

# JVC

# SERVICE MANUAL

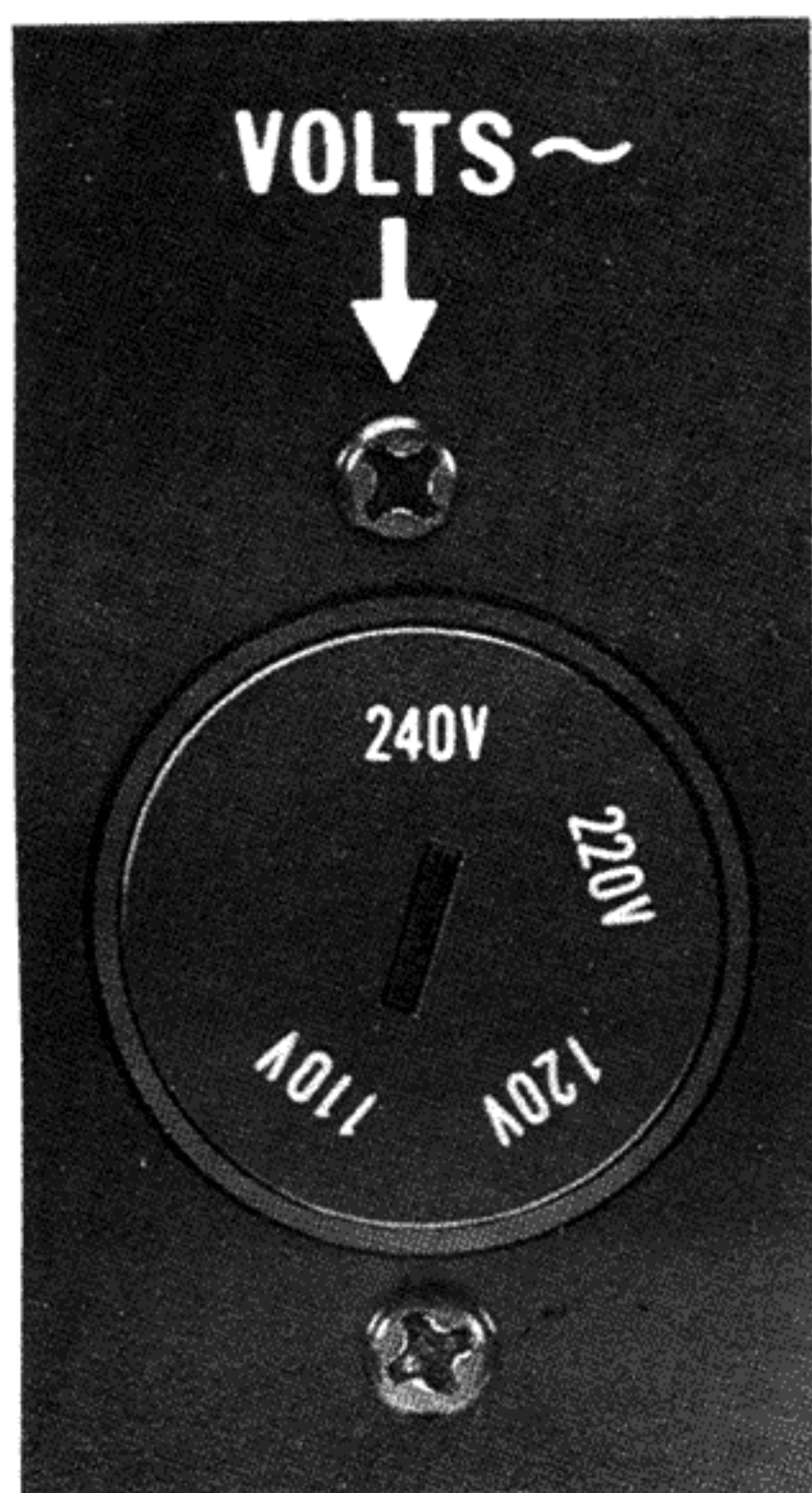
**MODEL**  
**JT-V22**  
**STEREO TUNER**



No. 2439  
DEC. 1977

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This SET is switchable between line voltages of 110, 120, 220 and 240 volts AC; 50/60 Hz.

The change-over switch is placed on the rear panel of the set.

To select another voltage, turn the change-over switch with a screwdriver or coin.

But for the U.S.A. and Canada, this set is no change-over switch, and fixed only 120 volts AC; 50/60 Hz.

**Note:**

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

# 1. Specifications

## FM TUNER SECTION

Tuning range	: 88 MHz – 108 MHz
Usable sensitivity (IHF)	: 2.0 $\mu$ V
Sensitivity for 50 dB S/N (STEREO)	: 45 $\mu$ V
Distortion	
MONO	: 0.2 % (1 kHz)
STEREO	: 0.35 % (1 kHz)
Signal-to-noise ratio	
MONO	: 73 dB
STEREO	: 65 dB
Selectivity	: 70 dB
Capture ratio	: 1.5 dB
IF rejection	: 90 dB
Stereo separation	: 100 Hz – 30 dB 1 kHz – 40 dB 10 kHz – 30 dB
De-emphasis	: 75 $\mu$ sec or 50 $\mu$ sec
Output level (400 Hz, 100 % Mod.)	: 600 mV

## AM TUNER SECTION

Tuning range	: 525 kHz – 1605 kHz
Usable sensitivity	: 50 $\mu$ V (External antenna)
Signal-to-noise ratio	: 50 dB
Distortion	: 0.8 %
Selectivity	: 30 dB

## DIMENSIONS

: 5-7/8"(H) x 16-1/2"(W) x 11-5/8"(D)  
(15.0 mm x 42.0 mm x 29.5 mm)

## WEIGHT

: 10.1 lbs. (4.6 kg)

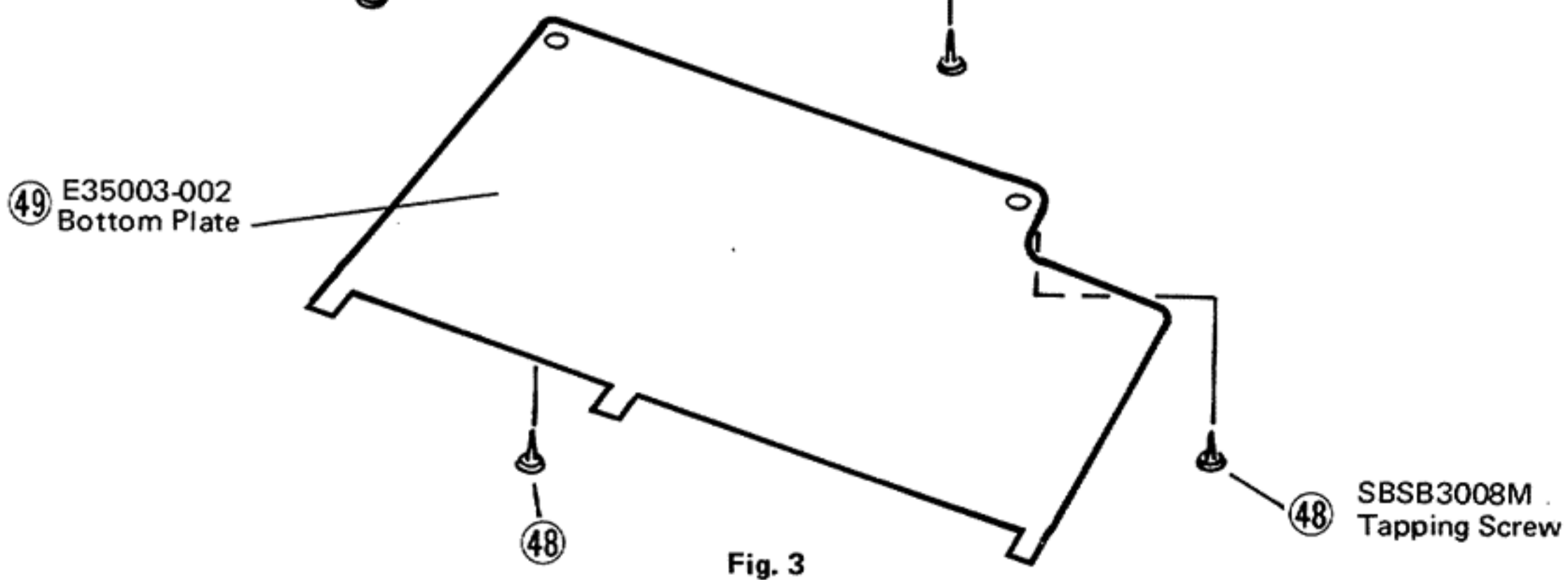
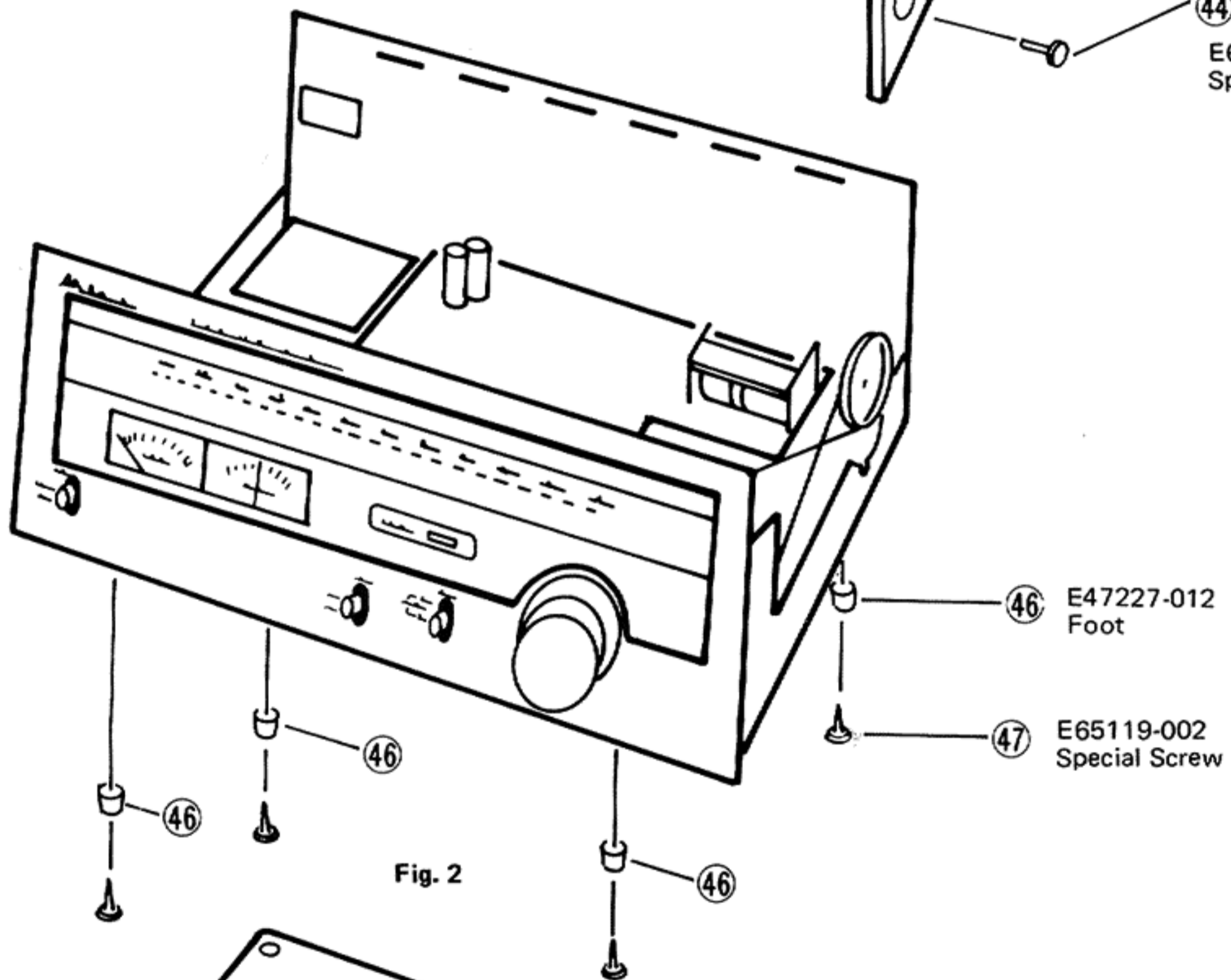
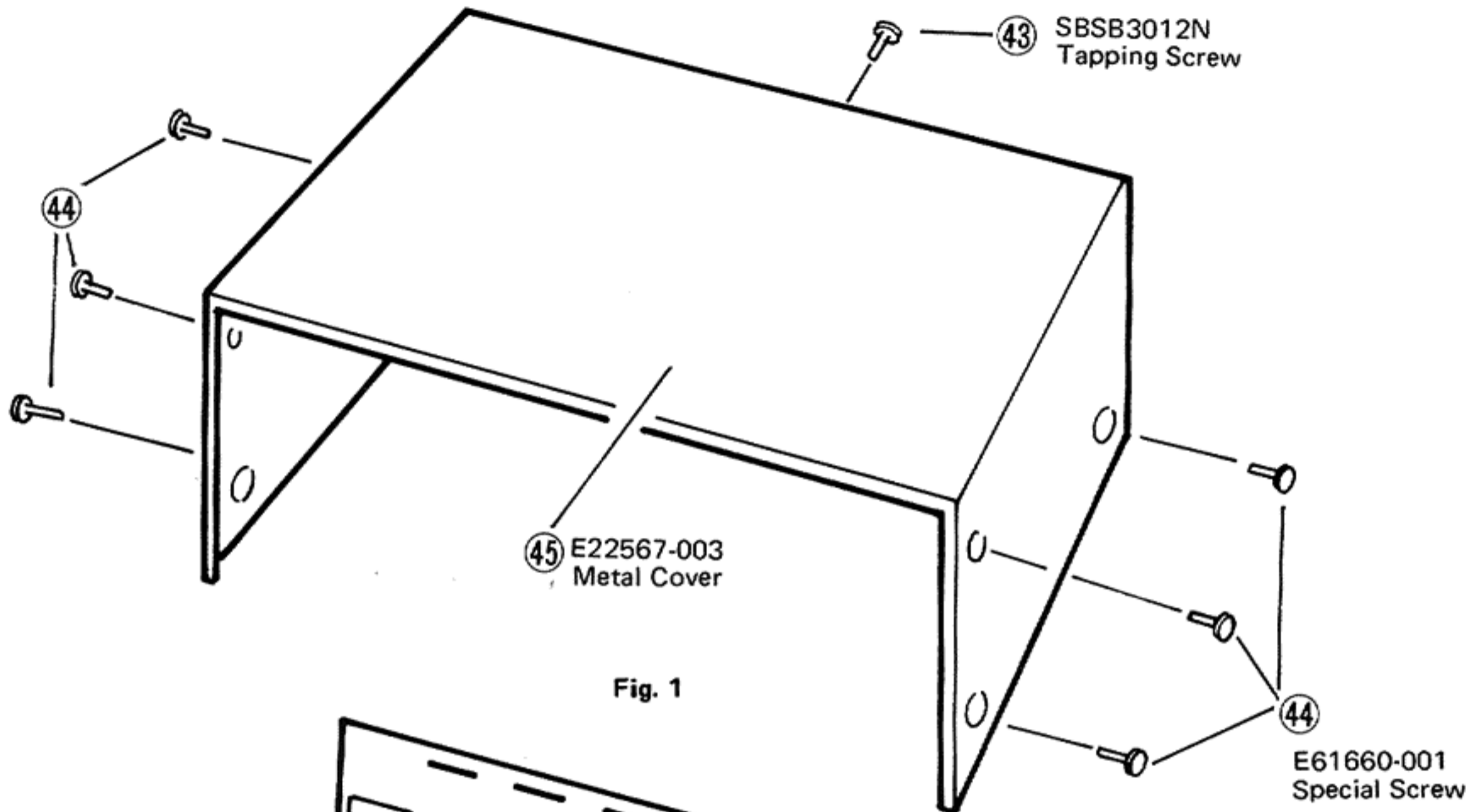
## POWER SPECIFICATIONS

Designated Areas	Line Voltage & Frequency	Power Consumption
U.S.A.	AC 120 V, 50/60 Hz	10 W
CANADA	AC 120 V, 50/60 Hz	10 W
U.K., AUSTRALIA	AC 240 V $\sim$ , 50 Hz	13 W
CONTINENTAL EUROPE	AC 220 V $\sim$ , 50 Hz	13 W
OTHER AREAS	AC 110/120/220/240 V $\sim$ Selectable, 50/60 Hz	13 W

## 2. Removal of Top Cover and Bottom Plate

### Procedure and Part Numbers

1. Remove 6 screws (Item No. 44) through the both sides of the metal cover (Item No. 45) and 1 tapping screw (Item No. 43) through the back sides of the cover (Item No. 45).
2. Remove the top cover.
3. Remove 2 screws (Item No. 48) from bottom plate (Item No. 49) and remove the bottom plate from the chassis.



# 3. Main Parts Location and Part Numbers

## Top View

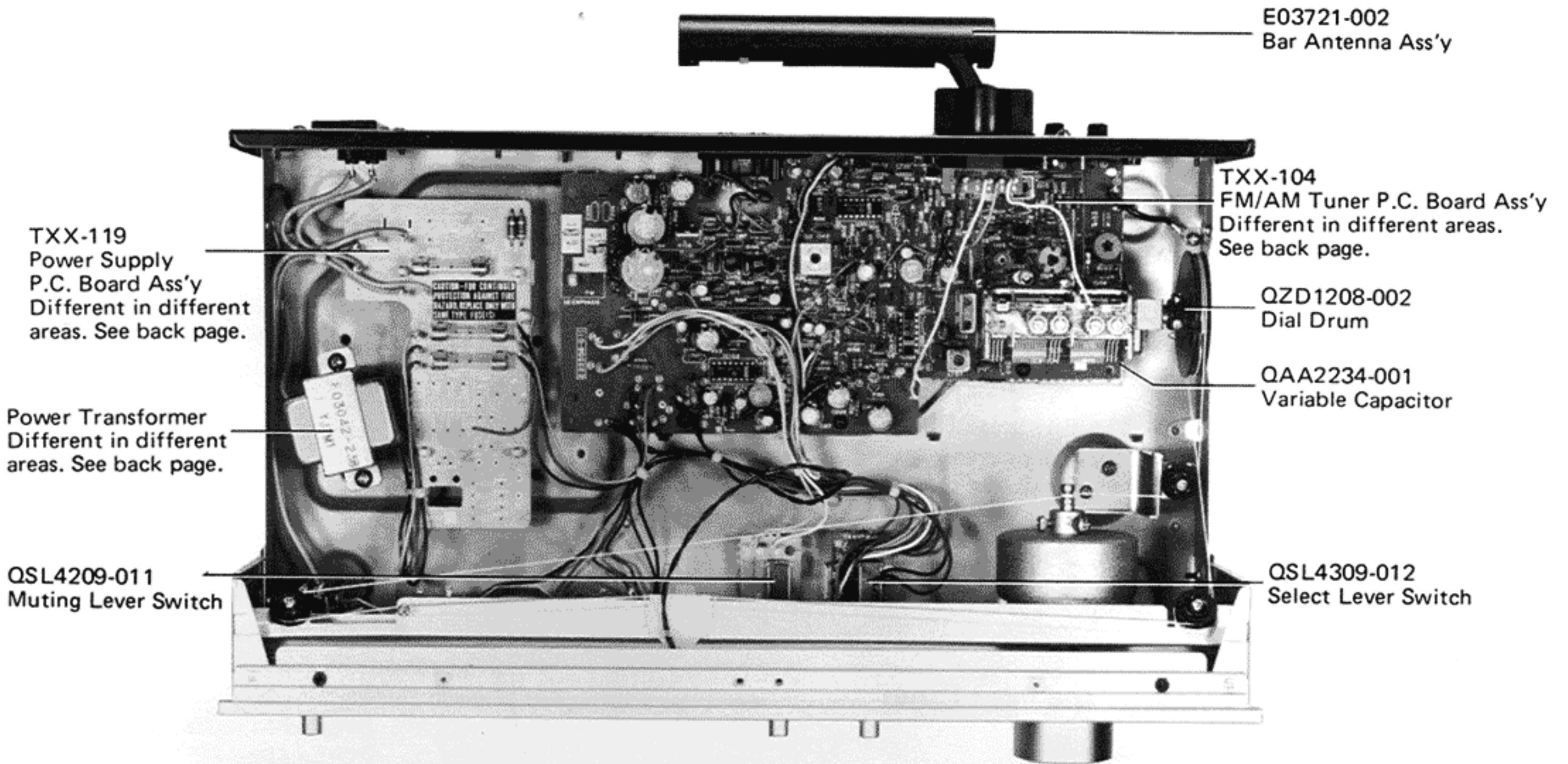


Fig. 4

## Bottom View

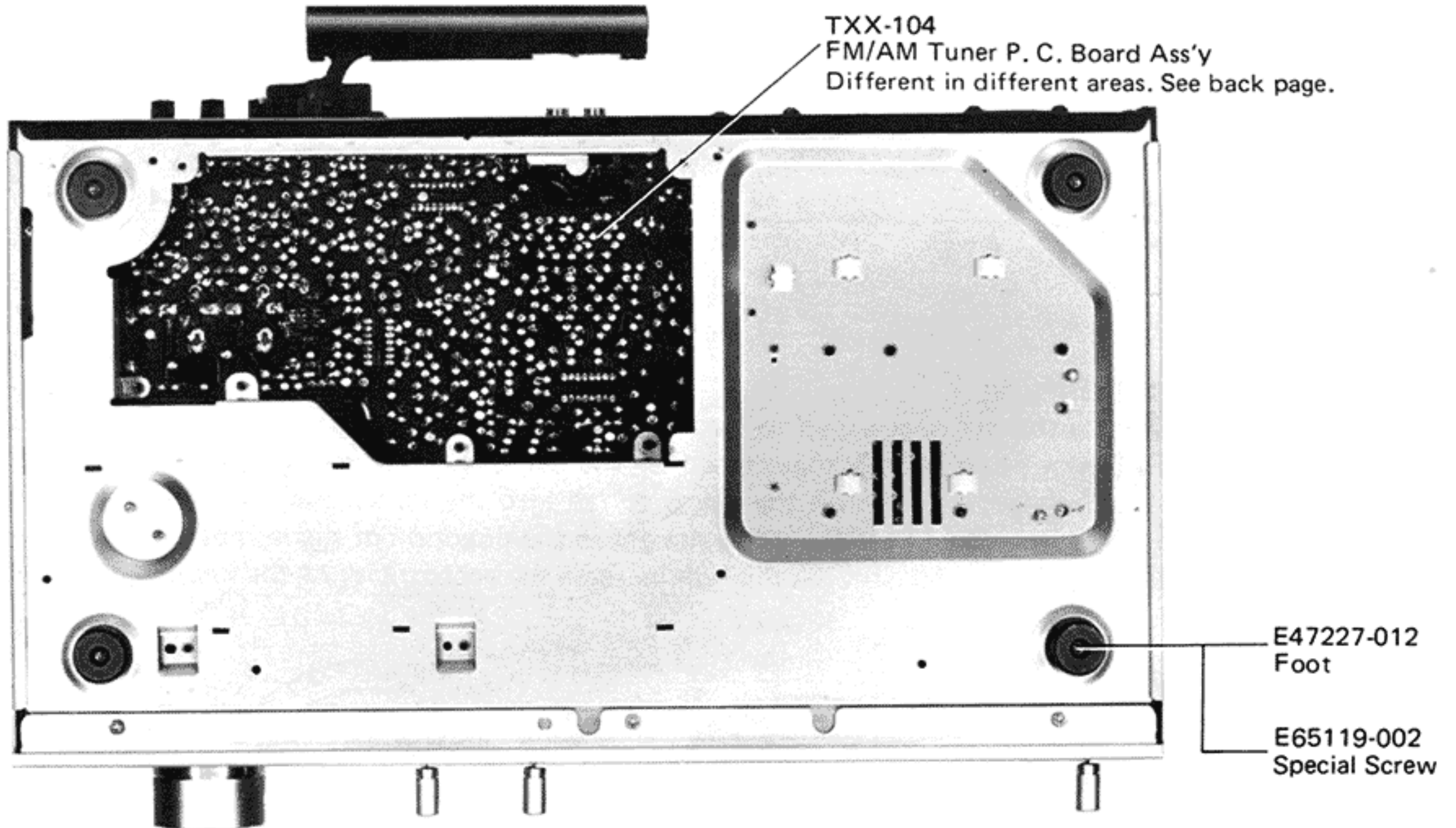


Fig. 5

# 4. Dial Stringing and Tuning Knob Fitting Procedures

## 4-(1) Dial Stringing

Turn the tuning capacitor so that its plates are completely closed (maximum capacity) first. Then start dial stringing following the diagram below.

In following the 3 procedures in the diagrams, ① put the string through the springs loop, ② tie the string in a knot having an indicated remaining length, finally ③ begins to string the dial following the 1, 2, 3... sequence in diagram as shown.

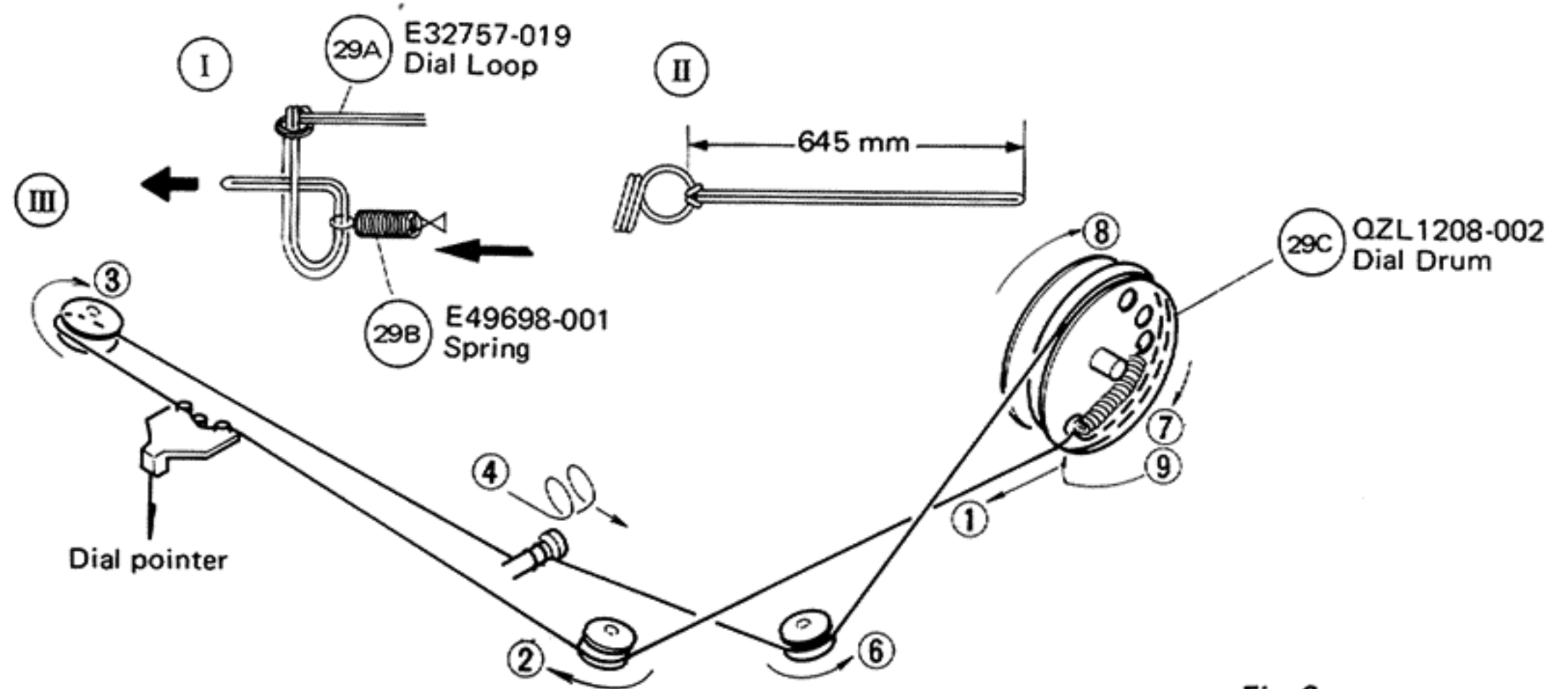


Fig. 6

## 4-(2) Removal of Meters and Pilot Lamp

1. To remove the meters, lift the meter holder in the direction of ②, while pressing it in the direction of ①.
2. The meters are affixed with tape bands. Slowly pull them backwards to remove.
3. Pilot lamp can be removed simply after the removal of the meters.

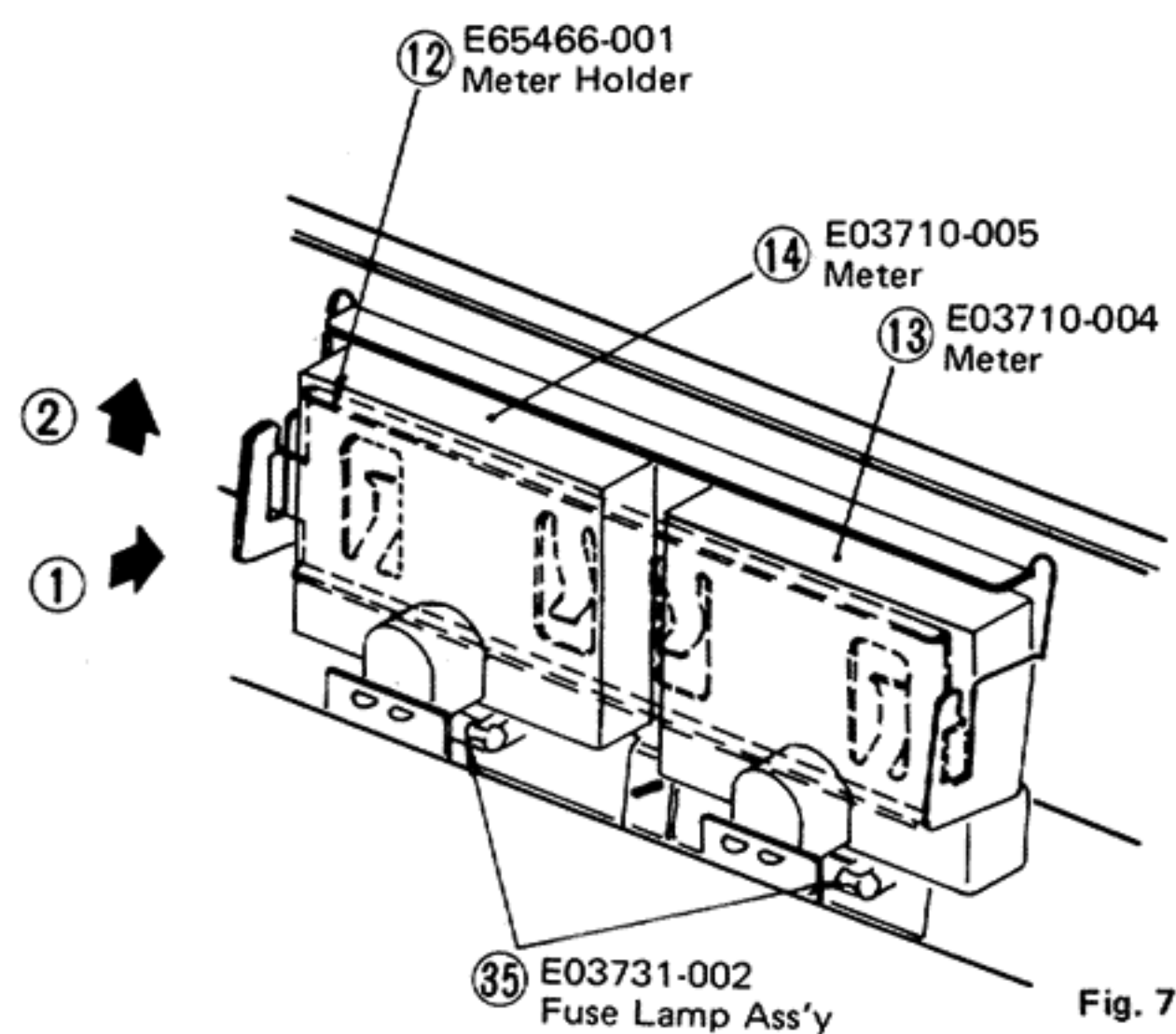


Fig. 7

## 4-(3) Tuning Knob Fitting

The tuning knob used in this set is designed to have a reduced eccentricity. Torque transmission is through knurled ring engagement and the center of rotation is maintained by the three ridges clamping the shaft. To fit the tuning knob, first press in lightly by turning lightly to permit the ridges to fall into the recesses in the shaft. When you feel that the shaft and knob are completely engaged, press the knob straight in the direction of the axis of the shaft. Be careful not to injure the ridges by pressing the knob in forcibly, as this will increase the eccentricity of the knob.

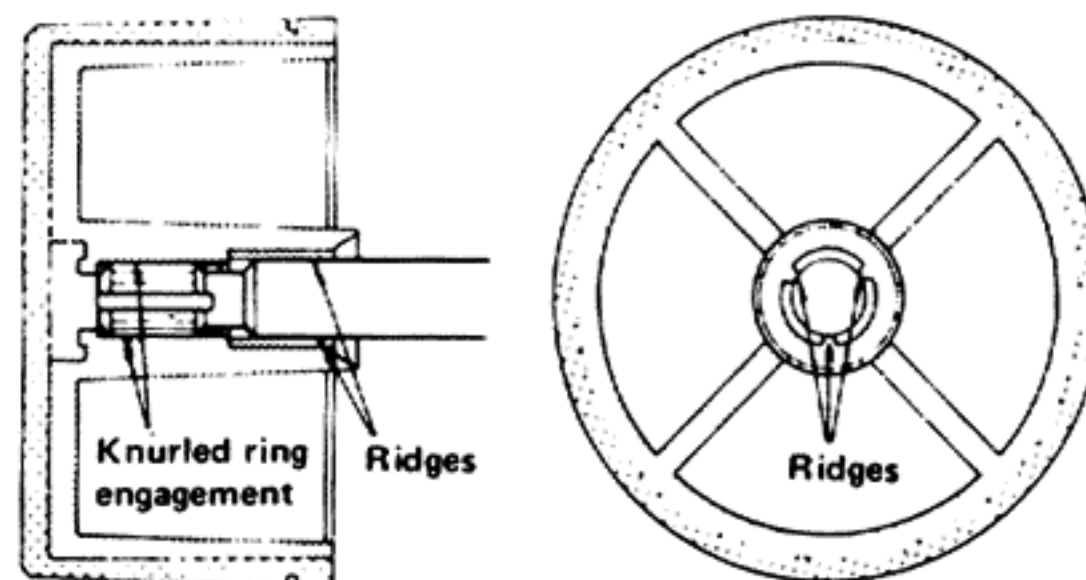


Fig. 8

# 5. Exploded View and Part Numbers

## 5-(1) Front Panel

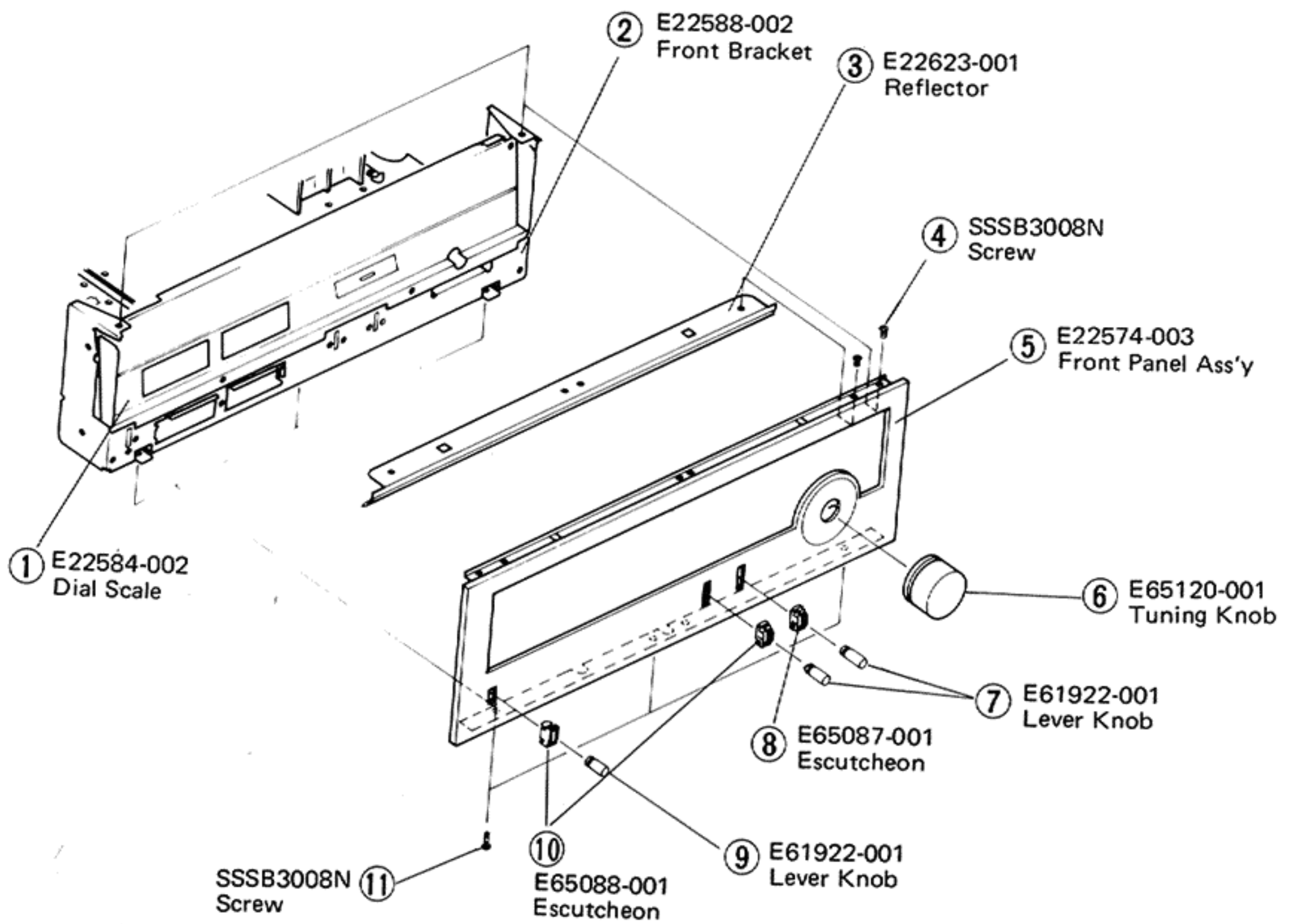


Fig. 9

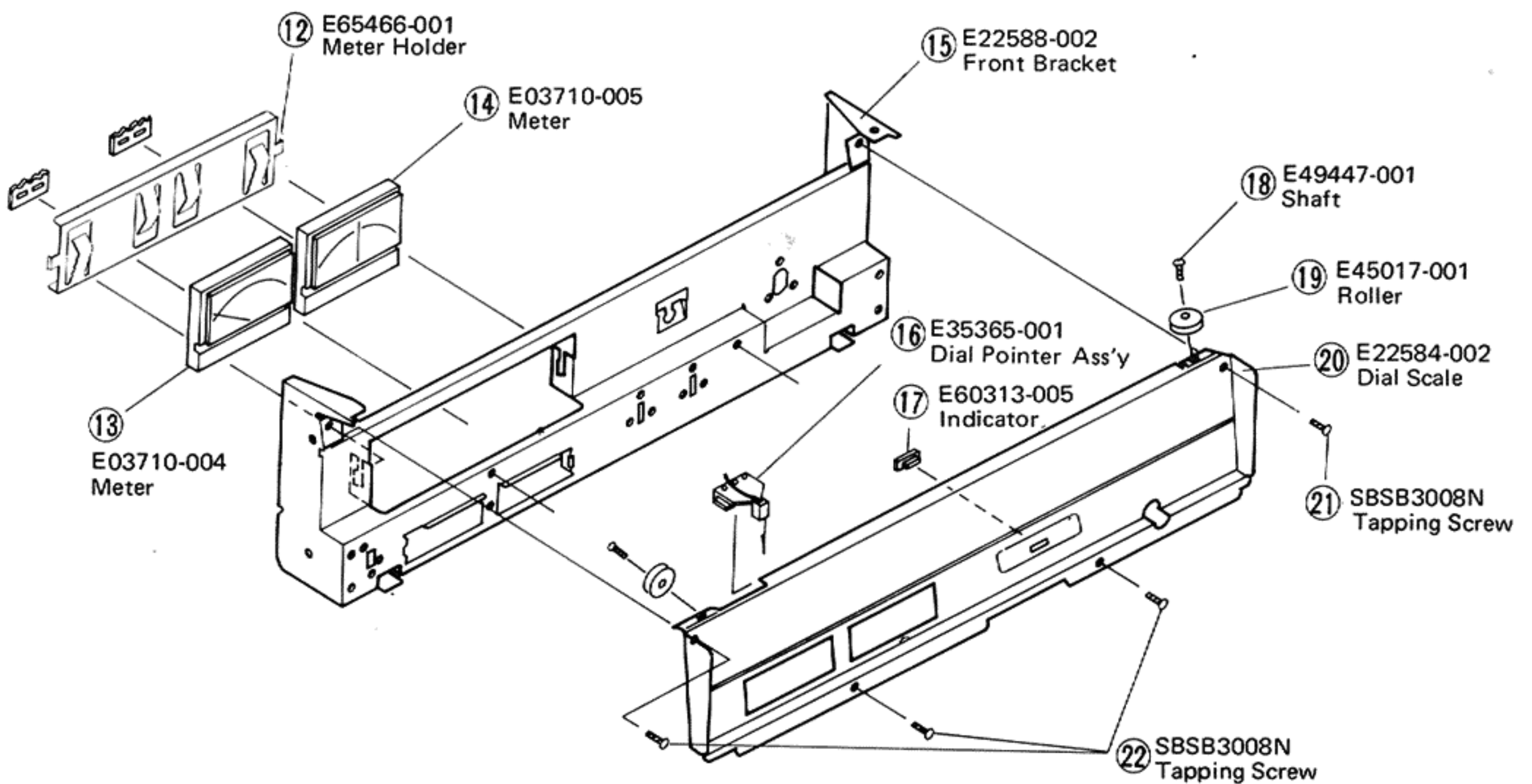


Fig. 10

## 5-(2) Rear Panel

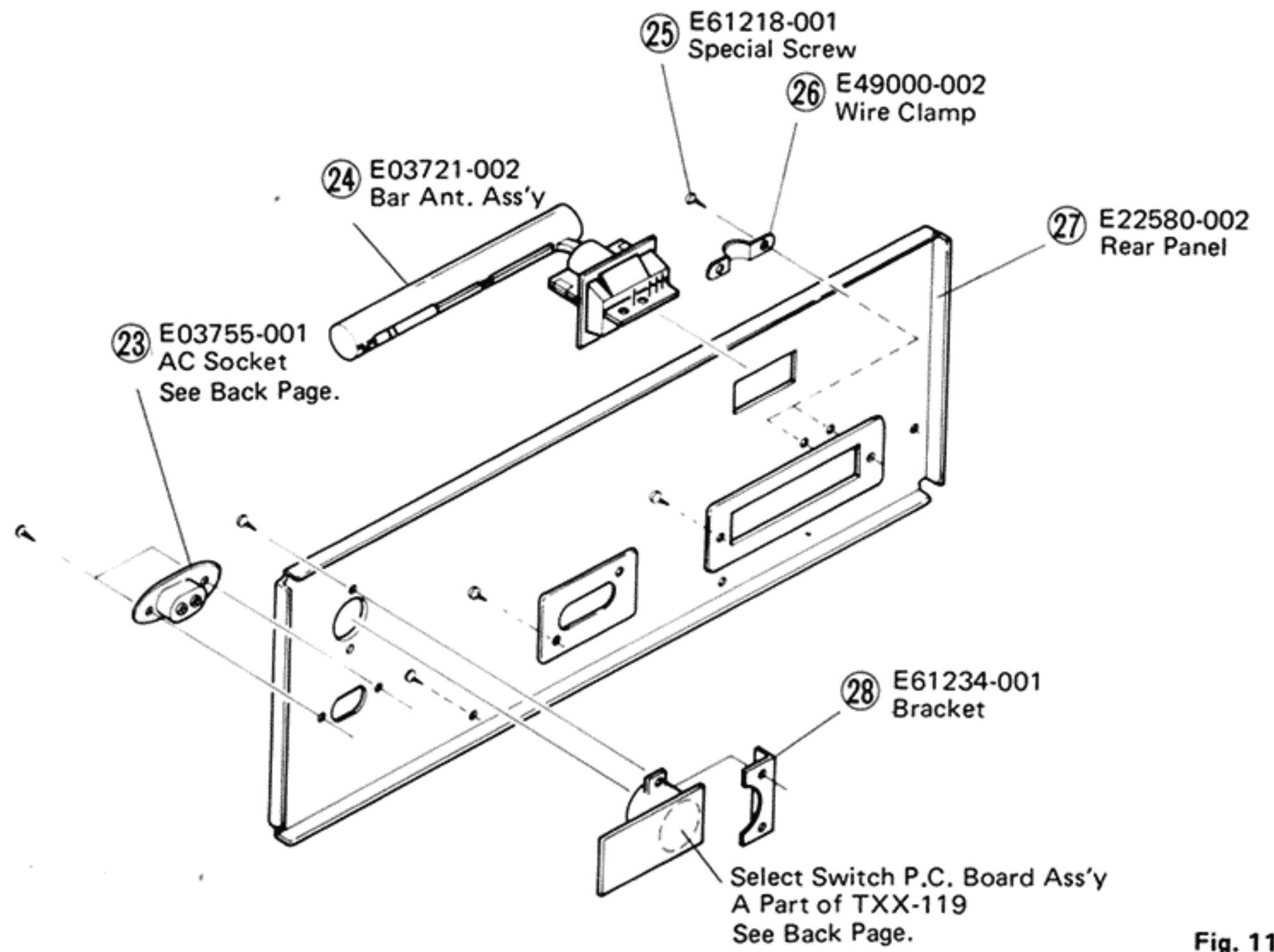


Fig. 11

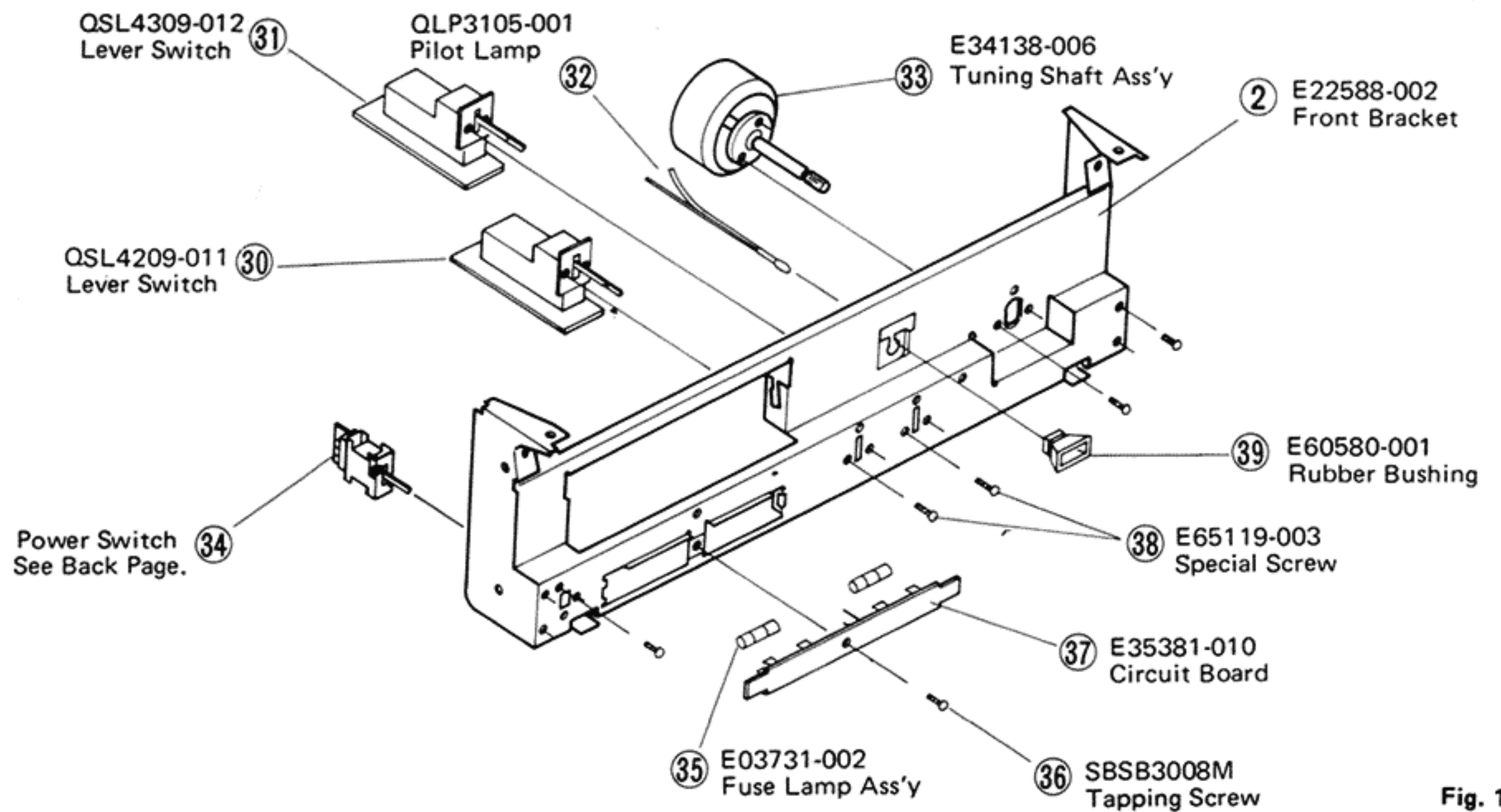


Fig. 12

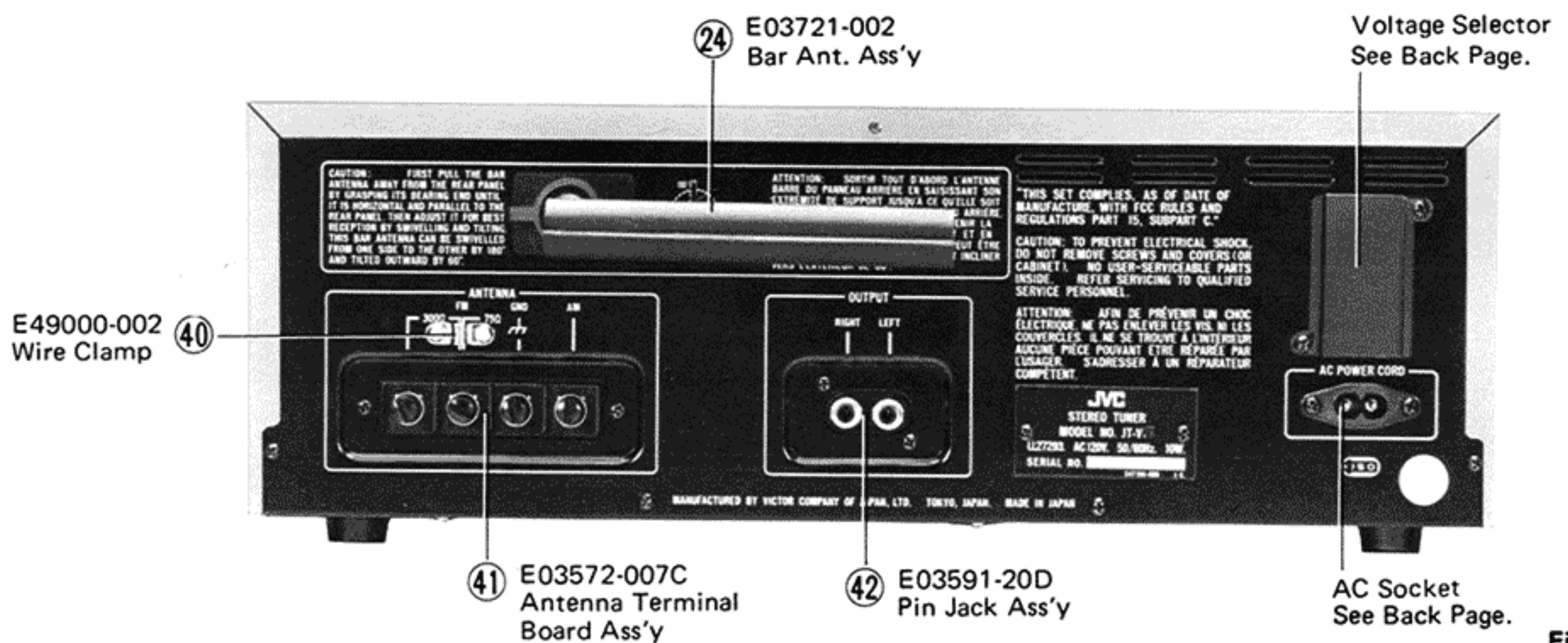


Fig. 13



# 6. FM/AM Tuner Alignment Procedure

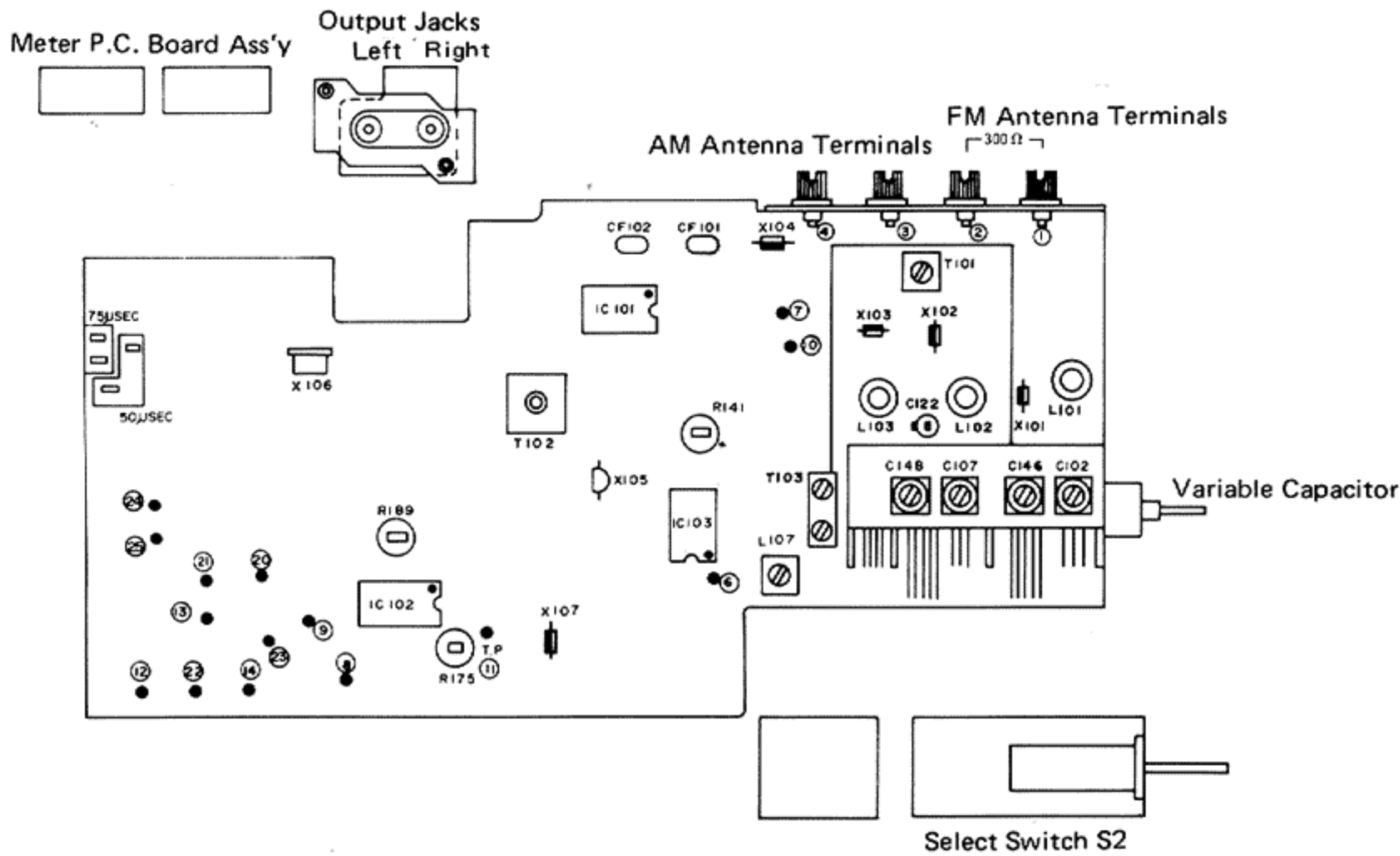


Fig. 14

## 6-(1) FM Section

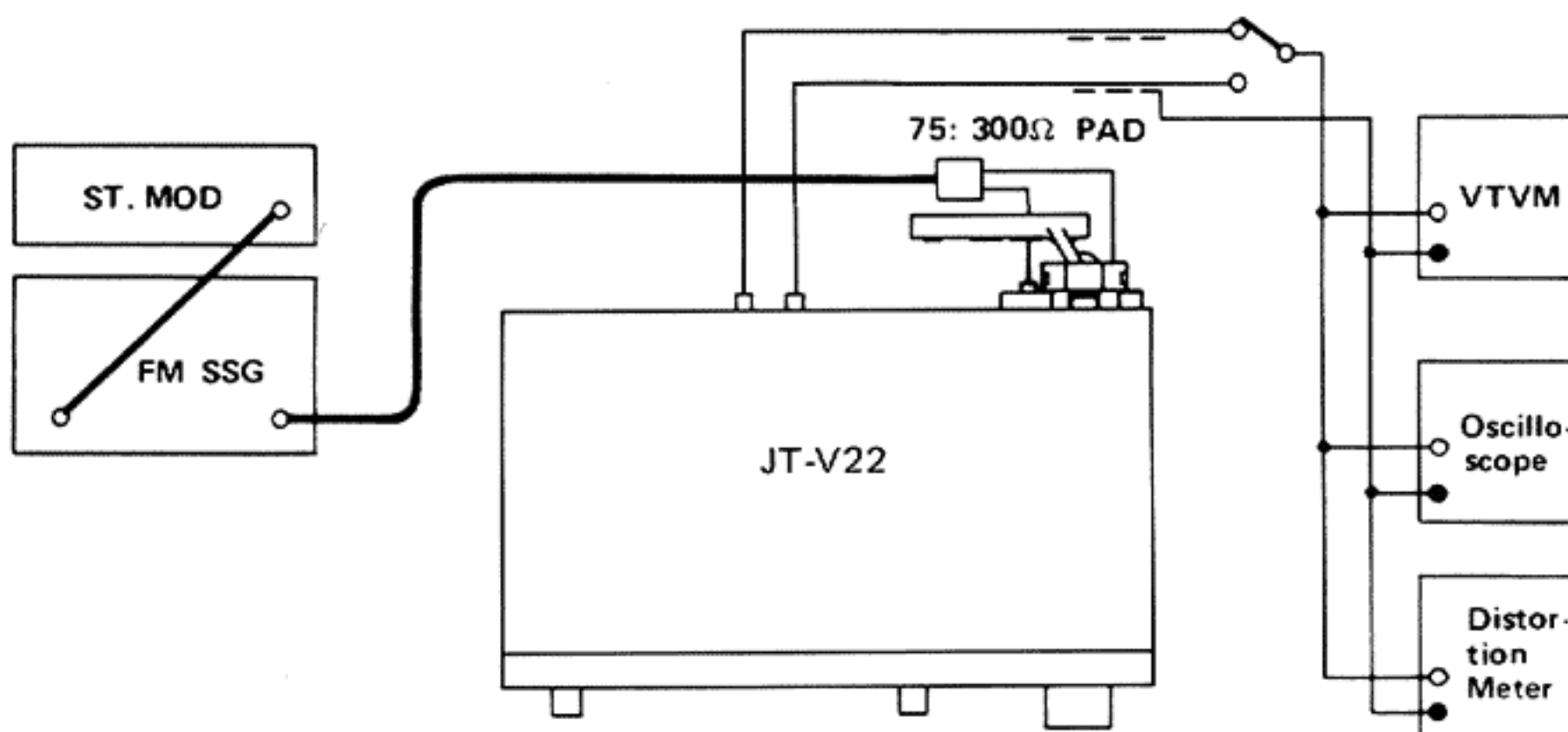


Fig. 15

### Discriminator, Center Meter & Distortion

1. Connect an RF generator, 400 Hz modulation and 75 kHz deviation, to the antenna terminals on the rear panel through a dummy antenna.
2. Connect an oscilloscope, distortion meter and VTVM to the OUTPUT Jacks on the rear panel.
3. Tune to a frequency where there is no broadcasting.
4. Adjust the bottom core of T102 so that the center meter indicates "0" (zero).
5. Set the generator to 98 MHz.
6. Set the dial pointer to 98 MHz.
7. Adjust the top core of T102 so that the distortion is minimized at a value less than 0.4 %.

### Tracking and Sensitivity

#### Low Frequency

1. Connect an RF generator to the antenna terminals on the rear panel through a dummy antenna.
2. Set the RF generator to 88 MHz, a modulation of 400 Hz and a deviation of 75 kHz, to provide an input of  $2 \mu\text{V}$ .
3. Connect a VTVM and an oscilloscope to the OUTPUT Jacks on the rear panel.
4. Set the dial pointer to 88 MHz.
5. Adjust three coils L103, L102 and L101 in the tuning gang to maximize the output.

#### High Frequency

6. Set the RF generator to 108 MHz, a modulation of 400 Hz and a deviation of 75 kHz, to provide an input of  $2 \mu\text{V}$ .
7. Set the dial pointer to 108 MHz.
8. Adjust the FM trimmers C122, C107 and C102 in the tuning gang to maximize the output.
9. Repeat these high and low frequency adjustments alternately until maximum sensitivity is obtained.

### Muting Level

1. Connect a VTVM and an oscilloscope to the OUTPUT Jacks.
2. Set the RF generator to 108 MHz, a modulation of 400 Hz and a deviation of 75 kHz, to provide an input of  $10\ \mu\text{V}$ .
3. Turn R141 clockwise and remember the point at which the muting ceases operating.
4. Turn R141 counterclockwise slightly so that the output level drops by 1 dB.
5. Attenuate the output of the RF generator to 2 dB from  $10\ \mu\text{V}$  of Step 2 and check that the muting is still operating.

### Multiplex

1. Set a stereo signal generator as follows: Modulation frequency 400 Hz, Deviation pilot 7.5 kHz, Main and Sub. 67.5 kHz. Connect its output to an RF generator.
2. Connect the RF generator to the antenna terminals through a dummy antenna.
3. Connect a VTVM, an oscilloscope and a distortion meter to the OUTPUT Jacks.
4. Set the RF generator to 98 MHz and an output of 1 mV.
5. Set the dial pointer to 98 MHz.
6. Connect a frequency counter to Tab No. 11.
7. Switch off the pilot signal of the stereo modulator.
8. Adjust R175 so that the frequency counter indicates 76 kHz ( $\pm 0.1\ \text{kHz}$ ).
9. If no frequency counter is available, there is another simplified method. Tune exactly to a stereo broadcast. Then turn R175 in either direction to find the range in which the stereo indicator lights up and fix R175 at the center of the range.

Note: Keep the MODE selector switch at AUTO position during this adjustment procedure of stereo separation.

## 6-(2) AM Section

### Tracking and Sensitivity

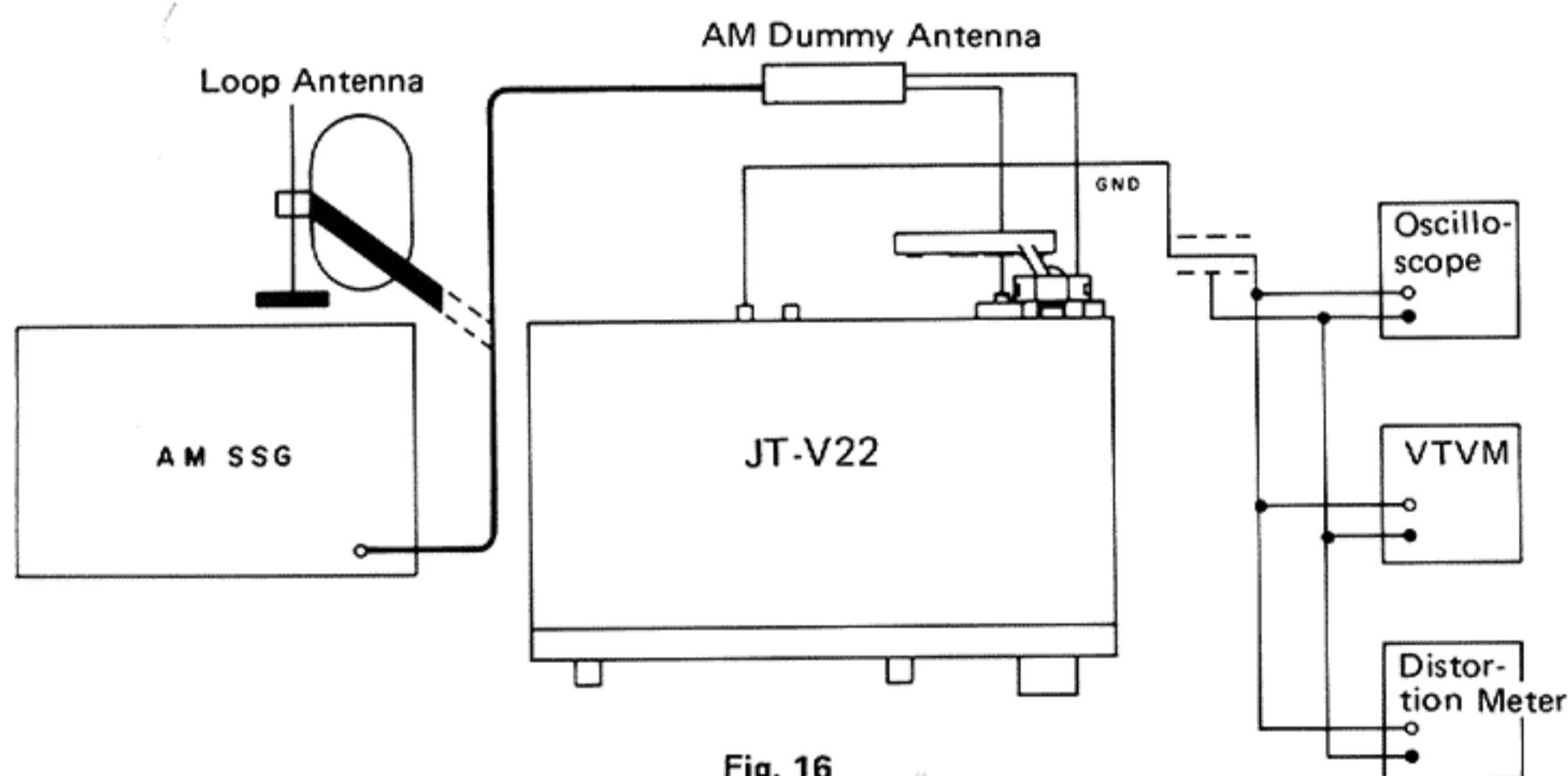


Fig. 16

### Low Frequency

1. Connect an RF generator to the antenna terminals on the rear panel (or, connect a standard loop antenna to the output terminals of RF generator, and place the bar antenna at least 2 feet from the loop antenna). Then, set this to 600 kHz with 30 % modulation at 400 Hz. See Fig. 16.
2. Connect an AC VTVM and an oscilloscope to OUTPUT Jacks on the rear panel.
3. Set the dial pointer to 600 kHz.
4. Adjust Osc. transformer L107 and the ferrite bar antenna to maximize the output signal.

### High Frequency

5. Set the RF generator to 1,400 kHz with 30 % modulation at 400 Hz.
6. Set the dial pointer to 1,400 kHz.
7. Adjust the trimmers C148 and C146 in the AM tuning gang so that the output signal is maximized.
8. Repeat these high and low frequency adjustments alternately until maximum sensitivity is obtained.

# 7. Printed Circuit Board Ass'y and Parts List

## 7-(1) TXX-104 FM/AM Tuner and Switch P.C. Board Ass'y

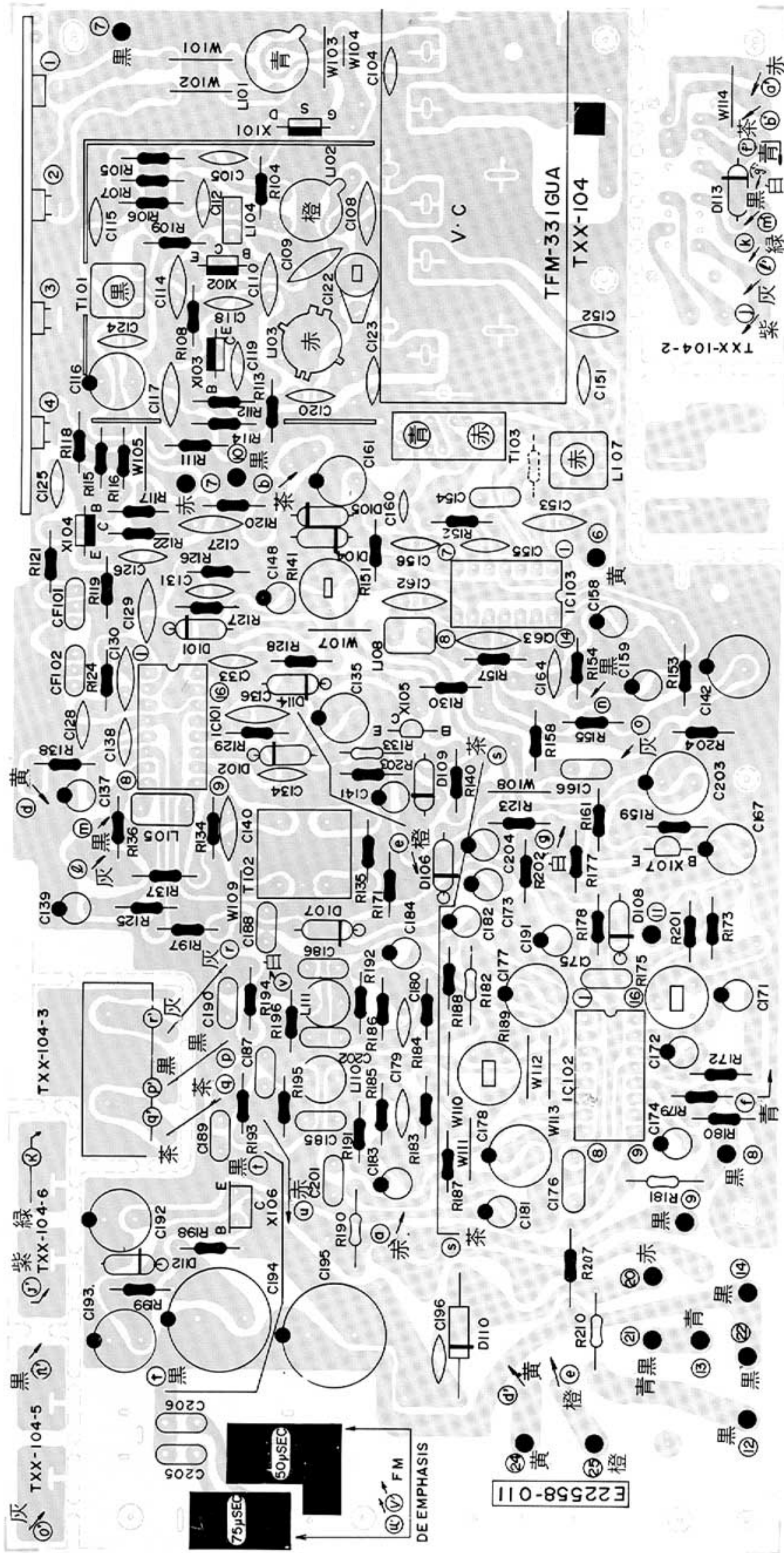


Fig. 17

The number of TXX-104 P.C. Board Ass'y varies according to the area employed.

TXX-104B	U.S.A. and Canada
TXX-104C	U.S. Military Market and Other Countries
TXX-104D	Australia, Europe and U.K.

### Transistors

Item No.	Part Number	Rating		Description	Maker
		Pc	fT		
X101	2SK55D	IDSS: 14 mA	NF: 3.5 dB	F.E.T.	Hitachi
X102	2SC535 (B, C)	0.1 W	700 MHz	Silicon	"
X103	2SC1342 (B, C)	"	250 MHz	"	"
X104	2SC461 (B, C)	0.2 W	230 MHz	"	"
X105	2SC458 (C)	0.2 W	230 MHz	"	"
X106	2SD325 (D, E)	10 W	8 MHz	"	Sanyo
X107	2SC458 (C)	0.2 W	230 MHz	"	Hitachi

### Integrated Circuits

Item No.	Part Number	Rating	Description	Maker
IC101	HA1137W		I.C.	Hitachi
IC102	HA1196		"	"
IC103	HA1151		"	"

### Diodes

Item No.	Part Number	Rating	Description	Maker
D101	1S2473		Silicon	Toyo Dengu
D102	1S2473		"	"
D103	1S188FM		Germanium	Sanyo
D104	1S2473		Silicon	Toyo Dengu
D105	1S2473		"	"
D106	1S2473		"	"
D107	1S2473		"	"
D108	1S2473		"	"
D109	1S2473		"	"
D110	SIB01-02		"	Kyodo Denki
D112	XZ-132		Zener Diode 13 V	JRC
D113	1S2473		Silicon	Toyo Dengu
D114	1S2473		"	"

### Filters

Item No.	Part Number	Rating	Description
CF101	E03357-009		Ceramic Filter
CF102	E03357-009		"

### Coils & Transformers

Item No.	Part Number	Rating	Description
L101	E03477-024		RF Coil (Blue)
L102	E03477-35		" (Orange)
L103	E03477-026		" (Red)
L104	E03522-2R2KY	2.2 $\mu$ H	Choke Coil
L105	E03522-180J	18 $\mu$ H	"
L107	E03079-29		AM OSC Coil
L108	E03522-391KY	390 $\mu$ H	Choke Coil
L110	E03566-103	10 mH	"
L111	E03566-103	"	"
T101	E03078-39		FM I.F. Transformer
T102	E03134-020		FM DET Transformer
T103	E03613-002		AM I.F. Transformer

## Capacitors

Item No.	Part Number	Rating		Description
C103	QCS31HJ-101Z	100 pF	50 V	Ceramic
C104	QCS31HJ-180Z	18 pF	"	"
C105	QCF31HP-103Z	0.01 $\mu$ F	"	"
C108	QCS31HJ-180Z	18 pF	"	"
C109	QCS11HJ-100	10 pF	"	"
C110	QCS31HJ-4R0Z	4 pF	"	"
C112	QCS31HJ-101Z	100 pF	"	"
C114	QCF31HP-103Z	0.01 $\mu$ F	"	"
C115	QCF31HP-103Z	"	"	"
C116	QEW51CA-107	100 $\mu$ F	16 V	Electrolytic
C117	QCF31HP-103Z	0.01 $\mu$ F	50 V	Ceramic
C118	QCT25CH-100	10 pF	"	"
C119	QCT25CH-220Z	22 pF	"	"
C120	QCT25CH-7R0Z	7 pF	"	"
C122	QAT3001-005	10 pF	"	Trimmer
C123	QCT25RH-220Z	22 pF	"	Ceramic
C124	QCF31HP-223Z	0.022 $\mu$ F	50 V	"
C125	QCS31HJ-470Z	47 pF	"	"
C126	QCF31HP-223	0.022 $\mu$ F	"	"
C127	QCF31HP-223Z	"	"	"
C128	QCC31EM-473	0.047 $\mu$ F	25 V	"
C129	QCF31HP-223	0.022 $\mu$ F	50 V	Ceramic
C130	QCC31EM-473Z	0.047 $\mu$ F	25 V	"
C131	QCF31HP-223	0.022 $\mu$ F	50 V	Ceramic
C133	QCF31HP-223Z	"	"	"
C134	QCF31HP-223Z	"	"	"
C135	QEW61CA-476Z	47 $\mu$ F	16 V	Electrolytic
C136	QCF31HP-223Z	0.022 $\mu$ F	50 V	Ceramic
C137	QEW61EA-475Z	4.7 $\mu$ F	25 V	Electrolytic
C138	QCS31HJ-820Z	82 pF	50 V	Ceramic
C139	QEW61HA-105Z	1 $\mu$ F	"	Electrolytic
C140	QCF31HP-223Z	0.022 $\mu$ F	"	Ceramic
C141	QEW61HA-474Z	0.47 $\mu$ F	50 V	Electrolytic
C142	QEW50JA-227	220 $\mu$ F	6.3 V	"
C143	QEW61HA-474Z	0.47 $\mu$ F	50 V	"
C151	QCS31HJ-331ZU	330 pF	"	Ceramic
C152	QCS31HJ-150Z	15 pF	"	"
C153	QCF31HP-223Z	0.022 $\mu$ F	"	"
C154	QFM31HK-103Z	0.01 $\mu$ F	"	Mylar
C155	QCF31HP-223Z	0.022 $\mu$ F	"	Ceramic
C156	QCF31HP-223	"	"	"
C158	QEW61HA-105Z	1 $\mu$ F	"	Electrolytic
C159	QEW61EA-475Z	4.7 $\mu$ F	25 V	"
C160	QCF31HP-223Z	0.022 $\mu$ F	50 V	Ceramic
C161	QEW61CA-476Z	47 $\mu$ F	16 V	Electrolytic
C162	QCS31HJ-331Z	330 pF	50 V	Ceramic
C163	QCF31HP-223Z	0.022 $\mu$ F	"	"
C164	QCY31HK-102Z	1000 pF	"	"
C166	QFM31HK-333	0.033 $\mu$ F	"	Mylar
C167	QEW51CA-476	47 $\mu$ F	16 V	Electrolytic
C171	QEB51EM-335	3.3 $\mu$ F	25 V	Low Leak Current Electrolytic
C172	QEB51EM-225	2.2 $\mu$ F	25 V	"
C173	QEW51EA-475	4.7 $\mu$ F	"	Electrolytic
C174	QEB51HM-224	0.22 $\mu$ F	50 V	Low Leak Current Electrolytic
C175	QEP31HJ-361	360 pF	"	P.P. Capacitor
C176	QFM31HK-473	0.047	"	Mylar
C177	QEW51CA-227	220 $\mu$ F	16 V	Electrolytic
C178	QEW51CA-227	"	"	"

## Capacitors

Item No.	Part Number	Rating		Description
C179	See table below.	470 pF or 1200 pF	50 V	Ceramic or Mylar
C180	See table below.	470 pF or 1 200 pF	50 V	Ceramic
C181	QEW61CA-106Z	10 $\mu$ F	16 V	Electrolytic
C182	EW61CA-106Z	"	"	"
C183	QEW51HM-474	0.47 $\mu$ F	50 V	"
C184	QEW51HM-474	"	"	"
C185	QFM31HJ-682Z	6800 pF	"	Mylar
C186	QFM31HJ-682Z	"	"	"
C187	See table below.	8 200 pF or 6 800 pF	"	"
C188	"	"	"	"
C189	"	6 800 pF or 2 700 pF	"	"
C190	"	"	"	"
C191	QEW61HA-225Z	2.2 $\mu$ F	"	Electrolytic
C192	QEW51CA-107	100 $\mu$ F	16 V	"
C193	QEW51CA-107	100 $\mu$ F	"	"
C194	QEW51EA-477	470 $\mu$ F	25 V	"
C195	QEW51VA-108	1000 $\mu$ F	35 V	"
C196	QCF31HP-103Z	0.01 $\mu$ F	50 V	Ceramic
C201	QEM31HJ-103Z	"	"	Mylar
C202	QFM31HJ-103	"	"	"
C203	QEW51CA-107	100 $\mu$ F	16 V	Electrolytic
C204	QEW51HA-474Z	0.047 $\mu$ F	50 V	"
C205	QFM31HJ-223	0.022 $\mu$ F	"	Mylar
C206	QFM31HJ-223	"	"	"

### De-emphasis Network with Specified Numbers for Designated Areas

Item No.	TXX-104B				TXX-104C, D			
	Part Number	Rating		Description	Part Number	Rating		Description
C179 & C180	QFM31HJ-122	1 200 pF	50 V	Mylar	QCS31HJ-471	470 pF	50 V	Ceramic
C187 & C188	QFM31HJ-682Z	6 800 pF	50 V	Mylar	QFM31HJ-822J	8 200 pF	50 V	Mylar
C189 & C190	QFM31HJ-272Z	2 700 pF	50 V	Mylar	QFM31HJ-682Z	6 800 pF	50 V	Mylar
C205 & C206	—				QFM31HJ-223 (for TXX-104C only)	0.022 $\mu$ F	50 V	Mylar

TXX-104B: U.S.A., Canada (75  $\mu$  sec.)

TXX-104C: U.S. Military Market (75  $\mu$ sec.) and Other Areas (50  $\mu$ sec.)

TXX-104D: Australia and Europe, United Kingdom (50  $\mu$  sec.)

## Resistors

Item No.	Part Number	Rating		Description
R104	QRD141J-470S	47 $\Omega$	1/4 W	Carbon
R105	QRD141J-101S	100 $\Omega$	"	"
R106	QRD141J-472S	4.7 k $\Omega$	"	"
R107	QRD141J-223S	22 k $\Omega$	"	"
R108	QRD141J-102S	1 k $\Omega$	"	"
R109	QRD141J-101S	100 $\Omega$	"	"
R111	QRD141J-561S	560 $\Omega$	"	"
R112	QRD141J-103S	10 k $\Omega$	"	"
R113	QRD141J-222S	2.2 k $\Omega$	"	"
R114	QRD141J-103S	10 k $\Omega$	"	"
R115	QRD141J-122S	1.2 k $\Omega$	"	"
R116	QRD141J-271S	270 $\Omega$	"	"
R117	QRD141J-153S	15 k $\Omega$	"	"
R118	QRD141J-472S	4.7 k $\Omega$	"	"
R119	QRD141J-102S	1 k $\Omega$	"	"
R120	QRD141J-121S	120 $\Omega$	"	"
R121	QRD141J-271S	270 $\Omega$	"	"
R122	QRD141J-331S	330 $\Omega$	"	"
R123	QRD141J-123S	330 k $\Omega$	"	"
R124	QRD141J-331S	330 $\Omega$	"	"
R125	QRD141J-154S	150 k $\Omega$	"	"
R126	QRD141J-104S	100 k $\Omega$	"	"
R127	QRD141J-104S	"	"	"
R128	QRD141J-103S	10 k $\Omega$	"	"
R130	QRD141J-123S	12 k $\Omega$	"	"
R133	QRD126J-560	56 $\Omega$	1/2 W	"
R134	QRD141J-562S	5.6 k $\Omega$	1/4 W	"
R135	QRD141J-332S	3.3 k $\Omega$	"	"
R136	QRD141J-301S	300 $\Omega$	"	"
R137	QRD141J-682S	6.8 k $\Omega$	"	"
R138	QRD141J-123S	12 k $\Omega$	"	"
R140	QRD141J-123S	"	"	"
R141	QVP4A0B-473	47 k $\Omega$		Variable
R151	QRD141J-151S	150 $\Omega$	1/4 W	Carbon
R152	QRD141J-472S	4.7 k $\Omega$	"	"
R153	QRD141J-122S	1.2 k $\Omega$	"	"
R154	QRD141J-562S	5.6 k $\Omega$	"	"
R155	QRD141J-153S	15 k $\Omega$	"	"
R157	QRD141J-331S	330 $\Omega$	"	"
R158	QRD141J-223S	22 k $\Omega$	"	"
R159	QRD141J-103S	10 k $\Omega$	"	"
R161	QRD141J-473S	47 k $\Omega$	"	"
R171	QRD141J-104S	100 k $\Omega$	"	"
R172	QRD141J-102S	1 k $\Omega$	"	"
R173	QRD141J-223S	22 k $\Omega$	"	"
R175	QVP4A0B-103	10 k $\Omega$		Variable
R177	QRD141J-103S	"	1/4 W	Carbon
R178	QRD141J-103S	"	"	"
R179	QRD141J-104S	100 k $\Omega$	"	"
R180	QRD141J-333S	33 k $\Omega$	"	"
R181	QRD126J-221	220 $\Omega$	1/2 W	Carbon
R182	QRD126J-220	22 $\Omega$	"	"
R183	QRD141J-303S	30 k $\Omega$	1/4 W	"
R184	QRD141J-303S	"	"	"
R185	QRD141J-473S	47 k $\Omega$	"	"
R186	QRD141J-473S	"	"	"
R187	QRD141J-822S	8.2 k $\Omega$	"	"
R188	QRD141J-822S	"	"	"
R189	QVP4A0B-474	470 k $\Omega$		Variable
R190	QRD126J-220	22 $\Omega$	1/2 W	Carbon

## Resistors

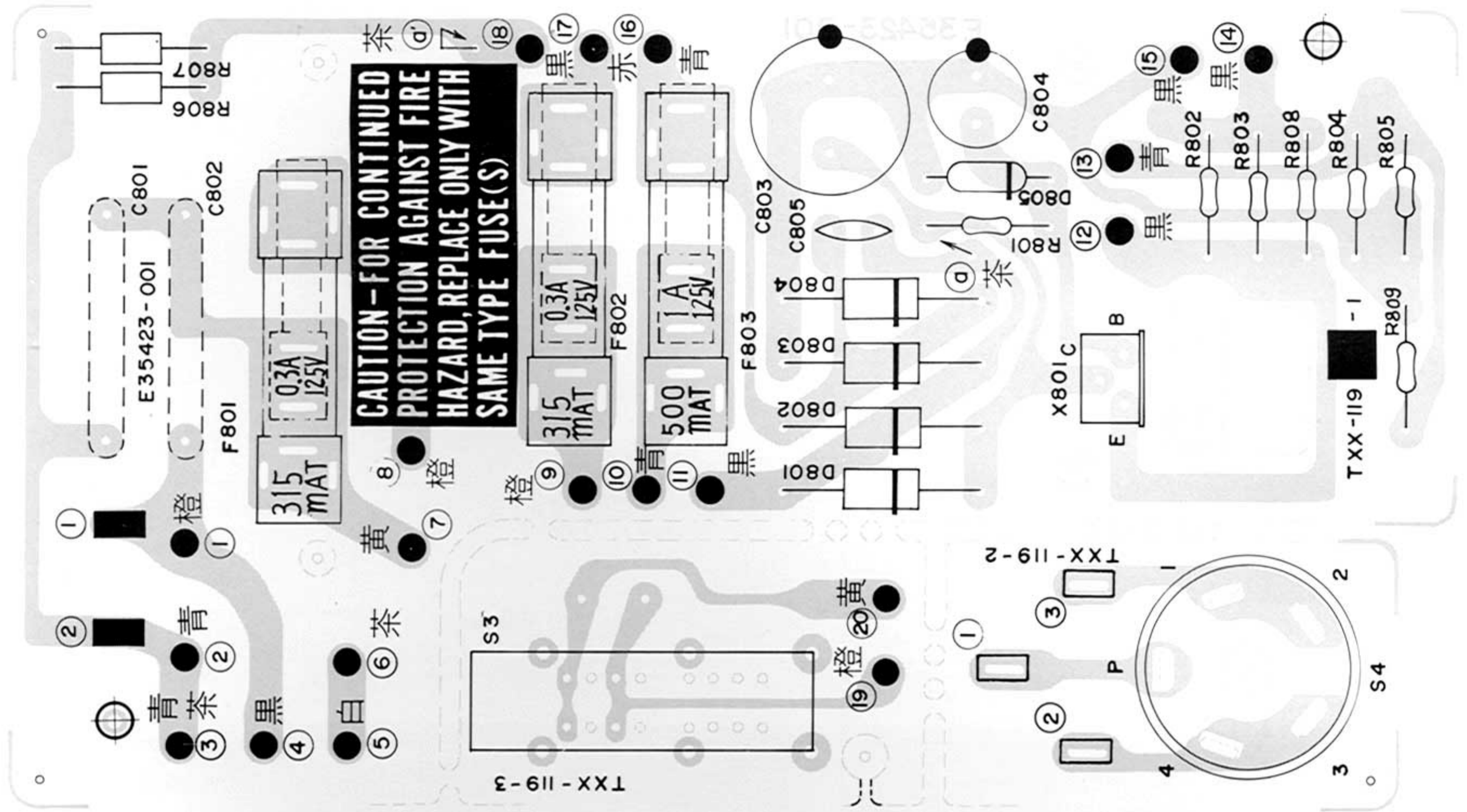
Item No.	Part Number	Rating		Description
R191	QRD141J-152S	1.5 kΩ	1/4 W	Carbon
R192	QRD141J-152S	"	"	"
R193	QRD141J-222S	2.2 kΩ	"	"
R194	QRD141J-222S	"	"	"
R195	QRD141J-473S	47 kΩ	"	"
R196	QRD141J-473S	"	"	"
R197	QRD141J-103S	10 kΩ	"	"
R198	QRD141J-102S	1 kΩ	"	"
R199	QRD141J-122S	1.2 kΩ	"	"
R201	QRD141J-104S	100 kΩ	"	"
R202	QRD141J-103S	10 kΩ	"	"
R203	QRD141J-334S	330 kΩ	"	"
R204	QRD141J-563S	56 kΩ	"	"
R207	QRD141J-561S	560 Ω	"	"
R210	QRD126J-220	22 Ω	1/2 W	"

## Others

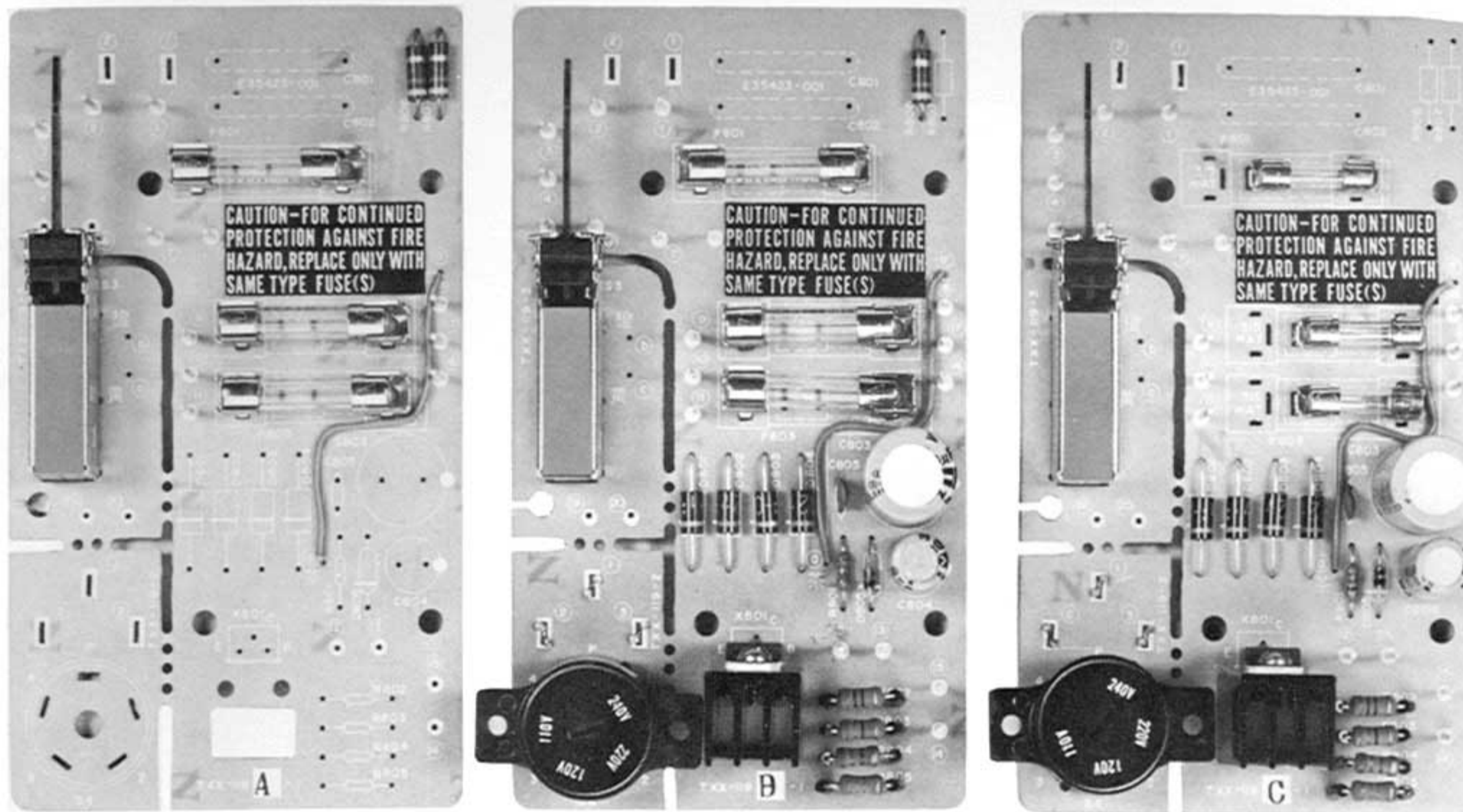
Item No.	Part Number	Rating		Description
	A41096 E03572-007C E03591-20D E22558-011 E34460-002			Tab. ANT. terminal Pin Jack Circuit Board (without parts) Shield Cover
S.2	E43727-002 QAA2234-001 QSL4309-012			Tab. Variable Capacitor Lever Switch



## 7-(2) TXX-119 Power Supply and Voltage Select Switch P.C. Board Ass'y



Top View



TXX-119A  
USA & Canada

TXX-119B  
U.S. Military Market  
and Other Countries  
Fig. 18

TXX-119CBS  
U.K.  
TXX-119C  
Europe, Australia

### Transistor

Item No.	Part Number			Rating		Description	Maker
	TXX-119A	TXX-119B, C	TXX-119CBS	Pc	ft		
X801	—	2SD313 (D, E)	2SD313 (D, E)	30 W	8 MHz	Silicon	Sanyo

## Diodes

Item No.	Part Number			Rating		Description	Maker
	TXX-119A	TXX-119B, C	TXX-119CBS				
D801	—	SIB01-02	SIB01-02	12 V	0.5 W	Silicon	Kyodo Denki
D802	—	SIB01-02	SIB01-02			“	“
D803	—	SIB01-02	SIB01-02			“	“
D804	—	SIB01-02	SIB01-02			“	“
D805	—	XZ-132	XZ-132			Zener	J.R.C.

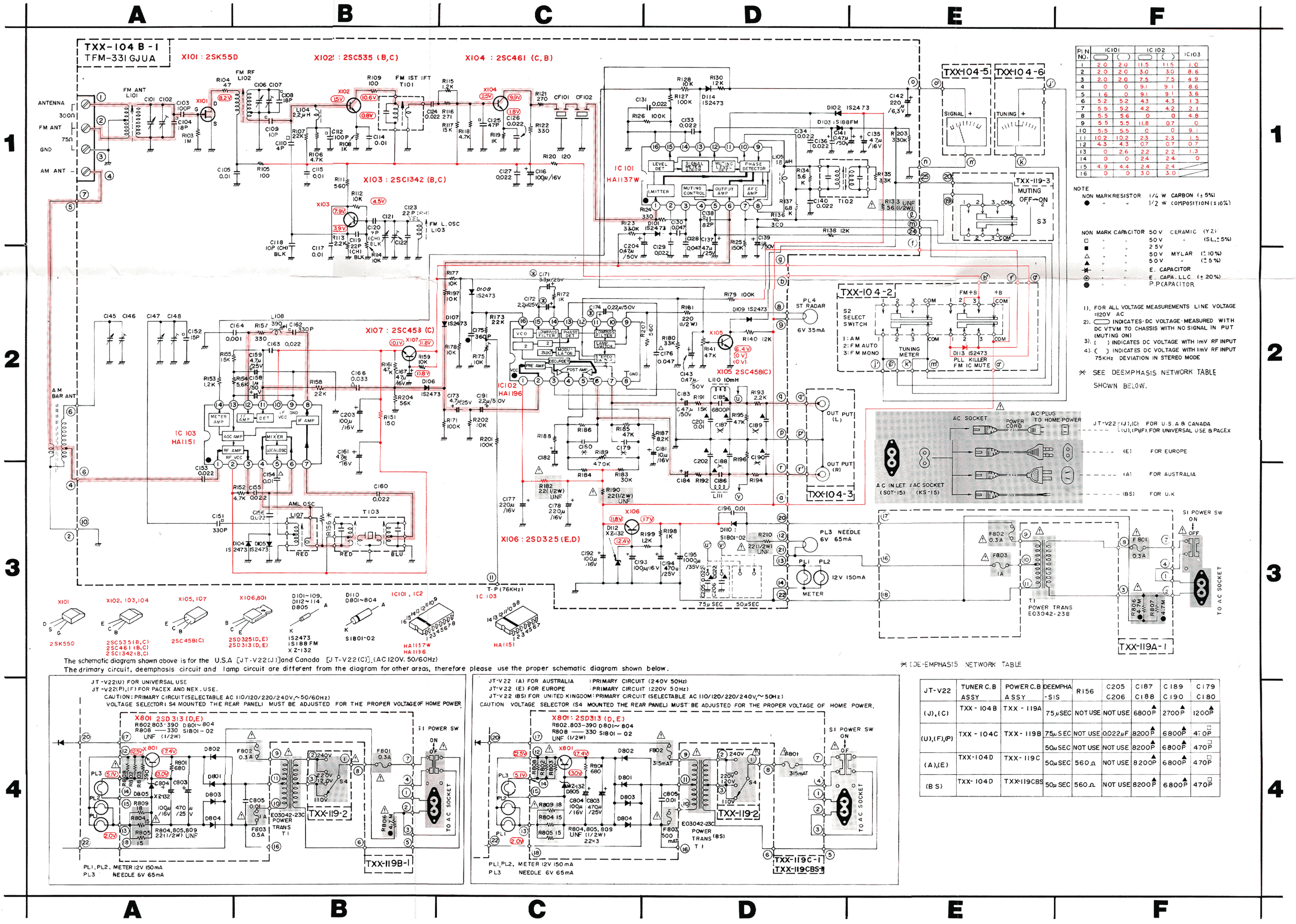
## Capacitors

Item No.	Part Number			Rating		Description
	TXX-119A	TXX-119B, C	TXX-119CBS			
C803	—	QEW51EA-477	QEW51EA-477	470 $\mu$ F	25 V	Electrolytic
C804	—	QEW51CA-107	QEW51CA-107	100 $\mu$ F	16 V	“
C805	—	QCF31HP-103	QCF31HP-103	0.01 $\mu$ F	50 V	Ceramic

## Resistors

Item No.	Part Number			Rating		Description
	TXX-119A	TXX-119B, C	TXX-119CBS			
R801	—	QRD141J-681S	QRD141J-681S	680 $\Omega$	1/4 W	Carbon
R802 & R803	—	QRD129J-391	QRD129J-391	390 $\Omega$	1/2 W	Carbon
R804 & R805	—	QRD129J-150	QRD129J-150	15 $\Omega$	“	“
R806	QRD121K-475E	QRD121K-475E (-119B only)	—	4.7 M $\Omega$	“	Composition
R807	QRC121K-475E	—	—	4.7 M $\Omega$	“	“
R808	—	ARD129J-331	QRD129J-331	330 $\Omega$	“	Carbon
R809	—	QRD129J-180	QRD129J-180	18 $\Omega$	“	“

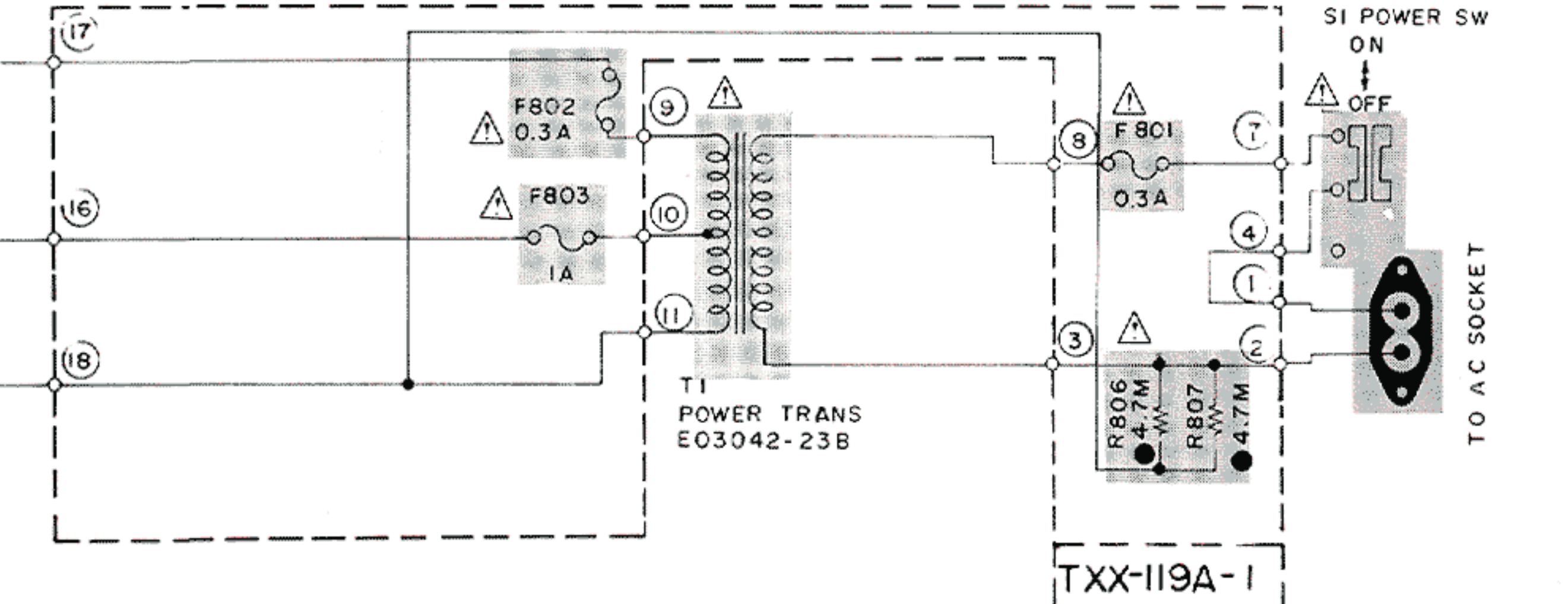
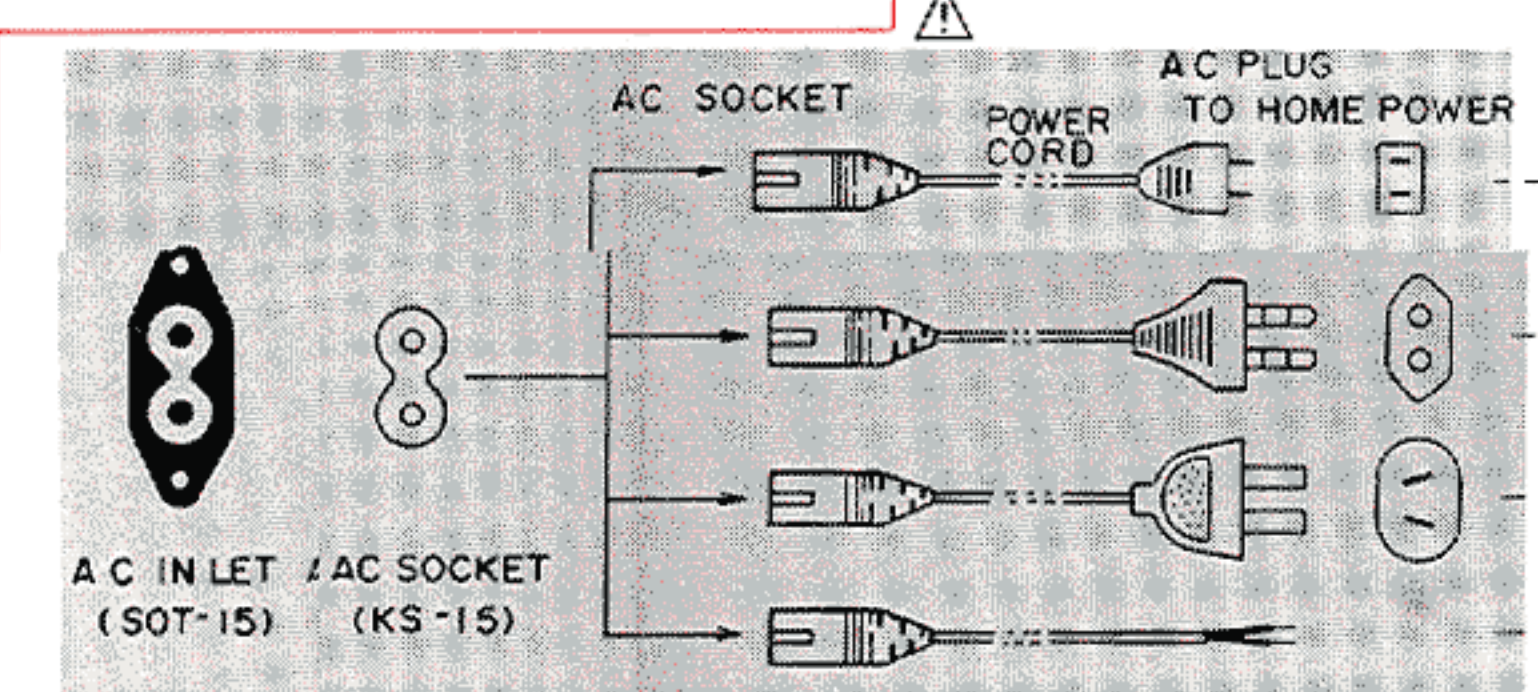
# 8. JT-V22 Schematic Diagram



PIN NO.	IC101	IC102	IC103
1	2.0	2.0	11.5
2	2.0	2.0	3.0
3	2.0	2.0	7.5
4	0	0	9.1
5	1.6	0	9.1
6	5.2	5.2	4.3
7	5.5	5.5	4.2
8	5.5	5.5	0
9	5.5	5.5	11.8
10	5.5	5.5	0
11	10.2	10.2	2.3
12	4.3	4.3	0.7
13	0	2.6	2.2
14	0	0	2.4
15	4.9	4.4	2.4
16	0	0	3.0

NOTE  
 NON MARK RESISTOR 1/4 W CARBON (±5%)  
 ● 1/2 W COMPOSITION (±10%)  
 NON MARK CAPACITOR 50 V CERAMIC (Y2)  
 □ 50 V (SL, ±5%)  
 △ 2.5 V  
 ▲ 50 V MYLAR (±10%)  
 ☆ 50 V (±5%)  
 ● E. CAPACITOR  
 ● E. CAPA. L.L.C. (±20%)  
 ● P.CAPACITOR

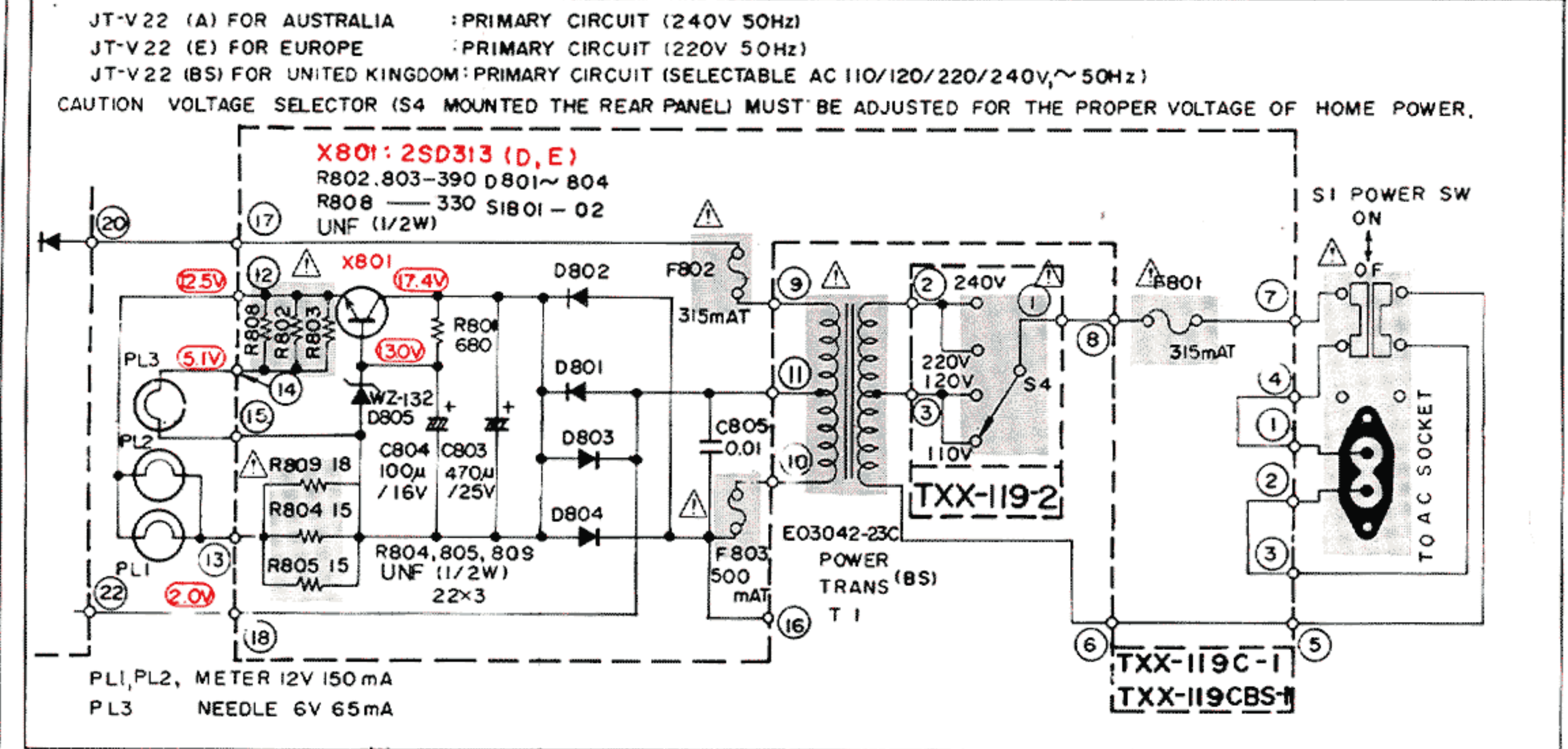
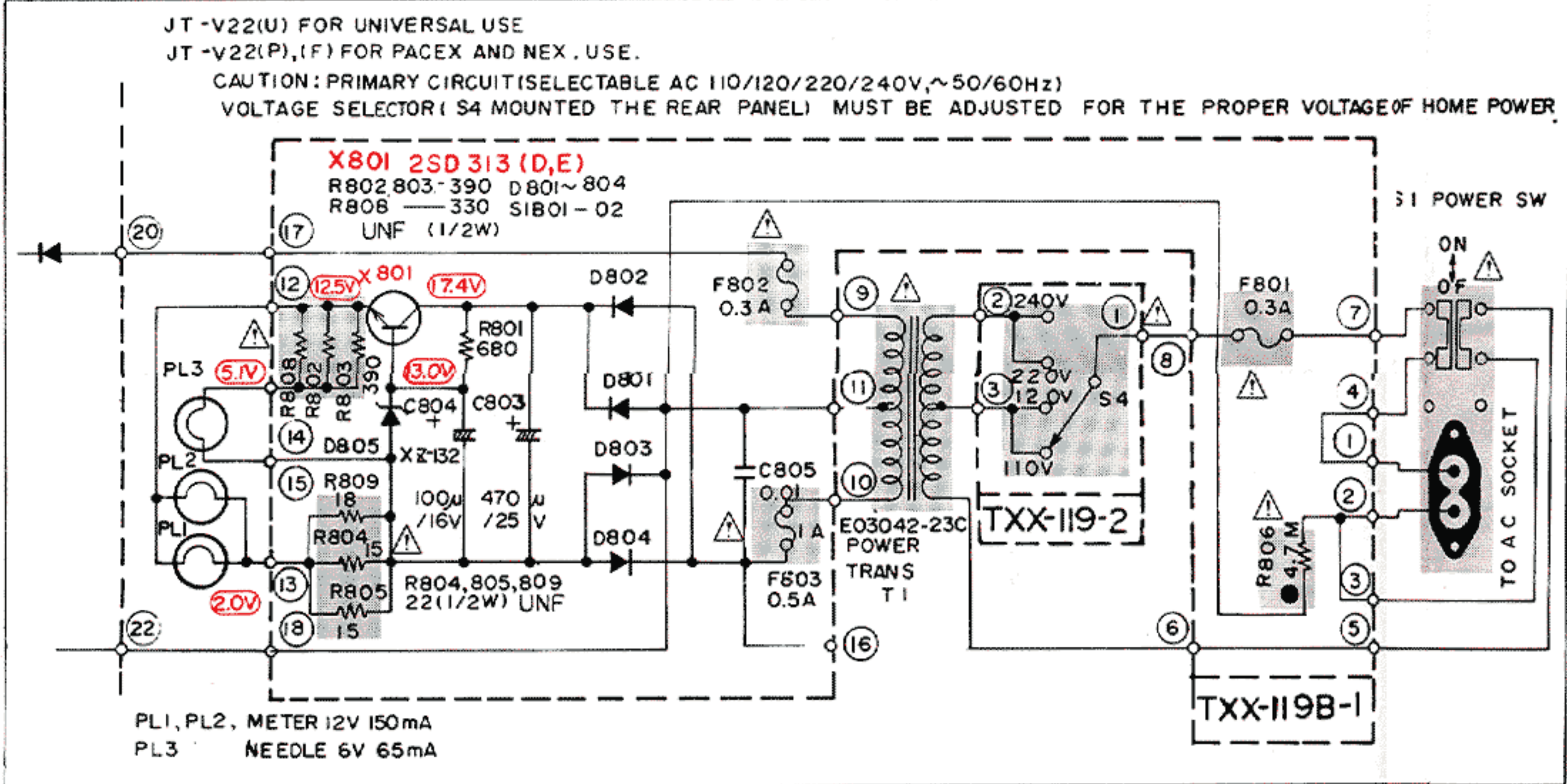
- FOR ALL VOLTAGE MEASUREMENTS LINE VOLTAGE = 120V AC
  - INDICATES DC VOLTAGE MEASURED WITH DC VTVM TO CHASSIS WITH NO SIGNAL IN PUT (MUTING ON)
  - △ INDICATES DC VOLTAGE WITH INV RF INPUT
  - ▲ INDICATES DC VOLTAGE WITH INV RF INPUT 75KHz DEVIATION IN STEREO MODE
- \* SEE DEEMPHASIS NETWORK TABLE SHOWN BELOW.



\* DE-EMPHASIS NETWORK TABLE

JT-V22	TUNER C.B ASSY	POWER C.B ASSY	DEEMPHA-SIS	R156	C205	C187	C189	C179
(J),(C)	TXX-104B	TXX-119A	75μSEC	NOT USE	NOT USE	6800P	2700P	1200P
(U),(F),(P)	TXX-104C	TXX-119B	75μSEC	NOT USE	0.022μF	8200P	6800P	470P
(A),(E)	TXX-104D	TXX-119C	50μSEC	560Ω	NOT USE	8200P	6800P	470P
(B,S)	TXX-104D	TXX-119CBS	50μSEC	560Ω	NOT USE	8200P	6800P	470P

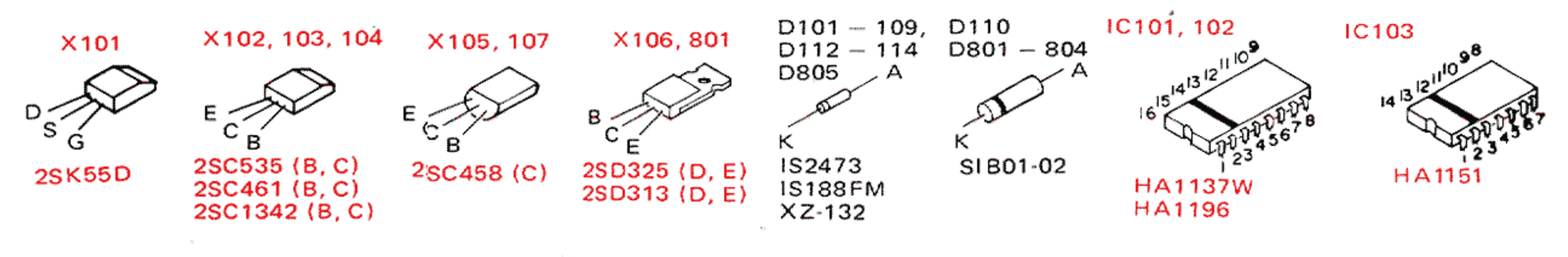
The schematic diagram shown above is for the U.S.A. [JT-V22(U)] and Canada [JT-V22(C)]. (AC 120V, 50/60Hz)  
 The primary circuit, deemphasis circuit and lamp circuit are different from the diagram for other areas, therefore please use the proper schematic diagram shown below.

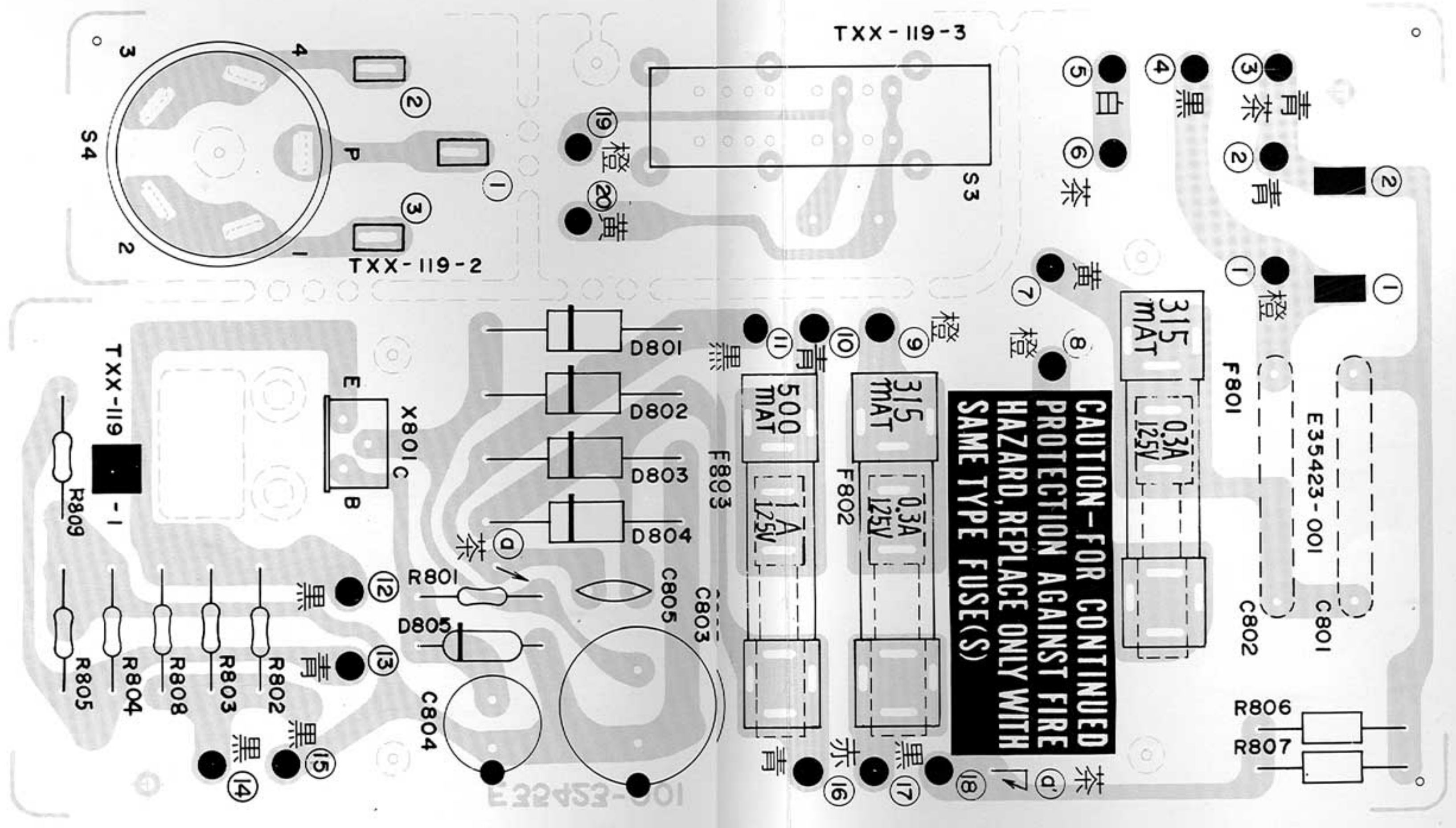
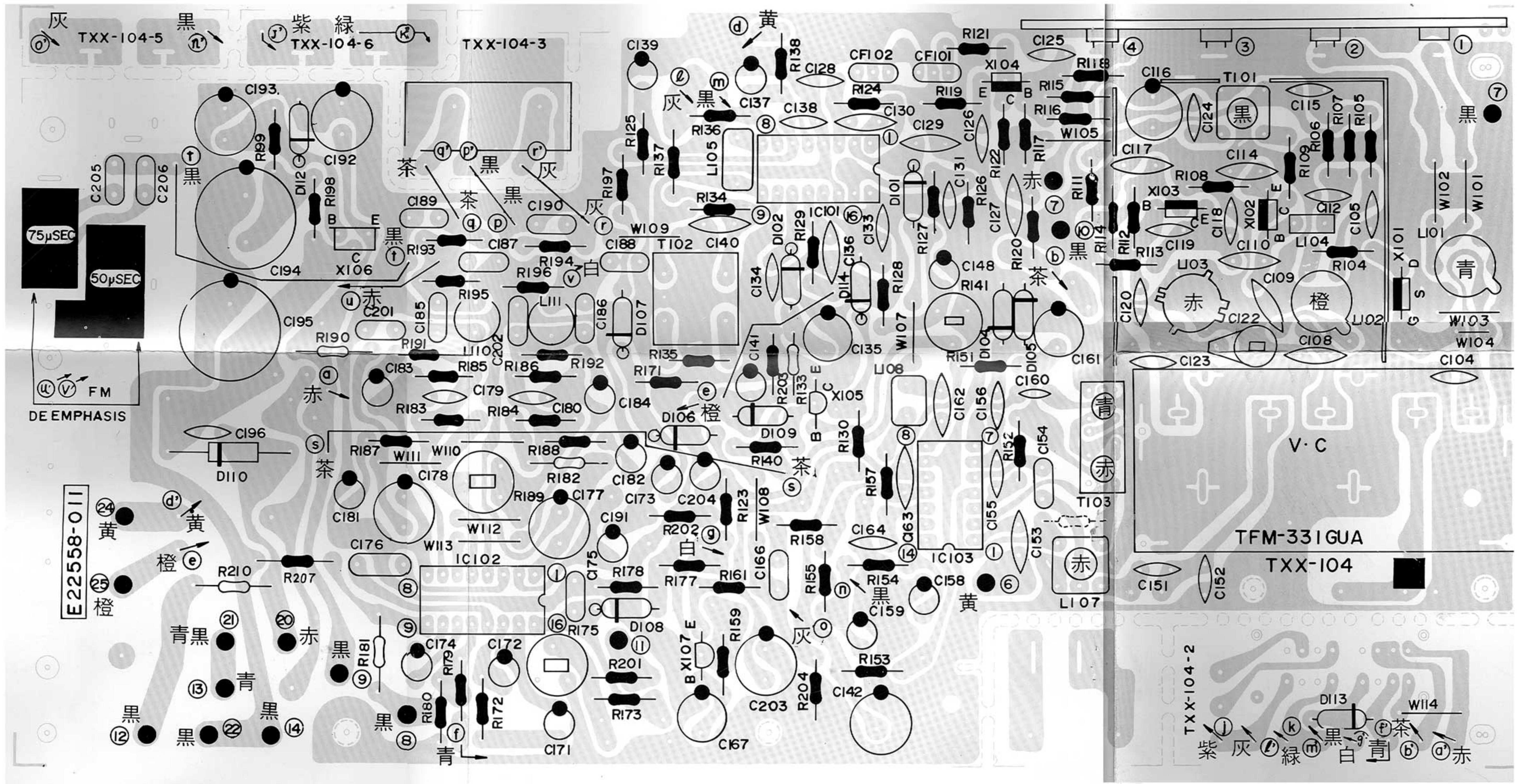


Printed Circuit Board Ass'y Locations

P.C. Board Ass'y	Description	Page
TXX-104	FM/AM Tuner and Switch P.C. Board Ass'y	10
TXX-119	Power Supply and Voltage Select Switch P.C. Board Ass'y	16

- Notes:
- Voltage values are measured with a tester (impedance 20 kΩ/V) without a signal applied to the unit.
  - Voltage values in ( ) are positive.
  - indicates positive B power supply.
  - indicates signal path.
  - When replacing the parts in the darkened area ( ), be sure to use the designated parts to ensure safety.
  - This is the standard circuit diagram. The design and contents are subject to change without notice.





## 9. Packing Materials

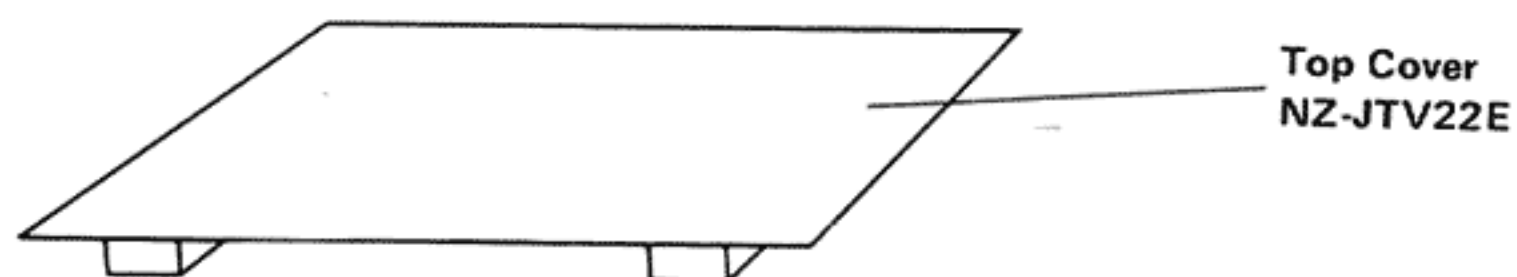


Fig. 19

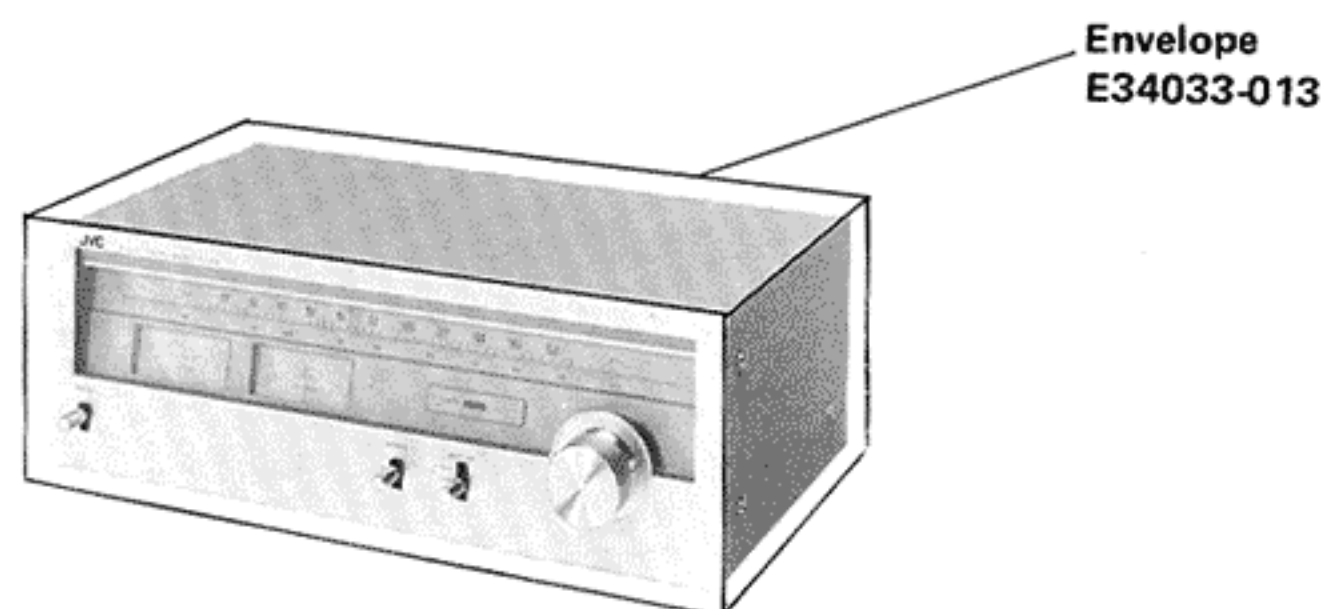


Fig. 20

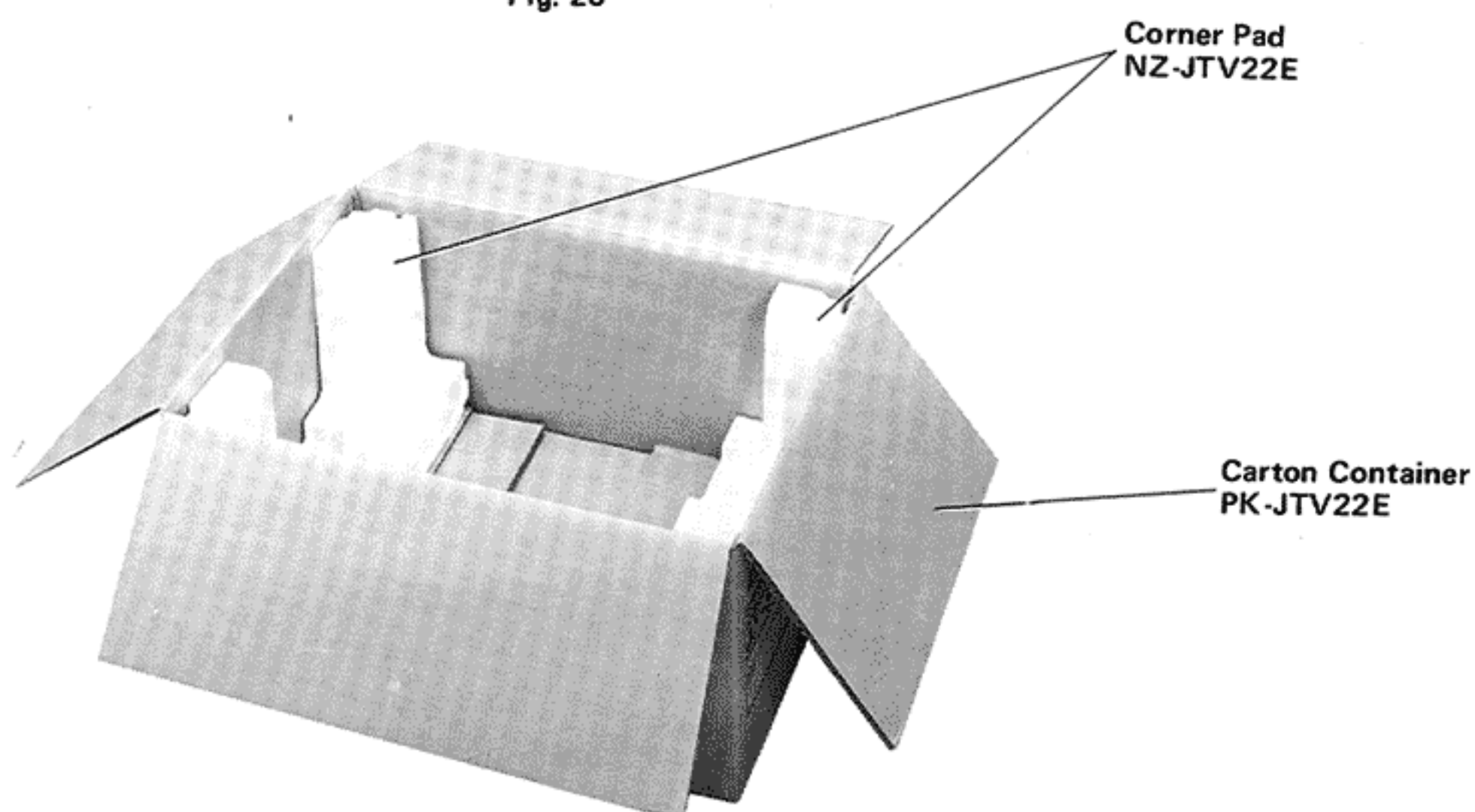

















Fig. 21

## 10. Accessories List

Part Number	Description	Q'ty
See Back Page	Instruction Book	1
E64207-002	Enveloped	1
See Back Page	Warranty Card	1
E03614-002	FM Antenna	1
E03479-001	Signal Cord	1
See Back Page	Power Cord	1


# 11. Parts List with Specified Numbers for Designated Areas

Page	Item No.	Description	For U.S.A. and Canada	For Europe Sweden, Norway Finland, Switzerland Denmark and Australia	For U.K.	For U.S. Military Market and Other Countries
4 4		Power Transformer  FM/AM Tuner and Switch P.C. Board Ass'y  ( ): Deemphasis	E03042-23B TXX-104B (75 μsec)	E03042-23C TXX-104D (50 μsec)	E03042-23CBS TXX-104D (50 μsec)	E03042-23C TXX-104C (75 μsec: U.S. military market) (50 μsec: Other Countries)
4		Power P.C. Board Ass'y 	TXX-119A	TXX-119C	TXX-119CBS	TXX-119B
	S1	Power Switch 	OSL2214-002	OSL2214-003	OSL2214-003BS	OSL2214-003
7		Voltage Select P.C. Board Ass'y (TXX-119) 	—	To set 220 V To set 240 V (Australia)	To set 240 V	To set 110, 120, 220, 240 V each proper voltage
		Power cord 	QMP1230-183	QMP2530-183 (For Australia) QMP3950-183 (For Europe)	QMP9017-009BS	QMP1230-183
16	F801	Fuse (Primary) 	QMF61U1-R30 (0.3 A)	QMF51A2-R315 (315 mA)	QMF51A2-R315 (315 mA)	QMF61U1-R30 (0.3 A)
16	F802	Fuse (Secondary) 	QMF61U1-R30 (0.3 A)	QMF51A2-R315 (315 mA)	QMF51A2-R315 (315 mA)	QMF61U1-R30 (0.3 A)
16	F803	Fuse (Secondary) 	QMF61U1-1R0 (1.0 A)	QMF51A2-R50 (500 mA)	QMF51A2-R50 (500 mA)	QMF61U1-1R0 (1.0 A)
16	R806	Composition  (4.7 MΩ/1/2 W)	QRC121K-475E	—	—	QRC121K-475E
16	R807	Composition  (4.7 MΩ/1/2 W)	QRC121K-475E	—	—	—
7		Cover (for Voltage Selector) 	E60931-001	—	—	—
		Screw	SBSB3008M	—	—	—
7		Voltage Selector 	—	QSR0074-001	QSR0074-001BS	QSR0074-001
		Bracket 	—	E61234-001	E61234-001	E61234-001
		Chassis Base	E10212-002	E10212-002	E10212-003	E10212-002
		Instruction Book 	E30580-661A	E30580-661A	E30580-661ABS	E30580-661A
		Warranty Card	BT20032 ( U.S.A. ) BT20025B ( Canada )	BT20029	BT20013B	BT20032

NOTE:  SAFETY PARTS

# JVC

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN

 Printed in Japan  
7012-V