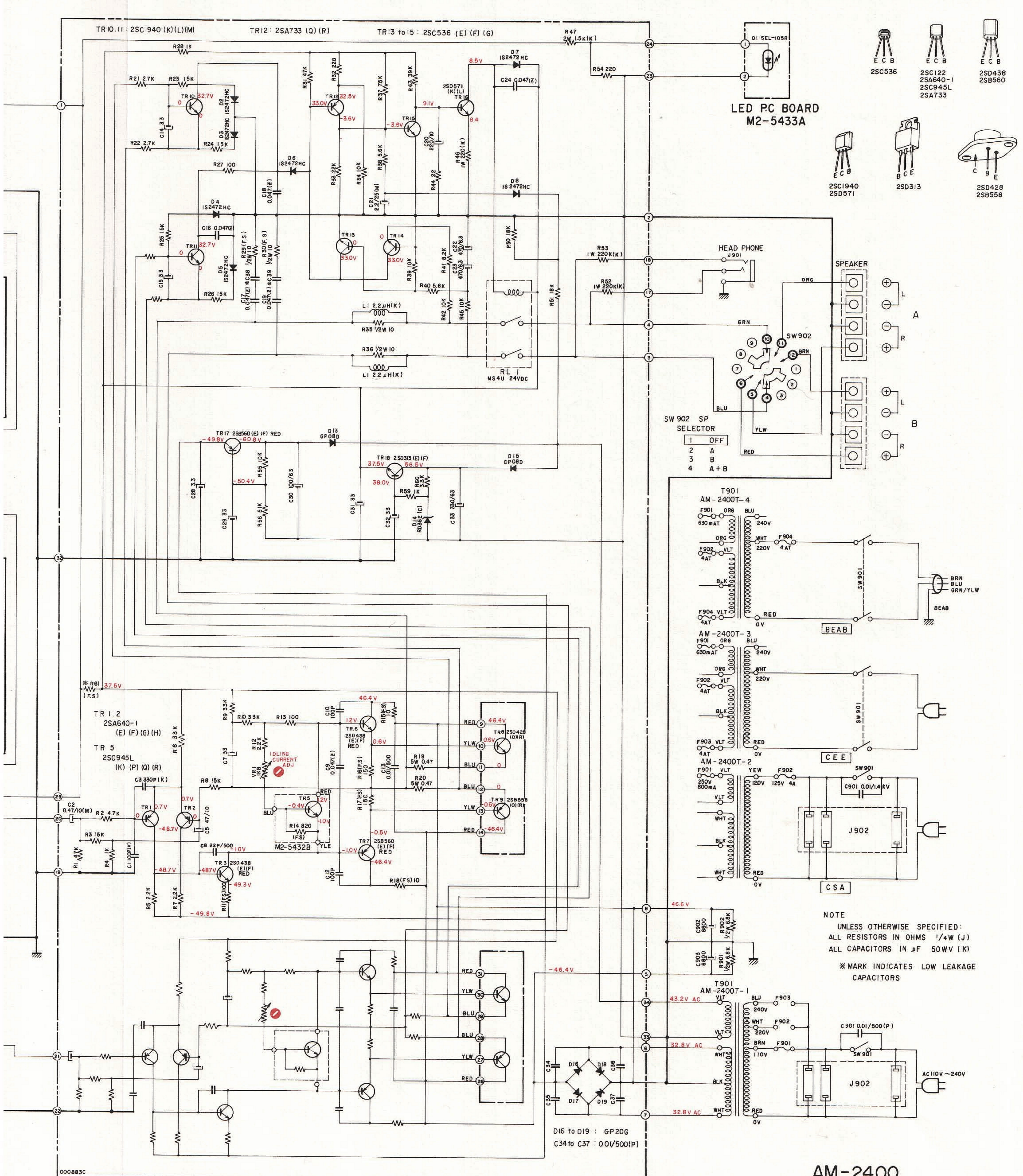


TAPE P.C BOARD M2-5435

VOLUME P.C BOARD A M2-5434A



TONE CONTROL P.C BOARD M2-5



MAIN PC BOARD M2-5432A

AM-2400 SCHEMATIC DIAGRAM No. 1540658A

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