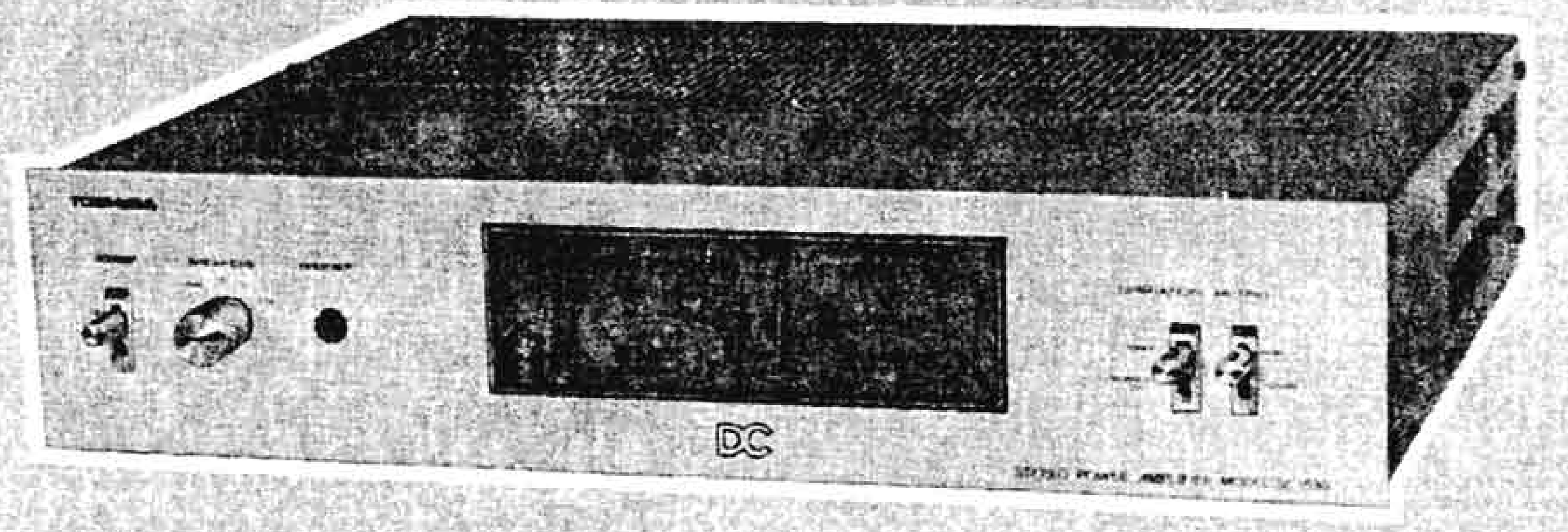
TOSHIBA

STEREO POWER AMPLIFIER

SC-530



SPECIFICATIONS

Main Amp Section

Continuous Power Output
- 20 to 20kHz both ch. driven:
  - 68W x 2 (4 ohms)
  - 60W x 2 (8 ohms)
- 1kHz both ch. driven:
  - 75W x 2 (4 ohms)
  - 65W x 2 (8 ohms)

Total Harmonic Distortion: 0.05% (at rated power)

Frequency Response: DC80 kHz (±1 dB)

Power Band Width (IHF): 5Hz to 50kHz

Damping Factor: 60

S/N (IHF A Network): 117 dB

General

Power supply: AC220V∿50Hz
AC240V∿50Hz

Power Consumption: 500W

Weight: 8.5 kg

Dimensions: 420(W)x96(H)x354(D)mm

Specifications are subject to change without notice.

TE, TU, AY

CONTENTS

1. OPERATING CONTROLS

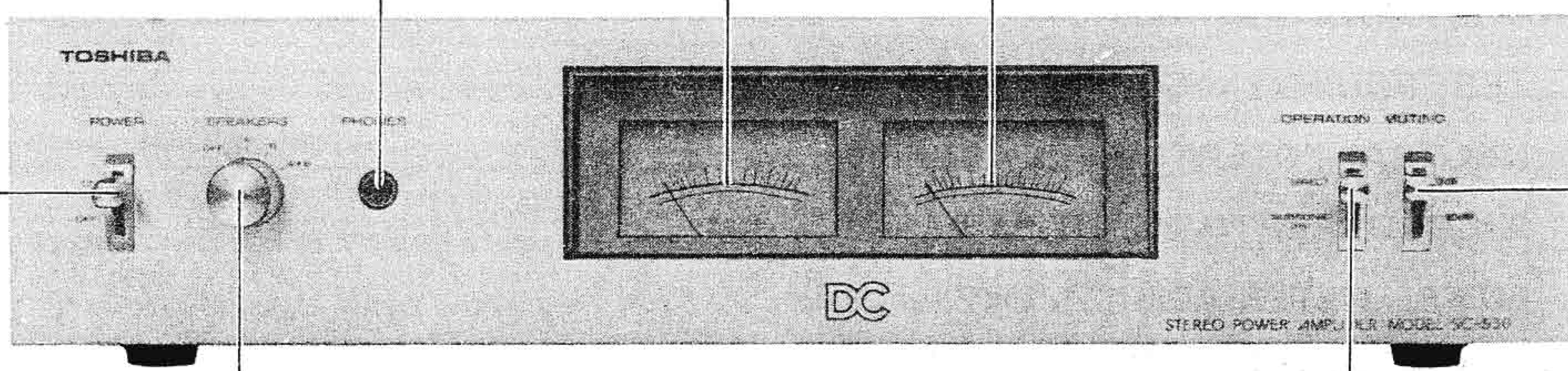
FRONT VIEW

PHONES (HEADPHONES)

- Insert the headphone plug to this jack to listen with a set of stereo headphones. The speaker also produces sound in this case. When it is desired to listen only with the headphones, turn off the speakers selection switch.

PEAK READING POWER METERS

- These meters indicate the peak (or instantaneous) power output levels when using 8 ohm speakers. (For 4 ohm speakers, multiply the indicated readings by 2 to obtain an approximate values.) Note that these meters are designed to indicate instantaneous output levels, not the average or continuous levels.



SPEAKERS (SPEAKERS SELECTION SWITCH)

- Two speaker systems A and B can be used independently or simultaneously. Turn off the switch to use a pair of headphones only.

DIRECT SUBSONIC 5 Hz OPERATION

- During normal operation, leave in the DIRECT position.

POWER (POWER SWITCH)

- By setting this switch to "on", the power is on.

MUTING

- Attenuates the sound volume by 20 dB. It is used to reduce the sound volume temporarily or to prevent the disagreeable sound when the pick-up is placed on a record.

Figure 1

REAR VIEW

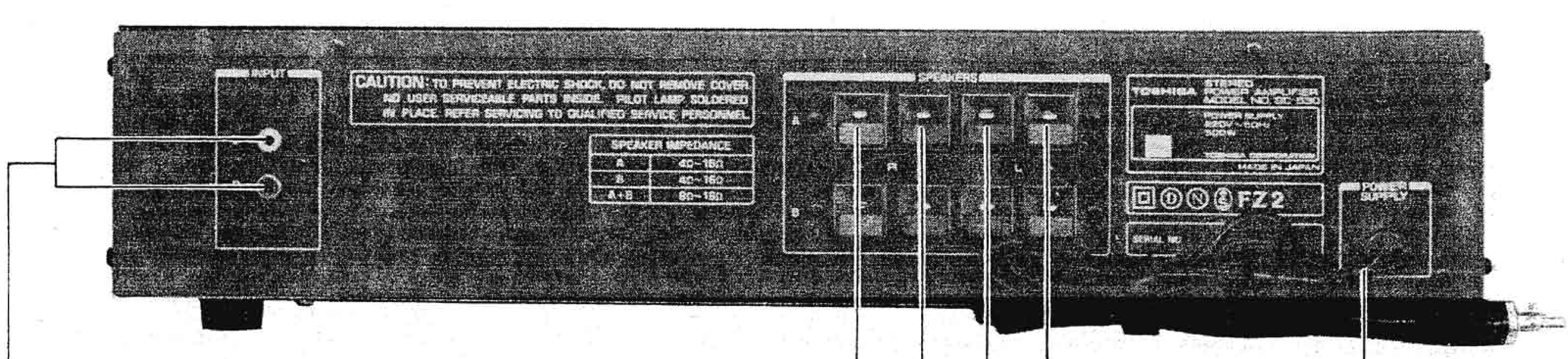


Figure 2

2. DISASSEMBLY INSTRUCTIONS

TOP COVER REMOVAL

1. Remove the six screws ①. See figure 3.

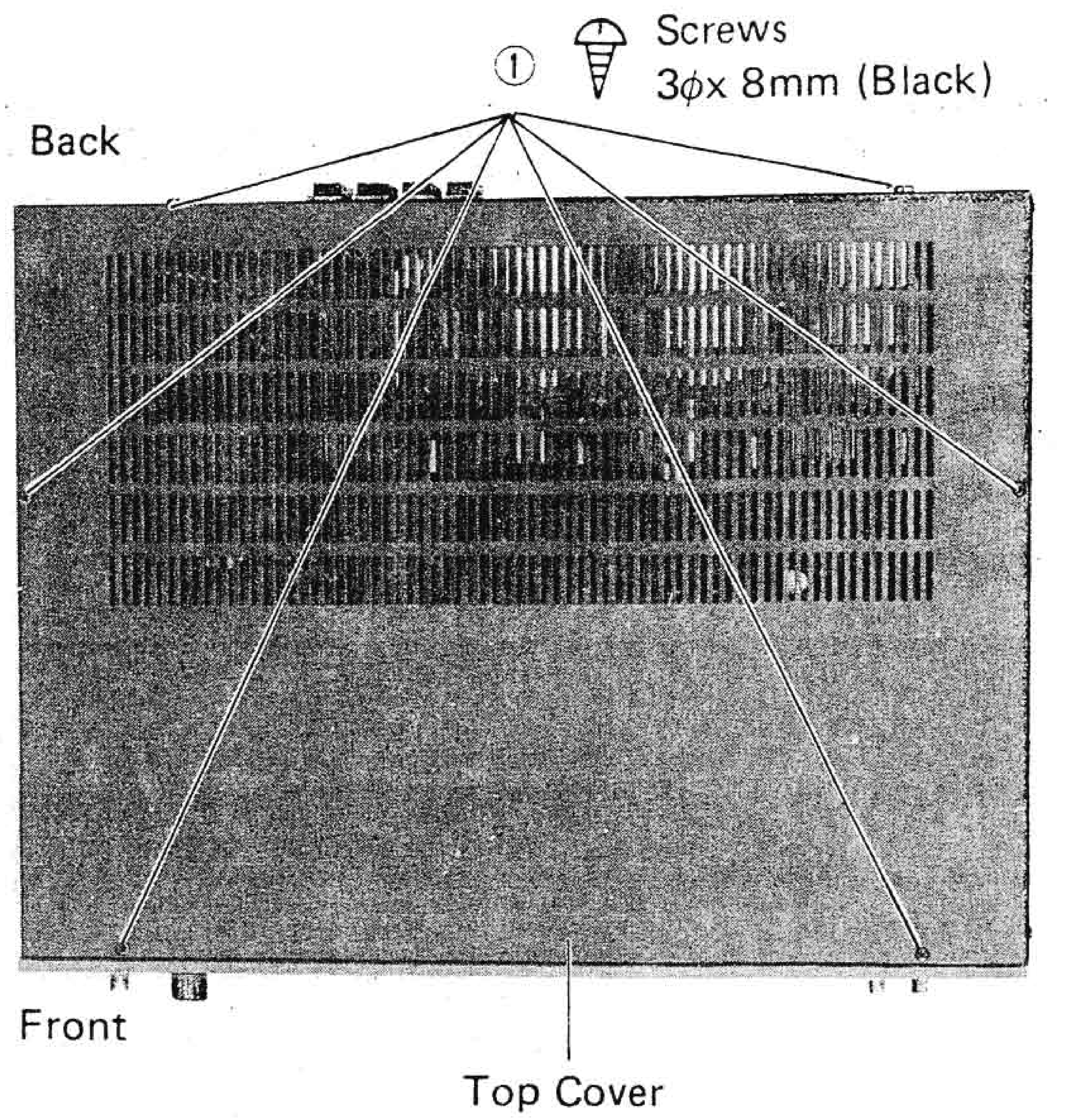


Figure 3

BOTTOM PLATE REMOVAL

1. Remove the six screws ②. See figure 4.

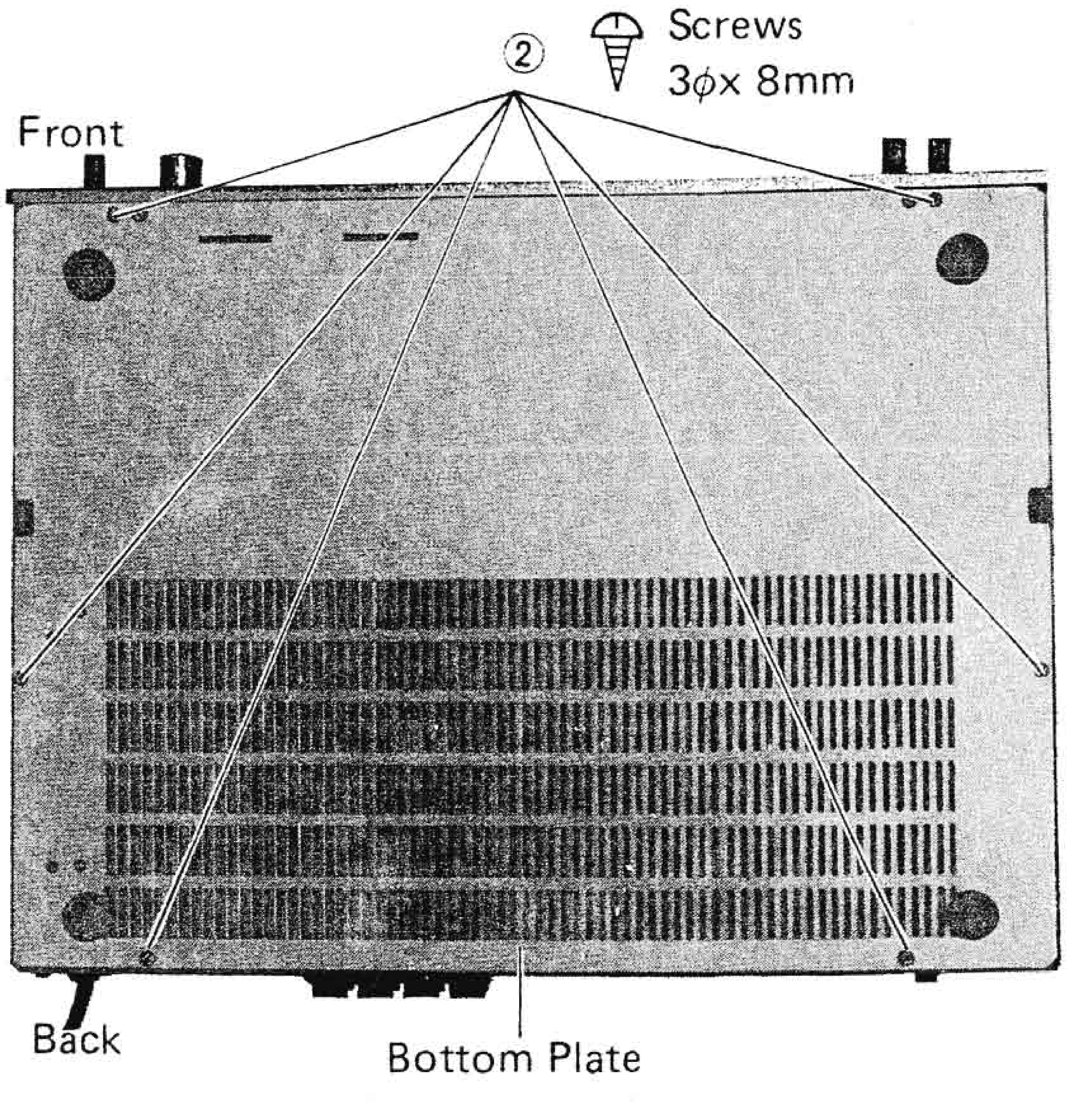


Figure 4

FRONT PANEL REMOVAL

1. Remove two screws ② . See figure 5.
2. Pull out the four knobs ③ . See figure 6.

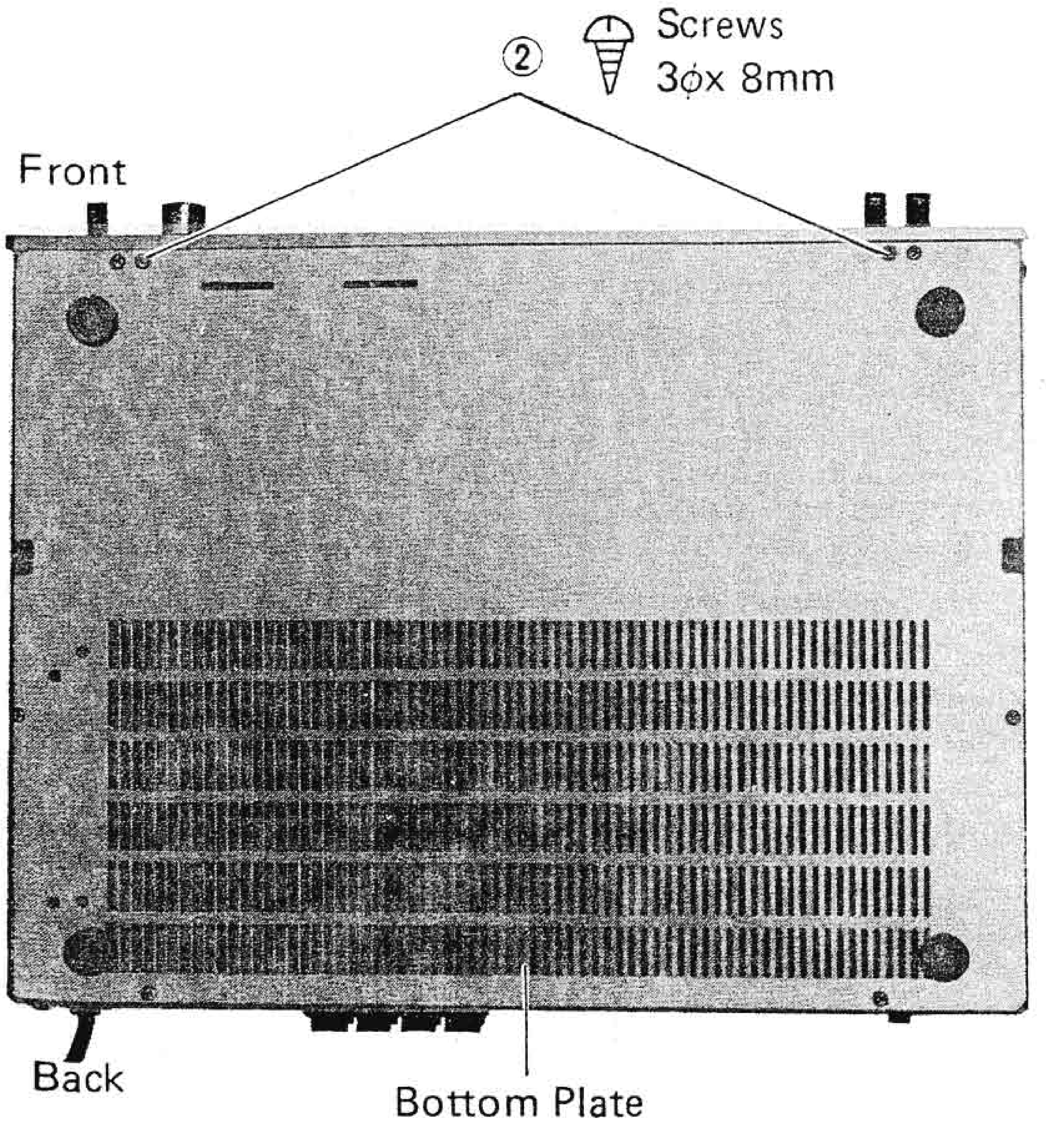


Figure 5

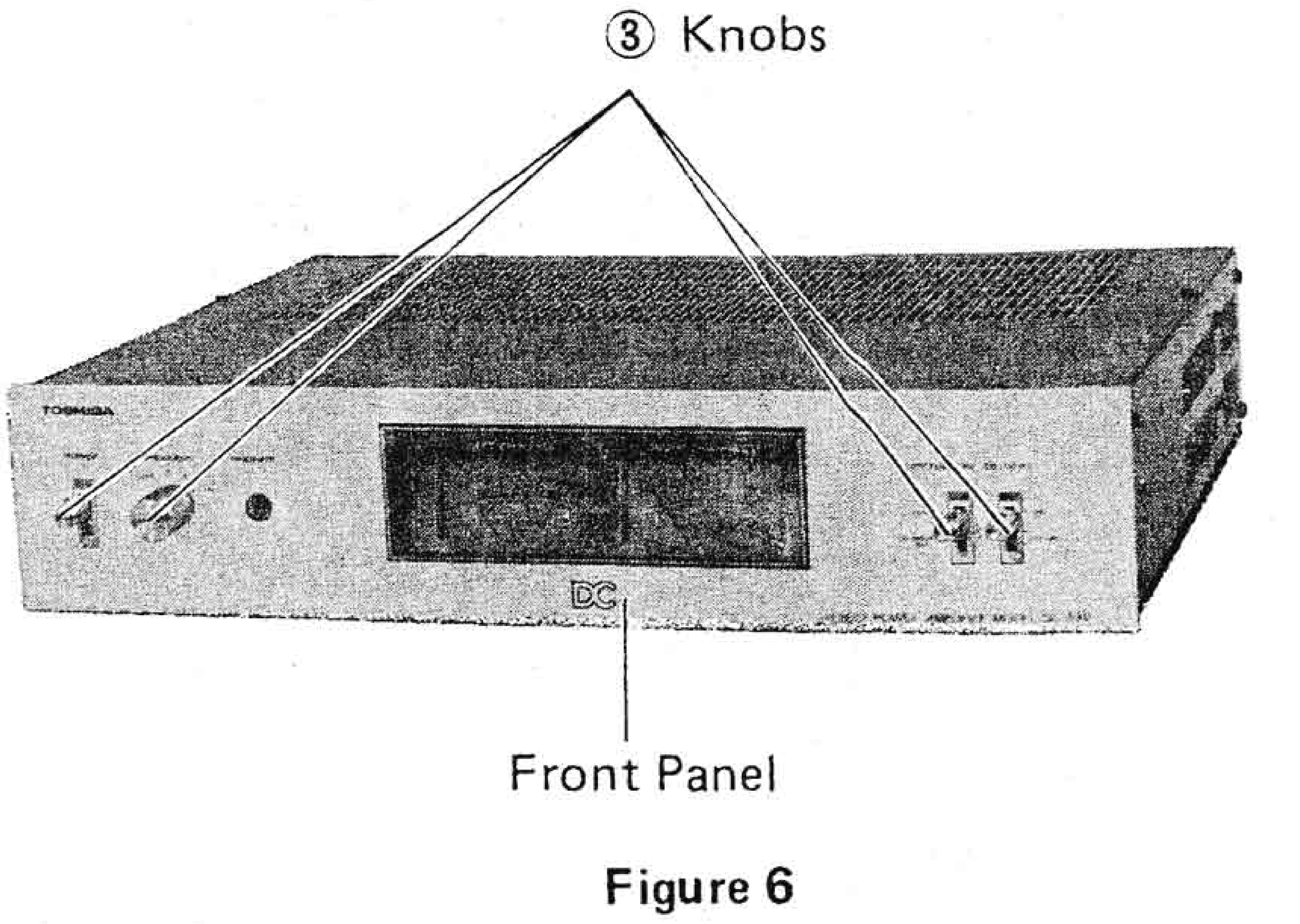


Figure 6

3. BLOCK DIAGRAM

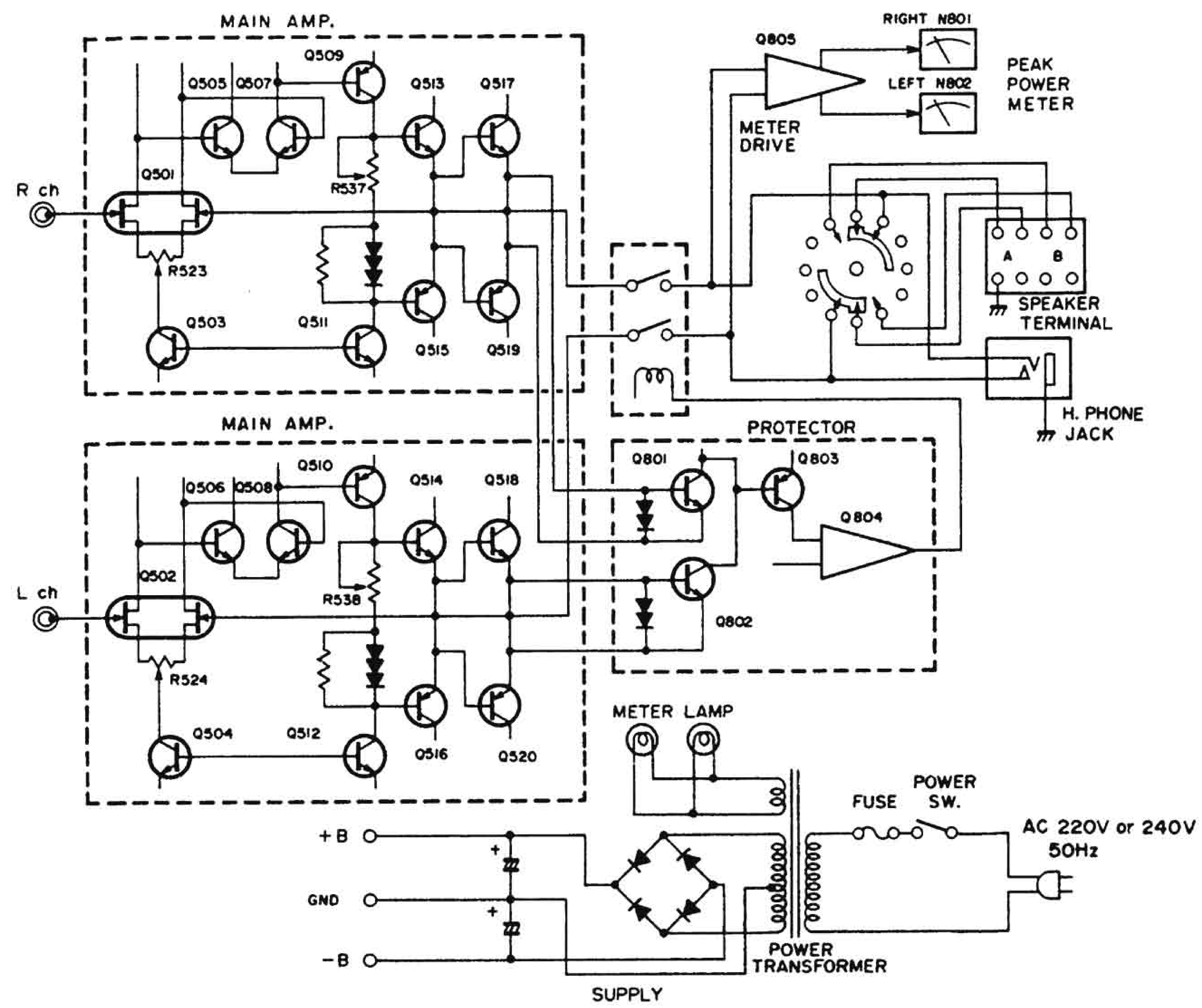


Figure 7

4. ADJUSTMENT INSTRUCTION

TEST EQUIPMENTS

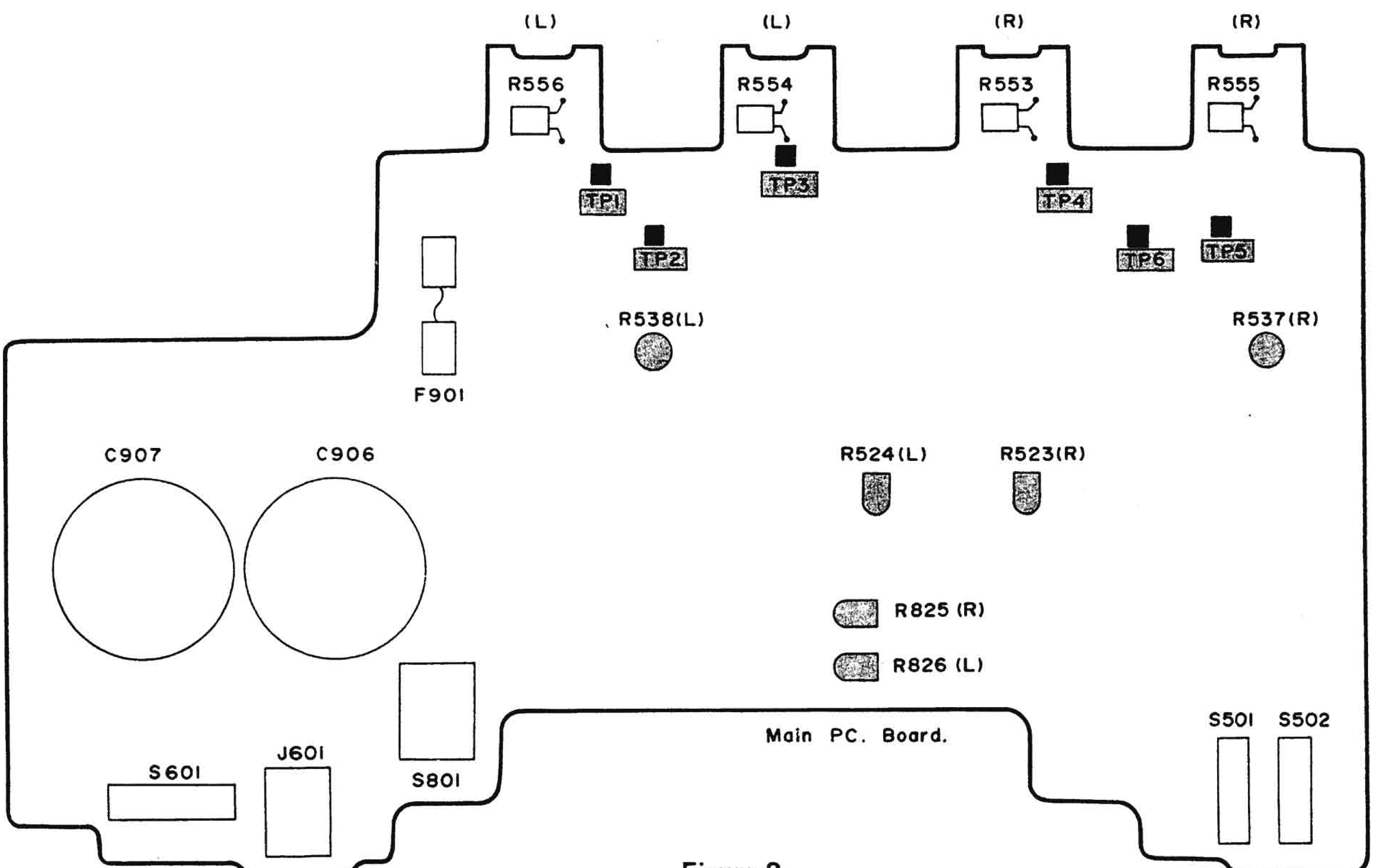


Figure 8

NEUTRAL POTENTIAL ADJUSTMENT

Step	Connection		Signal Generator Frequency	Adjustment	Remarks
	Input	Output			
1	——	Connect DC Voltmeter to TP2 (Rch.) and TP6 (Lch.)	——	R523 (Rch) R524 (Lch.)	Adjust so that the pointer of DC voltmeter indicates range between +20mV and −20mV

IDLE CURRENT ADJUSTMENT

- **R Channel Adjustment**
  (1) Measure voltages at both terminals R533 and R555 (Rch.) on P.C.Board with a DC voltmeter.
  (2) Turn on the power switch.
  (3) Adjust R537 (100 ohm) so the reading on the voltmeter is 13mV 1min. after the power switch ON. (ID=30mA).

- **L Channel Adjustment**
  (1) Measure voltages also with R554 and R556 (Lch.).
  (2) Turn on the power switch.
  (3) Adjust R538 (100 ohm) so the reading on the voltmeter is 13mV 1min. after the power switch ON. (ID=30mA).

POWER METER ADJUSTMENT

Step	Connection		Signal Generator Frequency	Position of Switch	Adjustment	Remarks
	Input	Output				
1	Connect signal generator to input jacks.	Connect 8 ohm and VTVM to speaker terminal A.	1 kHz	Speakers selection switch A	R825 (Rch.)	Increase input to get 4V at 8 ohm load.
2					R826 (Lch.)	Adjust so that the power meter indicates 2W at 4V of output voltage.

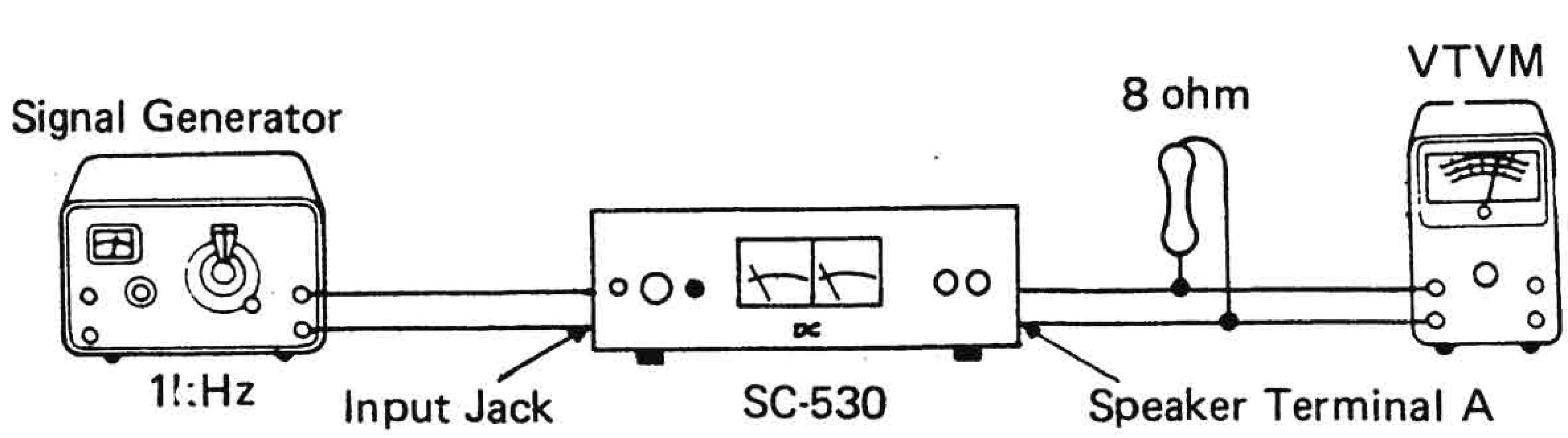
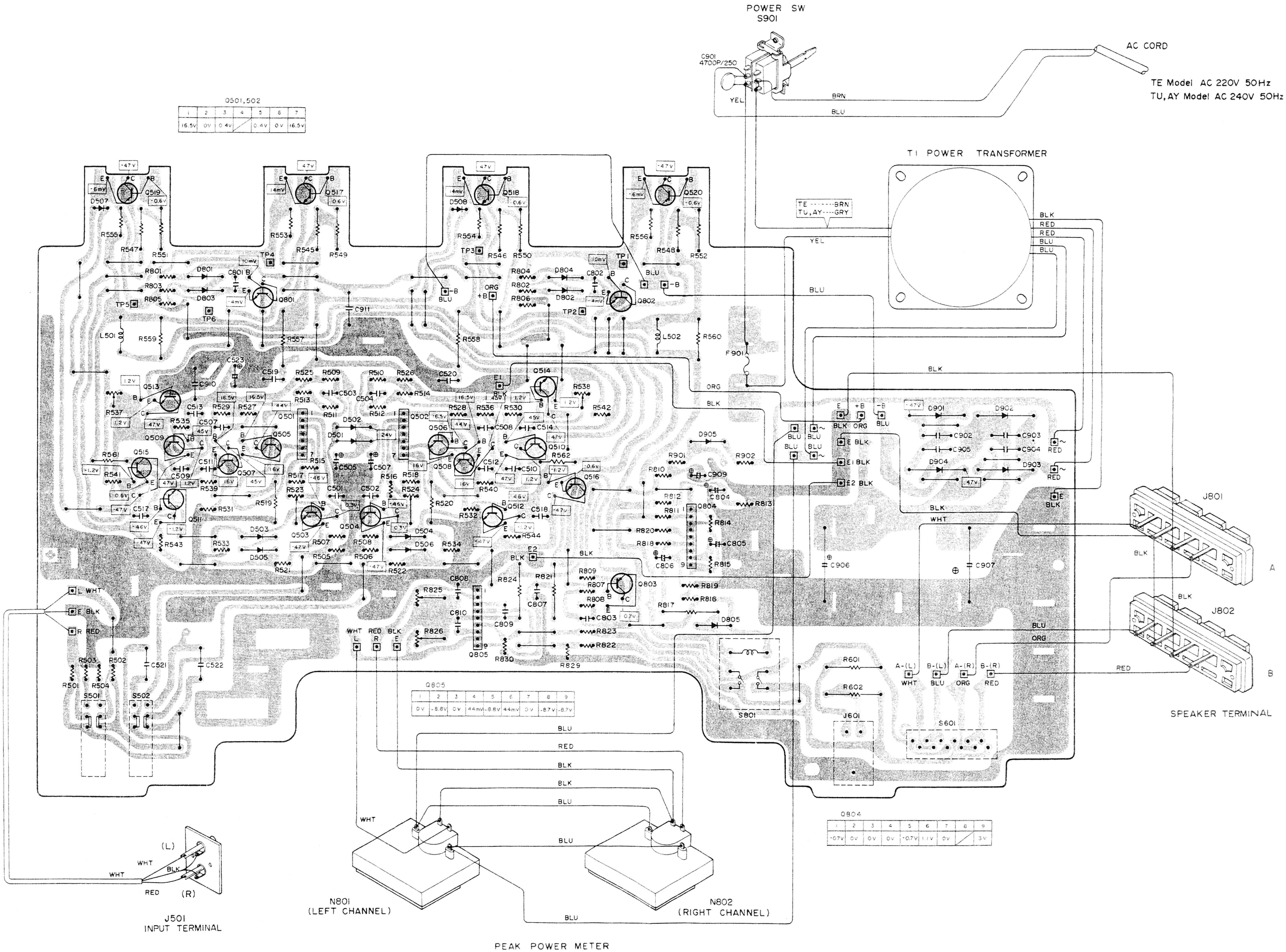


Figure 9

5. ELECTRICAL PARTS LOCATIONS



Q501,502

1	2	3	4	5	6	7
16.5V	0V	0.4V		0.4V	0V	16.5V

Q805

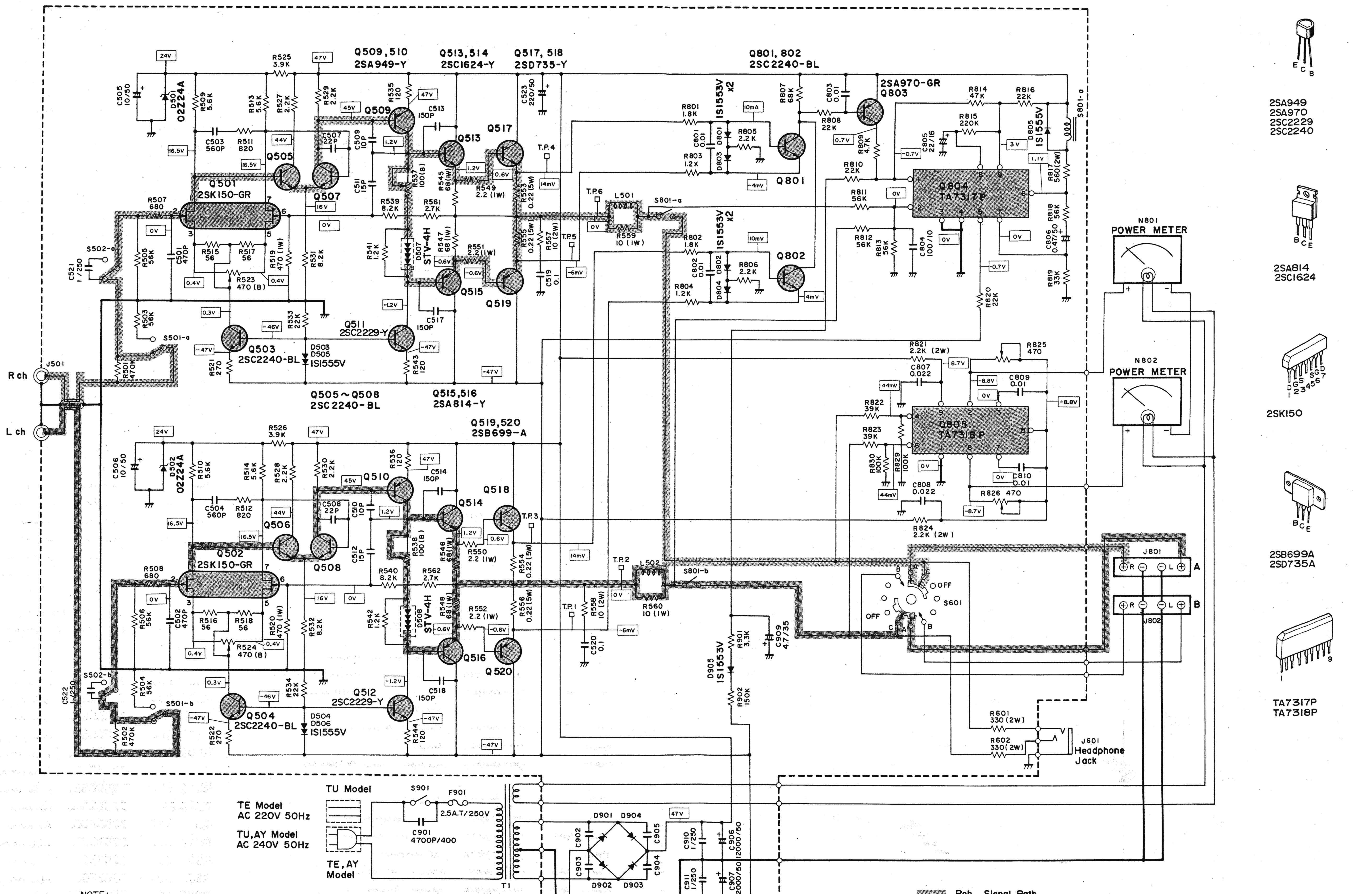
1	2	3	4	5	6	7	8	9
0V	-8.8V	0V	44mV	-8.8V	44mV	0V	-8.7V	-8.7V

Q804

1	2	3	4	5	6	7	8	9
-0.7V	0V	0V	0V	-0.7V	1.1V	0V		3V

Figure 10

6. SCHEMATIC DIAGRAM



NOTE:

S501 } Lever Switch { (MUTING)------ OdB Position
S502 } Lever Switch { (OPERATION)---DIRECT Position
S601 Rotary Swtch (SPEAKERS)---A Position
S801 Relay
S901 Lever Switch (POWER)----OFF Position

Figure 11

7. EXPLODED VIEW (CABINET)

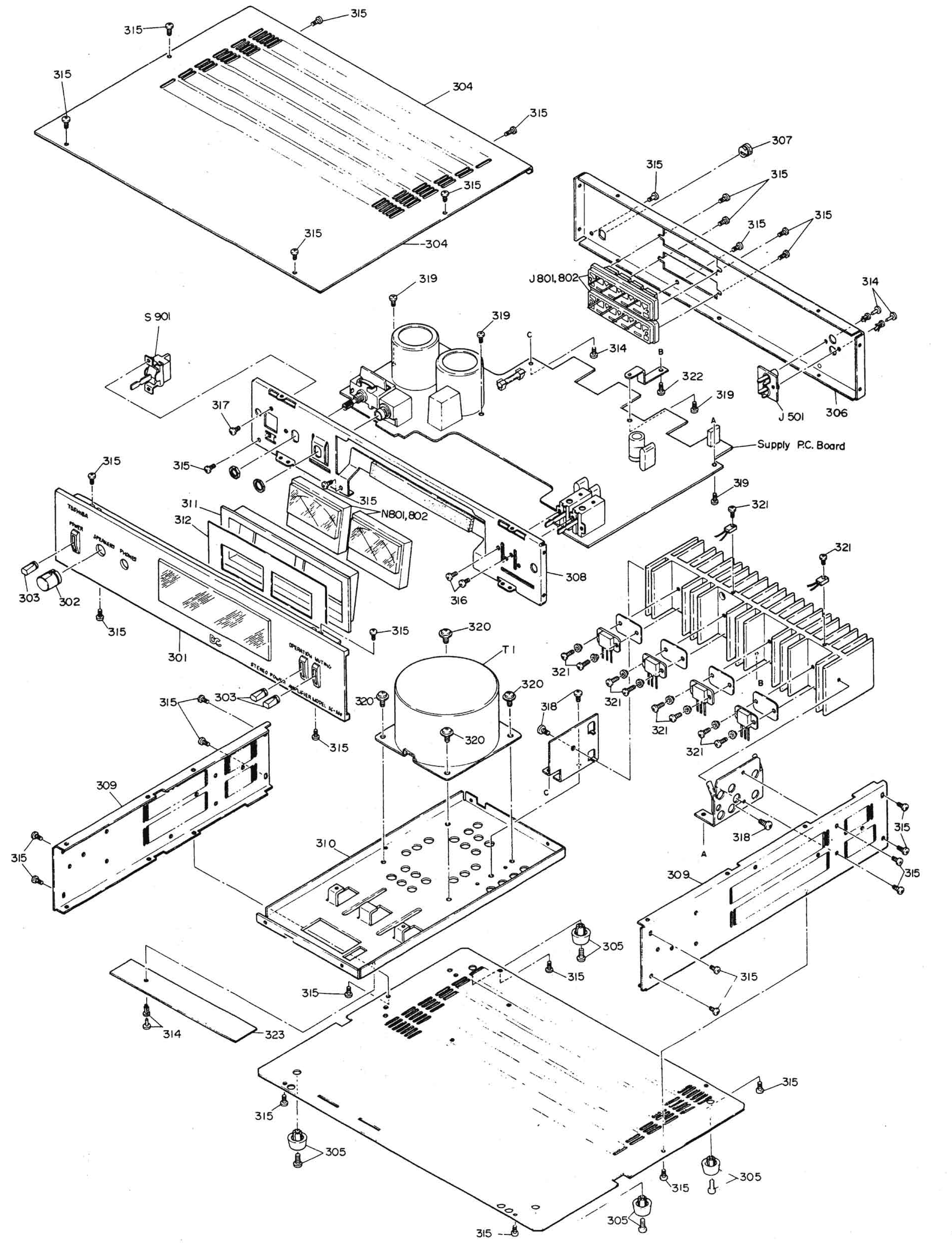


Figure 12

NOTE: Parts excluded in the Parts List are not available as replacement parts.

8. PARTS LIST

Symbol No.	Part No.	Description
TRANSISTORS, DIODES AND IC'S		
Q501, 502		Transistor, 2SK150-GR
Q503, 504		Transistor, 2SC2240NEW-BL
505, 506		
507, 508		
Q509, 510		Transistor, 2SA949-Y
Q511, 512		Transistor, 2SC2229-Y
Q513, 514		Transistor, 2SC1624-Y
Q515, 516		Transistor, 2SA814-Y
Q517, 518	22114677	Transistor, 2SD735A-B-B/C
Q519, 520	22114676	Transistor, 2SB699A-B-B/C
Q801, 802		Transistor, 2SC2240NEW-BL
Q803		Transistor, 2SA970NEW-GR
Q804		IC, TA7317P
Q805		IC, TA7318P
D501, 502		Diode, 02Z24A
D503, 504		Diode, 1S1555V
505, 506		
D507, 508	22115424	Diode, STV-4H
D801, 802		Diode, 1S1553V
803, 804		
D805		Diode, 1S1555V
D901, 902	22115496	Diode, S3V20-X
903, 904		
D905		Diode, 1S1553V
ELECTRICAL PARTS		
T1	22223607	Transformer, Power (TE)
T1	22223633	Transformer, Power (TU, AY)
S501, 502	22195057	Switch, Lever(OPERATION/ MUTING)
S601	22146207	Switch, Rotary(SPEAKERS)
S801	22148657	Relay
S901	22195213	Switch, Lever(POWER)
J501	22163613	Jack, 2P
J601	22163313	Jack, Headphone
J801, 802	22162412	Terminal, Speaker
J901	22167874	AC Socket
L501, 502	22210107	Coil (LH1101)
N801, 802	22104368	Meter, Power
F901	22144372	Fuse, 2.5A/250V
E1	22176286	Cord, Power (TE)
E1	22176536	Cord, Power (TU)
E1	22176588	Cord, Power (AY)

Symbol No.	Part No.	Description
CAPACITORS J=±5%, K=±10%, P=–0 to +100%, Z=–20 to +80%		
C501, 502	22321053	Polypropylene, 470pF, 50V, J
C503, 504	22321054	Polypropylene, 560pF, 50V, J
C505, 506	22448100	Electrolytic, 10mfd, 50V
C507, 508	22362220	Ceramic, 22pF, 50V, K
C509, 510	22362100	Ceramic, 10pF, 50V, K
C511, 512	22362150	Ceramic, 15pF, 50V, K
C513, 514	22349151	Ceramic, 150pF, 50V, K
C517, 518	22349151	Ceramic, 150pF, 50V, K
C519, 520	22371104	Mylar, 0.1mfd, 50V, J
C521, 522	22370208	Metalized Polyester (V Type) 1mfd, 250V, K
C523	22448221	Electrolytic, 220mfd, 50V
C801, 802	22371103	Mylar, 0.01mfd, 50V, J
803		
C804	22443101	Electrolytic, 100mfd, 10V
C805	22445220	Electrolytic, 22mfd, 16V
C806	22448478	Electrolytic, 0.47mfd, 50V
C807, 808	22342223	Ceramic, 0.022mfd, 50V Z
C809, 810	22371103	Mylar, 0.01mfd, 50V, J
C901	22340108	Ceramic, 4700pF, 400V (TE)
C901	22340109	Ceramic,4700pF,400V(TU, AY)
C902, 903	22340032	Ceramic, 0.02mfd, 500V, Z
C904, 905	22340032	Ceramic, 0.02mfd, 500V, Z
C906, 907	22430082	Electrolytic, 0.012mfd, 50V
C909	22447479	Electrolytic, 4.7mfd, 35V
C910, 911	22370208	Metalized Polyester(V Type) 1mfd, 250V, K
RESISTORS All resistors are ±5%, ¼W, carbon film unless otherwise noted.		
R501, 502	22555474	470k ohm
R503, 504	22555563	56k ohm
R505, 506	22555563	56k ohm
R507, 508	22555681	680 ohm
R509, 510	22555562	5.6k ohm
R511, 512	22555821	820 ohm
R513, 514	22555562	5.6k ohm
R515,516	22555560	56 ohm
R517, 518	22555560	56 ohm
R519, 520	22570270	470 ohm, 1W, Metal Oxided Film
R521, 522	22555271	270 ohm
R523, 524	22658501	500 ohm, Semi-fixed
R525, 526	22555392	3.9k ohm
R527, 528	22555222	2.2k ohm
R529, 530	22555222	2.2k ohm
R531,532	22555822	8.2k ohm
R533, 534	22555223	22k ohm

Symbol No.	Part No.	Description
R535, 536	22555121	120 ohm
R537, 538	22658292	100 ohm, Semi-fixed
R539, 540	22555822	8.2k ohm
R541, 542	22555122	1.2k ohm
R543, 544	22555121	120 ohm
R545, 546	22570260	68 ohm, 1W, Metal Oxided Film
R547, 548	22570260	68 ohm, 1W, Metal Oxided Film
R549, 550	22570348	2.2 ohm, 1W, Metal Oxided Film
R551, 552	22570348	2.2 ohm, 1W, Metal Oxided Film
R553, 554	22500186	0.22 ohm, 5W, Wire Wound
R555, 556	22500186	0.22 ohm, 5W, Wire Wound
R557, 558	22570295	10 ohm, 2W, Metal Oxided Film
R559, 560	22570250	10 ohm, 1W, Metal Oxided Film
R561, 562	22545272	2.7k ohm
R601, 602	22570313	330 ohm, 2W, Metal Oxided Film
R801, 802	22555182	1.8K ohm
R803, 804	22555122	1.2K ohm
R805, 806	22555222	2.2K ohm
R807	22555683	68K ohm
R808, 810	22555223	22K ohm
R809	22555472	4.7K ohm
R811, 812 813	22555563	56K ohm
R814	22555473	47K ohm
R815	22555224	220K ohm
R816	22555223	22K ohm
R817	22570316	560 ohm, 2W, Metal Oxided Film
R818	22555563	56K ohm
R819	22555333	33K ohm
R820	22555223	22K ohm
R821, 824	22570323	2.2K ohm, 2W,Metal Oxided Film
R822, 823	22555393	39K ohm
R825, 826	22658501	500 ohm, Semi-fixed
R829, 830	22555104	100K ohm
R901	22555332	3.3K ohm
R902	22555154	150K ohm

Symbol No.	Part No.	Description
		CABINET PARTS
301	22821467	Panel Ass'y
302	22826241	Knob Ass'y, Level (SPEAKERS)
303	22834984	Knob, Lever (OPERATION/ MUTING/POWER)
304	22712388	Cover, Top
305	22828070	Foot
306	22712385	Jack Plate (TE)
306	22712412	Jack Plate (TU, AY)
307	25845528	Bush, Nylon
309	22712390	Side Plate
311	22831511	Bracket, Meter
312	22844165	Decoration, Meter
314	22705020	Rivet, Plastic, 3ϕ x 4.5mm
315	22701326	Screw, Tapping, 3ϕ x 8mm (Black)
316	22701321	Screw, 3ϕ x 6mm (Black)
317	22701325	Screw, 3ϕ x 8mm (Black)
318	22707467	Screw, Tapping, 4ϕ x 8mm
319	22707115	Screw, Tapping, 3ϕ x 8mm (Chrome)
320	22707196	Screw, FLT, 4ϕ x 8mm (Black)
321	22707163	Screw, 3ϕ x 10mm (Black)
322	22707118	Screw, Tapping, 3ϕ x 12mm(Black)
		ACCESSORY
	22902297	Owner's Manual