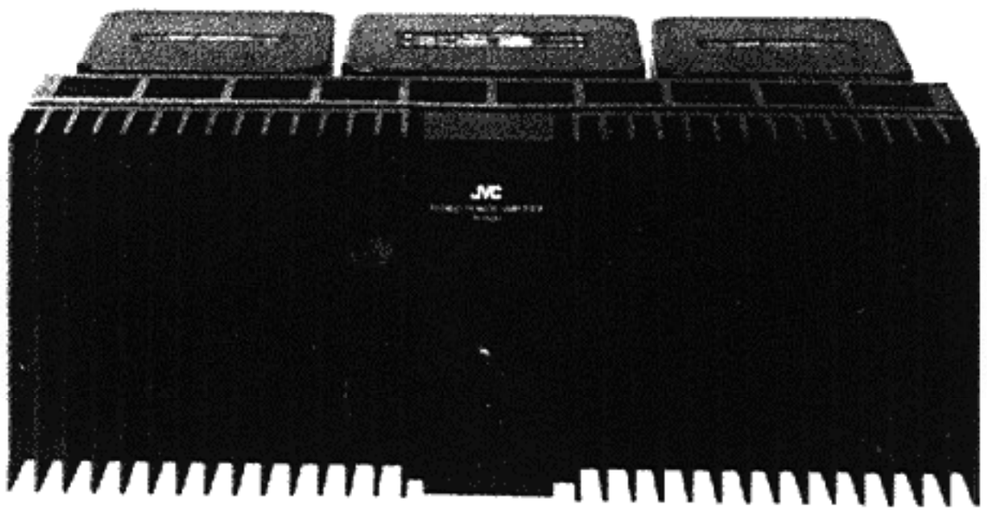
JVC

SERVICE MANUAL

MODEL M-3030

STEREO POWER AMPLIFIER



No. 2420
MAY, 1977

Contents

1. Specifications

Transistor & Diode	:	2 FETs (Dual package), 41 Transistors, 13 Diodes	
Output Power (Continuous) (both channels driven)	:	100 W + 100 W (8 Ω) 130 W + 130 W (4 Ω)	
Total Harmonic Distortion (8 Ω) (20 Hz – 20 kHz both channels driven)	:	Rated output 50 W output 1 W output	0.05 % or less 0.01 % or less 0.01 % or less
(1 kHz both channels driven)	:	Rated output	0.007 % or less
Intermodulation Distortion (8 Ω) (SMPTE, both channels driven)	:	Rated output 50 W output 1 W output	0.05 % or less 0.03 % or less 0.03 % or less
Power Bandwidth (IHF both channels driven)	:	5 Hz – 30 kHz 5 Hz – 100 kHz	0.02 % T.H.D. at –3 dB output power 0.3 % T.H.D. at –3 dB output power
Frequency Response	:	DC – 100 kHz	+0 dB, –1 dB from DIRECT input terminal
Subsonic Filter	:	18 Hz (–6 dB/oct)	from SUBSONIC input terminal
Input Sensitivity/Impedance	:	1.0 V/more than 50 kΩ	
Signal-to-Noise Ratio	:	116 dB (IHF, A network, input short)	
Damping Factor	:	More than 75 (20 Hz – 20 kHz)	
Output Impedance	:	4 – 16 Ω	

2. Precautions in Servicing

Notes:

- Both left and right channels employ the same class-B power supply circuit board (TPS-79). Identifications of the circuit board in the diagram are provided by prefix "L" for the left channel and "R" for the right channel, as shown in the example below.
  Example: D501 for the left channel: L-D501
  D501 for the right channel: R-D501
- Check ventilation carefully when a great deal of heat is generated. If the amplifier is installed on a dead-end rack, heat will accumulate and result in a reduction in the service life of the parts. Maintain a clearance of at least 5 cm on the top to assure sufficient air flow.
- Do not reverse the L and R SUBSONIC and DIRECT terminals since neither channel will function properly if the connections are incorrect. Be sure the L and R leads are properly connected to the correct input terminals.
- Do not mount the amplifier with the rear panel removed. The power cord may bend and become disconnected where it exits from the bottom of the amplifier.

3. Removal of Covers and Panels

Procedure

1. **Side Panel**
   Remove four screws (1) on each side.
   Remarks:
   - First remove the side panels to permit the parts to be removed.
   - Be sure to follow the order of steps given here.

2. **P.C. Board Cover**
   Remove the two screws (2), then slide back and lift up.
   Remark:
   The front panel can not be dismounted until the circuit board cover is removed.

3. **Front Panel**
   Remove screw (3) from above and two screws (4) from below, then pull the front panel out to the front.
   Remark:
   The driver circuit board and power transistors can now be removed.

4. **Bottom Cover**
   Remove the screws (5).
   Remark:
   Then remove the circuit boards and other parts.

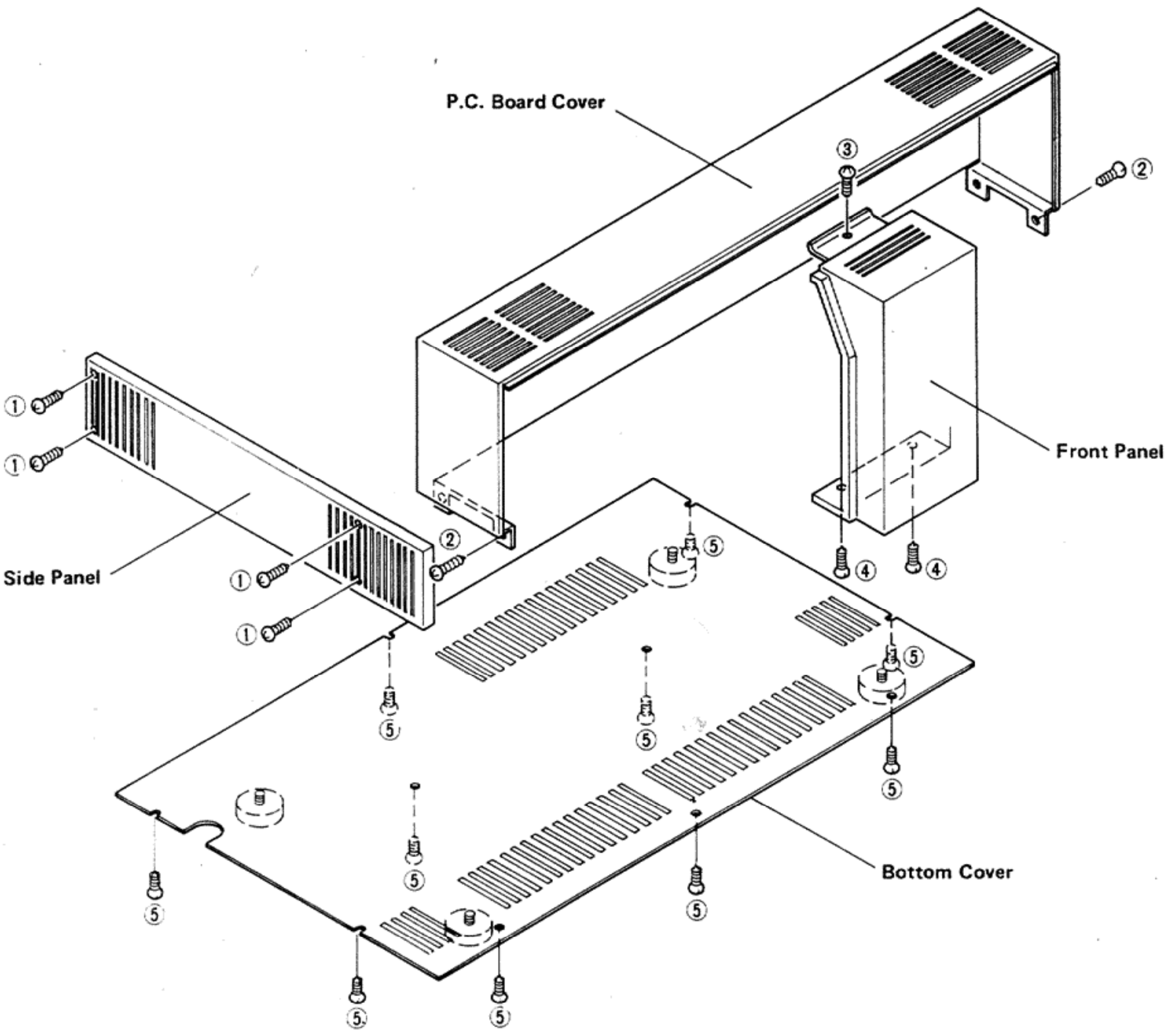


Fig. 1

4. Main Parts Location and Part Numbers

4-(1) Top View

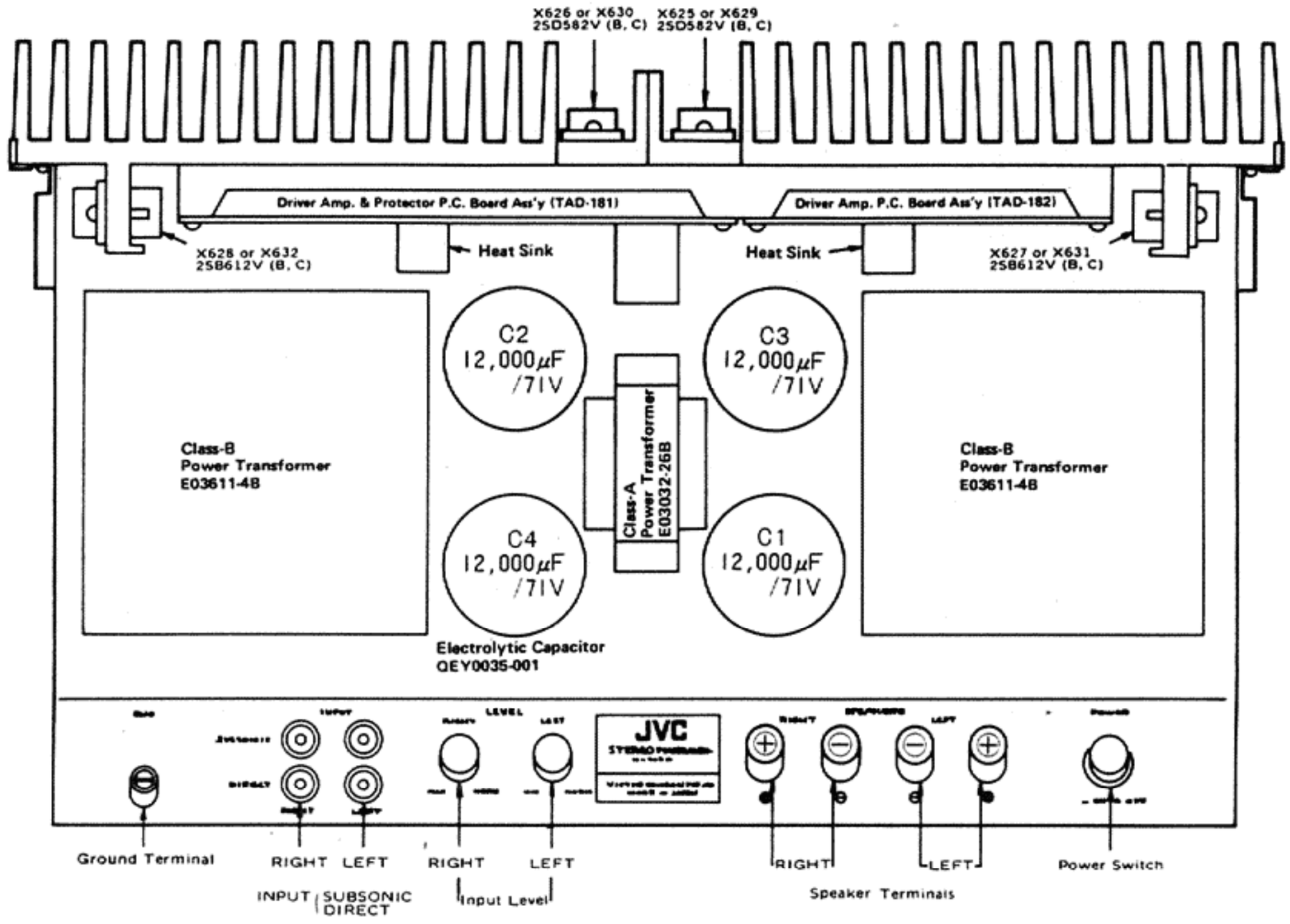


Fig. 2

4-(2) Bottom View

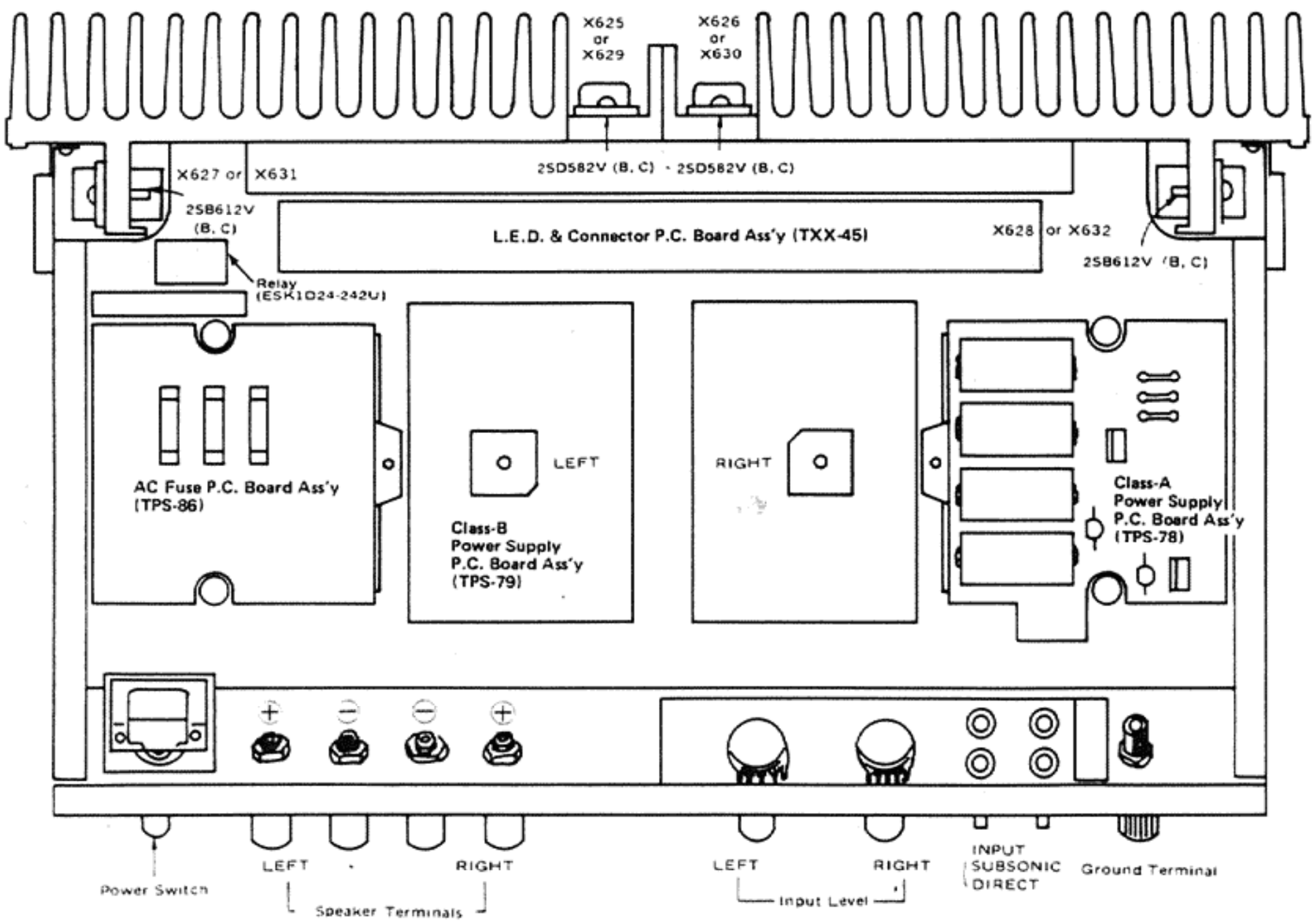


Fig. 3

5. Exploded Views and Parts List

5-(1) Top and Rear Panels

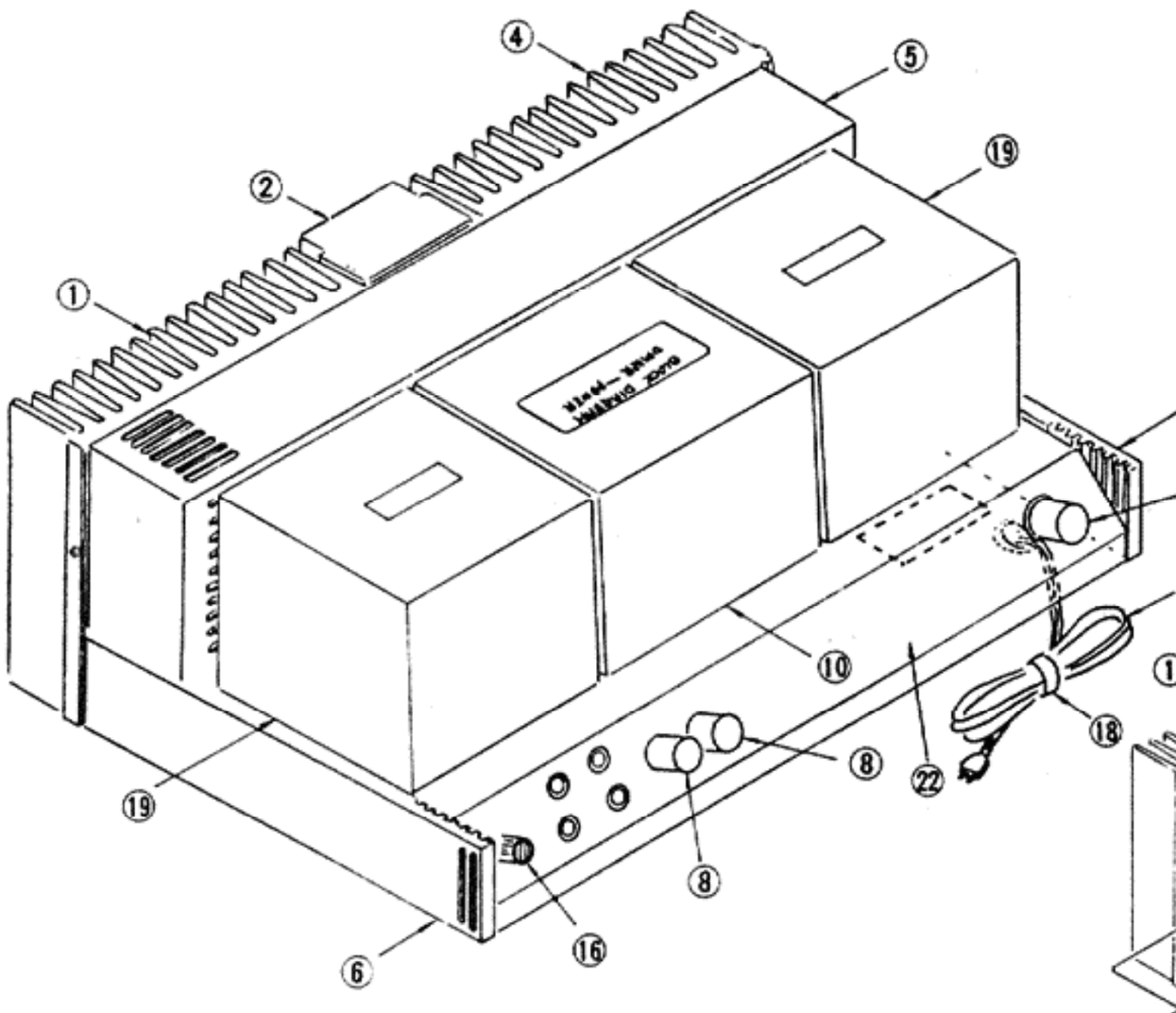


Fig. 4

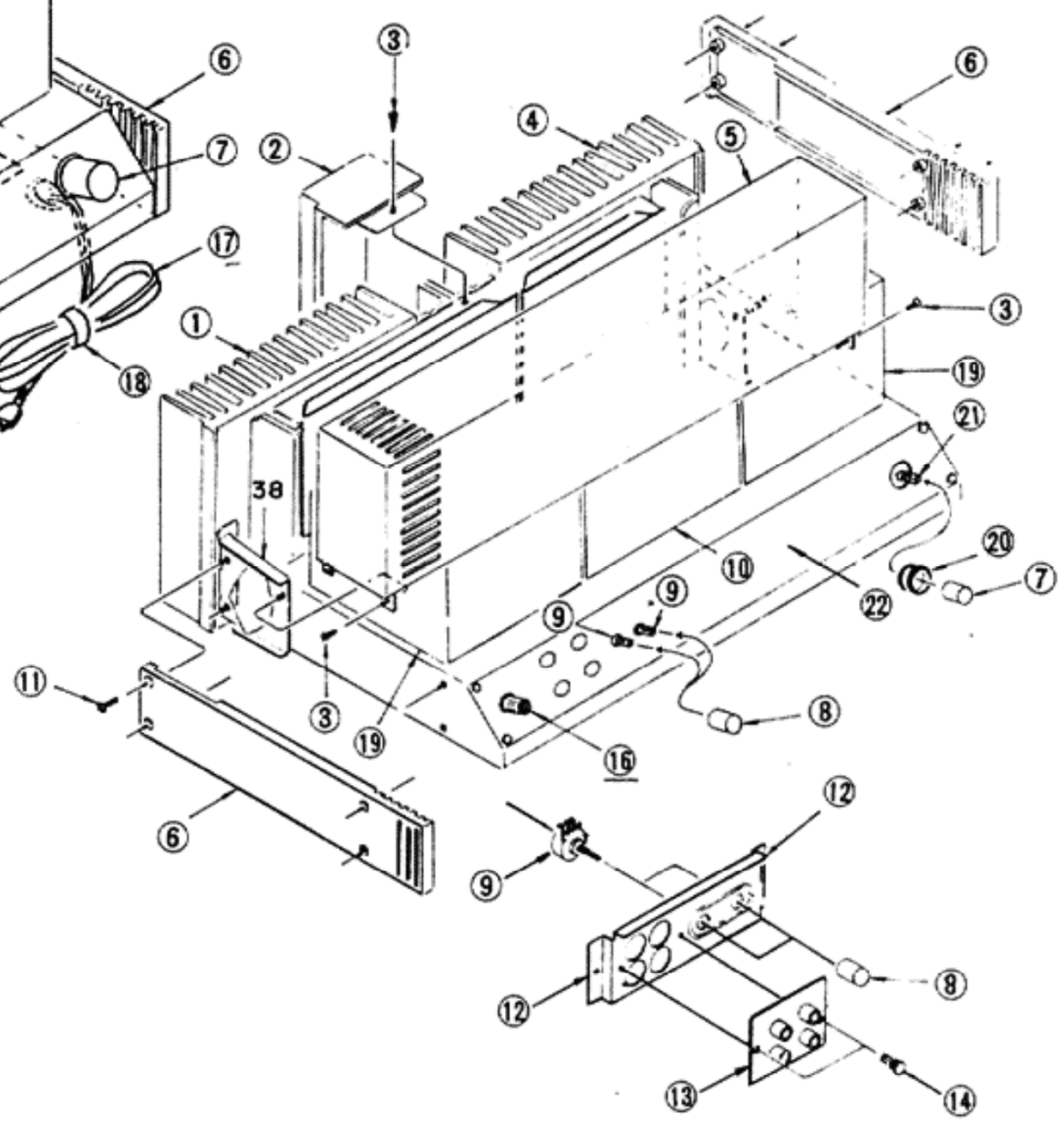


Fig. 5

Item No.	Part Number	Rating	Description	Q'ty
1	E10152-002		Heat Sink	1
2	E22210-003		Front Panel	1
3	SBSB3008M		Tapping Screw	46
4	E10152-001		Heat Sink	1
5	E22204-001		P.C. Board Cover	1
6	E22208-001		Side Panel	2
7	E61423-001		Push Knob	1
8	E61527-001		Knob	2
9	QVF1A2B-015V	100 kΩ (B)	Variable Resistor	2
10	E22206-001		Condenser Cover	1
11	SDSB3012M		Tapping Screw	8
12	E61420-001		Control Bracket	1
13	E03043-40B		Pin Jack Ass'y	1
14	E48729-001		Plastic Rivet	6
15	E34781-001		Stay Bracket	1
16	E03619-001		Ground Terminal	1
17	(See page 21)		Power Cord	1
18	E03709-001		Free Up Belt	1
19	E03611-4B		Power Transformer	2
20	E47957-007		Escutcheon	1
21	QSP2111-012		Power Switch	1
22	E22203-003		Rear Panel	1

5-(2) Heat Sink and P.C.Board Ass'y

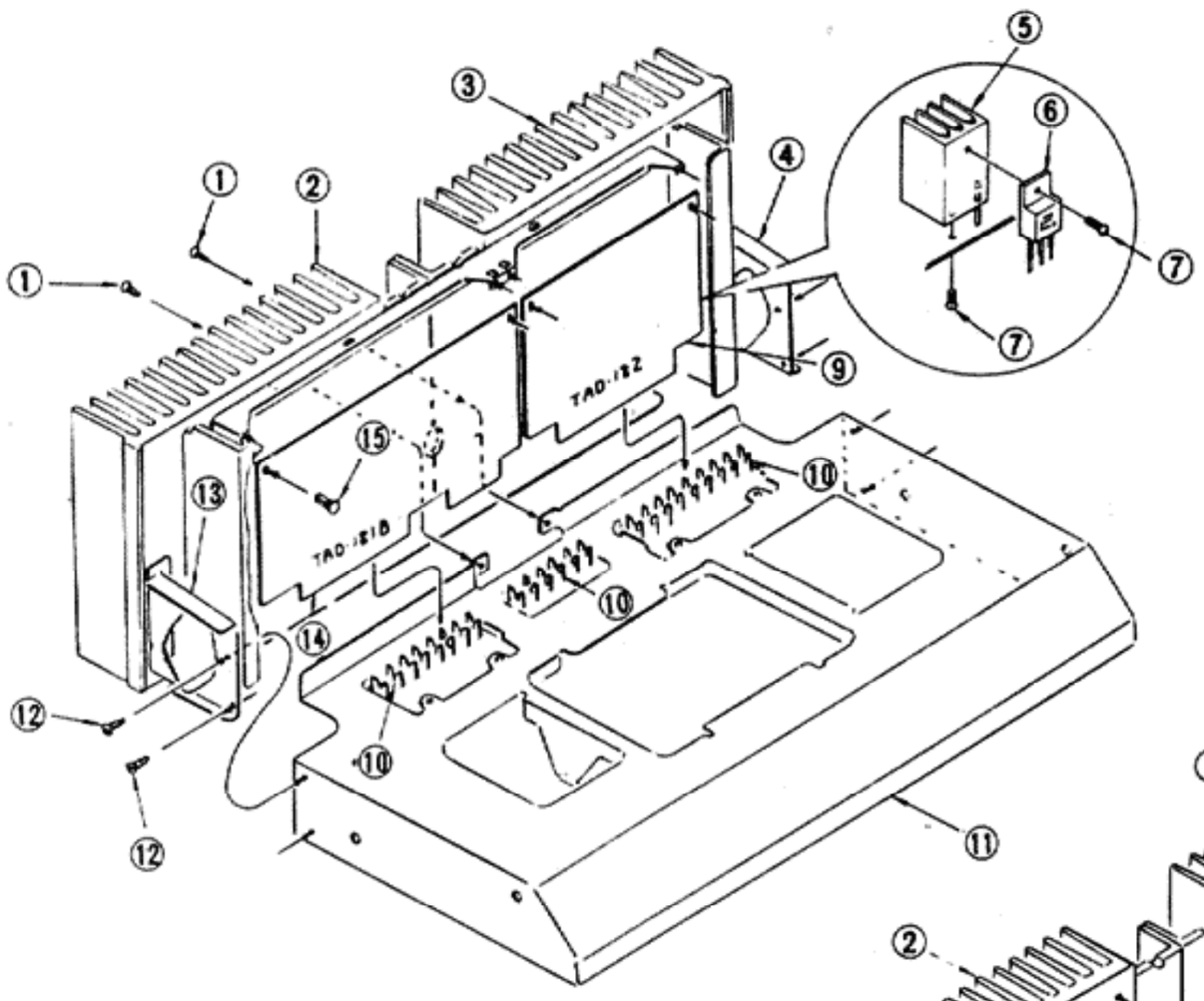


Fig. 6

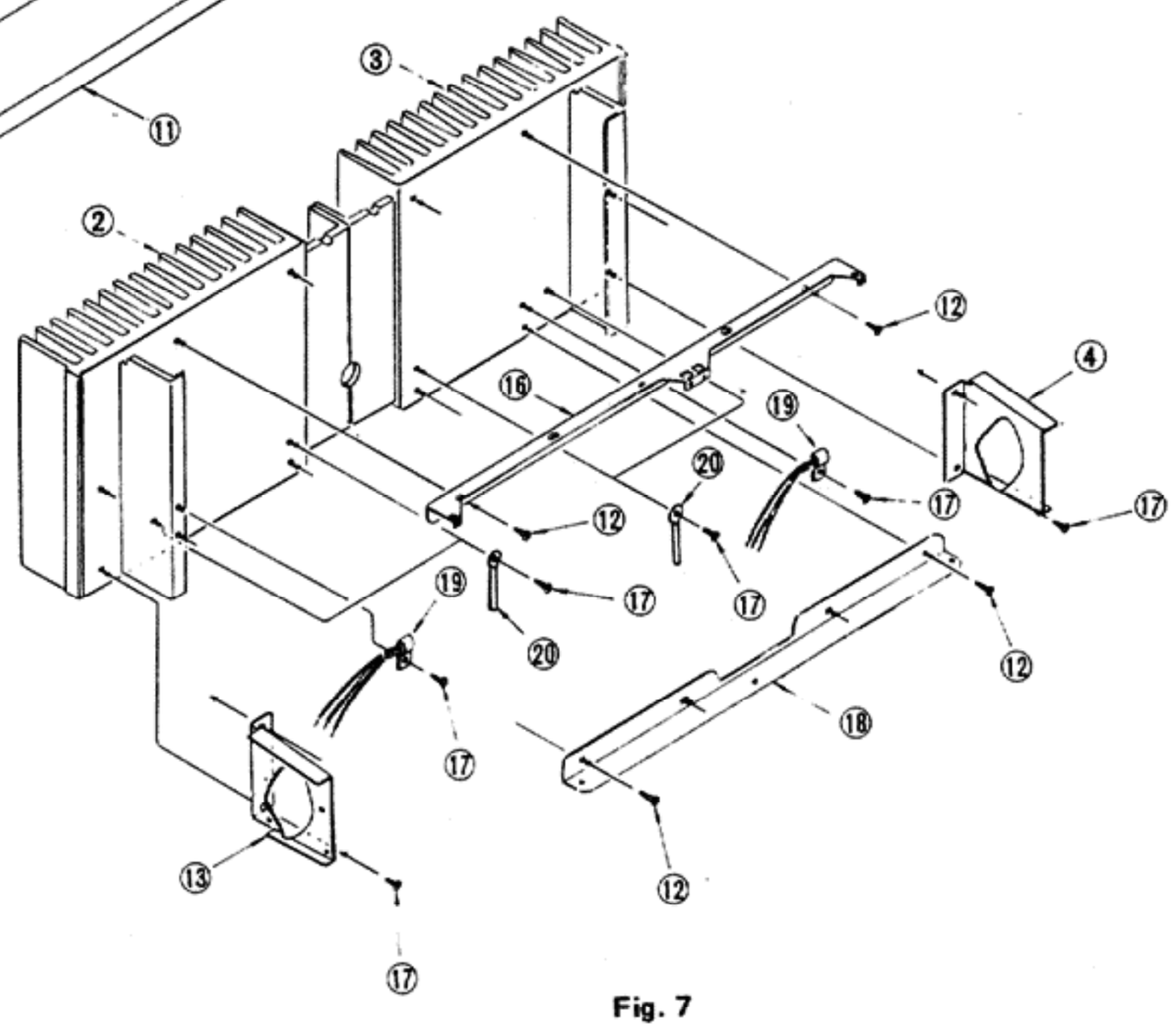


Fig. 7

Item No.	Part Number	Rating	Description	Q'ty
1	SBSB3012M		Tapping Screw	2
2	E10152-002		Heat Sink	1
3	E10152-001		"	1
4	E34781-002		Stay Bracket	1
5	E61537-001		Heat Sink	4
6	2SB536 (L, M) 2SB507V (D, E)		Si. Transistor X623, 624, " X702	3
7	SPSP3005MS		Screw	8
9	TAD-182A	Driver	Driver Circuit P.C. Board Ass'y	1
10	E48688-001		Connect Pin	45
11	E10139-001		Chassis Base Ass'y	1
12	SSSB3008M		Tapping Screw	12
13	E34781-001		Stay Bracket	1
14	TAD-181B	Driver & Protector	Driver & Protector P.C. Board Ass'y	1
15	E48729-001		Plastic Rivet	6
16	E34779-001		Support	1
17	SBSB3008M		Tapping Screw	46
18	E34780-001		Support	1
19	2SC853 (L)		Si. Transistor X619, 620	2
20	E50670-005		Wire Clamp	4

5-(3) Heat Sink and Power Transistors

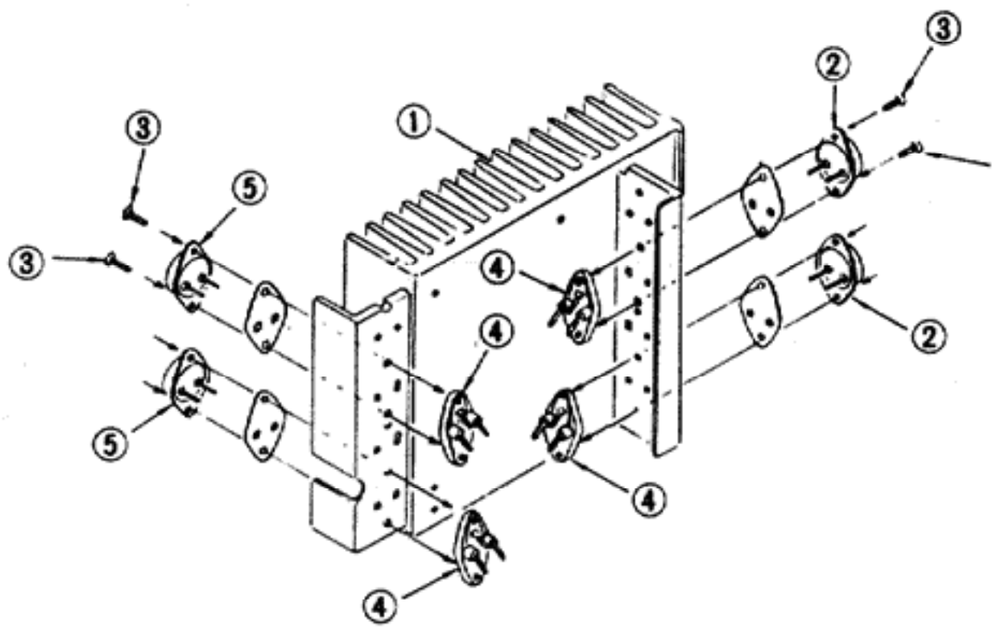


Fig. 8

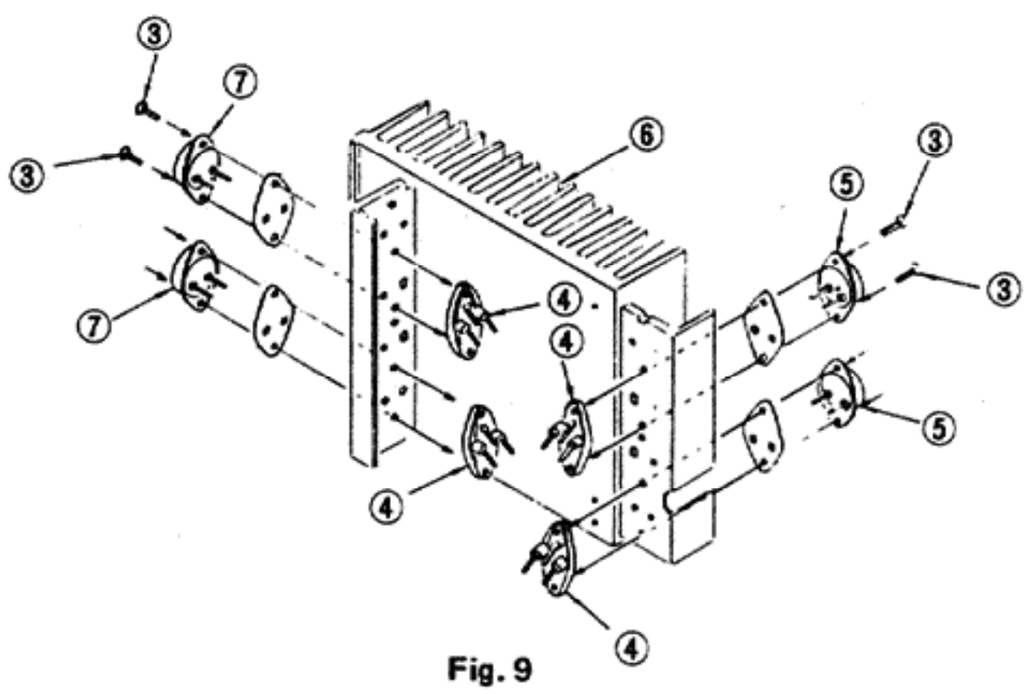


Fig. 9

Item No.	Part Number	Rating	Description	Q'ty
1	E10152-001		Heat Sink	1
2	2SB612V (B, C)		Transistor	4
3	LPSP3020NS		Ass'y Screw	16
4	E03624-001		Transistor Socket	8
5	2SD582V (B, C)		Transistor	4
6	E10152-002		Heat Sink	1
7	2SB536 (L, M)		Transistor	

5-(4) Bottom Plate

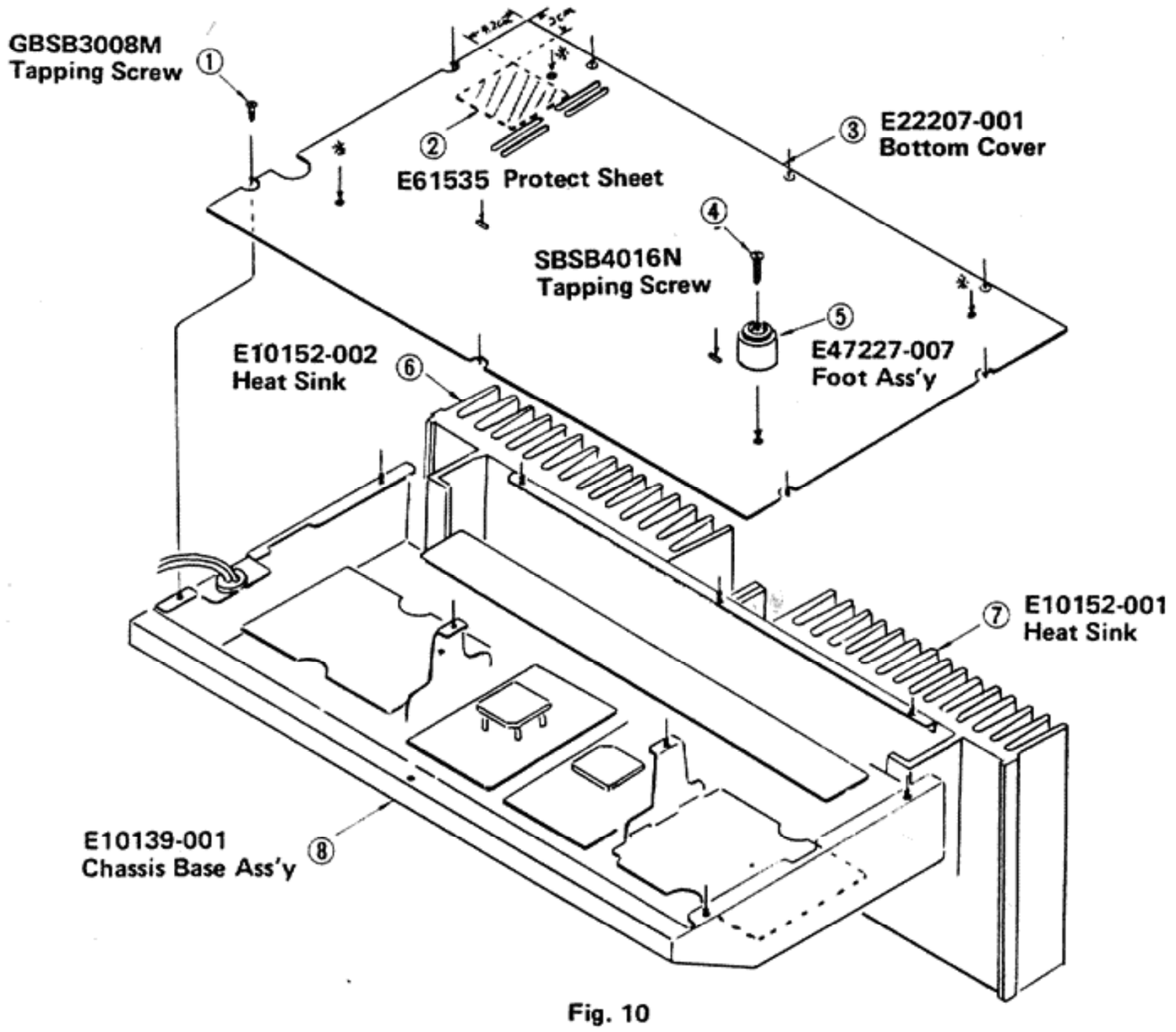


Fig. 10

6. Adjustment Procedures

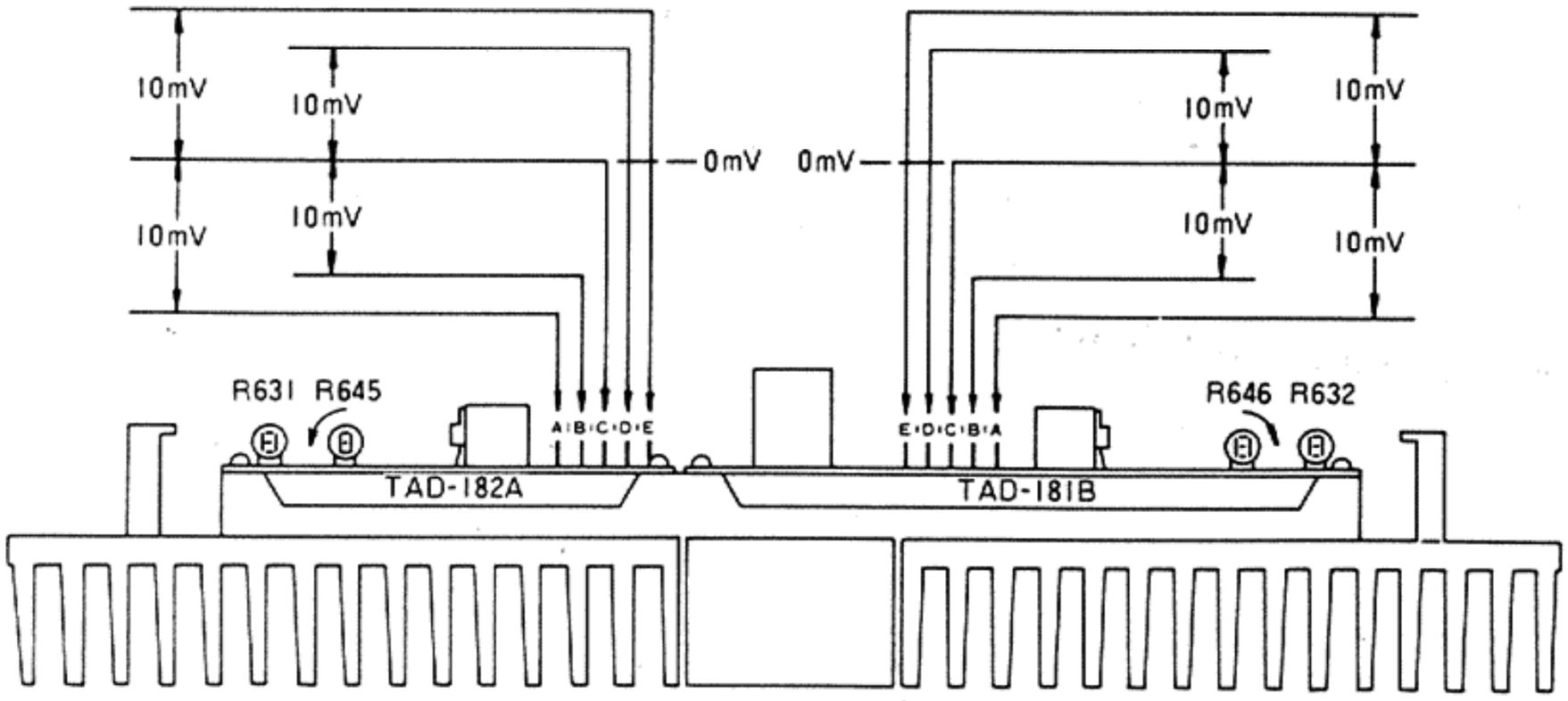


Fig. 11

6-(1) Center Voltage (See Fig. 12)

1. Adjust R631 (or R632) to the midpoint before turning power on.
2. Connect a voltmeter providing accurate voltages readings below 10 mV between test point C and the chassis of TAD-182 and 181 respectively, with the plus lead to point C and minus lead to the chassis. Then turn power on.
3. Turn R631 (or R632) little by little until the voltmeter reads 0 V.

Note: Speaker terminals may be used in place of test point C.

6-(2) Idling Current (See Fig. 13)

1. Turn the R645 (or 646) fully in the opposite direction to the arrow.
2. Five to six minutes after turning power on, connect the voltmeter minus leads to test point C (or the speaker plus terminal) and the plus lead to test point E (of both TAD-182 and 181) then slowly turn the resistor in the direction of the arrow until the voltmeter reads 10 mV.
3. Check that the voltage between test point C (or the speaker plus terminal) and test point D is approximately 10 mV. Reverse the voltmeter polarity and check that the voltage between test point C (or the speaker plus terminal) and test point A is nearly equal to that between test point C and test point B.
4. After adjusting TAD-182 and 181, recheck the channel first adjusted. If it is out of adjustment, repeat the adjustment. (Adjustment repeated two or three times alternately for L and R is sufficient.)
5. The idle current has now been adjusted to 20 mA (13–32 mA).

Test point	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Power transistor	Adjust to:
Center voltage	○						0 mV
Idling current	○	○				X625 (or X626)	10 mV
	○		○			X629 (or X630	
	○			○		X627 (or X628)	
	○				○	X631 (or X632)	

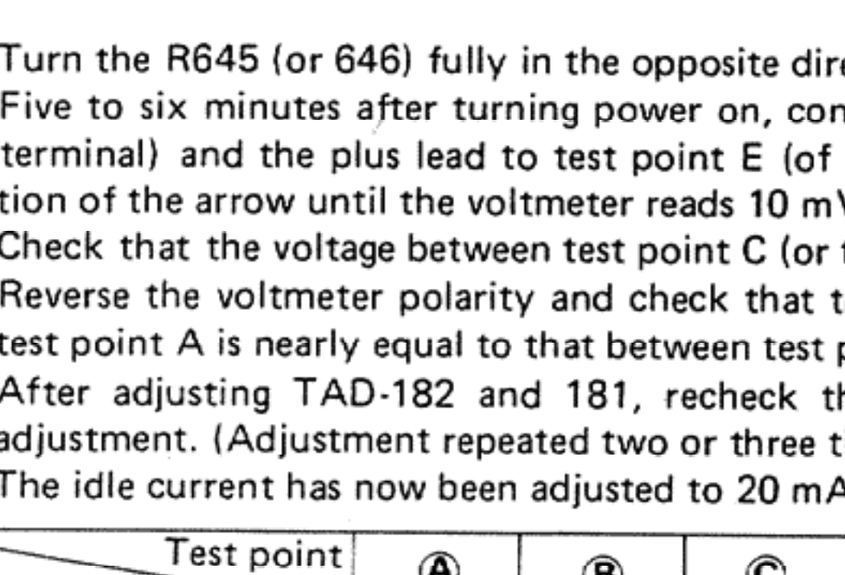


Fig. 12

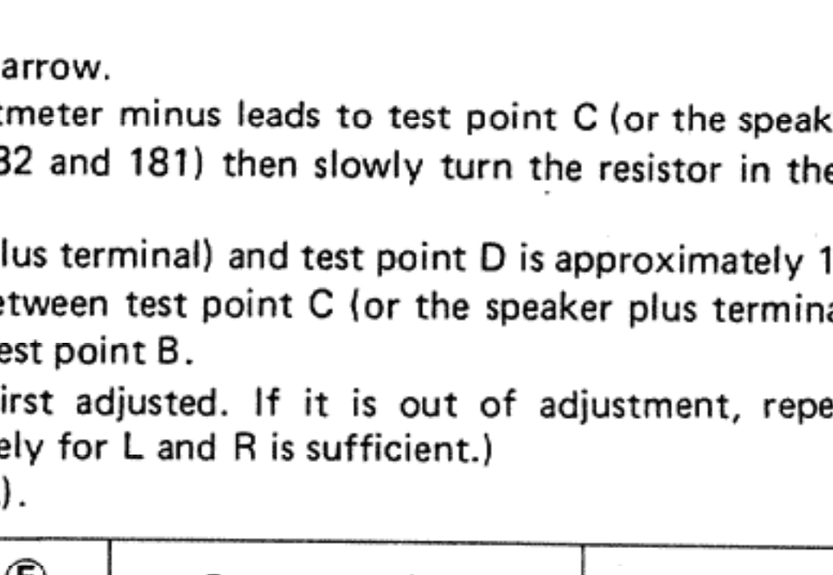


Fig. 13

M-3030
No. 2420

7. Wiring Diagram of All P.C. Board Assemblies

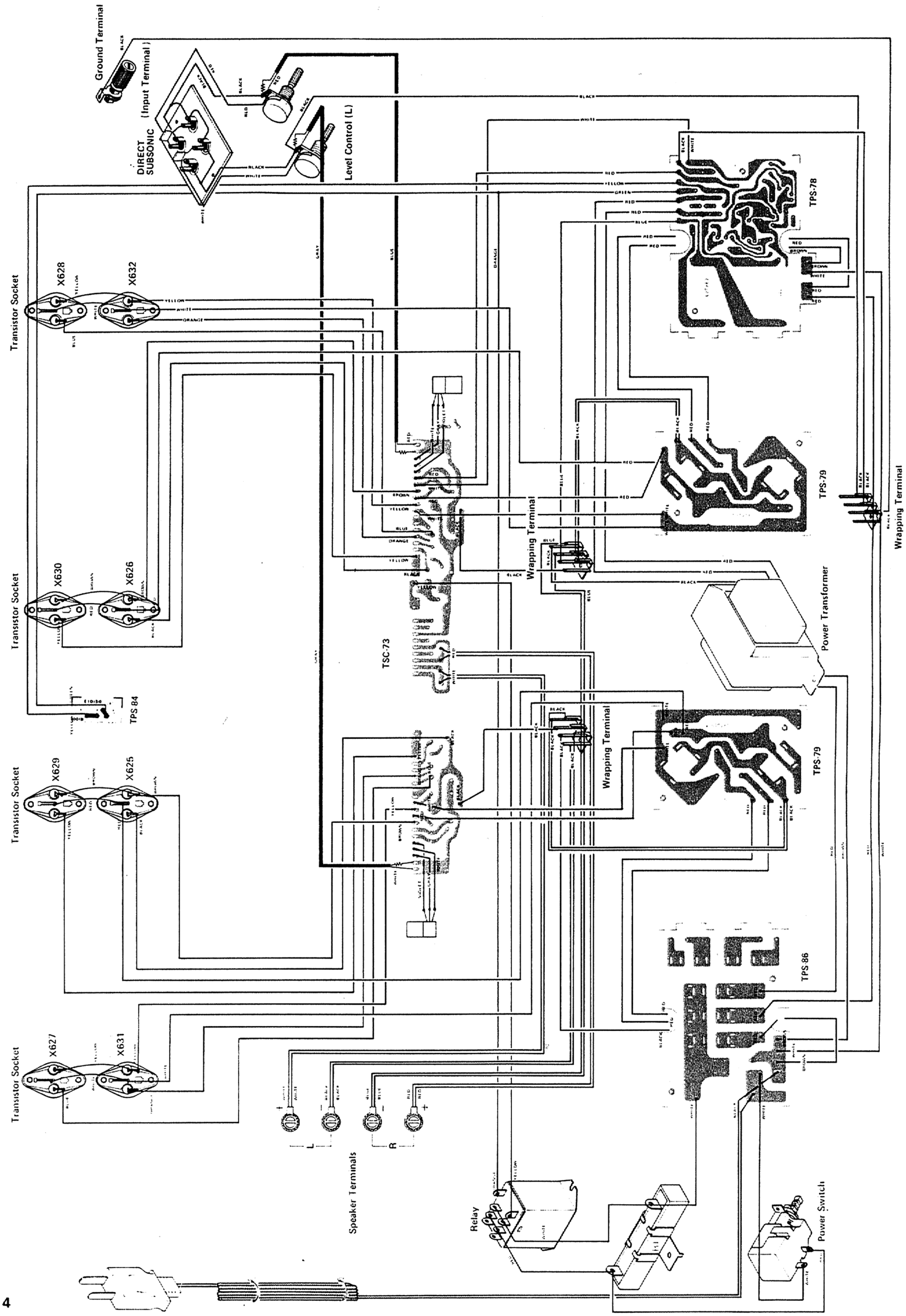


Fig. 14

8 Printed Circuit Board Ass'y and Parts List

8-(1) TXX-45 L.E.D. and Connector P.C.Board Ass'y

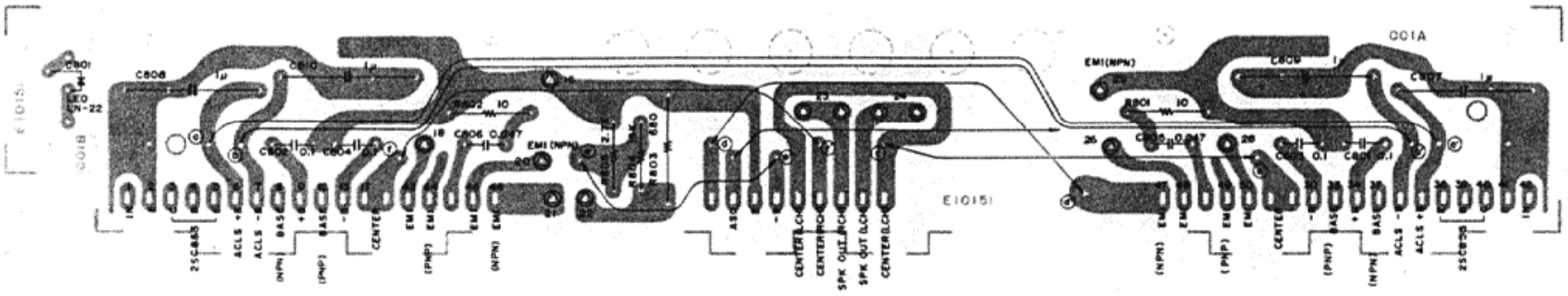


Fig. 15

Capacitors

Item No.	Part Number	Rating		Description
C801	QFM42AK-104	0.1 μF	100 V	Mylar
C802	QFM42AK-104	"	"	"
C803	QFM42AK-104	"	"	"
C804	QFM42AK-104	"	"	"
C805	QFM42AK-473	0.047 μF	100 V	"
C806	QFM42AK-473	"	"	"
C807	CF93MMA2E-105K	1 μF	250 V	Metalized Mylar
C808	CF93MMA2E-105K	"	"	"
C809	CF93MMA2E-105K	"	"	"
C810	CF93MMA2E-105K	"	"	"

Resistors

Item No.	Part Number	Rating		Description
R801	QRX017J-100S	100 Ω	1 W	Uninflammable O.M.F.
R802	QRX017J-100S	"	"	"
R803	QRG027J-681	680 Ω	2 W	"
R804	QRD141J-153	1.5 kΩ	1/4 W	Carbon
R805	QRD141J-272	2.7 kΩ	"	"

Circuit Board & Others

Item No.	Part Number	Rating	Description
	E10151-001		Circuit Board
	E43727-002		Tab
	52868-3		Terminal
	LN-22		L.E.D. (for indicator)
	E49578-001		L.E.D. Holder

8-(2) TPS-78 Class-A Power Supply P.C.Board Ass'y

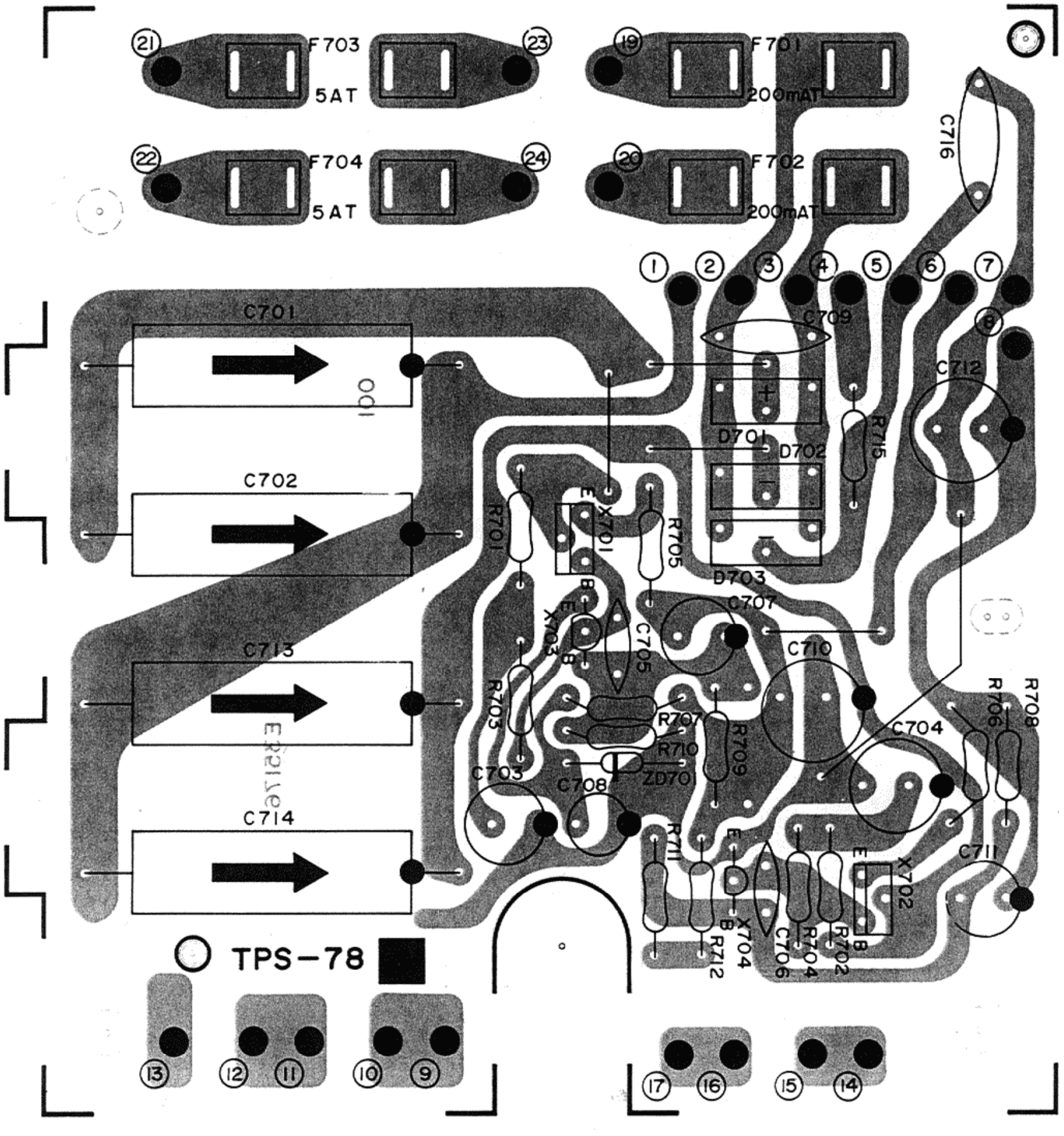


Fig. 16

Transistors

Item No.	Part Number	Rating		Description	Maker
		Pc	fT		
X701	2SD313V (D, E)	20 W	8 MHz	Silicon (NPN)	Sanyo
X702	2SB507V (D, E)	"	"	" (PNP)	"
X703	2SC1775AV (E, F)	300 mW	200 MHz	" (NPN)	Hitachi
X704	2SA872AV (D, E)	"	"	" (PNP)	"

Diodes

Item No.	Part Number	Rating		Description	Maker
D701	ESAB02-02C			Silicon	Fuji Denki
D702	ESAB02-02N			"	"
D703	ESAB02-02N			"	"
ZD701	WZ-130	13 V		Zener	JRC

Capacitors

Item No.	Part Number	Rating		Description
C701	QEW22AA-107	100 μF	100 V	Electrolytic
C702	QEW22AA-107	"	"	"
C703	QEW51JA-476	47 μF	63 V	"
C704	QEW51JA-476	"	"	"
C705	QCS31HJ-331	330 pF	50 V	Ceramic
C706	QCS31HJ-331	"	"	"
C707	QEW51HA-106	10 μF	"	Electrolytic
C708	QEW51EA-106	"	25 V	"
C709	QFZ0075-223	0.022 μF	600 V	Metalized Mylar
C710	QEW51JA-107	100 μF	63 V	Electrolytic
C711	QEW51JA-106	10 μF	"	"
C712	QEW51JA-107	100 μF	"	"
C713	QEW22AA-107	100 μF	100 V	"
C714	QEW22AA-107	"	"	"
C716	QFH42AK-224	0.22 μF	100 V	Metalized Mylar

Resistors

Item No.	Part Number	Rating		Description
R701	QRD126J-392	3.9 kΩ	1/2 W	Si. Transistor
R702	QRD141J-392	"	1/4 W	Carbon
R703	QRD126J-471	470 Ω	1/2 W	Si. Transistor
R704	QRD141J-471	"	1/4 W	Carbon
R705	QRD126J-100	10 Ω	1/2 W	Si. Transistor
R706	QRD126J-100	"	"	"
R707	QRD126J-682	6.8 kΩ	"	"
R708	QRD141J-473	47 kΩ	1/4 W	Carbon
R709	QRD141J-393	39 kΩ	"	"
R710	QRD141J-153	15 kΩ	"	"
R711	QRD141J-182	1.8 kΩ	"	"
R712	QRD141J-473	47 kΩ	"	"
R715	QRD141J-680	68 Ω	"	"

Circuit Board & Others

Item No.	Part Number	Rating	Description
	E34759-002		Circuit Board
	E43727-002		Tab
	E48965-002		Fuse Clip

8-(3) TPS-79 Class-B Power Supply P.C.Board Ass'y

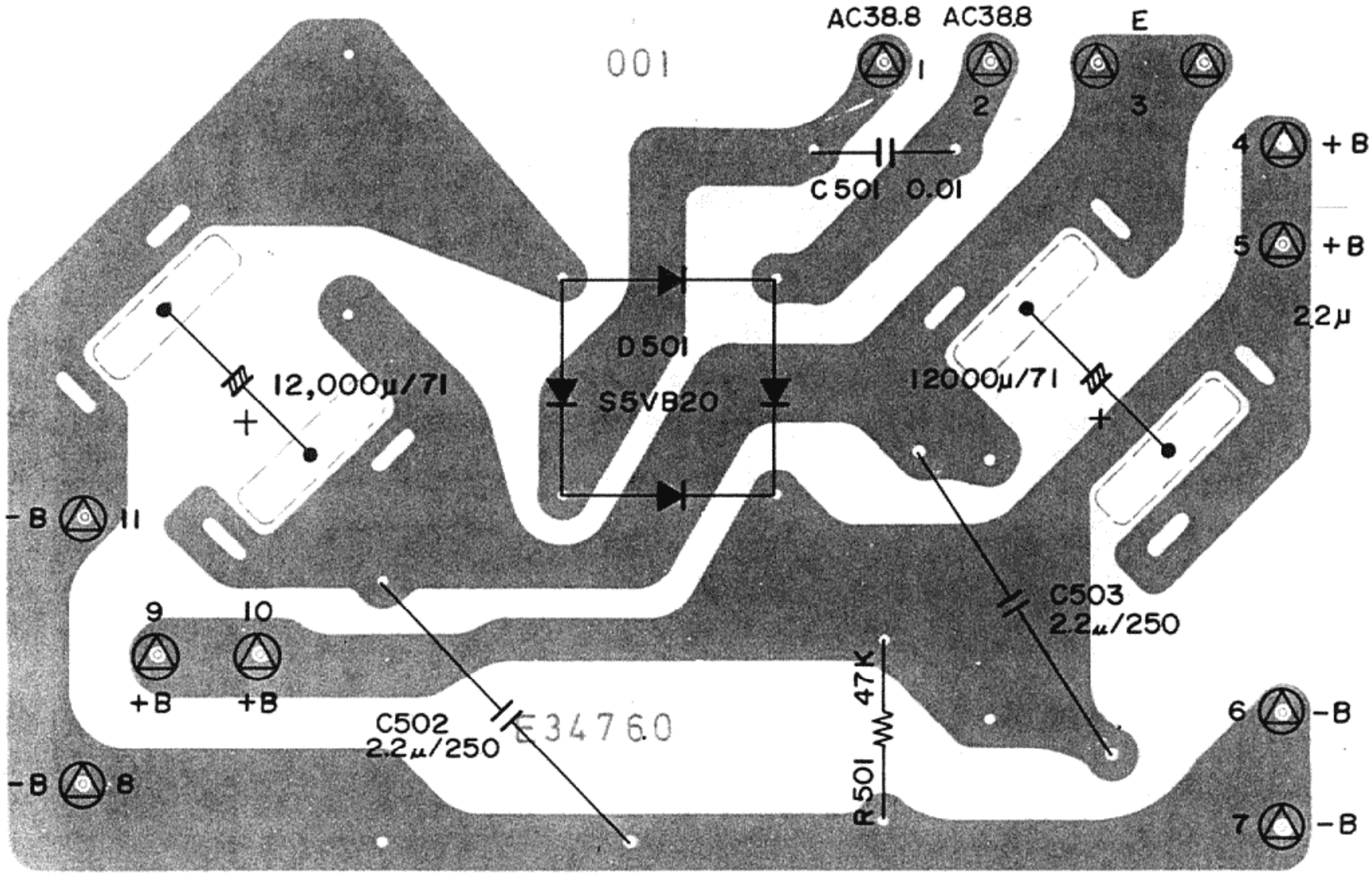


Fig. 17

Diodes

Item No.	Part Number	Rating		Description	Maker
D501	S5VB20	5 A		Bridge	Shindengen

Capacitors

Item No.	Part Number	Rating		Description	
C501	CF93MMA2G-223K	0.022 μF	400 V	Metalized Mylar	
C502	MDD-2E-225K	2.2 μF	50 V	"	
C503	MDD-2E-225K	"	"	"	

Resistors

Item No.	Part Number	Rating		Description	
R501	QRG129J-473	47 kΩ	1/2 W	Uninflammable O.M.F.	

Circuit Board & Others

Item No.	Part Number	Rating	Description	Q'ty
	E34760-001		Circuit Board	2
	E40130-001		Tab	16
	E43727-002		"	22

8-(4) TPS-86 AC Fuse P.C.Board Ass'y

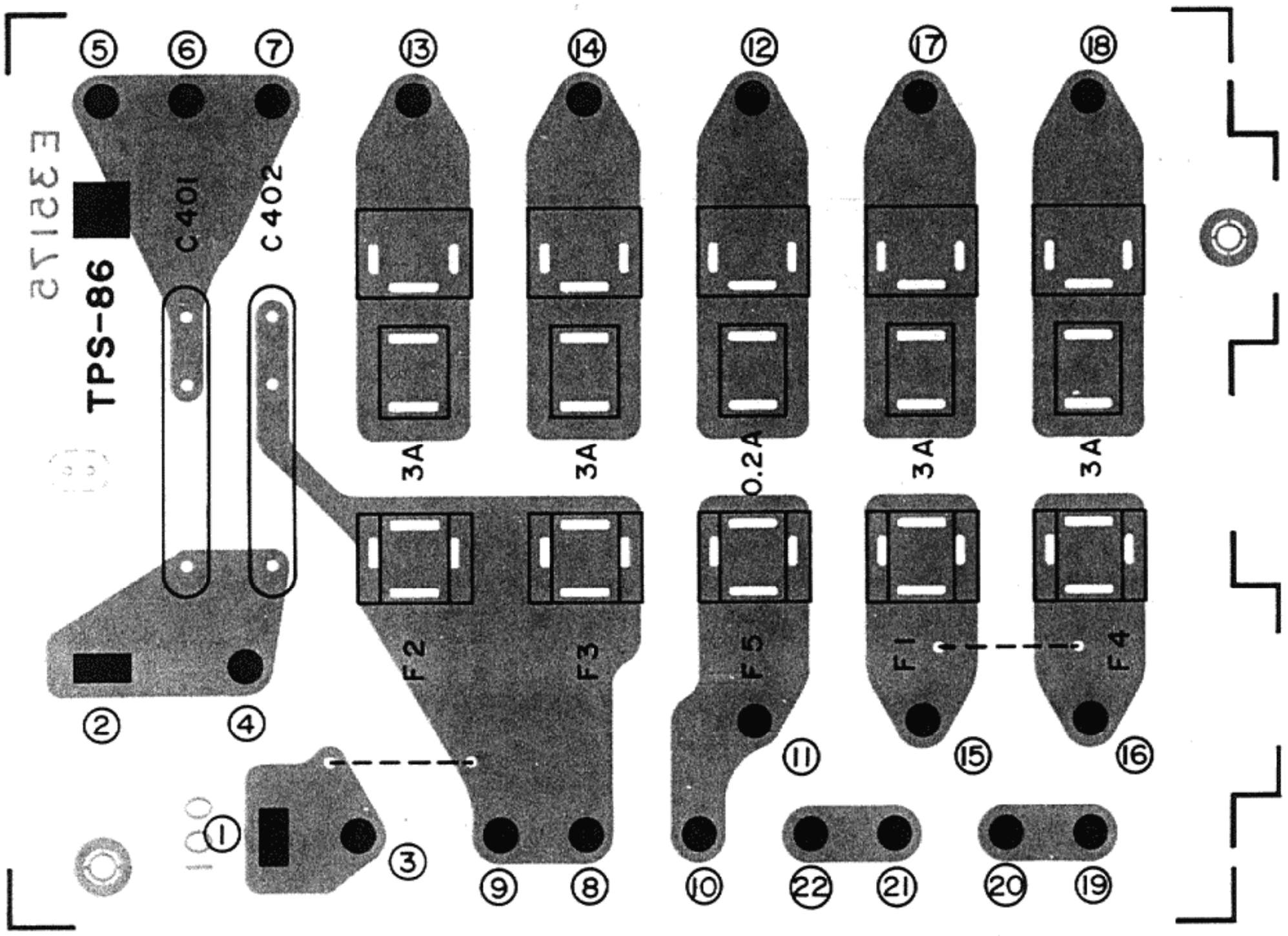


Fig. 18

Capacitors

Item No.	Part Number	Rating		Description	
C401	QFH53AM-103	0.01 μF	1000 V	Matalized Mylar	
C402	QFH53AM-103	"	"	"	

Circuit Board & Others

Item No.	Part Number	Rating	Description	Q'ty
	E34758-002		Circuit Board	1
	E40130		Tab	2
	E43727-002		Tab	12
	E45524-001		Contact clip	10

8-(5) TAD-181 Driver Amp. & Protector P.C.Board Ass'y

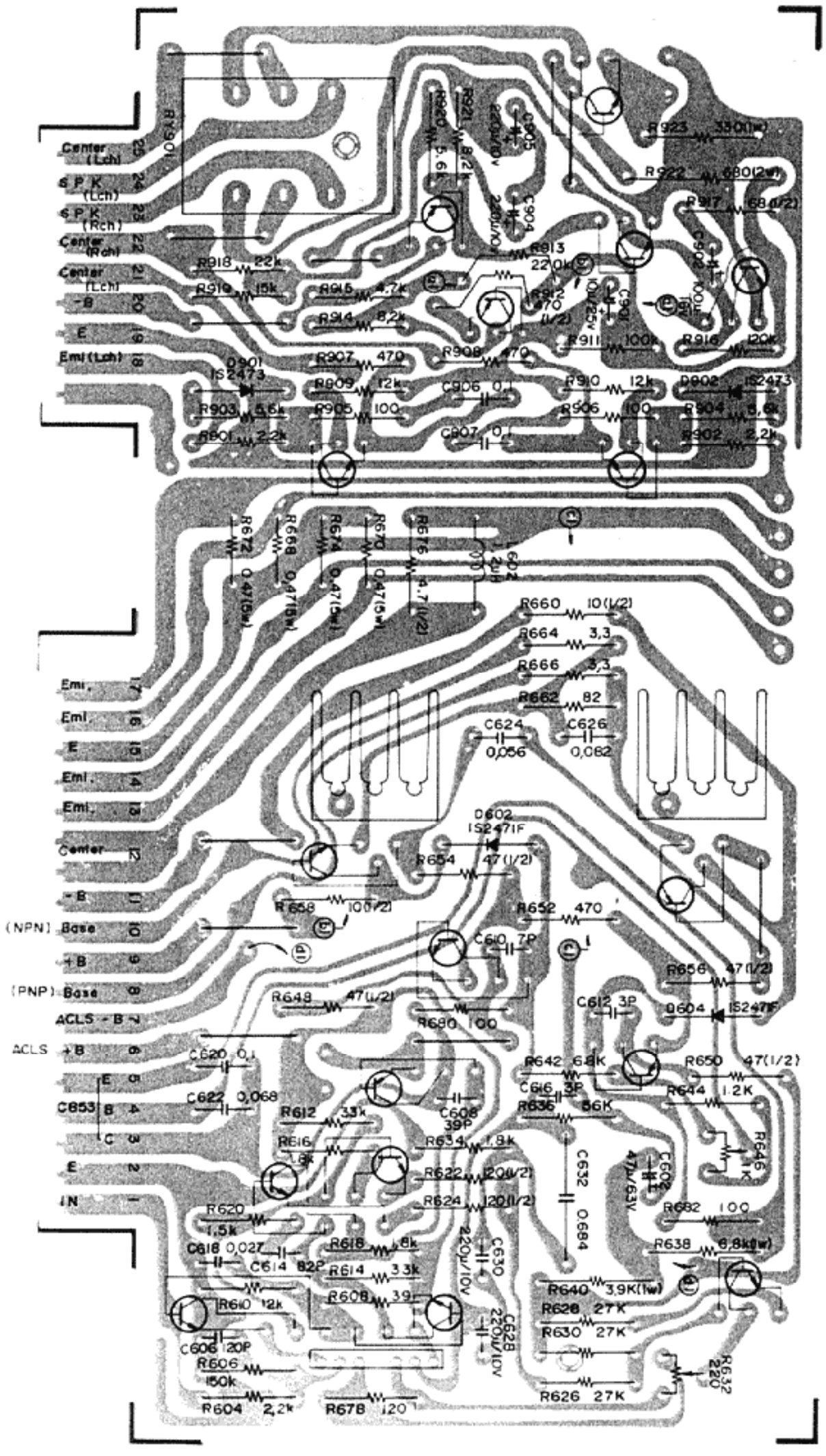


Fig. 19

Transistors & IC

Item No.	Part Number	Rating		Description	Maker
		Pc	fT		
IC602	MPA63H1	250 mW		I.C.	NEC
X604	2SC1775AV (F)	300 mW	200 MHz	Silicon (NPN)	Hitachi
X606	2SC1775AV (F)	"	"	" "	"
X608	2SC1775AV (F)	"	"	" "	"
X610	2SC1775AV (F)	"	"	" "	"
X612	2SC1775AV (F)	"	"	" "	"
X614	2SA899 (B, V)	1000 mW	100 MHz	" (PNP)	Fuji
X616	2SC1904 (B, V)	"	"	" (NPN)	"
X618	2SA899 (B, V)	"	"	" (PNP)	"
X622	2SD381 (L, M)	20 W	60 MHz	" (NPN)	NEC
X624	2SB536 (L, M)	"	"	" (PNP)	"

Transistors & IC

Item No.	Part Number	Rating		Description	Maker
		Pc	fT		
X901	2SC1775AV (F)	300 mW	200 MHz	" (NPN)	Hitachi
X902	2SC1775AV (F)	"	"	" "	"
X903	2SC1775AV (F)	"	"	" "	"
X904	2SC1775AV (F)	"	"	" "	"
X905	2SA872AV (E)	"	"	" (PNP)	"
X906	2SA872AV (E)	"	"	" "	"
X907	2SD438 (E)	750 mW	100 MHz	" (NPN)	Sanyo

Diodes

Item No.	Part Number			Maker
D602	1S2471F			Toyo Dengu
D604	1S2471F			"
D901	1S2473			"
D902	1S2473			"

Capacitors

Item No.	Part Number	Rating		Description	
C602	QEW51JA-476	47 μF	63 V	Electrolytic	
C608	QCS12HJ-330	33 pF	100 V	Ceramic	
C610	QCS12HJ-7R0	7 pF	"	"	
C612	QCS12HJ-3R0	3 pF	"	"	
C614	QFM31HK-562	0.0056 μF	50 V	Mylar	
C618	QFM31HK-273	0.027 μF	"	"	
C620	QFM31HK-104	0.1 μF	"	"	
C622	QFM31HK-683	0.068 μF	"	"	
C624	QFM31HK-563	0.056 μF	"	"	
C626	QFM31HK-823	0.082 μF	"	"	
C628	QEW51AA-227	220 μF	10 V	Electrolytic	
C630	QEW51AA-227	"	"	"	
C632	CF93MMA2E-684K	0.68 μF	250 V	Metalized Mylar	
C634	QCS31HJ-180	18 pF	50 V	Ceramic	
C636	QCS12HJ-1R0	1 pF	100 V	"	
C901	QEW51EA-106	10 μF	25 V	Electrolytic	
C902	QEW51CA-107	100 μF	16 V	"	
C904	QEW51AA-227	220 μF	10 V	"	
C905	QEW51AA-227	"	"	"	
C906	QFM31HK-104	0.1 μF	50 V	Mylar	
C907	QFM31HK-104	"	"	"	

Resistors

Item No.	Part Number	Rating		Description	
R602	QRZ0019-104	100 kΩ	1/4 W	Carbon	Low Noise
R604	QRZ0019-222	2.2 kΩ	"	"	"
R606	QRZ0019-154	150 kΩ	"	"	"
R608	QRZ0019-393	39 kΩ	"	"	"
R610	QRZ0019-123	12 kΩ	"	"	"
R612	QRZ0019-333	33 kΩ	"	"	"
R614	QRZ0019-333	"	"	"	"
R616	QRZ0019-182	1.8 kΩ	"	"	"
R618	QRZ0019-182	"	"	"	"
R620	QRD141J-562	5.6 kΩ	"	"	
R622	QRD126J-121	120 Ω	1/2 W	Uninflammable Carbon	
R624	QRD126J-121	"	"	"	
R626	QRZ0019-273	27 kΩ	1/4 W	Carbon	Low Noise
R628	QRZ0019-273	"	"	"	"

Resistors

Item No.	Part Number	Rating		Description
R630	QRZ0019-273	27 kΩ	1/4 W	Carbon Low Noise
R632	QVP9A0B-221	220 Ω (B)	1/8 W	Variable Semi Fix
R634	QRZ0019-182	1.8 kΩ	1/4 W	Carbon Low Noise
R636	QRZ0019-563	56 kΩ	"	" "
R638	QRG017J-682S	6.8 kΩ	1 W	Uninflammable O.M.F.
R640	QRG017J-392S	3.9 kΩ	"	"
R642	QRZ0019-682	6.8 kΩ	1/4 W	Carbon Low Noise
R644	QRZ0019-122	1.2 kΩ	"	" "
R646	QVP9A0B-102	1 kΩ (B)	1/8 W	Variable Semi Fix
R648	QRG129J-470	47 Ω	1/2 W	Uninflammable O.M.F.
R650	QRG129J-470	"	"	"
R652	QRD141J-471	470 Ω	1/4 W	Carbon
R654	QRD141J-470	47 Ω	"	"
R656	QRD141J-470	"	"	"
R658	QRX129J-100	10 Ω	1/2 W	Uninflammable M.F.
R660	QRX129J-100	"	"	"
R662	QRD141J-820	82 Ω	1/4 W	Carbon
R664	QRD141J-3R3	3.3 Ω	"	"
R666	QRD141J-3R3	"	"	"
R668	QRM054K-R47S	0.47 Ω	5 W	Metal Planer Cement
R670	QRM054K-R47S	"	"	" "
R672	QRM054K-R47S	"	"	" "
R674	QRM054K-R47S	"	"	" "
R676	QRX129J-4R7	4.7 Ω	1/2 W	Uninflammable M.F.
R678	QRD141J-121	120 Ω	1/4 W	Carbon
R680	QRD141J-101	100 Ω	"	"
R682	QRD141J-101	"	"	"
R901	QRD141J-222	2.2 kΩ	"	"
R902	QRD141J-222	"	"	"
R903	QRD141J-562	5.6 kΩ	"	"
R904	QRD141J-562	"	"	"
R905	QRD141J-101	100 Ω	"	"
R906	QRD141J-101	"	"	"
R907	QRD141J-471	470 Ω	"	"
R908	QRD141J-471	"	"	"
R909	QRD141J-123	12 kΩ	"	"
R910	QRD141J-123	"	"	"
R911	QRD141J-104	100 kΩ	"	"
R912	QRD126J-471	470 Ω	1/2 W	Uninflammable Carbon
R913	QRD141J-224	220 kΩ	1/4 W	Carbon
R914	QRD141J-822	8.2 kΩ	"	"
R915	QRD141J-472	4.7 kΩ	"	"
R916	QRD141J-124	120 kΩ	"	"
R917	QRD126J-680	68 Ω	1/2 W	Uninflammable Carbon
R918	QRD141J-183	18 kΩ	1/4 W	Carbon
R919	QRD141J-153	15 kΩ	"	"
R920	QRD141J-562	5.6 kΩ	"	"
R921	QRD141J-822	8.2 kΩ	"	"
R922	QRG027J-681	680 Ω	2 W	Uninflammable O.M.F.
R923	QRG017J-331S	330 Ω	1 W	"

Circuit Board & Others

Item No.	Part Number	Rating		Description
	E22199-001			Circuit Board
	E61537-001			Heat Sink
L602	E04059-1R2	1.2 mH		Choke Coil
	SPSP3005M			Screw (to fix the heat sink)
RY901	ESK1D24-214D			Relay
	E03606-001			Hole Contact Pin (for test point)

8-(6) TAD-182 Driver Amp. P.C.Board Ass'y

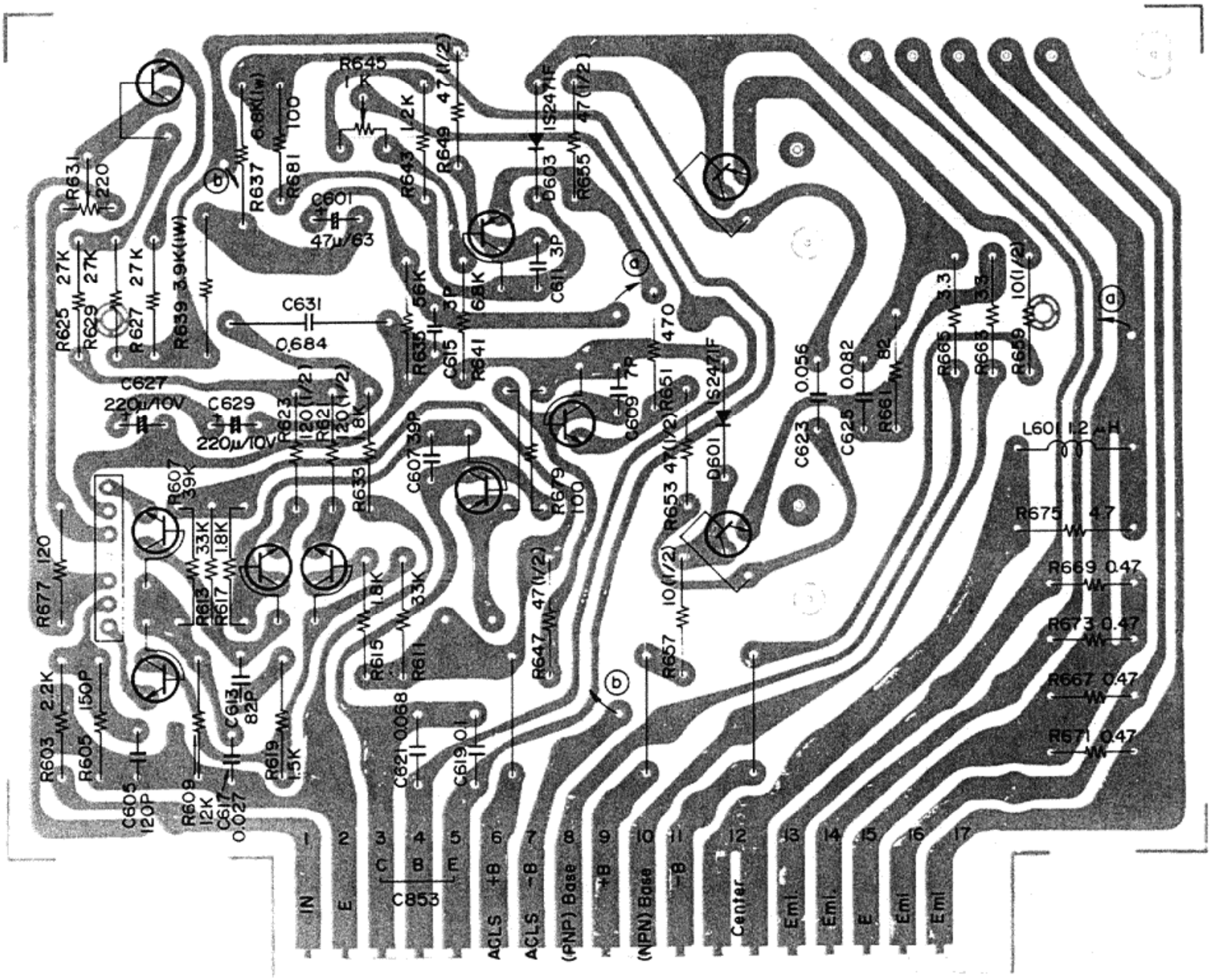


Fig. 20

Transistors & IC

Item No.	Part Number	Rating		Description	Maker
		Pc	fT		
IC601	MPA63H1	250 mW		I.C.	NEC
X603	2SC1775AV (F)	300 mW	200 MHz	Silicon (NPN)	Hitachi
X605	2SC1775AV (F)	"	"	" "	"
X607	2SC1775AV (F)	"	"	" "	"
X609	2SC1775AV (F)	"	"	" "	"
X611	2SC1775AV (F)	"	"	" "	"
X613	2SA899 (B, V)	1000 mW	100 MHz	" (PNP)	Fuji
X615	2SC1904 (B, V)	"	"	" (NPN)	"
X617	2SA899 (B, V)	"	"	" (PNP)	"
X621	2SD381 (L, M)	20 W	60 MHz	" (NPN)	NEC
X623	2SB536 (L, M)	"	"	" (PNP)	"

Diodes

Item No.	Part Number	Rating	Description	Maker
D601	1S2471F			Toyo Dengu
D603	1S2471F			"

Capacitors

Item No.	Part Number	Rating		Description
C601	QEW51JA-476	47 μF	63 V	Electrolytic
C607	QCS12HJ-330	33 pF	100 V	Ceramic
C609	QCS12HJ-7R0	7 pF	〃	〃
C611	QCS12HJ-3R0	3 pF	〃	〃
C613	QFM31HK-562	0.0056 μF	50 V	Mylar
C619	QFM31HK-104	0.1 μF	〃	〃
C621	QFM31HK-683	0.068 μF	〃	〃
C623	QFM31HK-563	0.056 μF	〃	〃
C625	QFM31HK-823	0.082 μF	〃	〃
C627	QEW51AA-227	220 μF	10 V	Electrolytic
C629	QEW51AA-227	〃	〃	〃
C631	CF93MMA2E-684K	0.68 μF	250 V	Metalized Mylar
C633	QCS31HJ-180	18 pF	50 V	Ceramic
C635	QCS12HJ-1R0	1 pF	100 V	〃

Resistors

Item No.	Part Number	Rating		Description	
R603	QRZ0019-222	2.2 kΩ	1/4 W	Carbon	Low Noise
R605	QRZ0019-154	150 kΩ	〃	〃	〃
R607	QRZ0019-393	39 kΩ	〃	〃	〃
R609	QRZ0019-123	12 kΩ	〃	〃	〃
R611	QRZ0019-333	33 kΩ	〃	〃	〃
R613	QRZ0019-333	33 kΩ	〃	〃	〃
R615	QRZ0019-182	1.8 kΩ	〃	〃	〃
R617	QRZ0019-182	〃	〃	〃	〃
R619	QRD141J-562	5.6 kΩ	〃	〃	〃
R621	QRD126J-121	120 Ω	1/2 W	Uninflammable Carbon	
R623	QRD126J-121	〃	〃	〃	
R625	QRZ0019-273	27 kΩ	1/4 W	Carbon	
R627	QRZ0019-273	〃	〃	〃	
R629	QRZ0019-273	〃	〃	〃	
R631	QVP9A0B-221	220 Ω (B)	1/8 W	Variable	Semi Fix
R633	QRZ0019-182	1.8 kΩ	1/4 W	Carbon	
R635	QRZ0019-563	56 kΩ	〃	〃	
R637	QRG017J-682S	6.8 kΩ	1 W	Uninflammable O.M.F.	
R639	QRG017J-392S	3.9 kΩ	〃	〃	
R641	QRZ0019-682	6.8 kΩ	1/4 W	Carbon	
R643	QRZ0019-122	1.2 kΩ	〃	〃	
R645	QVP9A0B-222	2.2 kΩ (B)	1/8 W	Variable	
R647	QRG129J-470	47 Ω	1/2 W	Uninflammable Carbon	
R649	QRG129J-470	〃	〃	Uninflammable O.M.F.	
R651	QRD141J-471	470 Ω	1/4 W	Carbon	
R653	QRD141J-470	47 Ω	〃	〃	
R655	QRD141J-470	〃	〃	〃	
R657	QRX129J-100	10 Ω	1/2 W	Uninflammable M.F.	
R659	QRX129J-100	〃	〃	〃	
R661	QRD141J-820	82 Ω	1/4 W	Carbon	
R663	QRD141J-3R3	3.3 Ω	〃	〃	
R665	QRD141J-3R3	〃	〃	〃	
R667	QRM054K-R47S	0.47 Ω	5 W	Metal Planer	
R669	QRM054K-R47S	〃	〃	〃	
R671	QRM054K-R47S	〃	〃	〃	
R673	QRM054K-R47S	〃	〃	〃	
R675	QRX129J-4R7	4.7 Ω	1/2 W	Uninflammable M.F.	
R677	QRD141J-121	120 Ω	1/4 W	Carbon	
R679	QRD141J-101	100 Ω	〃	〃	
R681	QRD141J-101	〃	〃	〃	

Circuit Board & Others

Item No.	Part Number	Rating	Description
L601	E22218-001 E61537-001 E04059-1R2 SPSP3005M	1.2 mH	Circuit Board Heat Sink Choke Coil Screw

9. Accessories List

Part Number	Description	Q'ty
E30580-624A	Instruction Book	1
E64207-002	Envelope for Accessories	1
BT20032	JVC Warranty Card	1
BT20023	Service Procedure	1
BT20024B	Caution	1

10. Packing Materials and Part Numbers

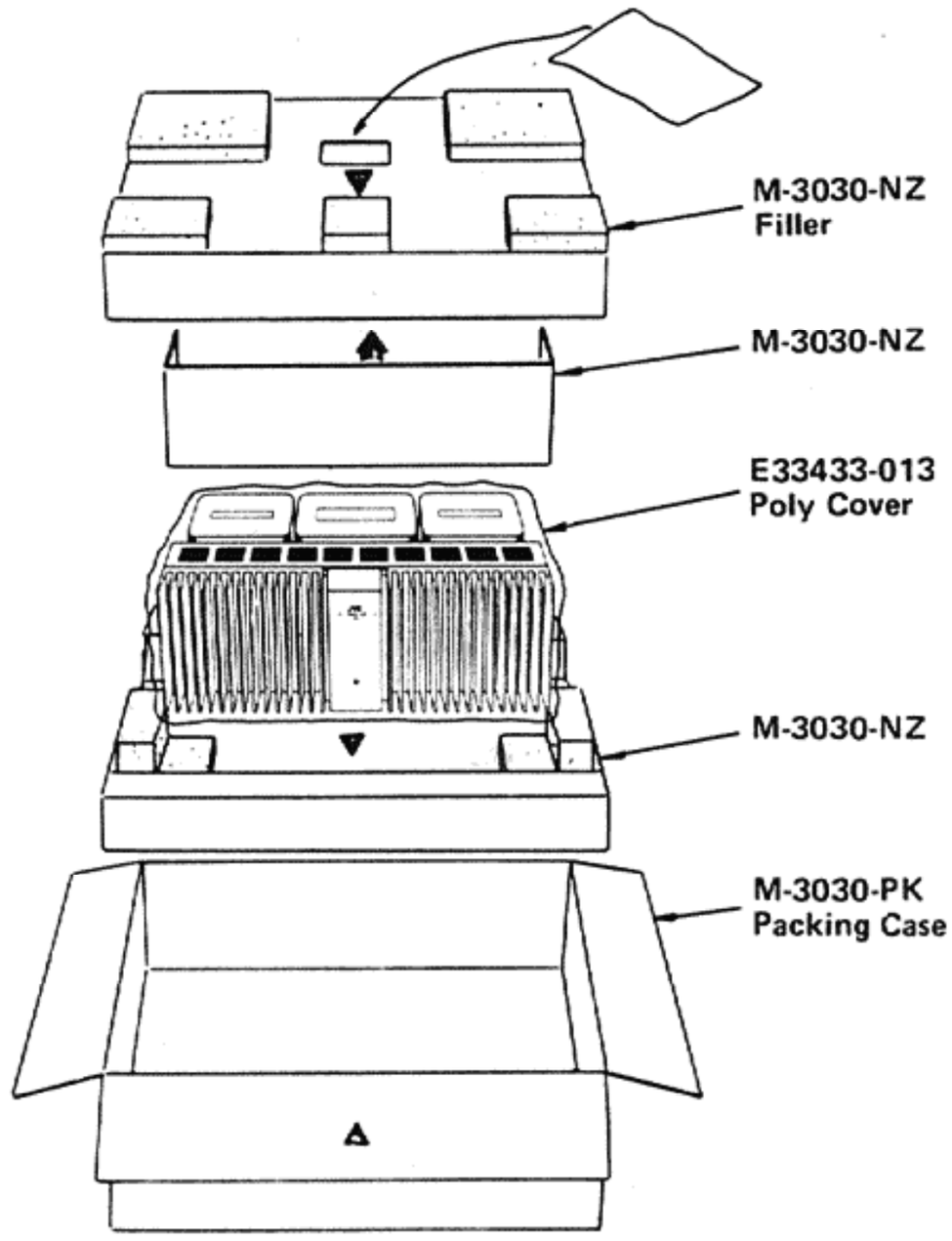
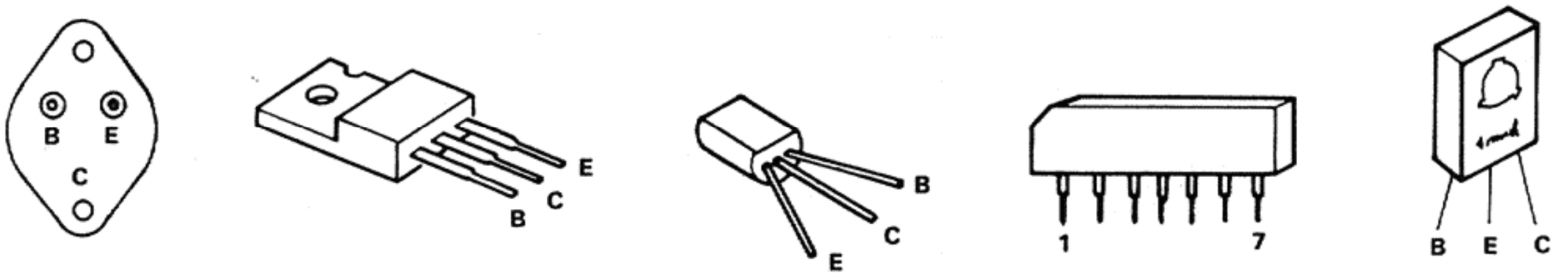


Fig. 21

11. Transistor Lead Identification



2SD582 (B, C) 2SB612 (B, C)	2SD381 (L, M) 2SB536 (L, M) 2SD313V (E) 2SB507V (E)	2SC1775AV (F) 2SA872AV (E)	MPA63H (1)	2SC1904 (B, V) 2SA899 (B, V)

Fig. 22

12. Parts List with Specified Numbers for Designated Areas

Page	Item No.	Description	Original	For Europe
	11	A Class Power Supply P.C. Board Ass'y	TPS-78C	TPS-78B
	14	Fuse P.C. Board Ass'y	TPS-86B	TPS-86D
5	18	Plug Cover	Not included	E48633-001
		Power Cord	QMP1700-244	E03544-001
		Warranty Card	BT20032	Not included
		Voltage Select Plug	E03676-001	"
		Voltage Select Socket	E03676-002	"
		Bracket	E61887-001	"
		Fuse (F1)	QMF61U1-3R0	QMF51A2-5R0
		" (F2)	QMF61U1-3R0	QMF51A2-3R15
		" (F3)	QMF61U1-3R0	QMF51A2-3R15
		" (F4)	QMF61U1-3R0	QMF51A2-5R0
		" (F5)	QMF61M1-R20	QMF61M1-R20
		" (F701)	Not included	QMF61M1-R20
		" (F702)	"	QMF61M1-R20
		" (F703)	"	QMF51A2-5R0
		" (F704)	"	QMF51A2-5R0

Comparison Table for Line Voltage, Power Consumption by Areas

M-3030	Line Voltage	Power Consumption
U.S.A.	AC 120 V, 50/60 Hz	243 W
Europe & Other Areas	AC 100/120/220/240 V, 50/60 Hz	820 W