

JVC

SERVICE MANUAL

MODEL
A-X7

STEREO INTEGRATED AMPLIFIER



No. 2554
DEC. 1980

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Warning:

When replacing the parts marked with , be sure to use the designated parts to ensure safety.

1. Specifications

Overall Specifications

Output Power (TUNER, AUX, TAPE → SP. OUT)	: 90 watts per channel min. RMS both channels driven, into 8 ohms from 20 Hz to 20 kHz with no more than 0.003 % total harmonic distortion 93 watts per channel min. RMS (8 ohms 1 kHz 0.0005 % measured by HP-IB Audio Analyze System)
Total Harmonic Distortion (TUNER, AUX, TAPE → SP. OUT)	: 0.003 % at rated output, from 20 Hz to 20 kHz, 8 ohms 0.0005 % at rated output 1 kHz, 8 ohms (Measured by HP-IB AUDIO ANALYZER SYSTEM) 0.02 % at rated output, from 20 Hz to 70 kHz, 8 ohms
Intermodulation Distortion (TUNER, AUX, TAPE → SP. OUT)	: 0.002 % at rated output, 8 ohms (60 Hz: 7 kHz = 4 : 1)
Power Band Width (TUNER, AUX, TAPE → SP. OUT)	: 5 Hz — 70 kHz (IHF, both channels driven, 8 ohms, 0.02 % THD)
Frequency Response (TUNER, AUX, TAPE → SP. OUT)	: DC — 400 kHz $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ dB
Damping Factor	: 100 (1 kHz, 8 ohms)
Input Sensitivity/Impedance	
Phono—1, 2 (MM)	: 2.5 mV/47 k ohms
Phono—1, 2 (MC)	: 200 μ V/100 ohms
TUNER, AUX, TAPE	: 200 mV/47 k ohms

Signal-to-Noise Ratio

Phono—1, 2 (MM)	: 85 dB (IHF, A net, short circuit), 82 dB (new IHF)
Phono—1, 2 (MC)	: 69 dB (IHF, A net, short circuit), 75 dB (new IHF)
TUNER, AUX, TAPE	: 110 dB (IHF, A net, short circuit), 85 dB (new IHF)

Tone Controls

BASS	: ± 8 dB (100 Hz)
TREBLE	: ± 8 dB (10 kHz)
Muting	: -20 dB
Subsonic Filter	: -6 dB/Oct. (18 Hz)

Phono Equalizer Section (Phono → REC. OUT)

Phono Overload	
Phono—1, 2 (MM)	: 300 mV at 1 kHz, 0.001 % THD
Phono—1, 2 (MC)	: 23 mV at 1 kHz, 0.002 % THD

RIAA Phono

Equalization	: ± 0.2 dB (20 Hz — 20 kHz)
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Total Harmonic Distortion

Phono—1, 2 (MM)	: 0.002 % at 10 V output, 20 Hz — 20 kHz
Phono—1, 2 (MC)	: 0.005 % at 10 V output, 20 Hz — 20 kHz

Rec. Output/Impedance	: 200 mV/680 ohms
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Dimensions

	: 5-1/2"(H) x 17-3/4"(W) x 16-3/4"(D) (13.9 cm(H) x 45.0 cm(W) x 42.6 cm(D))
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Weight	: 26.4 lbs (12 kg)
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Power Source and

Power Consumption	: See page 20.
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Design and specifications subject to change without notice.

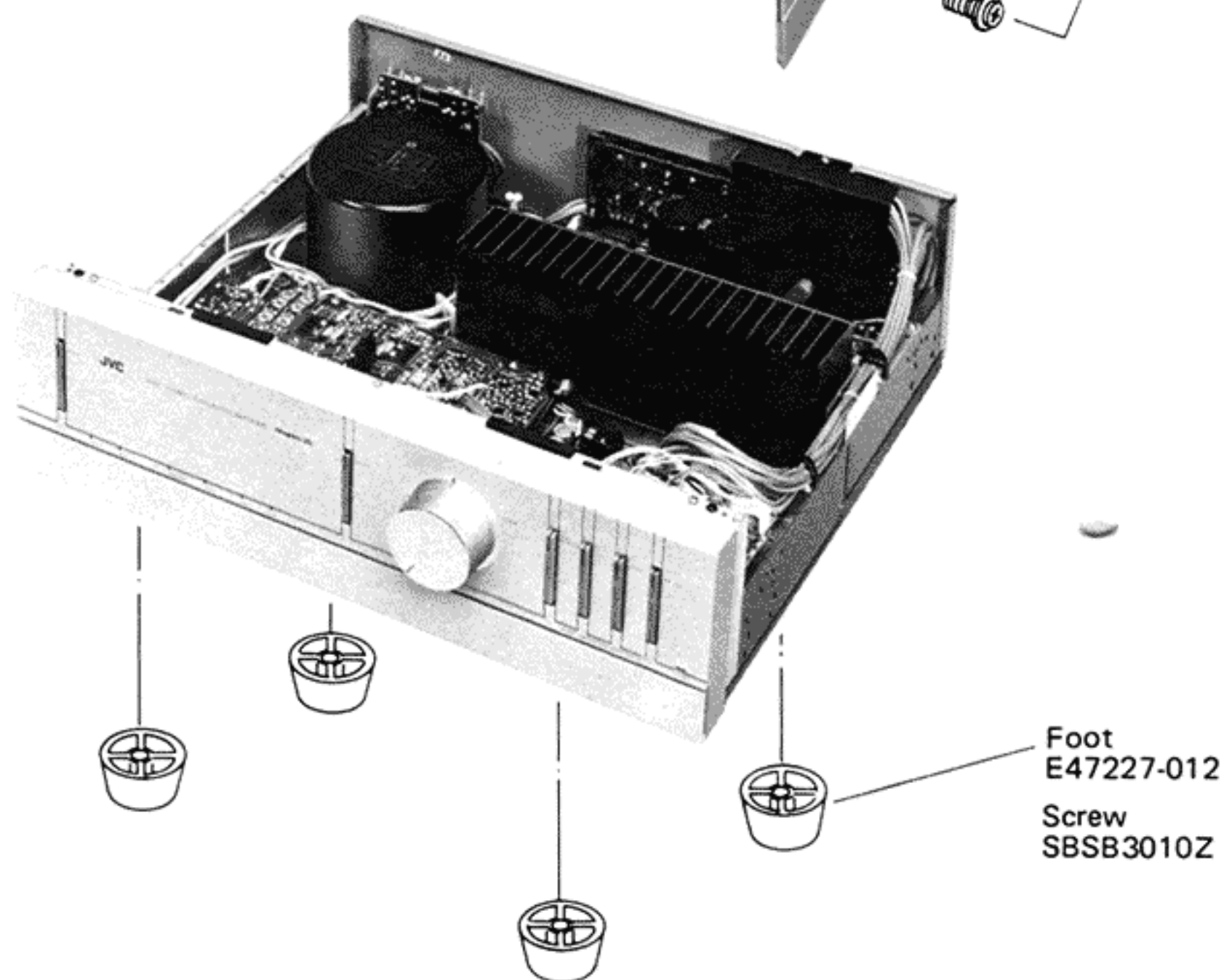
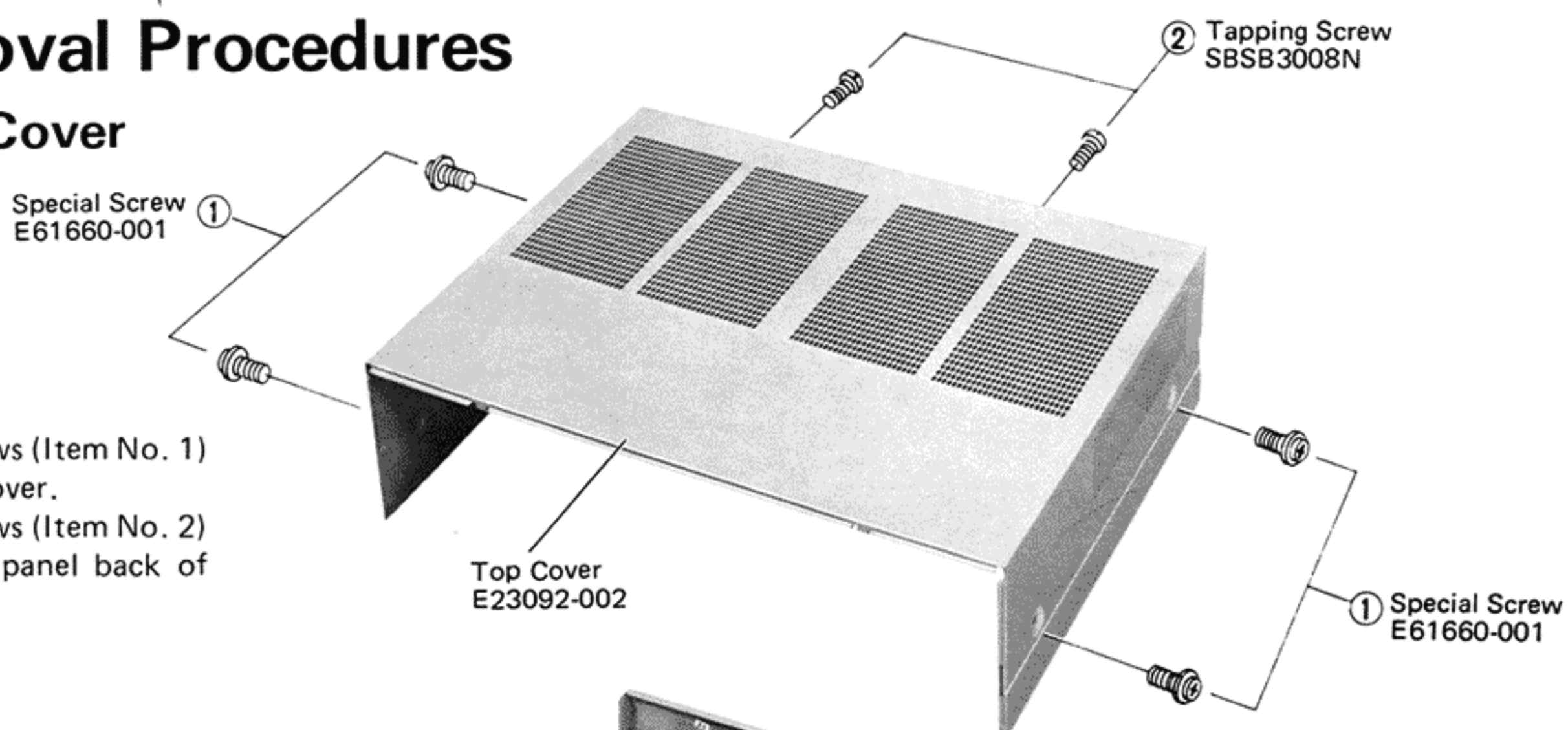
2. Features

- Pure negative feedback + Super A power amplifier
Class A 90 W + 90 W (20 Hz -- 20 kHz, 0.005 %, 8 Ω both channels)
- DC servo equalization amplifier for both MC and MM cartridges
- 2 amplifier configuration throughout from the phono input to output
- Direct power supply system with emphasis on power
- Extra high operability thanks to the non-clearance volume knobs employed

3. Removal Procedures

3-(1) Top Cover

1. Remove 4 screws (Item No. 1) from the top cover.
2. Remove 2 screws (Item No. 2) from the rear panel back of top cover.



3-(2) Bottom Plate

1. Remove 7 screws (Item No. 3) from the sub bottom plate.

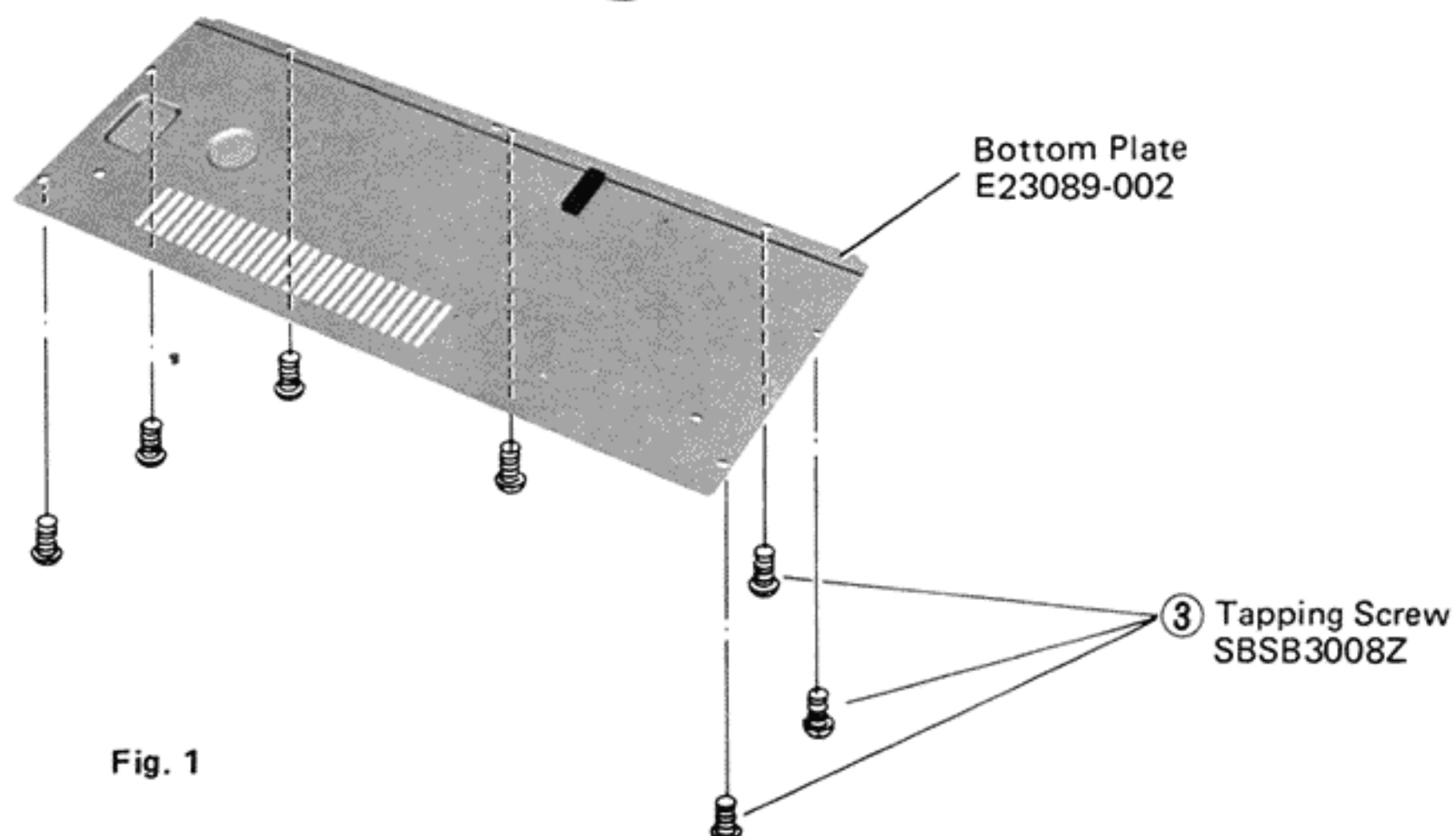


Fig. 1

4. Main Parts Location and Part Numbers

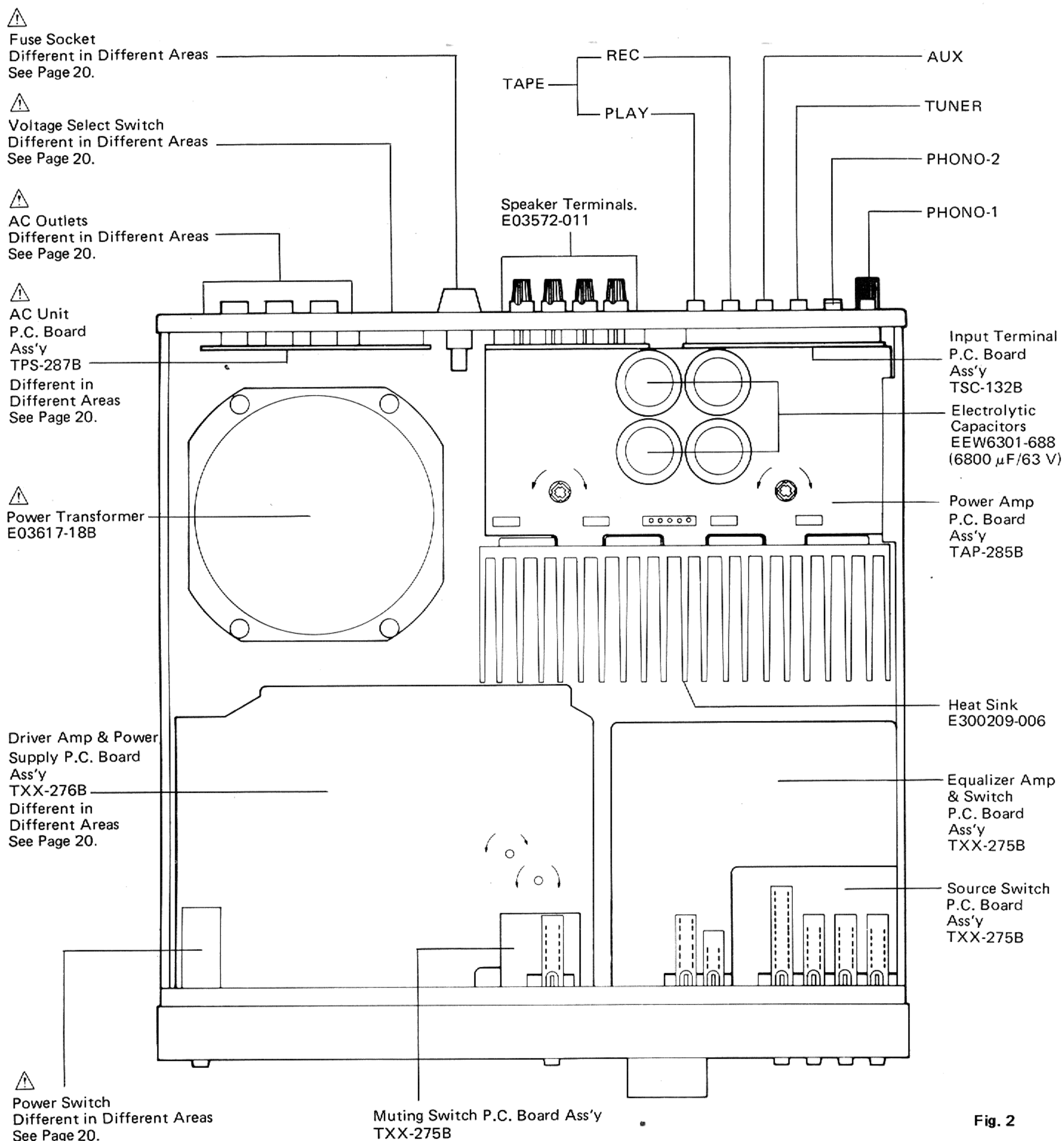


Fig. 2

5. Block Diagram

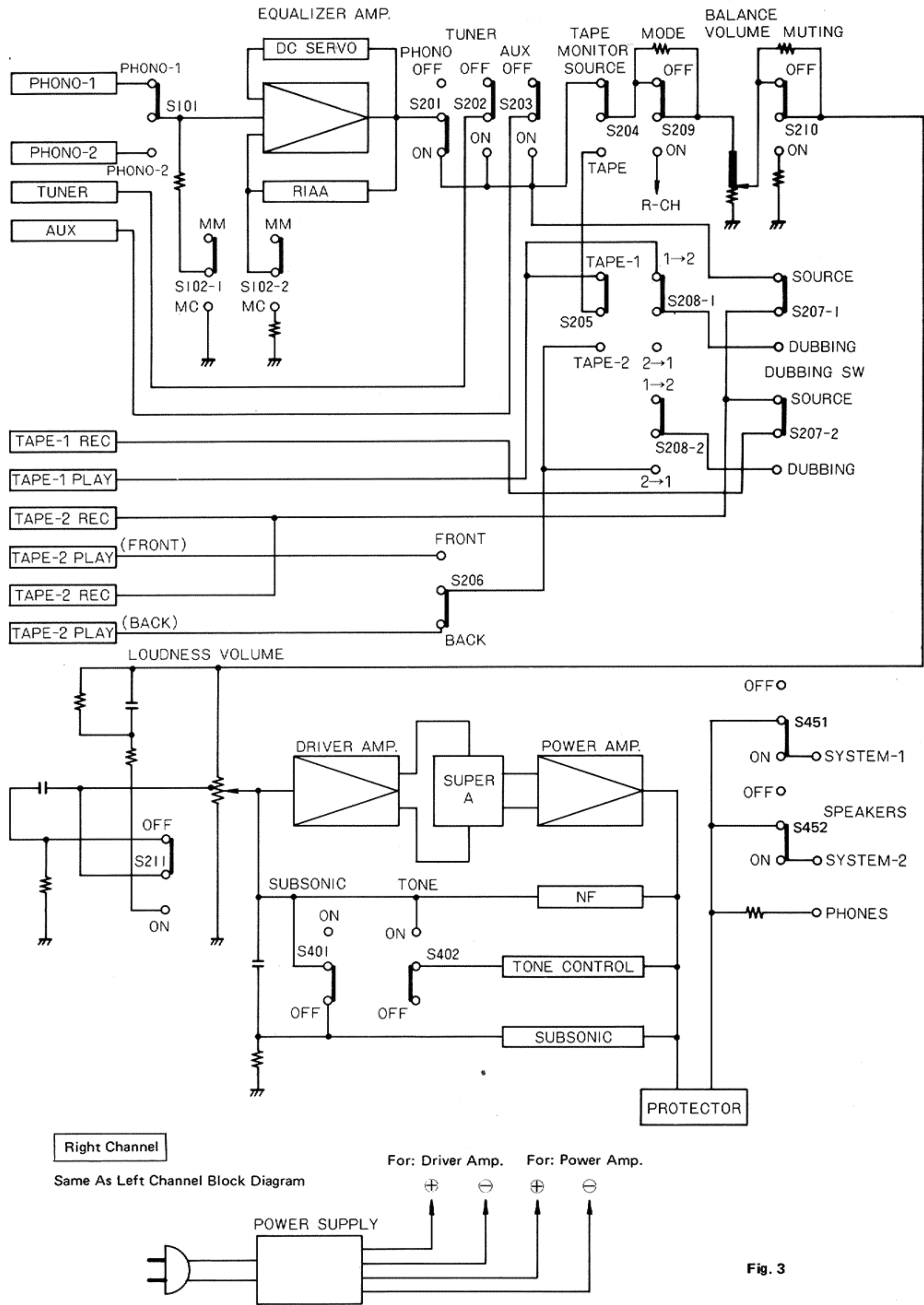
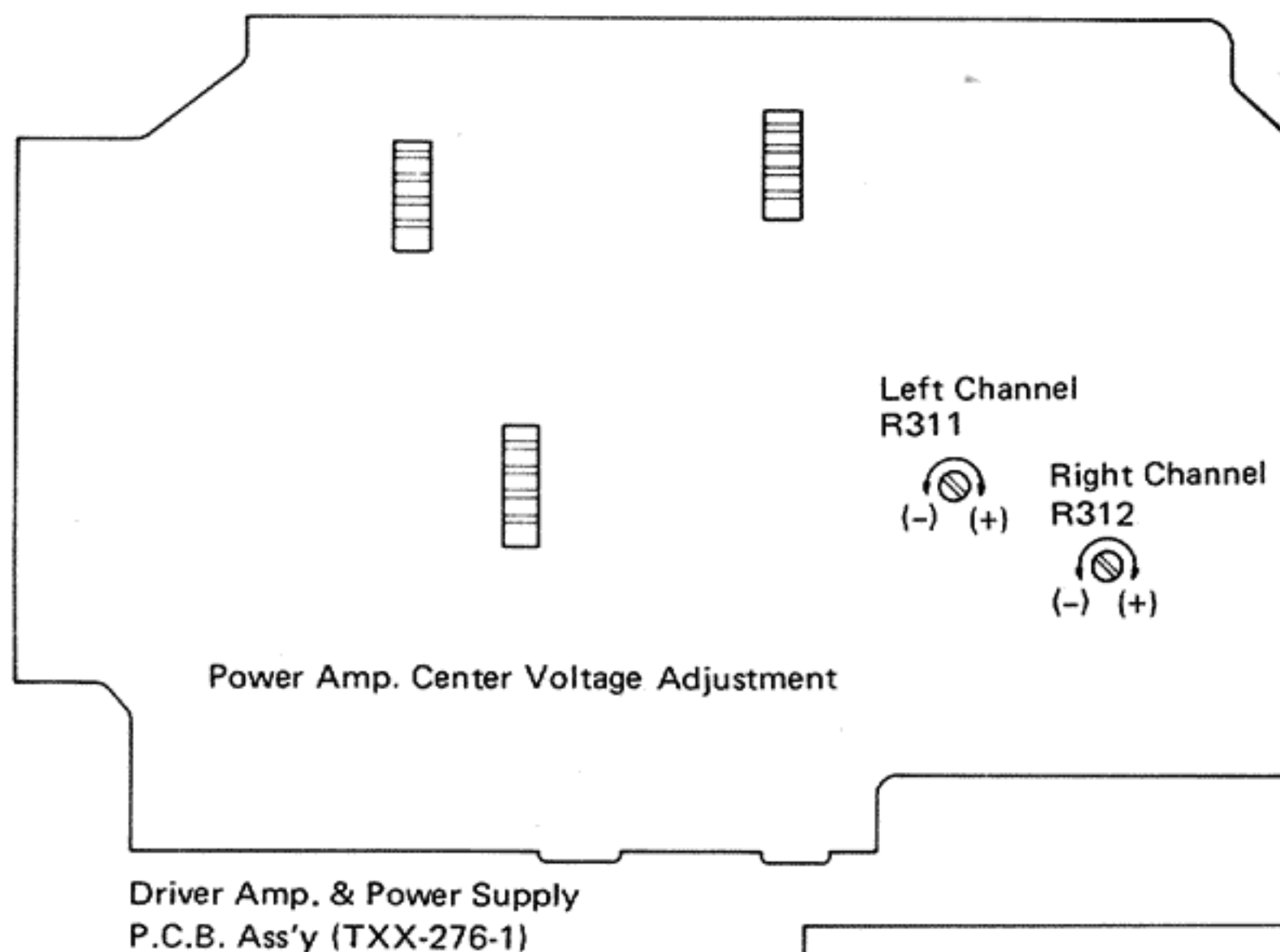


Fig. 3

6. Adjustment Procedures



The letter and number following the symbol number show the location (guide scale) of the part on the schematic.

Fig. 4

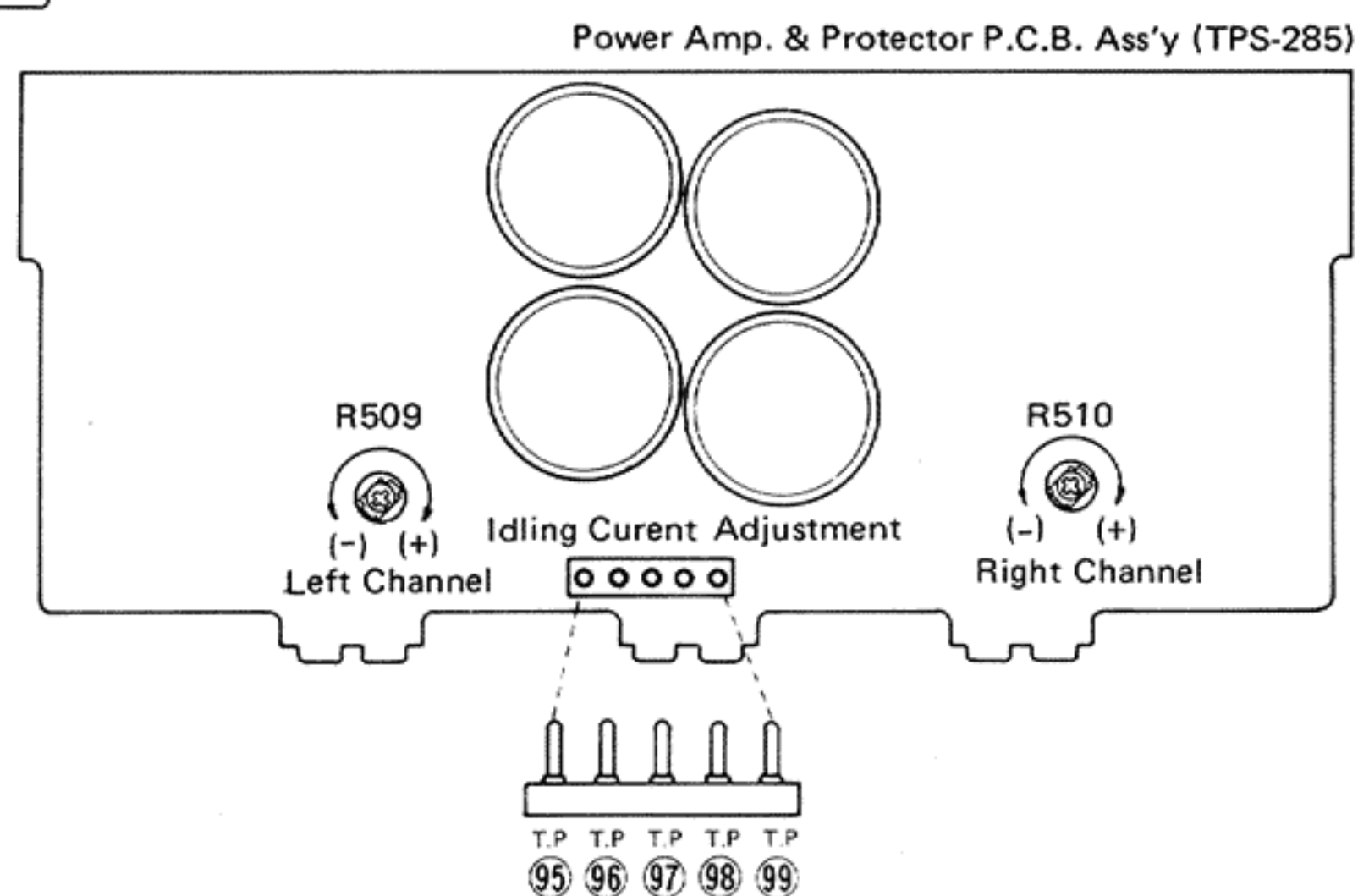


Fig. 5

6-(1) Power Amplifier Center Voltage Adjustment

- Before turning on the power, set the semi-fixed resistors <R311 (X.0) for L channel and R312 (X.0) for R channel> of the drive amplifier and regulated power voltage circuit boards (TXX-276-1) to the center position.
- Adjust the semi-fixed resistors (R311 and R312) so that the voltage at the following test points of the power amplifier circuit board (TAP-285) is within a range of ± 10 mV or less 5 minutes after the power is turned on.
L channel: Measure the voltage between test point 95 and test point 97 (ground).
R channel: Measure the voltage between test point 99 and test point 97 (ground).
The measurements can also be performed at the speaker terminals if the relay is operating normally.

6-(2) Idling Current Adjustment

- Before turning on the power, turn the semi-fixed resistors <R509 (X.0) for L channel and R510 (X.0) for R channel> of the power amplifier circuit board fully counter-clockwise.
- Adjust the semi-fixed resistors (R509 and R510) so that the voltage at the following test points of the power amplifier circuit board is within a range of 10 mV – 14 mV after the power is turned on.
L channel: Measure the voltage between test point 96 (emitter of X515) and output at the test point 95.
R channel: Measure the voltage between test point 98 (emitter of X516) and output at the test point 99.
- Readjust resistors R509 and R510 about 5 minutes after the power is turned on (the heat sink temperature must be sufficiently high) so that the voltage at the test points becomes 12 mV.
Confirm that the voltage does not vary when the heat sink temperature increases further.
Note: Be sure to perform the measurement with the probes and cabinet of the measuring equipment separated from the grounding terminals of A-X7 or of other measuring equipment.

7. Exploded Views and Part Numbers

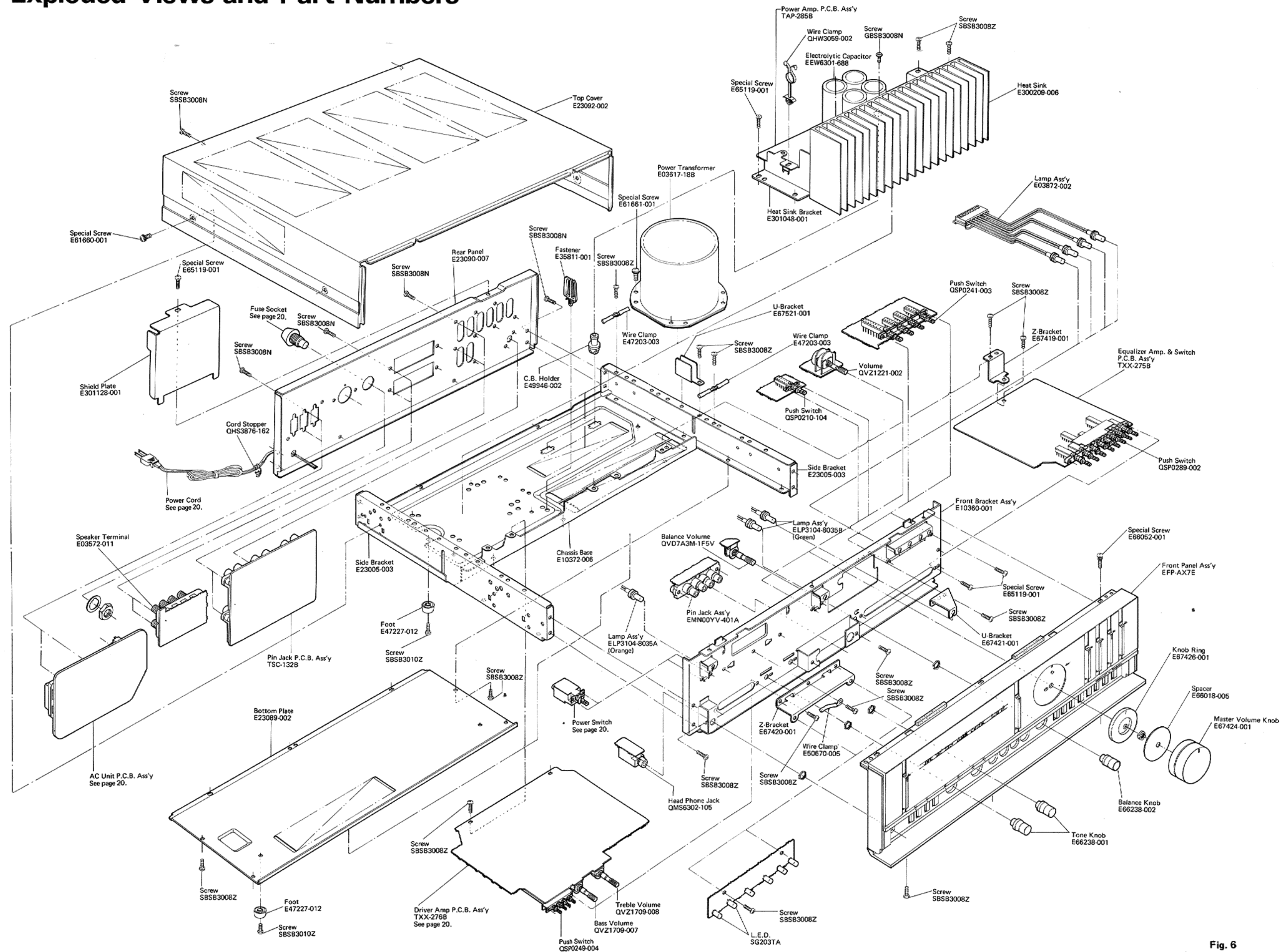
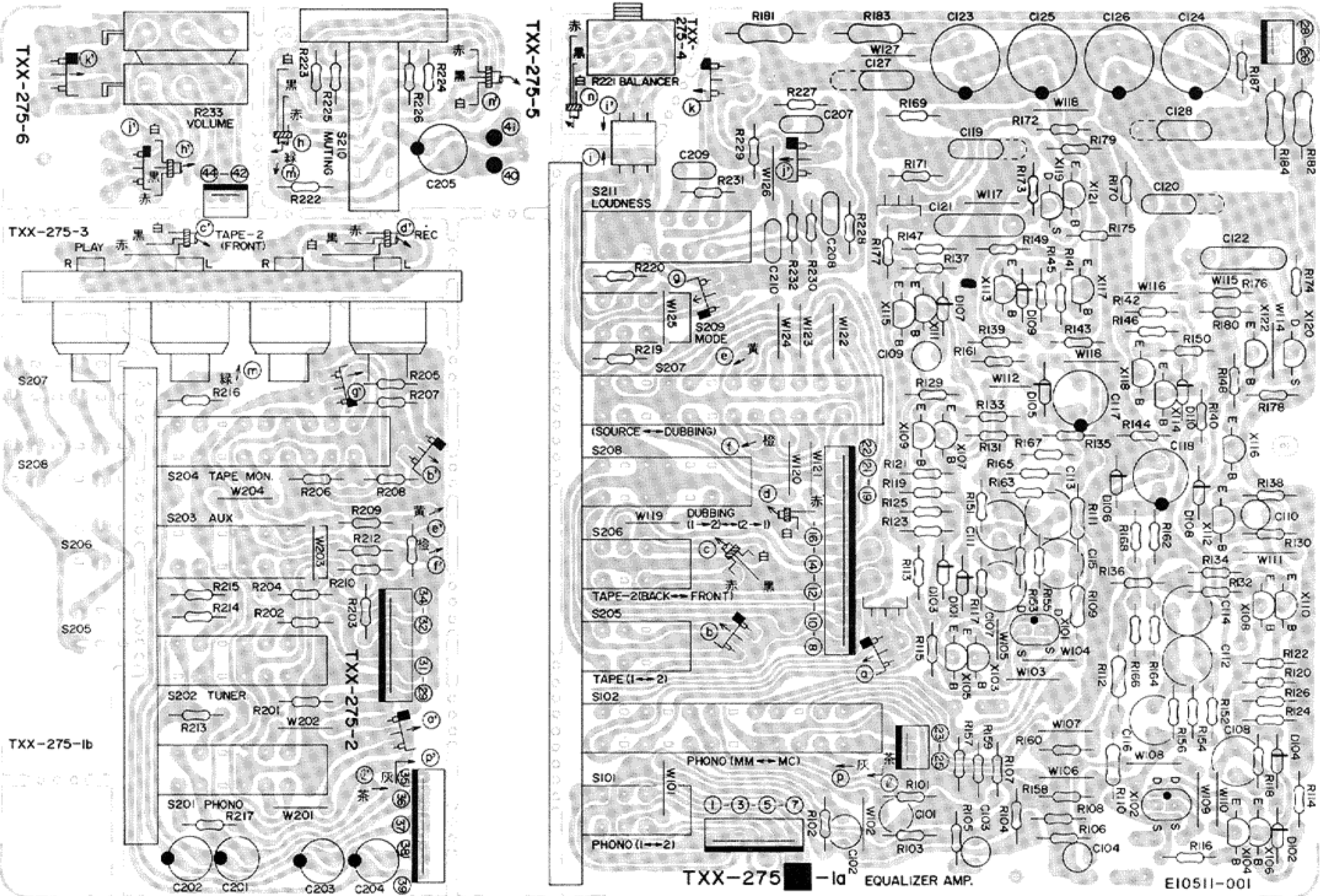


Fig. 6

8. Printed Circuit Board Ass'y and Parts List

Note: (J) . . . U.S.A., (C) . . . Canada, (E) . . . Europe, (B) . . . U.K., (A) . . . Australia, (P) . . . Military, (U) . . . Other countries

8-(1) TXX-275B Equalizer Amp. & Switch P.C. Board Ass'y



Locations

- ① TXX-275B-1a Equalizer Amp. & Switch P.C.B. Ass'y
- ② TXX-275-2 Source Switch P.C.B. Ass'y
- ③ TXX-275-3 Front Pin Jack P.C.B. Ass'y
- ④ TXX-275-4 Balance Volume P.C.B. Ass'y
- ⑤ TXX-275-5 Muting Switch P.C.B. Ass'y
- ⑥ TXX-275-6 Master Volume P.C.B. Ass'y

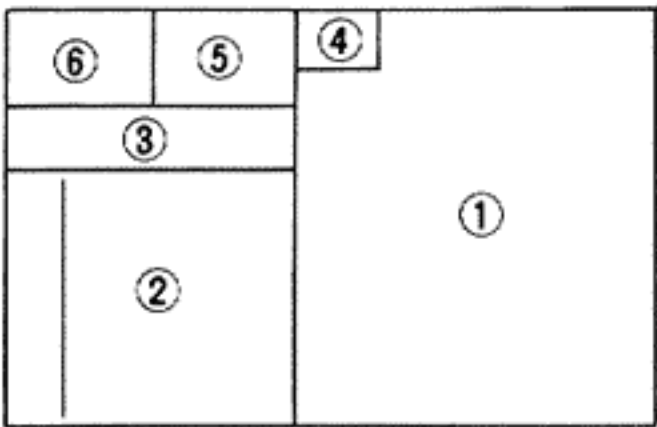


Fig. 7

Note:
The specific symbols (赤, 黒, 白, . . . etc.) on a surface of P.C. Board are actually unrelated to the repair service and are significant denotement in order to proper assembly at the factory.

Transistors

Item No.	Part number	Rating		Description	
		PC	ft	F.E.T.	Maker
X101	2SK146	0.6 W		F.E.T.	Toshiba
X102	2SK146	"		"	"
X103	2SC2240(BL)	0.3 W	100 MHz	Silicon	"
X104	2SC2240(BL)	"	"	"	"
X105	2SC2240(BL)	"	"	"	"
X106	2SC2240(BL)	"	"	"	"
X107	2SC2240(GR)	"	"	"	"
X108	2SC2240(GR)	"	"	"	"
X109	2SC2240(GR)	"	"	"	"
X110	2SC2240(GR)	"	"	"	"
X111	2SA1084(E)	0.4 W	120 MHz	"	Hitachi
X112	2SA1084(E)	"	"	"	"
X113	2SC1775AV(E,F)	0.2 W	200 MHz	"	"
X114	2SC1775AV(E,F)	"	"	"	"
X115	2SC2546(E)	0.4 W	90 MHz	"	"
X116	2SC2546(E)	"	"	"	"
X117	2SA1084(E)	"	120 MHz	"	"
X118	2SA1084(E)	"	"	"	"
X119	2SK68A(M)	"	90 MHz	F.E.T.	NEC
X120	2SK68A(M)	"	"	"	"
X121	2SC458(C)	0.2 W	230 MHz	Silicon	Hitachi
X122	2SC458(C)	"	"	"	"

Diodes

Item No.	Part Number	Rating	Description
D111	EQB01-22Z		Zener Fuji
D101	1S2076-31		Silicon Hitachi
D102	1S2076-31		"
D103	1S2076-31		"
D104	1S2076-31		"
D105	1S2076-31		"
D106	1S2076-31		"

Capacitors

Item No.	Part Number	Rating	Description
C101	QFP31HJ-471	470 pF 50 V	
C102	QFP31HJ-471	"	
C107	QFS81HJ-682	6800 pF	Polystyrol
C108	QFS81HJ-682	"	"
C109	QFS82BJ-470	47 pF 125 V	"
C110	QFS82BJ-470	"	"
C111	QFS81HG-822	8200 pF 50 V	"
C112	QFS81HG-822	"	"
C113	QFS81HG-822	"	"
C114	QFS81HG-822	"	"
C115	QFS81HG-472	4700 pF	"
C116	QFS81HG-472	"	"
C117	QFT51CR-227H	220 μF 16 V	Electrolytic
C118	QET51CR-227H	"	"

Capacitors

Item No.	Part Number	Rating		Description
C119	EFZ0080-475	4.7 μ F		Film
C120	EFZ0080-475	"		"
C121	QFZ0074-474	0.47 μ F		"
C122	QFZ0074-474	"		"
C123	QET51HR-227H	220 μ F	50 V	Electrolytic
C124	QET51HR-227H	"	"	"
C125	QET51HR-227H	"	"	"
C126	QET51HR-227H	"	"	"
C201	QET51HR-476	47 μ F	"	"
C202	QET51HR-476	"	"	"
C203	QET51HR-476	"	"	"
C204	QET51HR-476	"	"	"
C205	QET51HR-476	"	"	"
C207	QFP31HJ-331	330 pF	"	
C208	QFP31HJ-331	"	"	
C209	QFM81HJ-273	0.027 μ F	"	Mylar
C210	QFM81HJ-273	"	"	"

Resistors

Item No.	Part Number	Rating		Description
R101	QRD141J-101S	100 Ω	1/4 W	Carbon
R102	QRD141J-101S	"	"	"
R103	QRD141J-473S	47 k Ω	"	"
R104	QRD141J-473S	"	"	"
R107	QRD141J-5R6S	5.6 Ω	"	"
R108	QRD141J-5R6S	"	"	"
R109	QRD129J-152	1.5 k Ω	1/2 W	"
R110	QRD129J-152	"	"	"
R111	QRD129J-152	"	"	"
R112	QRD129J-152	"	"	"
R113	QRD141J-823S	82 k Ω	1/4 W	"
R114	QRD141J-823S	"	"	"
R115	QRD141J-153S	15 k Ω	"	"
R116	QRD141J-153S	"	"	"
R117	QRD141J-150S	15 Ω	"	"
R118	QRD141J-150S	"	"	"
R119	QRD141J-562S	5.6 k Ω	"	"
R120	QRD141J-562S	"	"	"
R121	QRD141J-622S	6.2 k Ω	"	"
R122	QRD141J-622S	"	"	"
R123	QRD141J-682S	6.8 k Ω	"	"
R124	QRD141J-682S	"	"	"
R125	QRD141J-682S	"	"	"
R126	QRD141J-682S	"	"	"
R129	QRD141J-102S	1 k Ω	"	"
R130	QRD141J-102S	"	"	"
R131	QRD141J-330S	33 Ω	"	"
R132	QRD141J-330S	"	"	"
R133	QRD141J-330S	"	"	"
R134	QRD141J-330S	"	"	"
R135	QRD141J-822S	8.2 k Ω	"	"
R136	QRD141J-822S	"	"	"
R137	QRD149J-221S	220 Ω	"	"
R138	QRD149J-221S	"	"	"
R139	QRD141J-152S	1.5 k Ω	"	"
R140	QRD141J-152S	"	"	"
R141	QRD141J-102S	1 k Ω	"	"
R142	QRD141J-102S	"	"	"
R143	QRD141J-123S	12 k Ω	"	"
R144	QRD141J-123S	"	"	"
R145	QRD141J-331S	330 Ω	"	"
R146	QRD141J-331S	"	"	"
R147	QRD149J-101S	100 Ω	"	"
R148	QRD149J-101S	"	"	"
R149	QRD149J-101S	"	"	"
R150	QRD149J-101S	"	"	"
R151	QRD141J-153S	15 k Ω	"	"
R152	QRD141J-153S	"	"	"
R153	QRD141J-184S	180 k Ω	"	"
R154	QRD141J-184S	"	"	"
R155	QRD141J-163S	16 k Ω	"	"
R156	QRD141J-163S	"	"	"
R157	QRD141J-271S	270 Ω	"	"
R158	QRD141J-271S	"	"	"
R159	QRD141J-220S	22 Ω	"	"

Resistors

Item No.	Part Number	Rating		Description
R160	QRD141J-220S	22 Ω	1/4 W	Carbon
R161	QRD141J-103S	10 k Ω	"	"
R162	QRD141J-103S	"	"	"
R163	QRD141J-275S	2.7 M Ω	"	"
R164	QRD141J-275S	"	"	"
R165	QRD141J-682S	6.8 k Ω	"	"
R166	QRD141J-682S	"	"	"
R167	QRD141J-103S	1 k Ω	"	"
R168	QRD141J-102S	"	"	"
R169	QRD141J-224S	220 k Ω	"	"
R170	QRD141J-224S	"	"	"
R171	QRD141J-331S	330 Ω	"	"
R172	QRD141J-331S	"	"	"
R173	QRD141J-475S	4.7 M Ω	"	"
R174	QRD141J-475S	"	"	"
R175	QRD141J-821S	820 Ω	"	"
R176	QRD141J-821S	"	"	"
R177	QRD141J-823S	82 k Ω	"	"
R178	QRD141J-823S	"	"	"
R179	QRD141J-622S	6.2 k Ω	"	"
R180	QRD141J-622S	"	"	"
R181	QRG016J-561	560 Ω	1 W	Oxide Metal Film
R182	QRG016J-561	"	"	"
R183	QRG016J-561	"	"	"
R184	QRG016J-561	560 Ω	"	"
R187	QRD141J-5R6S	5.6 Ω	1/4 W	Carbon
R201	QRD141J-331S	330 Ω	"	"
R202	QRD141J-331S	"	"	"
R203	QRD141J-331S	"	"	"
R204	QRD141J-331S	"	"	"
R205	QRD141J-105S	1 M Ω	"	"
R206	QRD141J-105S	"	"	"
R207	QRD141J-331S	330 Ω	"	"
R208	QRD141J-331S	"	"	"
R209	QRD141J-331S	"	"	"
R210	QRD141J-331S	"	"	"
R211	QRD141J-105S	1 M Ω	"	"
R212	QRD141J-105S	"	"	"
R213	QRD141J-560S	56 Ω	"	"
R214	QRD141J-560S	"	"	"
R215	QRD141J-560S	"	"	"
R216	QRD141J-560S	"	"	"
R217	QRD141J-390S	39 Ω	"	"
R219	QRD141J-472S	4.7 k Ω	"	"
R220	QRD141J-472S	"	"	"
R221	QVD7A3M-1F5V	"	"	"
R222	QRD141J-560S	56 Ω	"	"
R223	QRD141J-823S	82 k Ω	"	"
R224	QRD141J-823S	"	"	"
R225	QRD141J-103S	10 k Ω	"	"
R226	QRD141J-103S	"	"	"
R227	QRD141J-105S	1 M Ω	"	"
R228	QRD141J-105S	"	"	"
R229	QRD141J-333S	33 k Ω	"	"
R230	QRD141J-333S	"	"	"
R231	QRD141J-203S	20 k Ω	"	"
R232	QRD141J-203S	"	"	"
R233	QVZ1221-002	100 k	1/2 W	"

Others

Item No.	Part Number	Rating	Description
S210	QSP0210-104		Push Switch (MUTING)
	QSP0241-003		" (SOURCE)
	QSP0289-002		" (TAPE)
	QMV5005-003		3P Plug Ass'y (OUT)
	QMV5005-007		7P Plug Ass'y (PHONO)
	QMV5005-008		8P Plug Ass'y (TU, AUX)
	QMV5005-015		15P Plug Ass'y
	EMN00YV-401A		4P Pin Jack Ass'y
	E65654-001		Spacer
	EWR23C-16NN		Flat Wire
	EWR23C-20NN		"
	EWR33A-10NN		"
	EWR33A-15NN		"
	E10511-001		Circuit Board

8-(2) TXX-276B, C Driver Amp. & Power Supply P.C. Board Ass'y

Note: TXX-276 □ -1 varies according to the areas employed. See note (1) when placing an order.

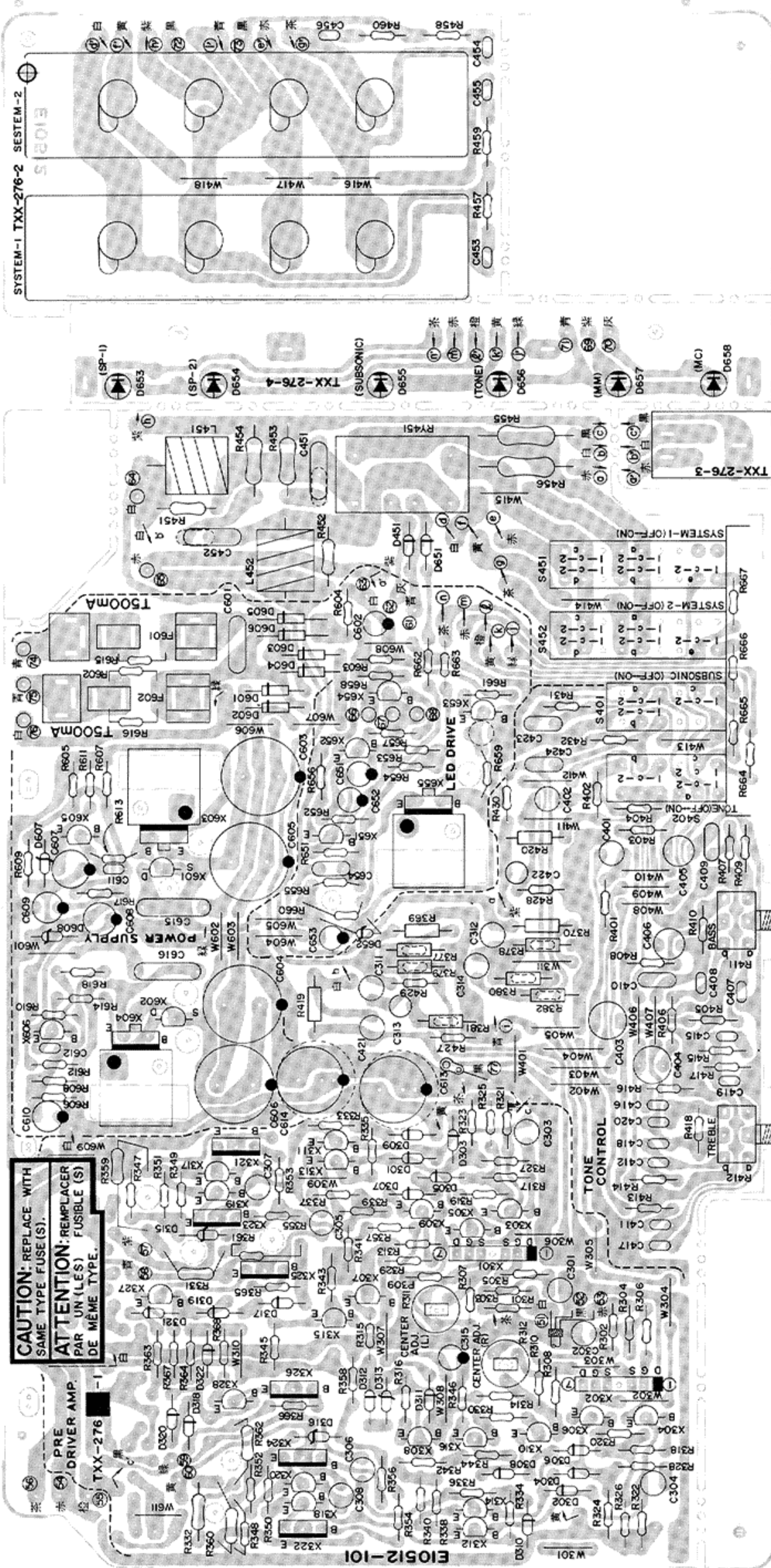


Fig. 8

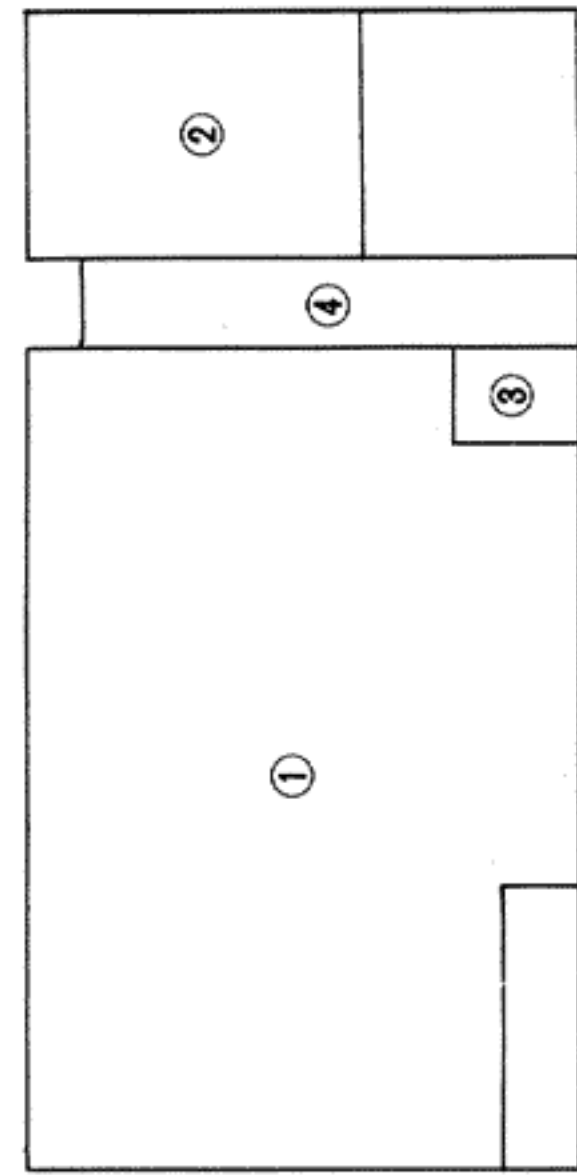
- Location**
- ① TXX-276 □-1 Drive Amp. & Power Supply P.C.B. Ass'y
 - ② TXX-276-2 Speaker Terminal P.C.B. Ass'y
 - ③ TXX-276-3 Headphones Jack P.C.B. Ass'y
 - ④ TXX-276-4 L.E.D. P.C.B. Ass'y

Item No.	Part Number	Rating		Description	Maker
		Pc	fT		
X301	2SK150A(GR,BL)	0.2 W		F.E.T.	Toshiba
X302	2SK150A(GR,BL)	"		"	"
X303	2SC1775AV(E,F)	"	200 MHz	Silicon	Hitachi
X304	2SC1775AV(E,F)	"	"	"	"
X305	2SC1775AV(E,F)	"	"	"	"
X306	2SC1775AV(E,F)	"	"	"	"
X307	2SC458(C,D)	"	230 MHz	"	"
X308	2SC458(C,D)	"	"	"	"
X309	2SA1029(C,D)	"	200 MHz	"	"
X310	2SA1029(C,D)	"	"	"	"

Note (1):

Designated Areas	P.C. Board Ass'y
U.S.A. & Canada	TXX-276 □ -1
All Other Areas	TXX-276 □ -1

Note (2):
The specific symbols (赤, 黒, 白, ... etc.) on a surface of P.C. board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly at the factory.



Transistors

Item No.	Part Number	Rating		Description	
		Pc	fT		Maker
X311	2SC458(D)	0.2 W	230 MHz	"	"
X312	2SC458(D)	"	"	"	"
X313	2SC458(D)	"	"	"	"
X314	2SC458(D)	"	"	"	"
X315	2SC2546(E)	0.4 W	90 MHz	"	"
X316	2SC2546(E)	"	"	"	"
X317	2SA1029(D)	0.2 W	200 MHz	"	"
X318	2SA1029(D)	"	"	"	"
X319	2SA1029(D)	"	"	"	"
X320	2SA1029(D)	"	"	"	"
X321	2SA899(B,V)	1 W	100 MHz	"	Fujitsu
X322	2SA899(B,V)	"	"	"	"
X323	2SA899(B,V)	"	"	"	"
X324	2SA899(B,V)	"	"	"	"
X325	2SC1904(B,V)	"	"	"	"
X326	2SC1904(B,V)	"	"	"	"
X327	2SC458(C,D)	0.2 W	230 MHz	"	Hitachi
X328	2SC458(C,D)	"	"	"	"
X601	2SK105(H)	0.25 W		F.E.T.	NEC
X602	2SK105(H)	"	"	"	"
X603	2SD313V(E)	30 W	8 MHz	Silicon	Sanyo
X604	2SB507V(E)	"	"	"	"
X605	2SC1775AV(E)	0.2 W	200 MHz	"	Hitachi
X606	2SA872AV(E)	0.3 W	120 MHz	"	"
X651	2SC458(C)	0.2 W	230 MHz	"	"
X652	2SC458(C)	"	"	"	"
X653	2SC1775AV(E)	"	200 MHz	"	"
X654	2SC458(C)	"	230 MHz	"	"
X655	2SB507V(E)	30 W	8 MHz	"	Sanyo

Diodes

Item No.	Part Number	Rating	Description	
				Maker
D301	1S2076-31		Silicon	Hitachi
D302	1S2076-31		"	"
D303	1S2076-31		"	"
D304	1S2076-31		"	"
D305	1S2076-31		"	"
D306	1S2076-31		"	"
D307	1S2076-31		"	"
D308	1S2076-31		"	"
D309	1S2076-31		"	"
D310	1S2076-31		"	"
D311	1S2076-31		"	"
D312	1S2076-31		"	"
D313	RD6.2EB3		Silicon (Zener)	NEC
D315	RD2.7EB2		"	"
D316	RD2.7EB2		"	"
D317	1S2076-31		Silicon	Hitachi
D318	1S2076-31		"	"
D319	1S2076-31		"	"
D320	1S2076-31		"	"
D321	1S2076-31		"	"
D322	1S2076-31		"	"
D451	1S2076-31		"	"
D601	10DF2FD		"	Shindengen
D602	10DF2FD		"	"
D603	10DF2FD		"	"
D604	10DF2FD		"	"
D605	10DF2FD		"	"
D606	10DF2FD		"	"
D607	RD5.6EB3		Silicon (Zener)	NEC
D608	RD5.6EB3		"	"
D651	RD6.2EB3		"	"
D651	1S2076-31		Silicon	Hitachi
D653	SG203TA		L.E.D.	NEC
D654	SG203TA		"	"
D655	SG203TA		"	"
D656	SG203TA		"	"
D657	SG203TA		"	"
D658	SG203TA		"	"

Coils

Item No.	Part Number	Rating	Description
L451	E04059-1R0B	1 μ H	Coil
L452	E04059-1R0B	"	"

Capacitors

Item No.	Part Number	Rating	Description
C301	QFS81HJ-150	15 pF 50 V	Polystyrol
C302	QFS81HJ-150	" "	"
C303	QFS81HJ-331	330 pF "	"
C304	QFS81HJ-331	" "	"
C305	QFS81HJ-1R0	1 pF "	"
C307	QFS81HJ-1R0	" "	"
C311	QFS81HJ-220	22 pF "	"
C312	QFS81HJ-220	" "	"
C313	QFS81HJ-330	33 pF "	"
C314	QFS81HJ-330	" "	"
C315	QET51HR-105H	1 μ F "	Electrolytic
C401	QFS81HJ-470	47 pF "	Polystyrol
C402	QFS81HJ-470	" "	"
C403	QE Z0046-475	4.7 μ F "	Electrolytic
C404	QE Z0046-475	" "	"
C405	QE Z0046-225	2.2 μ F "	"
C406	QE Z0046-225	" "	"
C407	QFM81HJ-183	0.018 μ F "	Mylar
C408	QFM81HJ-183	" "	"
C409	QFM81HJ-184	0.18 μ F "	"
C410	QFM81HJ-184	" "	"
C411	QFP31HJ-332	3300 pF "	"
C412	QFP31HJ-332	" "	"
C415	QFM81HJ-333	0.033 μ F "	Mylar
C416	QFM81HJ-333	" "	"
C417	QFP31HJ-391	390 pF "	"
C418	QFP31HJ-391	" "	"
C419	QFP31HJ-432	4300 pF "	"
C420	QFP31HJ-432	" "	"
C421	QFS81HJ-220	22 pF "	Polystyrol
C422	QFS81HJ-220	" "	"
C423	QFM81HJ-274	0.27 μ F "	Mylar
C424	QFM81HJ-274	" "	"
C451	QFZ0075-473	0.047 μ F 400 V	Film
C452	QFZ0075-473	" "	"
C453	QFM81HJ-103	0.01 μ F 50 V	Mylar
C454	QFM81HJ-103	" "	"
C455	QFM81HJ-103	" "	"
C601	QFZ0074-104	0.1 μ F	Film
C602	QET51HR-105	1 μ F 50 V	Electrolytic
C603	QET52AR-227E	220 μ F 100 V	"
C604	QET52AR-227E	" "	"
C605	QET52AR-227E	" "	"
C606	QET52AR-227E	" "	"
C607	QET51CR-476H	47 μ F 16 V	"
C608	QET51CR-476H	" "	"
C609	QET51HR-475H	4.7 μ F 50 V	"
C610	QET51HR-475H	" "	"
C611	QFP31HJ-101	100 pF "	"
C612	QFP31HJ-101	" "	"
C613	QET51JR-477H	470 μ F 63 V	Electrolytic
C614	QET51JR-227H	220 μ F "	"
C651	QET51HR-474	0.47 μ F 50 V	"
C652	QET51HR-474	" "	"
C653	QET51HR-225	2.2 μ F "	"
C654	QFM81HK-473	0.047 μ F "	Mylar

Resistors

Item No.	Part Number	Rating	Description
R301	QRD141J-105S	1 M Ω 1/4 W	Carbon
R302	QRD141J-101S	" "	"
R303	QRD141J-151S	150 Ω "	"
R304	QRD141J-151S	" "	"
R305	QRD141J-470S	47 Ω "	"
R306	QRD141J-470S	" "	"
R307	QRD141J-220S	22 Ω "	"
R308	QRD141J-220S	" "	"
R309	QRD141J-220S	" "	"
R310	QRD141J-220S	" "	"

Resistors

Item No.	Part Number	Rating		Description
R311	QVP4AOB-101	100 Ω		Variable
R312	QVP4AOB-101	"		"
R313	QRD141J-123S	12 k Ω	1/4 W	Carbon
R314	QRD141J-123S	"	"	"
R315	QRD141J-242S	2.4 k Ω	"	"
R316	QRD141J-242S	"	"	"
R317	QRD141J-151S	150 Ω	"	"
R318	QRD141J-151S	"	"	"
R319	QRD141J-151S	"	"	"
R320	QRD141J-151S	"	"	"
R321	QRD141J-682S	6.8 k Ω	"	"
R322	QRD141J-682S	"	"	"
R323	QRD141J-682S	"	"	"
R324	QRD141J-682S	"	"	"
R325	QRD141J-563S	56 k Ω	"	"
R326	QRD141J-563S	"	"	"
R327	QRD141J-331S	330 Ω	"	"
R328	QRD141J-331S	"	"	"
R329	QRD141J-273S	27 k Ω	"	"
R330	QRD141J-273S	"	"	"
R331	QRD129J-182	1.8 k Ω	1/2 W	"
R333	QRD141J-681S	680 Ω	1/4 W	"
R334	QRD141J-681S	"	"	"
R335	QRD141J-681S	"	"	"
R336	QRD141J-681S	"	"	"
R337	QRD141J-391S	390 Ω	"	"
R338	QRD141J-391S	"	"	"
R339	QRD141J-391S	"	"	"
R340	QRD141J-391S	"	"	"
R341	QRD141J-392S	3.9 k Ω	"	"
R342	QRD141J-392S	"	"	"
R343	QRD141J-392S	"	"	"
R344	QRD141J-392S	"	"	"
R345	QRD141J-152S	1.5 k Ω	"	"
R346	QRD141J-152S	"	"	"
R347	QRD149J-680S	68 Ω	"	"
R348	QRD149J-680S	"	"	"
R349	QRD141J-5R1S	5.1 Ω	"	"
R350	QRD141J-5R1S	"	"	"
R351	QRD141J-5R1S	"	"	"
R352	QRD141J-5R1S	5.1 Ω	1/4 W	Carbon
R353	QRD141J-151S	150 Ω	"	"
R354	QRD141J-151S	"	"	"
R355	QRD141J-151S	"	"	"
R356	QRD141J-151S	"	"	"
R357	QRD141J-563S	56 k Ω	"	"
R358	QRD141J-563S	"	"	"
R359	QRD129J-222	2.2 k Ω	1/2 W	"
R360	QRD129J-222	"	"	"
R361	QRD129J-182	1.8 k Ω	"	"
R362	QRD129J-182	"	"	"
R363	QRD149J-560S	56 Ω	1/4 W	"
R364	QRD149J-560S	"	"	"
R365	QRD141J-151S	150 Ω	"	"
R366	QRD141J-151S	"	"	"
R367	QRD149J-560S	56 Ω	"	"
R368	QRD149J-560S	"	"	"
R369	QRD129J-392	3.9 k Ω	1/2 W	"
R370	QRD129J-392	"	"	"
R377	QRD141J-331S	330 Ω	1/4 W	"
R378	QRD141J-331S	"	"	"
R379	ERD121J-472	4.7 k Ω	1/2 W	"
R380	ERD121J-472	"	"	"
R381	ERD121J-471	470 Ω	"	"
R382	ERD121J-471	"	"	"
R401	QRD141J-684S	680 k Ω	1/4 W	"
R402	QRD141J-684S	"	"	"
R403	QRD141J-223S	22 k Ω	"	"
R404	QRD141J-223S	"	"	"
R405	QRD141J-223S	"	"	"
R406	QRD141J-223S	"	"	"
R407	QRD141J-202S	2 k Ω	"	"
R408	QRD141J-202S	"	"	"
R409	QRD141J-133S	13 k Ω	"	"
R410	QRD141J-133S	"	"	"

Resistors

Item No.	Part Number	Rating		Description
R411	QVZ1709-007	50 k Ω		Variable
R412	QVZ1709-008	"		"
R413	QRD141J-432	4.3 k Ω	1/4 W	Carbon
R414	QRD141J-432S	"	"	"
R415	QRD141J-391S	390 Ω	"	"
R416	QRD141J-391S	"	"	"
R417	QRD141J-183S	18 k Ω	"	"
R418	QRD141J-183S	"	"	"
R419	QRD129J-392	3.9 k Ω	1/2 W	"
R420	QRD129J-392	"	"	"
R426	QRD129J-392	"	"	"
R427	QRD141J-331S	330 Ω	1/4 W	"
R428	QRD141J-331S	"	"	"
R429	QRD141J-475S	4.7 M Ω	"	"
R430	QRD141J-475S	"	"	"
R501	QRD141J-133S	13 k Ω	1/4 W	Carbon
R502	QRD141J-133S	"	"	"
R503	QRD141J-133S	"	"	"
R504	QRD141J-133S	"	"	"
R505	QRD141J-302S	3 k Ω	"	"
R506	QRD141J-302S	"	"	"
R507	QRD141J-332S	3.3 k Ω	"	"
R508	QRD141J-332S	"	"	"
R509	QVZ3501-221	220 Ω		Variable
R510	QVZ3501-221	"		"
R511	SDT35	8 pF		Thermistor
R512	SDT35	"		"
R513	QRD141J-431S	430 Ω	"	Carbon
R514	QRD141J-431S	"	"	"
R515	QRD141J-391S	390 Ω	"	"
R516	QRD141J-391S	"	"	"
R517	QRZ0052-471	470 Ω		Fusible
R518	QRZ0052-471	"		"
R519	QRZ0052-471	"		"
R520	QRZ0052-471	"		"
R521	QRZ0052-181	180 Ω		"
R522	QRZ0052-181	"		"
R523	QRZ0052-181	"		"
R524	QRZ0052-181	"		"
R525	QRZ0052-821	820 Ω		"
R526	QRZ0052-821	"		"
R527	QRD149J-5R6S	5.6 Ω	1/4 W	Carbon
R528	QRD149J-5R6S	"	"	"
R529	QRD149J-5R6S	"	"	"
R530	QRD149J-5R6S	"	"	"
R531	QRZ0052-121	120 Ω		Fusible
R532	QRZ0052-121	"		"
R533	QRZ0052-100	10 Ω		"
R534	QRZ0052-100	"		"
R535	QRZ0052-100	"		"
R536	QRZ0052-100	"		"
R537	QRM056K-R22S	0.22 Ω	5 W	Metal Plate
R538	QRM056K-R22S	"	"	"
R539	QRM056K-R22S	"	"	"
R540	QRM056K-R22S	"	"	"
R541	QRD141J-681S	680 Ω	1/4 W	Carbon
R542	QRD141J-681S	"	"	"
R543	QRD141J-681S	"	"	"
R544	QRD141J-681S	"	"	"
R545	QRD141J-471S	470 Ω	"	"
R546	QRD141J-471S	"	"	"
R547	QRD141J-471S	"	"	"
R548	QRD141J-471S	"	"	"
R551	QRD141J-222S	2.2 k Ω	"	"
R552	QRD141J-222S	"	"	"
R553	QRD141J-183S	18 k Ω	"	"
R554	QRD141J-183S	"	"	"
R555	QRD141J-682S	6.8 k Ω	"	"
R556	QRD141J-333S	33 k Ω	"	"
R557	QRD141J-103S	10 k Ω	"	"
R558	QRD141J-332S	3.3 k Ω	"	"
R559	QRD149J-270S	27 Ω	"	"
R560	QRD141J-473S	47 k Ω	"	"
R561	QRD141J-563S	56 k Ω	"	"
R562	QRD141J-563S	"	"	"

Resistors

Item No.	Part Number	Rating		Description
R563	QRD141J-273S	27 k Ω	1/4 W	Carbon
R564	QRD141J-273S	"	"	"
R565	QRD141J-273S	"	"	"
R566	QRD141J-273S	"	"	"
R567	QRD141J-124S	120 k Ω	"	"
R568	QRD141J-334S	330 k Ω	"	"
R569	QRD141J-683S	68 k Ω	"	"
R570	QRG027J-122	1.2 k Ω	2 W	Oxide Metal Film
R571	QRD141J-273S	27 k Ω	1/4 W	Carbon
R573	QRD141J-101S	100 Ω	"	"
R574	QRD141J-273S	27 k Ω	"	"
R581	QRD141J-472S	4.7 k Ω	"	"
R585	QRD141J-331S	330 Ω	"	"
R587	QRZ0052-100	10 Ω	"	Fusible

Others

Item No.	Part Number	Rating	Description
	QMV5005-002		2P Plug Ass'y
	QMV5005-003		3P Plug Ass'y
	E300209-006		Heat sink
	E301048-001		Heat Sink Bracket
	E66683-001		Reef Spring
	E67548-001		Plate (for Transistor)
	SBSE3012Z		Screw (for Transistor)
	SBSB3008Z		Screw
	E10513-101		Circuit Board

8-(3) TAP-285B Power Amp. P.C. Board Ass'y

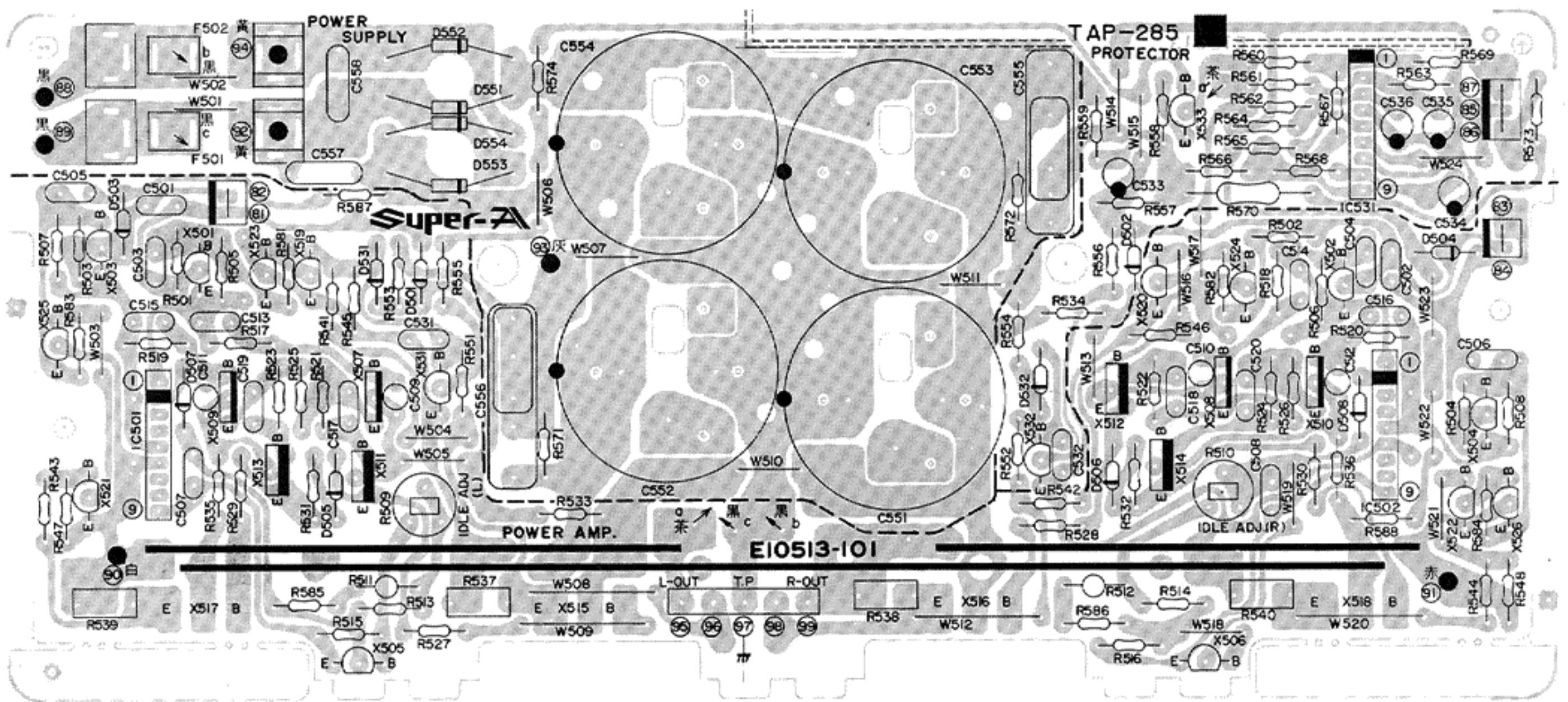


Fig. 9

Note:

The specific symbols (赤, 黒, 白, ... etc.) on a surface of P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly at the factory.

Transistors

Item No.	Part Number	Rating		Description	
		Pc	fT	Silicon	Maker
X501	2SC2546(E)	0.4 W	90 MHz	"	Hitachi
X502	2SC2546(E)	"	"	"	"
X503	2SA1084(E)	"	120 MHz	"	"
X504	2SA1084(E)	"	"	"	"
X505	2SC2546(E)	"	90 MHz	"	"
X506	2SC2546(E)	"	"	"	"
X507	2SC1904(B,V)	1 W	130 MHz	"	Fujitsu
X508	2SC1904(B,V)	"	"	"	"
X509	2SA899(B,V)	"	100 MHz	"	"
X510	2SA899(B,V)	"	"	"	"

Transistors

Item No.	Part Number	Rating		Description	
		Pc	fT	"	Maker
X511	2SD381(L,M)	20 W	45 MHz	"	NEC
X512	2SD381(L,M)	"	"	"	"
X513	2SB536(L,M)	"	40 MHz	"	"
X514	2SB536(L,M)	"	"	"	"
X515	2SC2564LB(O)	150 W	80 MHz	"	Toshiba
X516	2SC2565LB(O)	"	"	"	"
X517	2SA1095LB(O)	"	60 MHz	"	"
X518	2SA1095LB(O)	"	"	"	"
X519	2SC458(C)	0.2 W	230 MHz	"	Hitachi
X520	2SC458(C)	"	"	"	"
X521	2SA1029(C)	"	200 MHz	"	"
X522	2SA1029(C)	"	"	"	"
X523	2SA1029(C)	"	"	"	"
X525	2SC458(C)	"	230 MHz	"	"
X531	2SC1775AV(E)	"	200 MHz	"	"
X532	2SC1775AV(E)	"	"	"	"
X533	2SA872AV(E)	0.3 W	120 MHz	"	"

Integrated Circuits

Item No.	Part Number	Rating	Description
		Pc	Maker
IC501	VC5022(X,Y)		I.C.
IC502	VC5022(X,Y)		"
IC531	TA7317P	0.5 W	Toshiba

Diodes

Item No.	Part Number	Rating	Description
			Maker
D501	1SS81		Silicon Hitachi
D502	1SS81		" "
D503	1SS81		" "
D504	1SS81		" "
D505	1S2076-31		" "
D506	1S2076-31		" "
D507	1S2076-31		" "
D531	1S2076-31		" "
D532	1S2076-31		" "
D551	S3V20F		" Shindengen
D552	S3V20F		" "
D553	S3V20F		" "
D554	S3V20F		" "

Coils & Transformers

Item No.	Part Number	Rating	Description
	E03798-001		BUS BAR (B)
	E03798-002		" (LEFT)
	E03798-003		" (RIGHT)

Capacitors

Item No.	Part Number	Rating	Description
C501	QFP31HJ-332	3300 pF 50 V	
C502	QFP31HJ-332	" "	
C503	QFP31HJ-103	0.01 μ F "	
C504	QFP31HJ-103	" "	
C505	QFP31HJ-103	" "	
C506	QFP31HJ-103	" "	
C507	QFP31HJ-103	" "	
C508	QFP31HJ-103	" "	
C509	QFS81HJ-150	15 pF "	Polystyrol
C510	QFS81HJ-150	" "	"
C511	QFS81HJ-150	" "	"
C512	QFS81HJ-150	" "	"
C513	QFP31HJ-471	470 pF "	"
C515	QFP31HJ-181	180 pF "	"
C517	QFP31HJ-102	1000 pF "	"
C533	QET51ER-226	22 μ F 25 V	Electrolytic
C534	QET51CR-226	" 16 V	"
C535	QET51AR-476	47 μ F 10 V	"
C536	QET51AR-476	" "	"
C551	EEW6301-688	6800 μ F 63 V	"
C552	EEW6301-688	" "	"
C553	EEW6301-688	" "	"
C554	EEW6301-688	" "	"
C557	QFZ0074-104	0.1 μ F 250 V	Film
C558	QFZ0074-224	0.22 μ F "	"

Resistors

Item No.	Part Number	Rating	Description
R431	QRD141J-105S	1 M Ω 1/4 W	Carbon
R432	QRD141J-105S	" "	"
R451	QRD129J-330	33 Ω 1/2 W	"
R452	QRD129J-330	" "	"
R453	QRH019J-100	10 Ω 1 W	Fusible
R454	QRH019J-100	10 Ω "	"
R454	QRX017J-100S	" "	Oxide Metal Film
R455	QRG027J-331	330 Ω 2 W	"
R456	QRG027J-331	" "	"
R457	QRZ0052-100	" "	Fusible
R458	QRZ0052-100	" "	"
R459	QRZ0052-100	" "	"
R460	QRZ0052-100	" "	"
R603	QRD141J-822S	8.2 k Ω 1/4 W	Carbon
R604	QRD141J-103S	10 k Ω "	"
R605	QRD141J-563S	56 k Ω "	"
R606	QRD141J-563S	" "	"
R607	QRD141J-244S	240 k Ω "	"
R608	QRD141J-244S	" "	"
R609	QRD141J-622S	6.2 k Ω "	"
R610	QRD141J-622S	" "	"
R611	QRD141J-273S	27 k Ω "	"
R612	QRD141J-273S	" "	"
R613	QRD141J-102S	1 k Ω "	"
R617	QRD149J-221S	220 Ω 1/4 W	"
R618	QRD149J-221S	" "	"
R651	QRD141J-472S	4.7 k Ω "	"
R652	QRD141J-472S	" "	"
R653	QRD141J-474S	470 k Ω "	"
R654	QRD141J-474S	" "	"
R655	QRD141J-473S	47 k Ω "	"
R656	QRD141J-182S	1.8 k Ω "	"
R657	QRD141J-153S	15 k Ω "	"
R658	QRD141J-101S	100 Ω "	"
R659	QRD141J-683S	68 k Ω "	"
R660	QRD129J-181	180 Ω 1/2 W	"
R661	QRD141J-392S	3.9 k Ω 1/4 W	"
R662	QRD141J-223S	22 k Ω 1/4 W	"
R663	QRD141J-101S	100 Ω "	"
R664	QRD141J-390S	39 Ω "	"
R665	QRD141J-390S	" "	"
R666	QRD141J-390S	" "	"
R667	QRD141J-390S	" "	"

Others

Item No.	Part Number	Rating	Description
	EWS012-040		2P Socket Wire Assy (OUT. L)
	EWS012-041		" (OUT. R)
	EWS013-043		3P Socket Wire Assy (PROTE.)
	EW013-044		" (VOL.)
	EW013-047		" (EQ.)
	EWT011-026		Terminal Wire Assy
	E03572-011		Speaker Terminal
	QMS6302-105		Jack Assy
	QSP0249-004		Push Switch
	E61537-001		Heat Sink
RY451	E45524-002		Fuse Clip (J.C)
	E48965-002		" (U.P.E.A.B)
	ESK6D24-212		RELAY
	E10512-101		Circuit Board

8-(4) TSC-132B Pin Jack P.C. Board Ass'y

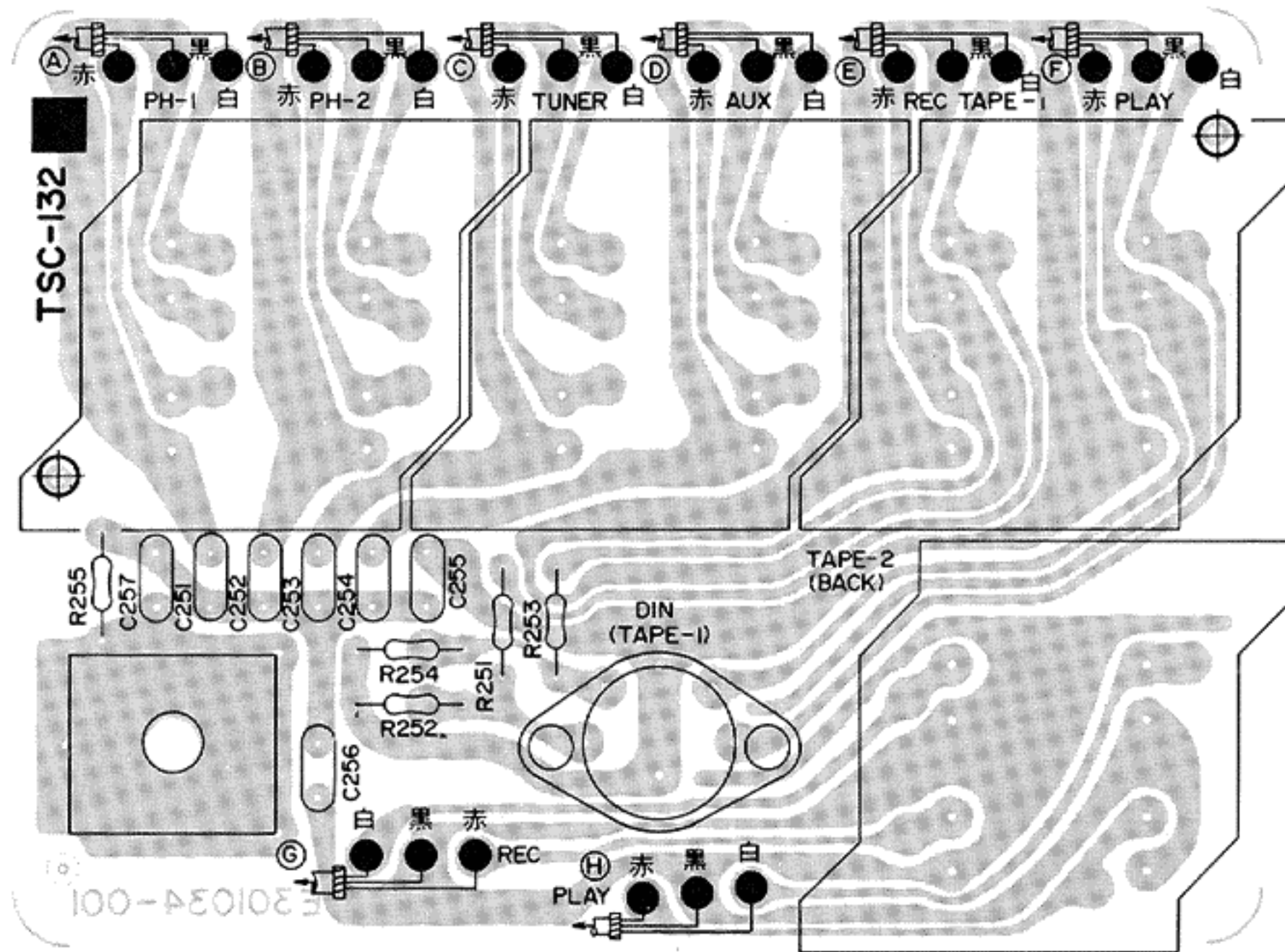


Fig. 10

Capacitors

Item No.	Part Number	Rating	Description
C251	QFM81HK-223	0.022 μ F 50 V	Mylar
C252	QFM81HK-223	" "	"
C253	QFM81HK-223	" "	"
C254	QFM81HK-223	" "	"
C255	QFM81HK-223	" "	"
C256	QFM81HK-223	" "	"
C257	QFM81HK-473	0.047 μ F	"

Note:

The specific symbols (赤, 黒, 白, ... etc.) on a surface of P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly at the factory.

Resistors

Item No.	Part Number	Rating	Description
R251	QRD141J-334SY	330 k Ω 1/4 W	Cabon
R252	QRD141J-334SY	" "	"
R253	QRD141J-104SY	100 k Ω	"
R254	QRD141J-104SY	" "	"
R255	QRD148J-4R7S	4.7 Ω	"

Others

Item No.	Part Number	Rating	Description
J103	EWS01F-001		Socket wire (TAPE)
	EWS017-019		" (PHONO)
	EWS018-015		" (TU, AUX)
J201	E03591-42D		4p Jack Ass'y (TU, AUX, TAPE 1, TAPE 2 PHONO)
	E03623-003		Socket (DIN)
	E03763-001		Terminal (GND)
	E301034-001		Circuit Board

8-(5) TPS-287C AC Unit P.C. Board Ass'y

[Employed only on (J) & (C) types]

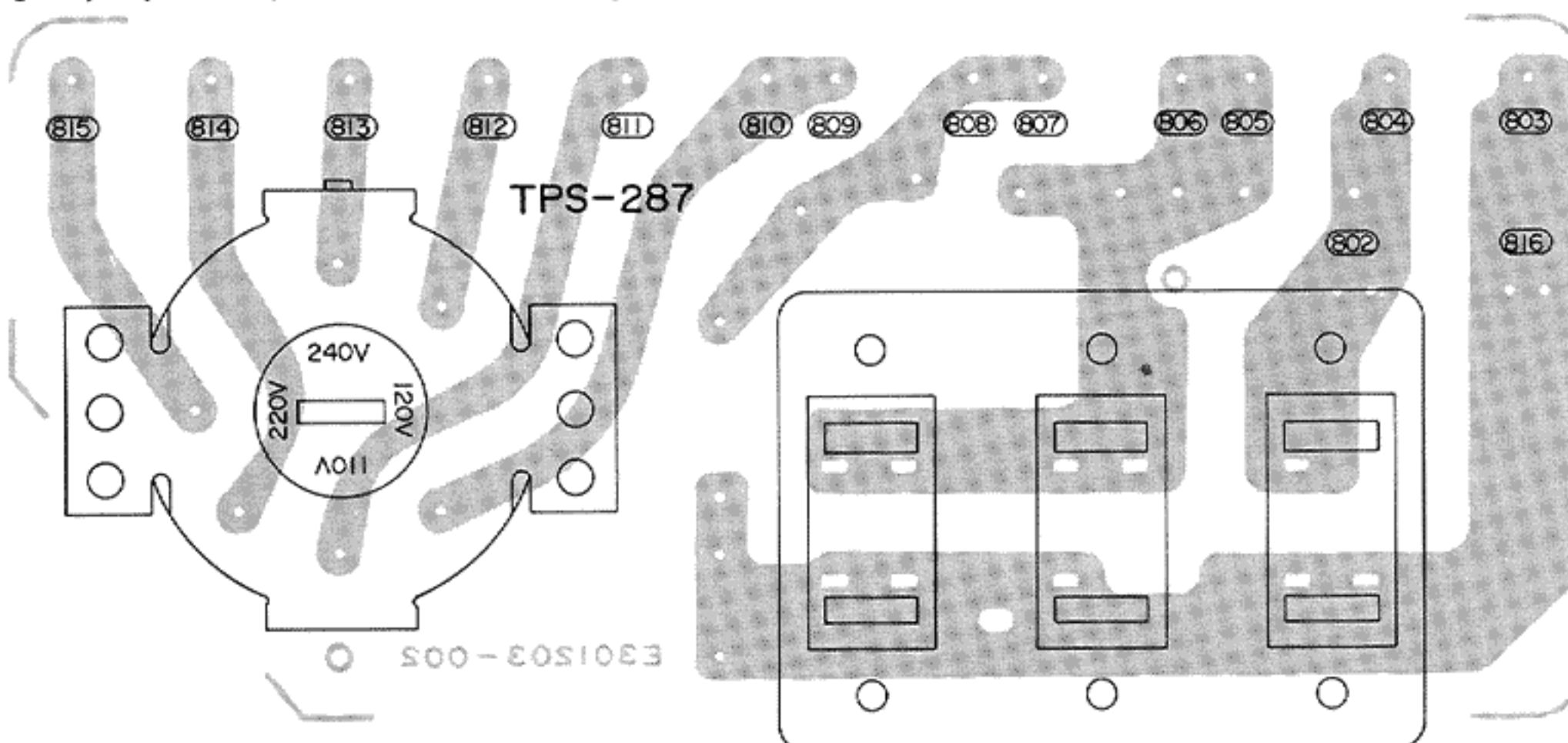


Fig. 11

Capacitor

Item No.	Part Number	Rating	Description
C001	QCZ9014-103A	0.01 μ F	Ceramic

Others

Item No.	Part Number	Rating	Description
	QMC0637-004		AC Outlet
	QSR0085-001		Voltage Selector
	E301203-002		Circuit Board

8-(6) TPS-287D AC Unit P.C. Board Ass'y

[Employed only on (P) & (U) types]

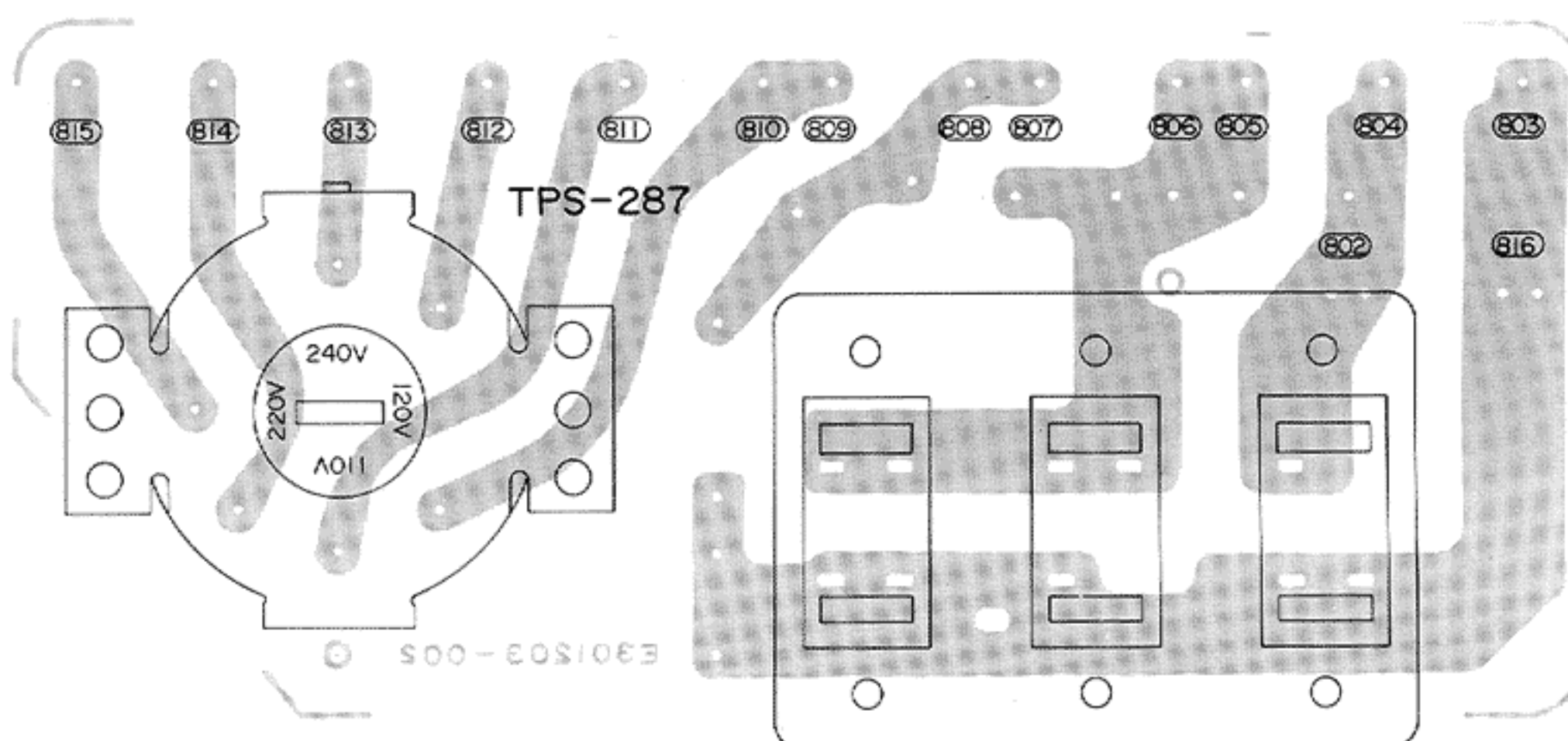


Fig. 12

Capacitor

Item No.	Part Number	Rating	Description
C001	QFZ9010-103	0.01 μ F	Film

Others

Item No.	Part Number	Rating	Description
	QMC0637-004 QSR0085-001U E301203-002		AC Outlet Voltage Selector Circuit Board

8-(7) TPS-287E AC Unit P.C. Board Ass'y

[Employed only on (E), (A) & (B) types]

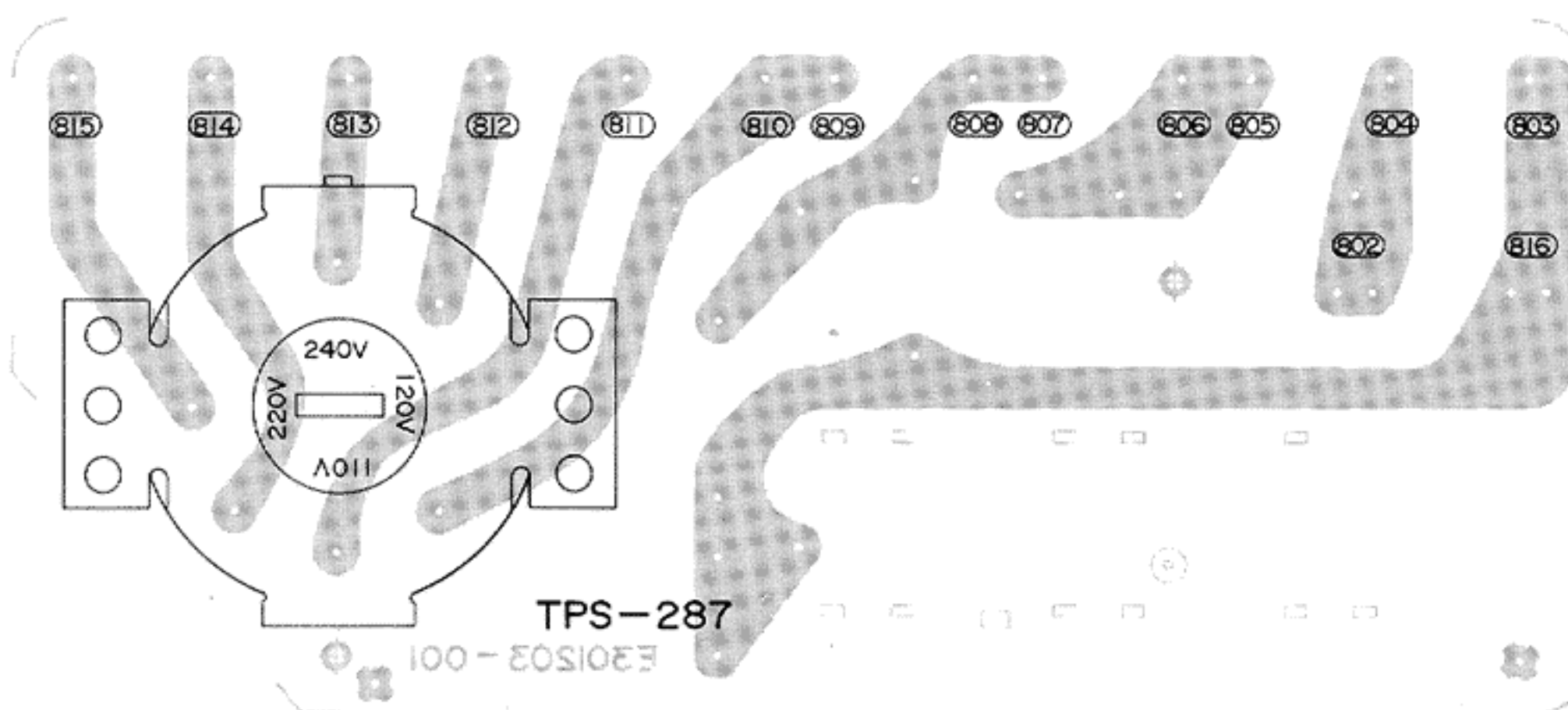


Fig. 13

Capacitor

Item No.	Part Number	Rating	Description
C001	QFZ9010-103	0.01 μ F	Film

Others

Item No.	Part Number	Rating	Description
	E67448-001 QSR0085-001U E301203-001		Holder Voltage Selector Circuit Board

9. Packing Materials and Part Numbers

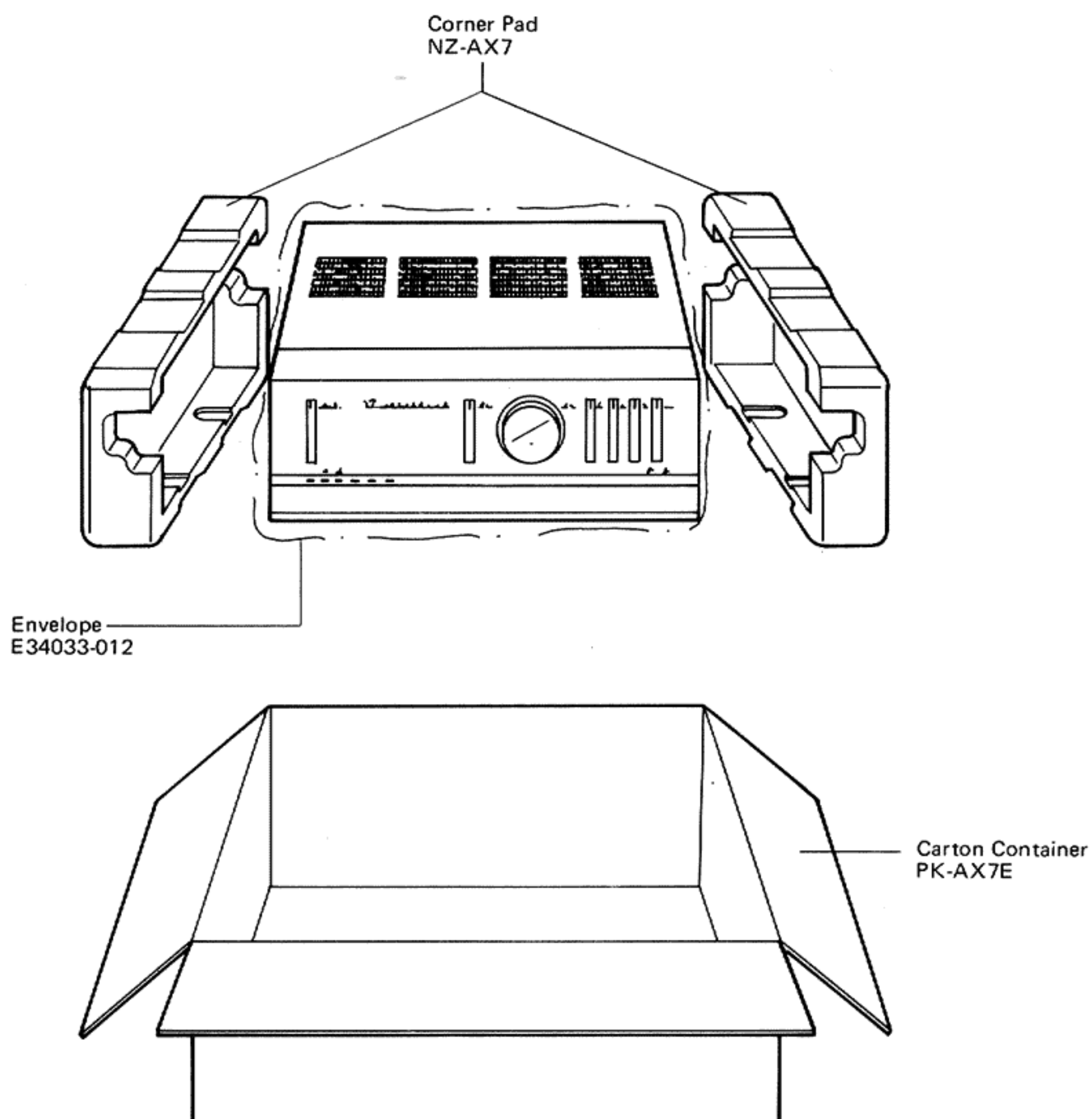


Fig. 14

10. Accessories List

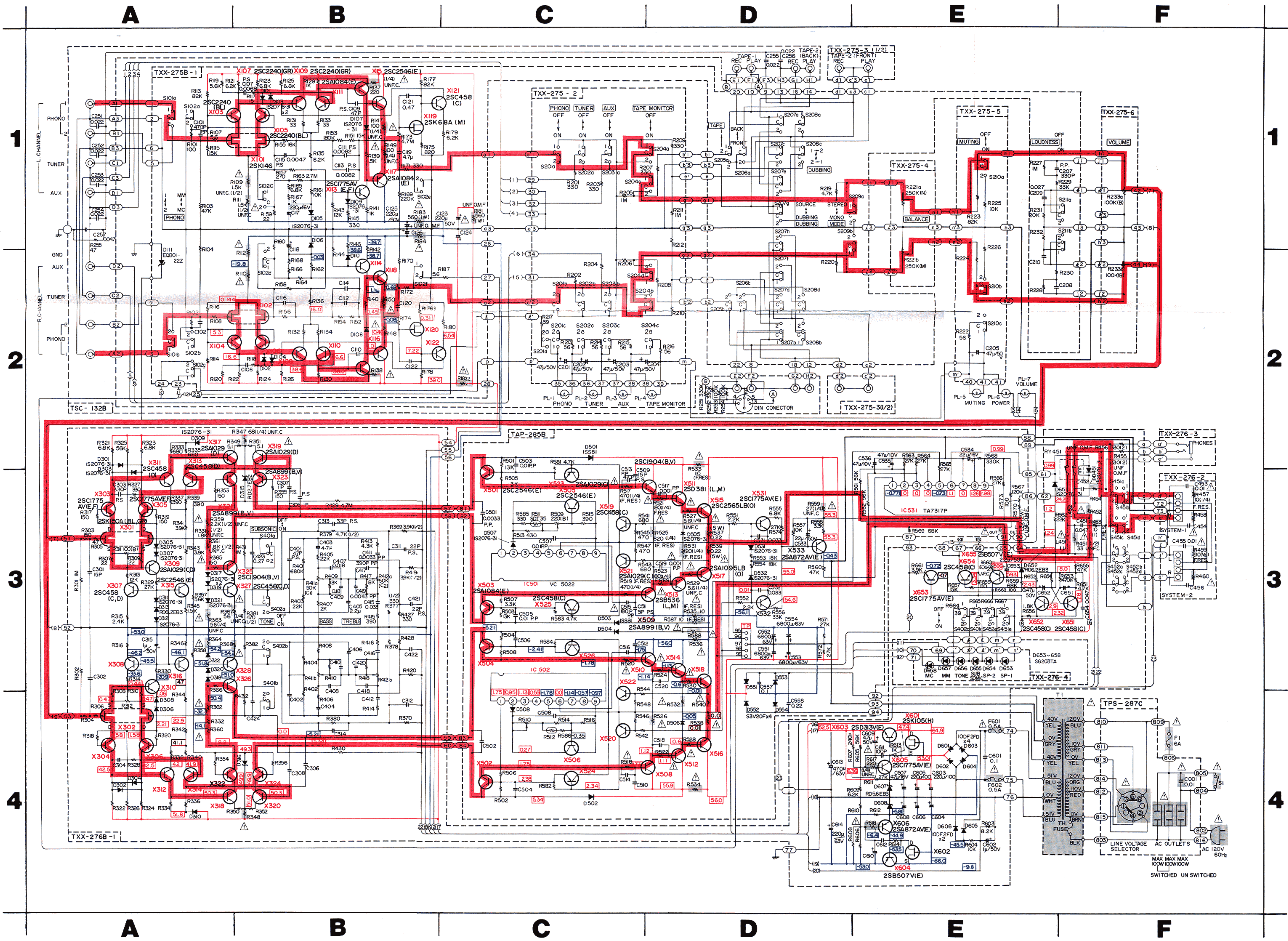
Item No.	Part Number	Description	Q'ty
1	E30580-899A	Instruction Book	1
2	See below	Warranty Card	1
3	E41202-2	Envelope for Instruction Book and Warranty Card	1
4	BT20042	"Do It Better" & Service Procedures (for U.S.A. only)	1
5	BT20044B	JVC Safety Instruction Sheet	1
6	QMF51A2-6R3S or QMF51A2-3R15S (See page 20.)	Fuse (for U.S. Military Market and Others)	1
7	E64208-001	Envelope for Fuses (for U.S. Military Market and Others)	1
8	E67142-T6R3 (6.3A) or T3R15 (3.15A)	Fuse Label (U.S. Military Market and Others)	1
9	E64216-002	Caution Tag (with Power Cord for Military Market only)	1

NOTE: ⚠ SAFETY PARTS

Warranty Card

U.S.A.	Canada	U.S. Military Market	Europe	Australia	U.K.
BT20032B	BT20025D	BT20032B	—	BT20029B	BT20013C

11. A-X7 Schematic Diagram



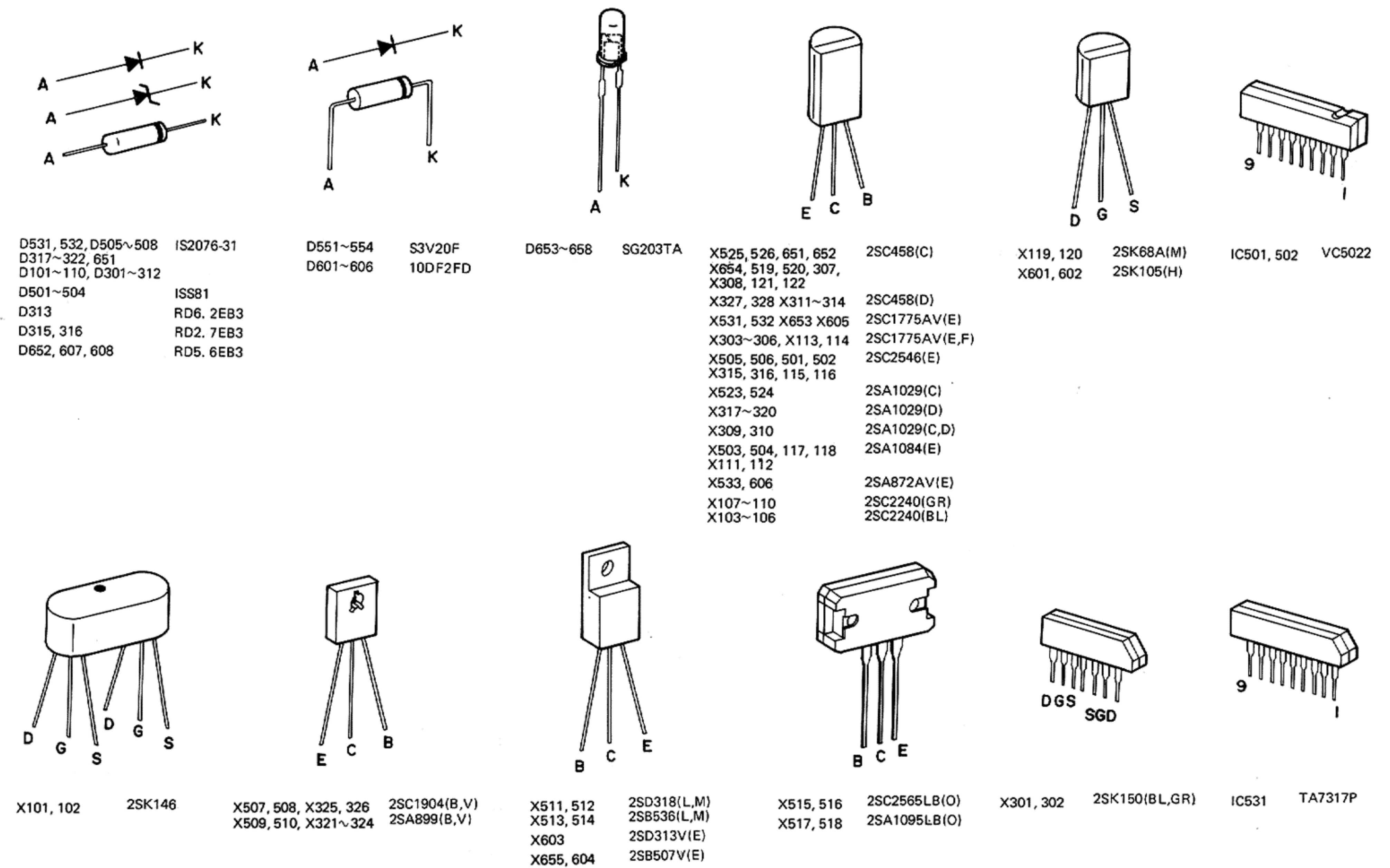
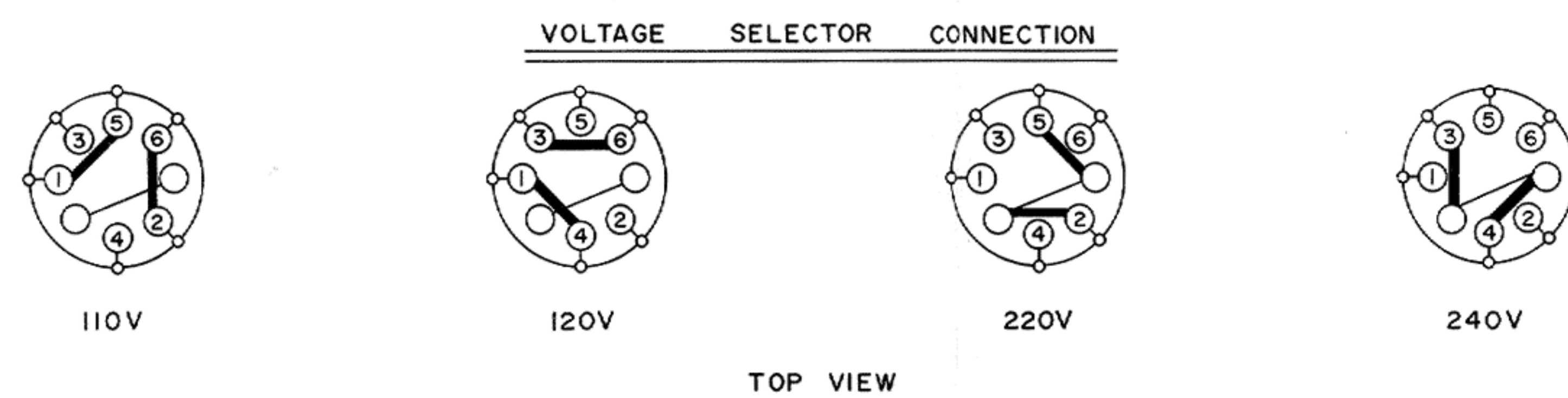
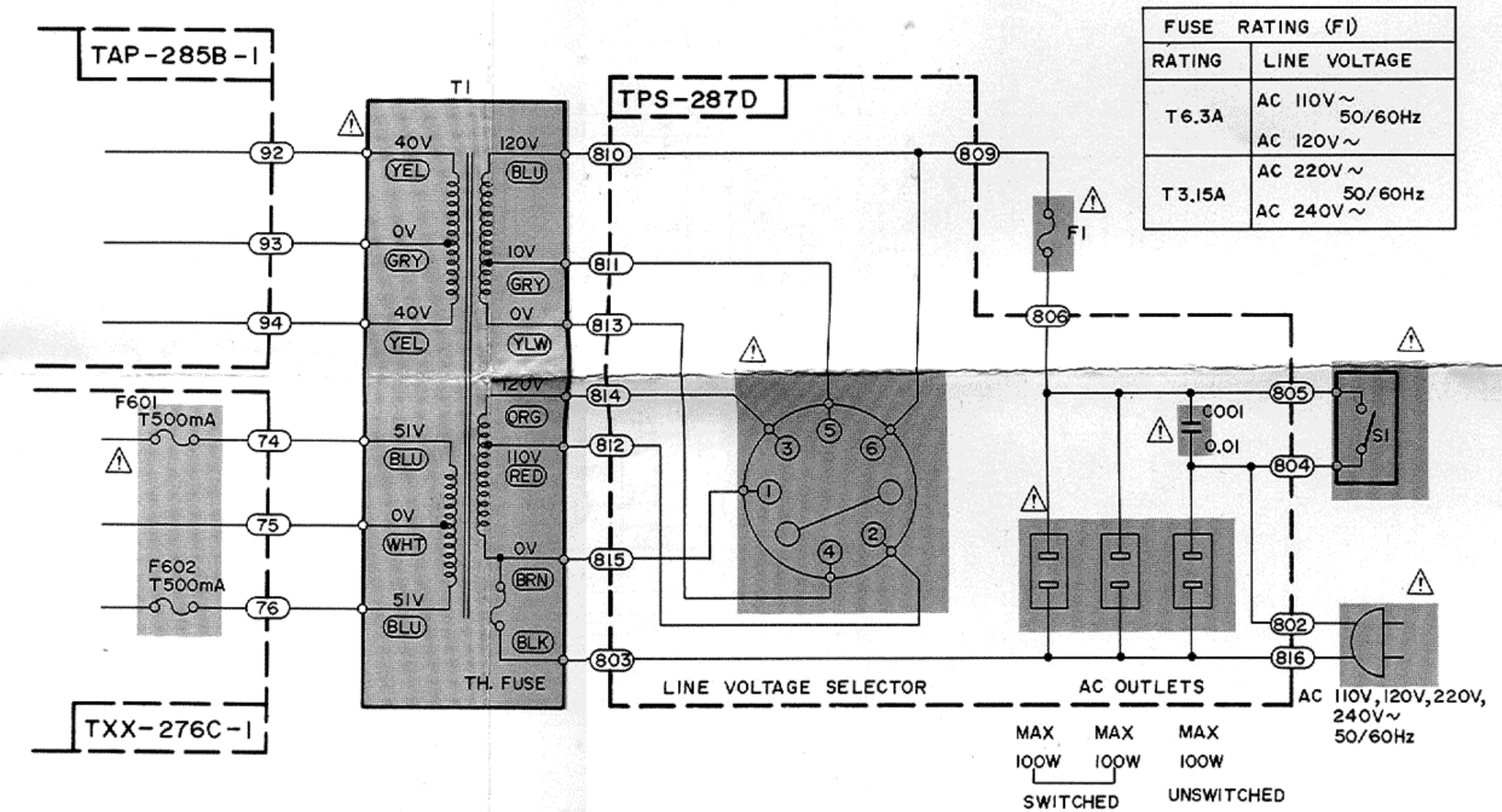
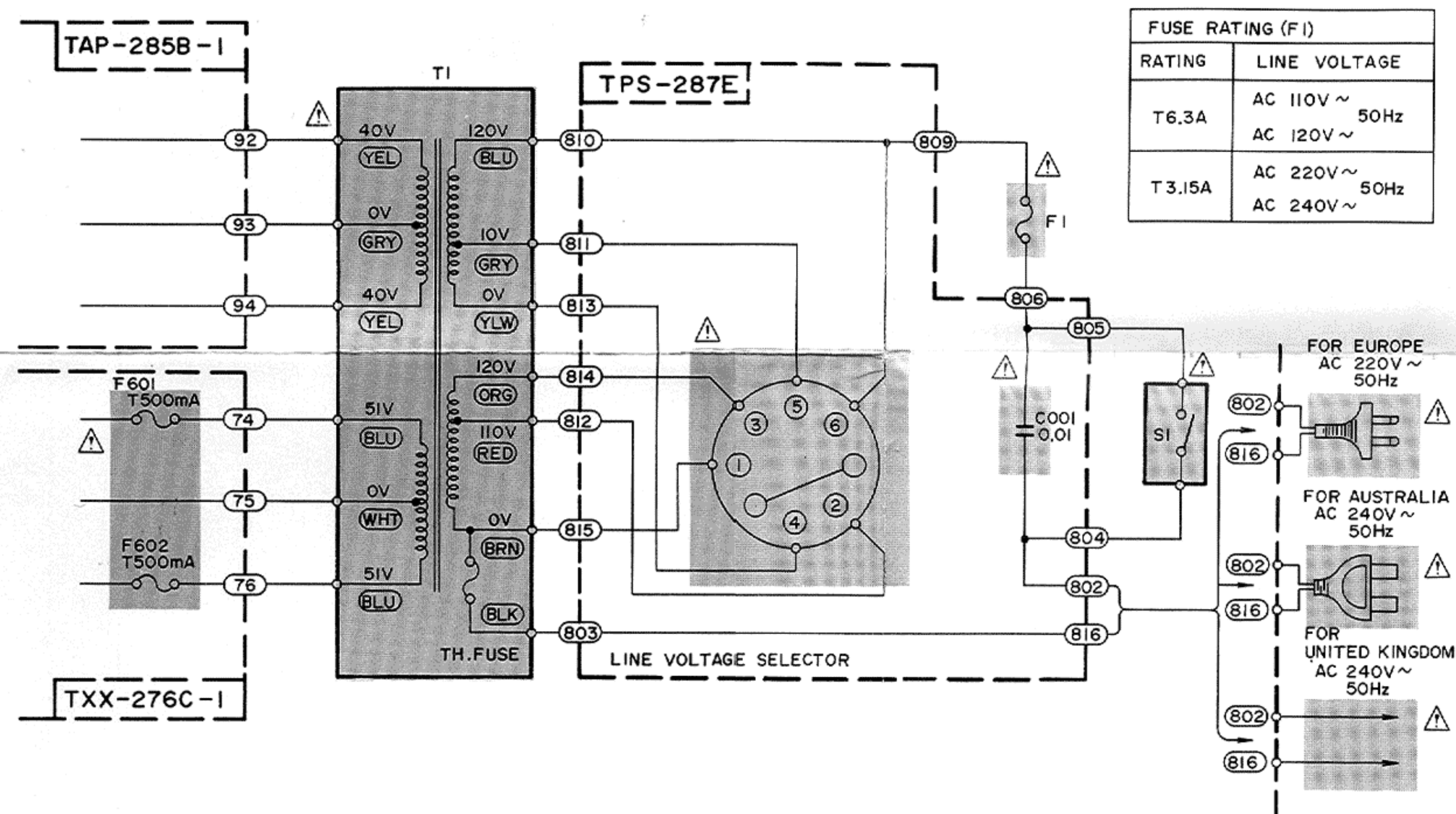
Printed Circuit Board Ass'y Locations

P.C. Board Ass'y	Description	Page
TXX-275B	Equalizer Amp. & Switch P.C. Board Ass'y	8
TXX-276B	C Driver Amp. & Power Supply P.C. Board Ass'y	10
TAP-285B	Power Amp. P.C. Board Ass'y	13
TSC-132B	Pin Jack P.C. Board Ass'y	15
TPS-287C	AC Unit P.C. Board Ass'y	15
TPS-287D	AC Unit P.C. Board Ass'y	16
TPS-287E	AC Unit P.C. Board Ass'y	16

Notes:

1. Voltage values in are positive.
2. Voltage values in are negative.
3. — indicates positive B power supply.
4. — indicates negative B power supply.
5. — indicates signal path.
6. When replacing the parts in the darkened are () and those marked with , be sure to use the designated parts to ensure safety.
7. Parts in red indicate transistors or ICs.
8. This is the standard circuit diagram.
The design and contents are subject to change without notice.

(U),(P) (U) FOR OTHER COUNTRIES
(P) FOR PACEX



12. Parts List with Specified Numbers for Designated Areas

Page	Item No.	Description	U.S.A.	Canada	U.S. Military Market & Other Countries	Europe	Australia	U.K.
3	4	Power Switch	QSP1110-309	QSP1110-309	QSP1106-001	QSP1106-001	QSP1106-001	QSP1106-001
		Power Cord	QMP1200-200	QMP1200-200	QMP7600-250	QMP3900-200	QMP2560-244	QMP9017-008
3	4	Fuse	QMF61U1-6R0	QMF61U1-6R0	QMF51A2-6R3S	QMF51A2-3R15S	QMF51A2-3R15S	QMF51A2-3R15S
		Primary (F1)			or			
		Secondary (F601, F602)	QMF61U1-R50	QMF61U1-R50	QMF51A2-3R15S			
					QMF51A2-R50L	QMF51A2-R50L	QMF51A2-R50L	QMF51A2-R50L
3	4	AC outlets	QMC0637-004	QMC0637-004	QMC0637-004	—	—	—
3	4	Voltage	QSR0085-001	QSR0085-001	QSR0085-001U	QSR0085-001U	QSR0085-001U	QSR0085-001U
		Selector Switch						
3	4	Fuse Socket	QMG0201-003	QMG0201-003	QMG0301-003	QMG0301-003	QMG0301-003	QMG0301-003
15,16	8-(5)	AC Unit P.C. Board Ass'y	TPS-287C	TPS-287C	TPS-287D	TPS-287E	TPS-287E	TPS-287E
	- (6)							
	- (7)							
10	8-(2)	Driver Amp. P.C. Board Ass'y	TXX-276B	TXX-276B	TXX-276C	TXX-276C	TXX-276C	TXX-276C
		Mask Plate	—	—	—	E65494-003	E65494-003	E65494-003

Note: SAFETY PARTS

Power Specifications

Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC 120 V, 60 Hz	390 W
CANADA	AC 120 V, 60 Hz	520 VA
EUROPE U.K. & AUSTRALIA	AC 110/120/220/240 V~ Selectable, 50 Hz	545 W
OTHER AREAS	AC 110/120/220/240 V~ Selectable, 50/60 Hz	545 W

JVC

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN