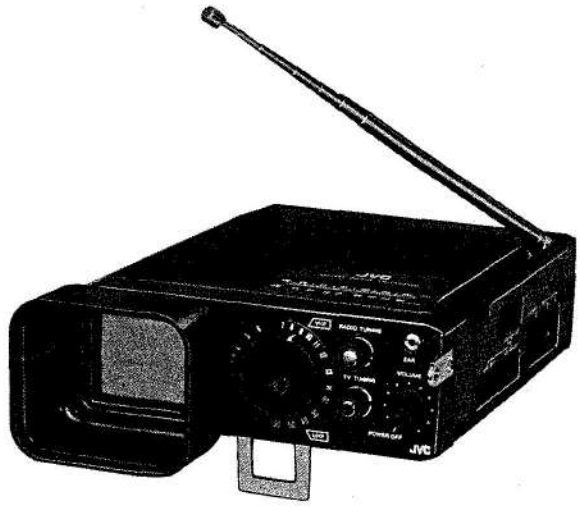
JVC

SERVICE MANUAL

MODEL
P-100EUC

B/W PORTABLE
TELEVISION RECEIVER
WITH FM/AM RADIO



No. 3308
April 1979

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Specifications

TV Standard:	CCIR TV standard system
Sound IF:	5.5/6.0MHz (to be switched)
TV Channel Coverages:	VHF channels 2-12 and UHF channels 21-69
Radio Band/ Frequency range:	FM 88 ~ 108MHz AM 510 ~ 1600kHz
VHF/UHF TV Tuner:	Contact-less electronic tuner
Picture tube:	2.0 inch, picture measured diagonally, 40 degree deflection
Antenna:	Built-in Rod Antenna for TV and FM radio Built-in ferrite core antenna for AM radio
External Antenna Jack:	Input impedance 75Ω
Speaker:	3.8cm, round type (16Ω) 1 pc
Audio Output:	150mW max. (130mW EIAJ at 10% distortion)
Semi-conductors:	3 ICs, 43 transistors, 49 diodes
Power Input:	Size-R6 4 cells, AC 240V, 50Hz with AC Power Adaptor supplied (AA-24LEU), DC 12V car battery with car adaptor (AP-100) or optional rechargeable battery (BP-100)
Power Consumption:	1.7W on DC (Receiving TV)
Dimensions:	53m/m(H) x 148m/m(W) x 187m/m(D)
Weight:	1.0kg (without D cells)
AC Adaptor (Model AA-24LEU)	
Power Input:	AC 250V 50Hz
Power Output:	DC 6V, 300mA
Fuse Devices:	300mA
Dimensions:	87m/m(H) x 75m/m(W) x 55m/m(D)
Weight:	430g

Note: Design and specifications subject to change without notice.

Servicing in the Field

Cleaning the Cabinet

Clean the external appearance of Cabinet body when necessary, with a clean soft cloth with mild soap. Don't use any solution which contains benzine or petroleum.

Raster Centering

The centering device is 2 magnetic rings located on yoke rear cover. By alternately rotaing those 2 magnetic rings, the picture can be properly centered on the screen.

Deflection Yoke Adjustments

If the lines of the raster are not horizontal or corner shadows appear, loose the yoke clamp screw and rotate deflection yoke, push yoke snug up against bell of picture tube.

Vertical Height and Vertical Linearity Adjustments

When the upper or lower part of picture extends or shrinks, adjust the vertical height and vertical linearity controls alternately to fill the screen ¼ inch beyond the mask until the picture on test pattern is symmetrical from top to bottom. The height control extends (or shrinks) mainly a lower part of raster, and the linearity control an upper part.

AGC Adjustment

Adjust the AGC control when picture is a very slight bend as it's top, or excessive snow.
AGC may be adjusted by tuning the control fully counter-clockwise when there is a very slight bend, and clockwise when snow.

Disassembly Instructions

1. Front Panel Removal

1. Pull out TV tuning and Radio Tuning Knobs, and a power off-volume knob.
2. Unscrew 3 screws indicated in Fig. 1 and Fig. 2 and pull the front panel forward.

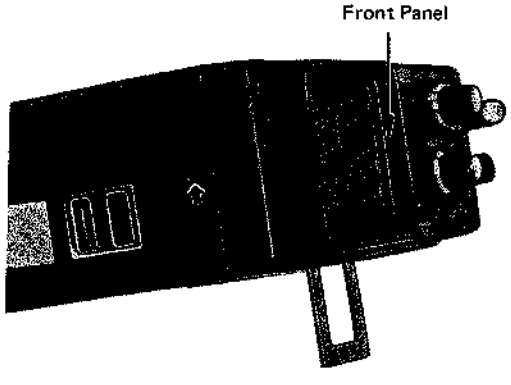


Fig. 1

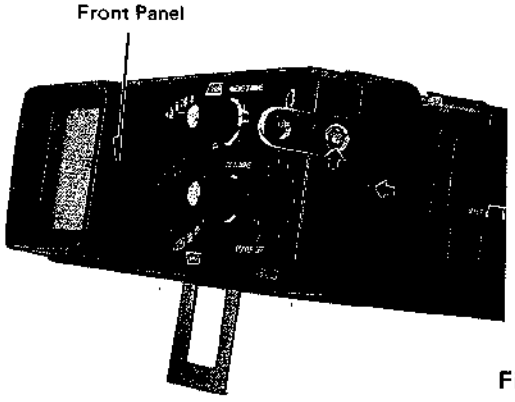


Fig. 2

2. Bottom Board Removal

1. Remove the front panel as reference to "Front Panel Removal".
2. After removing the battery case, unscrew 2 screws indicated in Fig. 3.

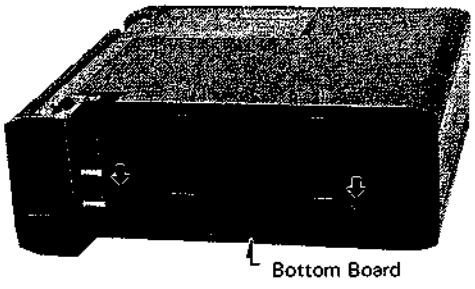


Fig. 3

3. Top Panel Removal

1. After removing the battery case, unscrew 4 screws indicated in Fig. 1, Fig. 2 and Fig. 3. (But there is no need to unscrew a screw fastened the metal fitting indicated in Fig. 2).
2. Position the rod antenna vertically and pull the top panel upward along the rod antenna.

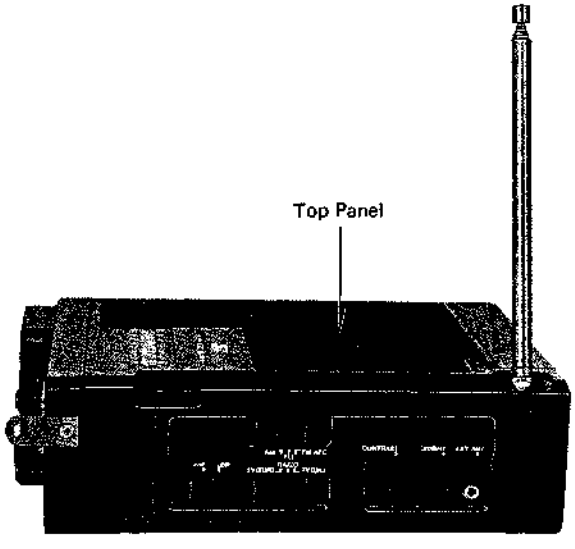


Fig. 4

4. Tuning Base Removal

1. Remove the Bottom Board and the top panel.
2. Unscrew 2 screws indicated in Fig. 5 (one between the 2 screws is situated under the shade sheet.)
3. Remove an eyelet fastened the printed circuit board for TV from the reverse side of the board. (Fig. 6)

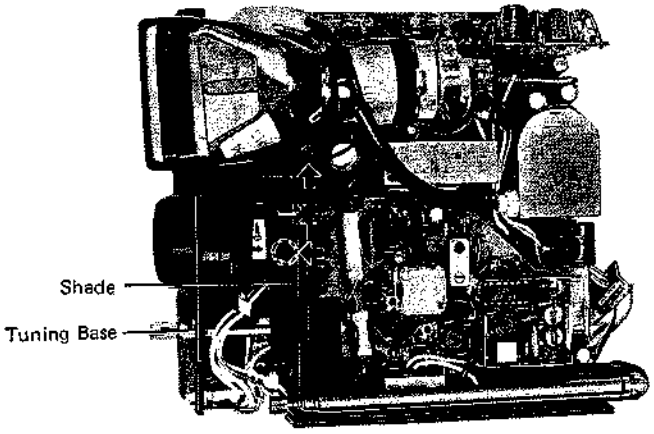


Fig. 5

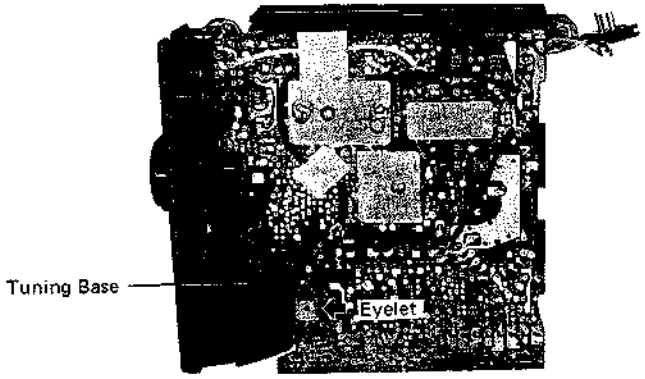


Fig. 6

5. TV Printed Circuit Board Removal

1. After removing the tuning base, pull out TV/Radio selector and VHF/UHF selector knobs.
2. Unscrew a screw indicated in Fig. 7, so that the TV printed circuit board is separated from the radio printed circuit board.

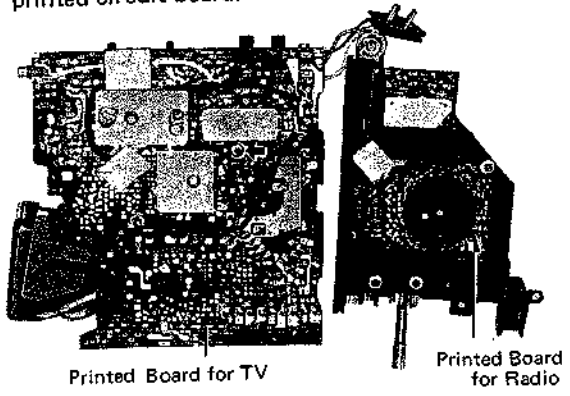


Fig. 7

6. Radio Printed Circuit Board Removal from Radio Tuning Base

1. When removing Radio printed circuit board from Radio tuning base, unfit dial cord and remove both end of radio bar antenna from antenna supporter by gouging out between the supporter and the bar antenna with a (-) screw-driver.
2. Unscrew 2 screws indicated in Fig. 8.

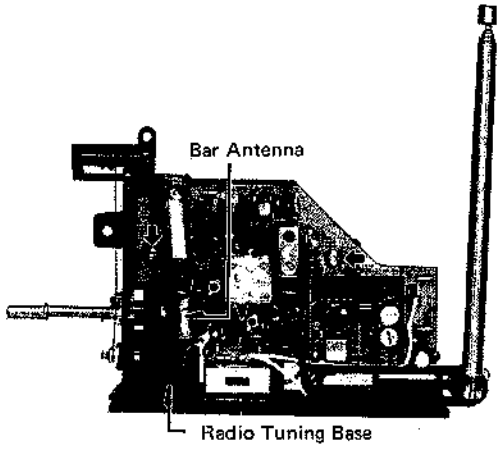


Fig. 8

Alignment Instructions For TV.

1. B Voltage Adjustment

1. Supply D.C. 6V to P5 (DC 6V Input terminal)
2. Adjust R503 until 4.5 volts are obtained at TP-52 (collector of X501) while receiving TV.
   * Confirm that the TV screen size is not changed by variation of D.C. Input voltage from 4.8 to 6.5 volts.

2. PIX IF Alignment

Test Equipments

1. Sweep generator with markers
   Sweep frequency range 30 ~ 50MHz
   Marker frequency 33.4, 34.7, 36.8, 38.9, 40.4MHz
2. Oscilloscope
3. Power source
   DC 4.5V and 0.7V for A.G.C.

Preparations before Alignment

1. Connect the capacitor and resistor (1000pF & 560Ω) in series between TP-11 and output of the sweep generator.
2. Connect the capacitor and resistor (1μF & 10kΩ) in series between TP-12 and input of the oscilloscope.
3. Supply DC 0.7V for A.G.C. to TP-14 and DC 4.5V to TP-52.

Alignment Procedures

1. Align T102 and T103 so that the wave form is illustrated in Fig. 9.
2. Regulate Output of the sweep generator so that the hight of wave form is 0.6Vp-p after aligning abovementioned.

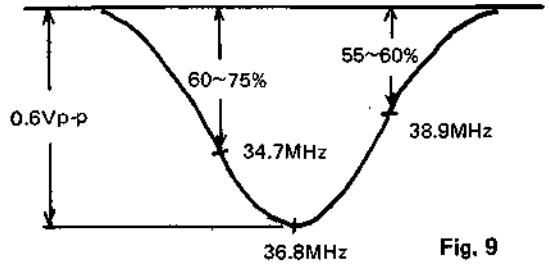


Fig. 9

Overall alignment

Preparation before Alignment

1. Change only the connection of sweep generator through the capacitor and resistor (1000pF & 560Ω) in series from TP-11 to TP-4 on PIX IF alignment abovementioned.
2. Set the VHF-UHF selector to VHF position.
3. Supply DC 15V to TP-10 and DC 10V toTP-9.

Alignment Procedures

1. Align T1 and T101 so that the wave form is illustrated in Fig. 10.
2. Regulate output of the sweep generator so that the hight of wave form is 0.6Vp-p after aligning abovementioned.

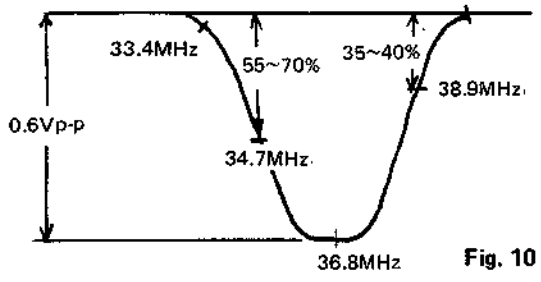


Fig. 10

3. Sound IF Alignment

Test Equipments

1. Sweep generator with markers
   Sweep frequency range 5 ~ 6.5MHz
   Marker frequency: 5.5 and 6.0MHz
2. Oscilloscope
3. Power source
   DC 4.5V and 0.7V for A.G.C.

Preparations before Alignment

1. Connect the capacitor and resistor (0.01μF & 1kΩ) in series between TP-12 and output of the sweep generator.
2. Connect input of oscilloscope to TP-21. In this case, set the zero point of the oscilloscope to its center.
3. Supply DC 0.7V for A.G.C. to TP-14 and DC 4.5V to TP-52.

6.0MHz Alignment Procedures

1. Set the TV-RADIO switch S3 to TV (UK) position.
2. Make strongly output of the sweep generator within suppressing the limiter.
3. Align the wave center to 6.0MHz with T203 as illustrated in Fig. 11 A.

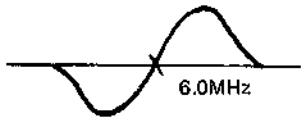


Fig. 11 A

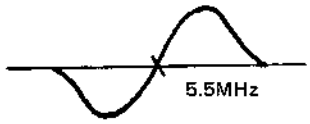


Fig. 11 B

4. Make weakly output of the sweep generator.
5. Align the wave center to 6.0MHz and also for maximum gain with T201 and T202.

5.5MHz Alignment Procedures

1. Set the TV-RADIO switch S3 to TV(EUR) position.
2. Make strongly output of the sweep generator within suppressing the limiter.
3. Align the wave center to 5.5MHz with C220 capacitor as illustrated in Fig. 11 B.

4. VHF Tuner Alignment

Test Equipment

1. Sweep generator with markers
   Sweep frequency range: 50 ~ 250MHz
2. Oscilloscope
3. Power source
   DC 4.5V for +B, 0.7V for A.G.C., -10V, 0 ~ 30V variable for tuning voltage and 5V & 15V for changing VHF high channel or low.
4. V.T.V.M.

Preparations before Alignment

1. Connect the capacitor and resistor (1μF & 10kΩ) in series between TP-12 and input of the oscilloscope. In this case, regulate the gain of the oscilloscope so that the height of the wave form is 10 graduations on the screen when suppling DC 0.6V to input of the scope.
2. Supply 0.7V to TP-14, 4.5V to TP-52, -10V to TP-9 and 0 ~ 18V variable for tuning voltage to TP-8.

Alignment Procedures

4-1 IF Trap alignment

1. Set the VHF-UHF selector to VHF position.
2. Supply 15V to TP-10 and adjust 0 ~ 18V variable supplied to TP-8 to approx. 2V.
3. Connect IF signal of sweep generator to TP-1.
4. Align L1 to obtain minimum gain for 36.8MHz.

4-2 Low channel alignment

1. Supply 15V to TP-10 and adjust 0 ~ 18V variable supplied to TP-8 to approx. 6V.
2. Connect RF signal (CCIR 3CH) of sweep generator to TP-1.
3. Align the wave center to 57.0MHz with L11.
4. Align for maximum gain with L2 and L7.

4-3 High channel alignment

1. Supply 5V to TP-10 and adjust 0 ~ 18V variable supplied to TP-8 to approx. 8V.
2. Connect RF signal (CCIR 9CH) of sweep generator to TP-1.
3. Align the wave center to 205MHz with L10.
4. Align for maximum gain with L4 and L6.

* Repeat the steps abovementioned.

5. TV Channel Indicator Adjustment

5-1 VHF channel adjustment

1. Set the white point of TV indicator to "4" figure of TV indicator plate.
2. Receive 4CH broadcasting program by adjusting R28.
3. Set the white point of TV indicator to "5" figure of TV indicator plate.
4. Receive 5CH broadcasting program by adjusting R29.
5. Set the white point of TV indicator to "12" figure of TV indicator plate.
6. Receive 12CH broadcasting program by adjusting R27.

5-2 UHF channel adjustment

1. Set the Red point of TV indicator to your local UHF channel number.
2. Receive your local UHF broadcasting program abovementioned by adjusting R26.

6. V. Hold and H. Hold Adjustment

6-1 V. Hold adjustment

Make ground of TP-7 or TP-14 and connect a frequency counter to TP-31.
Adjust V. Hold control (R313) so that the frequency counter indicates 45Hz.

6-2 H. Hold adjustment

Make ground of TP-7 or TP-14 and connect a frequency counter to TP-41.
Adjust H. Hold control L401 so that the frequency counter indicates 15.625kHz±3Hz.

Alignment Instructions For Radio

AM IF Alignment

Test Equipment

1. Sweep generator with markers
   Marker frequencies: 445, 455, 465kHz
2. Oscilloscope
3. Power supply DC 6V

Preparations before Alignment

1. Set the TV-Radio selector to Radio position and the Radio Band selector to AM position.
2. Set the Radio tuning knob (variable capacitor) to near the minimum capacity where no signal comes in.
3. Connect output of the sweep generator to TP-802.
4. Connect a capacitor (1μF) between TP-803 and input of the oscilloscope.
5. Supply DC 6V to P6.

IF Alignment

Align the wave center to 455kHz and for symmetrize "A" and "B" shown in below and also for maximum gain with T804.

IC Bias Alignment

Align IC Bias control (R835) to obtain maximum gain.

FM IF Alignment

Test Equipment

1. Sweep generator with markers
   Marker frequencies 10.55, 10.625, 10.7, 10.775, 10.85MHz
2. Oscilloscope
3. Power supply DC 6V

Preparation before Alignment

1. Set the Radio Band selector to FM position.
2. Set the Radio Tuning Knob (variable capacitor) to near the minimum capacity where no signal comes in.
3. Connect a capacitor and a resistor (33pF & 33kΩ) in series between TP-801 and output of the sweep generator.
4. Connect a capacitor and a resistor (1μF & 100kΩ) in series between TP-803 and input of the oscilloscope.
5. Supply DC 6V to P6.

Alignment procedures

1. Keep output of sweep generator within suppressing limiter on center of wave form.
2. Align the wave center to 10.7MHz with T808 as indicated in Fig. 12.
3. Align T801, T805 and T807 to obtain maximum gain and also for symmetrize on S curve characteristics.
4. Align IC Bias Control (R835) to obtain maximum gain.

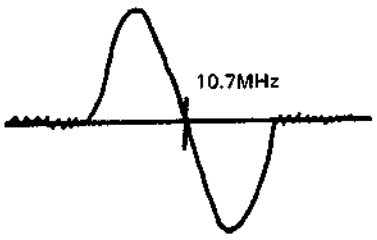


Fig. 12

AM RF Alignment

Test Equipment

Sweep generator with markers
Marker frequency: 520, 620, 1400, 1650kHz
V.T.V.M.
Test loop Antenna
Power supply DC 6V

Preparations before Alignment

1. Set the TV-Radio selector to Radio position and the Radio Band selector to AM position.
2. Connect output of the sweep generator (AM modulation 400Hz, 30%) to test loop antenna.
   Keep the distance between the test loop antenna and built-in ferrite bar antenna to 60cm.
3. Connect V.T.V.M. to speaker terminals.
4. Supply DC 6V to P6.

Alignment procedures

Align according to the chart below.

Step	Marker Frequency	Variable Capacitor Setting	Adjusting	V.T.V.M. Reading
1	520kHz	Maximum	T803	Maximum
2	1650kHz	Minimum	C834	
3	Repeat the steps 1, 2			
4	620kHz	tune to 620kHz	T802 (AM)	Maximum
5	1400kHz	tune to 1400kHz	C826	
6	Repeat the steps 4, 5			

Chart 1

FM RF Alignment

Test Equipments

Sweep generator with markers
Marker frequency: 87.3, 90, 106, 109MHz
V.T.V.M.
Power supply DC 6V

Preparations before Alignment

1. Set the TV-Radio selector to Radio position and Radio Band selector to FM position.
2. Connect output of the sweep generator (FM modulation 400Hz, 30%) to TP-1.
3. Connect V.T.V.M. to speaker terminals.
4. Supply DC 6V to P6.

Alignment procedures

Align according to the chart below.

Step	Marker Frequency	Variable Capacitor Setting	Adjusting	V.T.V.M. Reading
1	87.3MHz	Maximum	L803	Maximum
2	109.0MHz	Minimum	C815	
3	Repeat the steps 1, 2			
4	90.0MHz	tune to 90MHz	L801	Maximum
5	106.0MHz	tune to 106MHz	C805	
6	Repeat the steps 4, 5			

Chart 2

AM RF AGC Alignment

Test Equipments

Sweep generator
Test loop antenna
D.C. voltmeter 0~1V range
Power supply DC 6V

Preparations before Alignment

1. Connect output of sweep generator to test loop antenna, keep the distance between the test loop antenna and built-in ferrite bar antenna to 60cm.
2. Connect D.C voltmeter to TP-804.
3. Supply DC 6V to P6.

Alignment procedures

1. Tune output of sweep generator to 1400kHz and regulate it to 120dB.
2. Tune the variable capacitor to 1400kHz.
3. Align RF AGC control (R832) so that the DC voltmeter indicates 0.47 volts.

Parts Arrangement For Radio Alignment

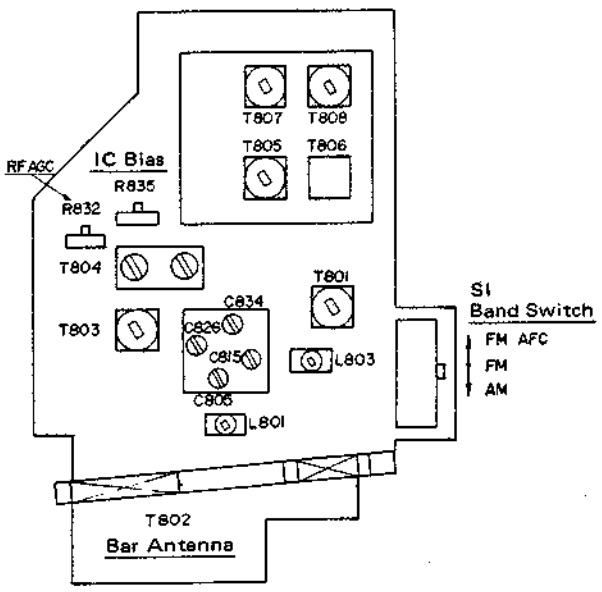


Fig. 13

Mechanical Parts Diagram

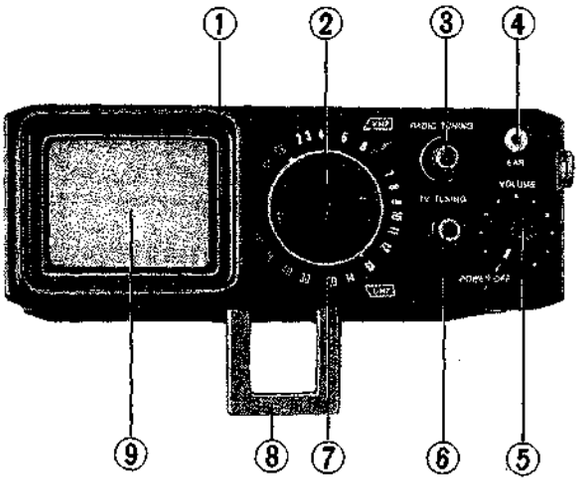


Fig. 14

No.	Parts Name	Parts No.	Q'ty
1	Front Panel	A20897-003	1
2	Speaker Net	A45859-001	1
3	R. Tuning Knob Ass'y	A32054-00A	1
4	Earphone Jack Ass'y (J4)	QMS2501-003	1
5	V. Knob Ass'y	A32093-00A	1
6	T. Tuning Knob Ass'y	A32055-00A	1
7	TV. Indicator Plate	A32035-003	1
8	Foot	A45842-001	1
9	Protector Glass	A32034-001	1

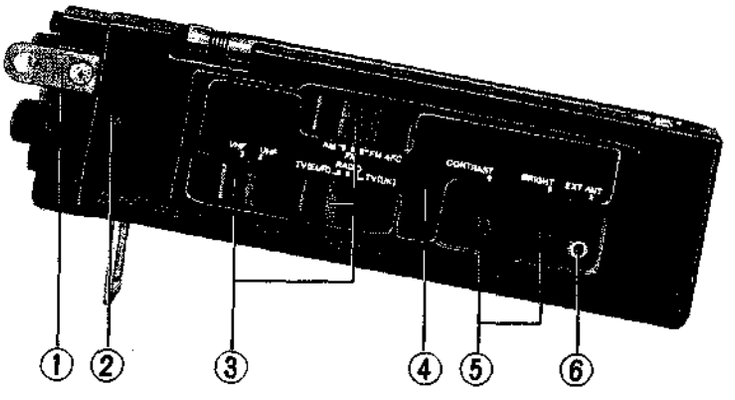


Fig. 15

No.	Parts Name	Parts No.	Q'ty
1-1	Hook	A45834-001	1
-2	Screw	SSSP2608R	1
2	Screw	SSSP2606J	4
3	Slide Knob	A32051-001	3
4	Plate	A32038-002	1
5	Side Knob	A45895-001	2
6	Ant. Jack (J5)	QMS2501-003X	1

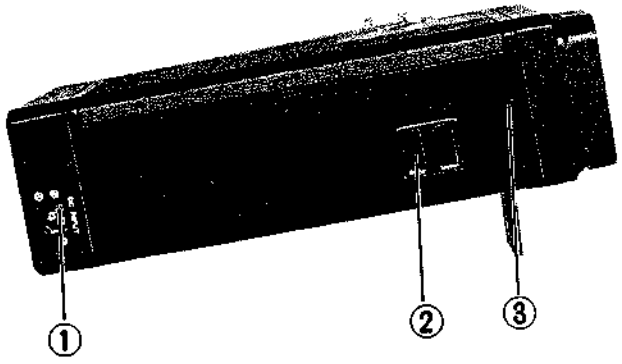


Fig. 16

No.	Parts Name	Parts No.	Q'ty
1	DC Jack Ass'y (J13, S5)	A04375-00B	1
2	Band Holder	A45839-001	1
3	Screw	SSSP2606J	1

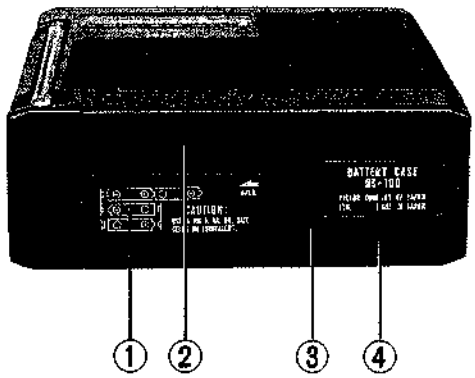


Fig. 17

No.	Parts Name	Parts No.	Q'ty
1	Caution Plate	A45987-003	1
2-1	Battery Cover	A45853-001	1
-2	Stick Sheet	A41545-086	1
3	Battery Cover	A45852-001	1
4	Name Plate	A45854-003	1

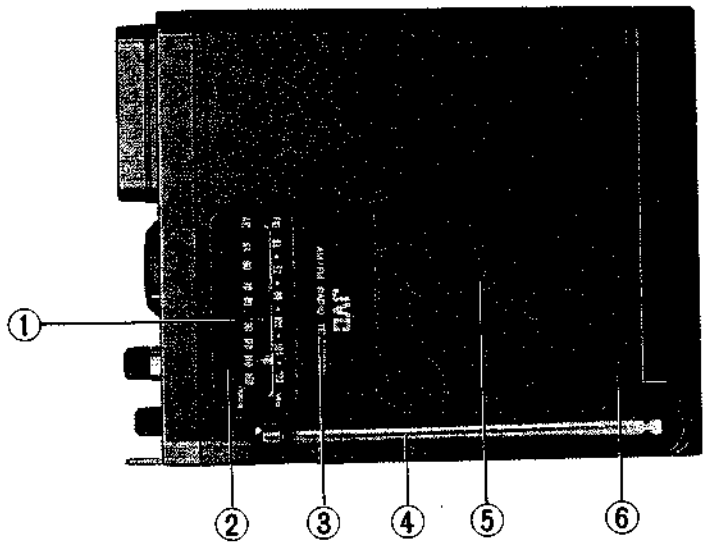


Fig. 18

No.	Parts Name	Parts No.	Q'ty.
1	Indicator Lens	A45835-001	1
2	R. Indicator Plate	A32037-002	1
3	Top Panel	A10370-003	1
4	Rod Antenna	AD3767	1
5	Decoration Plate	A32036-001	1
6	Stopper	A45836-001	1

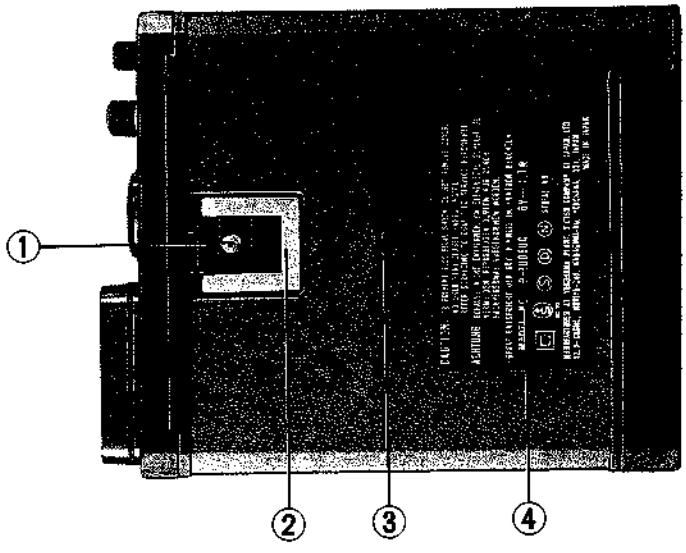


Fig. 19

No.	Parts Name	Parts No.	Q'ty
1-1	Tap. Screw	SDSB3010J	1
-2	Foot Supporter	A45978-001	1
2	Foot	A45842-001	1
3	Bottom Board	A10371-001	1
4	Rating Plate	A32085-004	1

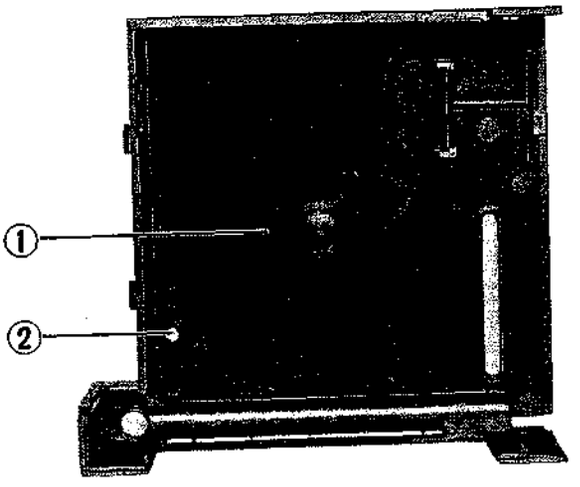


Fig. 20

No.	Parts Name	Parts No.	Q'ty
1	Cover	A45838-001	1
2-1	Tap. Screw	SBSB3010Z	1
-2	Spring	V42563-3	1
-3	Stopper	A45836-001	1

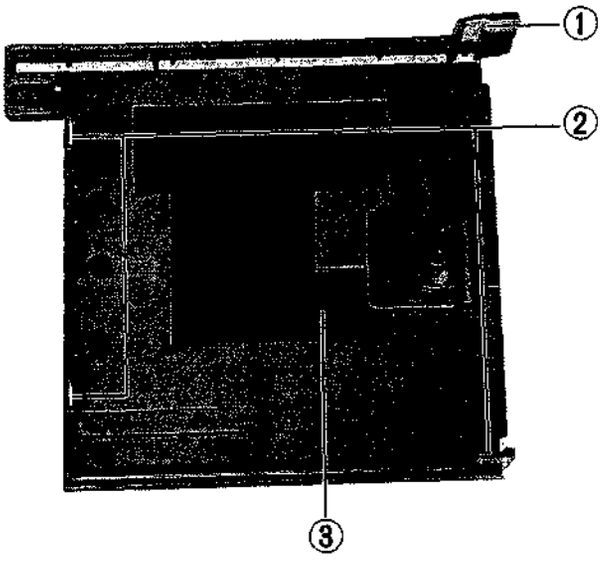


Fig. 21

No.	Parts Name	Parts No.	Q'ty
1	Stopper Plate	A45841-001	1
2	Stopper Plate	A45840-001	3
3	Bottom Board	A10371-001	1

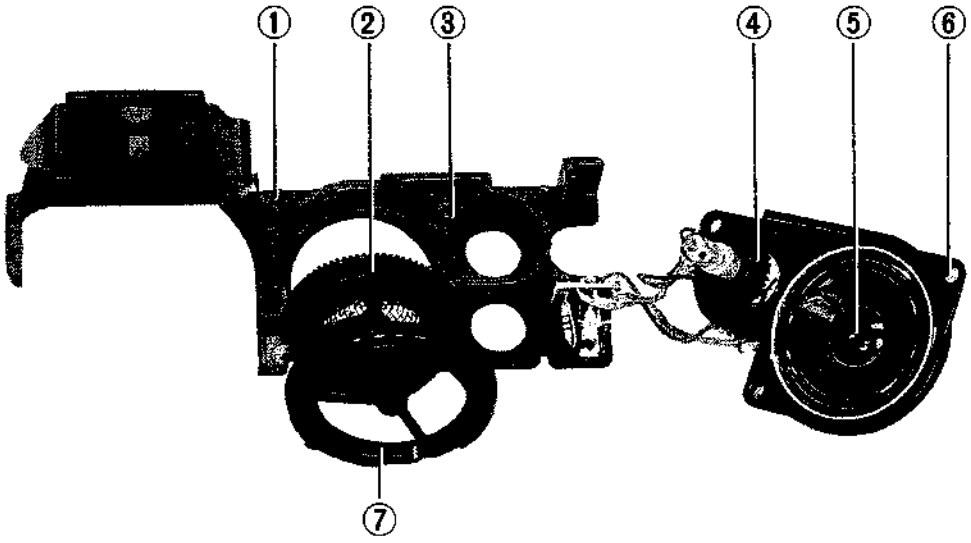


Fig. 22

No.	Parts Name	Parts No.	Q'ty
1	TV. Tuning Base	A20899-001	1
2	Indicator Gear	A32039-001	1
3	Gear	A45869-001	1
4	Gear	A45870-001	1
5	Speaker	DH-17P-V	1
6	Indicator Cover	A32041-001	1
7	Gear Holder	A32040-001	1

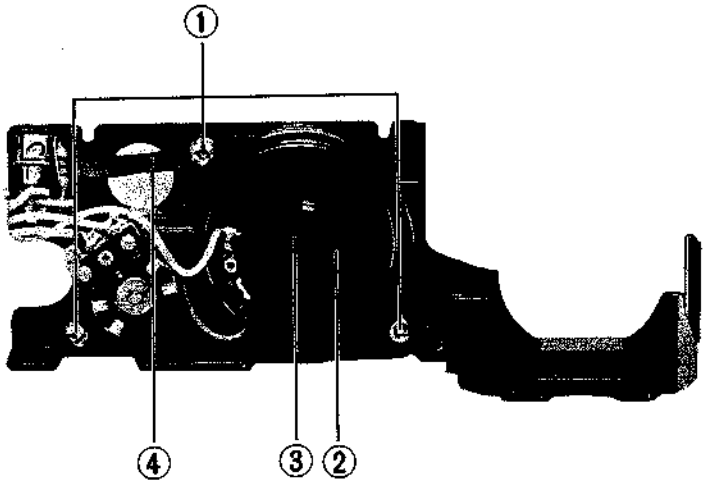


Fig. 23

No.	Parts Name	Parts No.	Q'ty
1	Tap. Screw	SBSB3010Z	3
2	Indicator Cover	A32041-001	1
3	Stick Sheet	A41545-087	1
4	Wire Clamp	55234-4	1

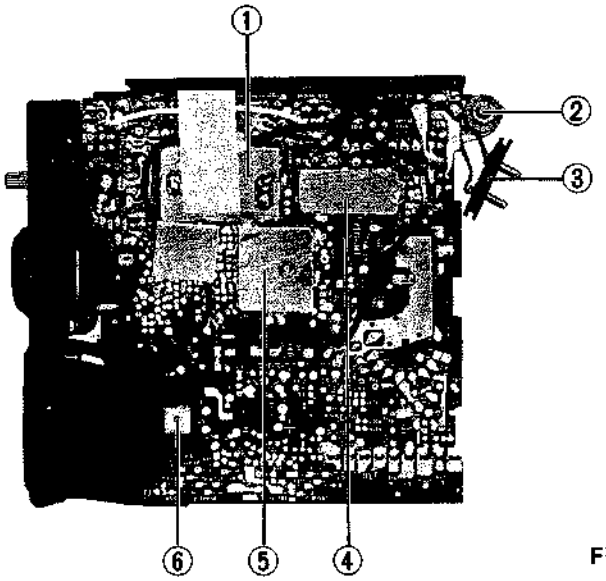


Fig. 24

No.	Parts Name	Parts No.	Q'ty
1	Shield Plate	A45887-002	1
2-1	Lug	A45863-001	1
-2	T. Lock Washer	WBS5000W	1
-3	Nut	NFZ5000ZS	1
3	Connector Ass'y (P6)	A45868-00A	1
4	Shield Plate	A45892-001	1
5	Shield Plate	A45890-001	1
6	Screw Grommet	A45865-001	1

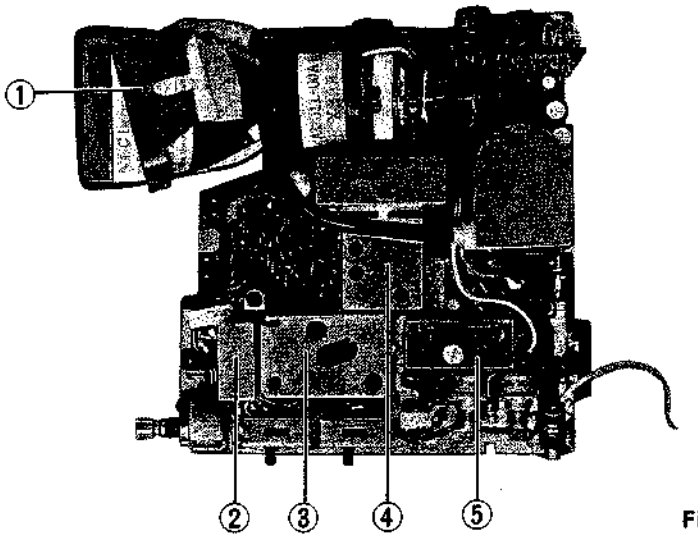


Fig. 25

No.	Parts Name	Parts No.	Q'ty
1	Earth Plate	A45862-001	1
2	Shield Case	A45893-001	1
3-1	Shield Case	A45885-001	1
-2	Shield Cover	A45886-002	1
4-1	Shield Case	A45888-001	1
-2	Shield Cover	A45889-002	1
5	Shield Case	A45891-001	1

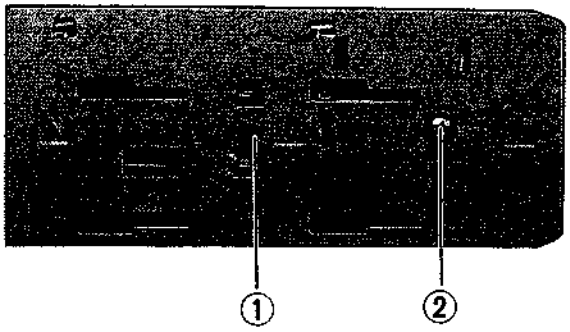


Fig. 26

No.	Parts Name	Parts No.	Q'ty
1	Battery Case	A20900-001	1
2	Tap. Screw	SDSB3010J	1

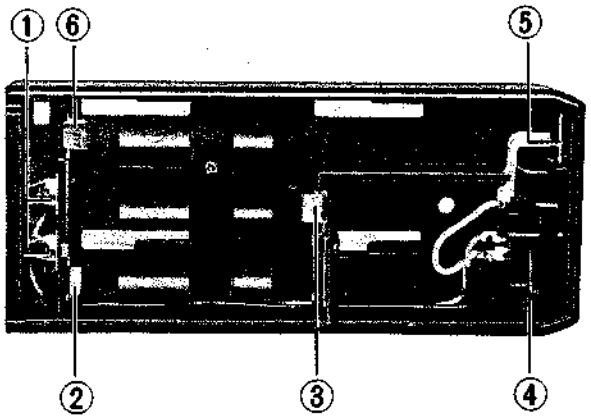


Fig. 27

No.	Parts Name	Parts No.	Q'ty
1	Jack Spring (J6)	A45858-001	1
2	Connector Plate	A45857-001	1
3	Connector Plate	A60075-001	1
4	DC Jack Ass'y (J13, S5)	A04375-00B	1
5	Connector Plate	A45977-001	1
6	Connector Plate	A45855-001	1

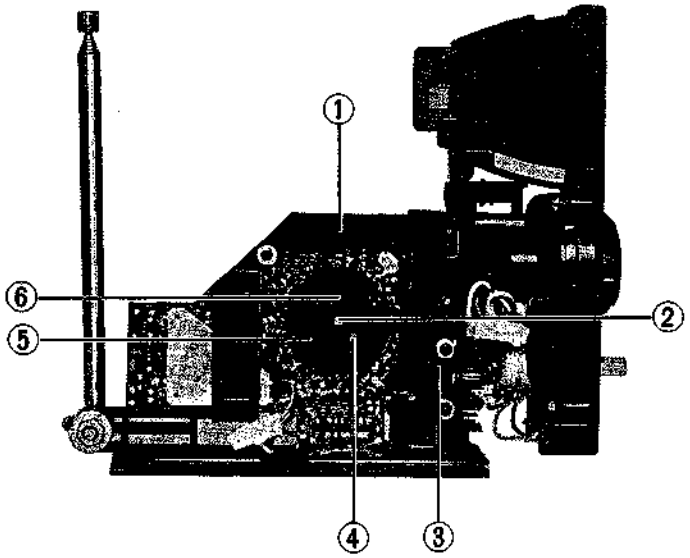


Fig. 28

No.	Parts Name	Parts No.	Q'ty
1	Radio Tuning Base	A20921-001	1
2	Screw	SPSP1705N	1
3	Dial Cord	A45316-1	1
4	Screw	SPSP1704N	1
5	Dial Drum	A32087-001	1
6	Spring	53498-3	1

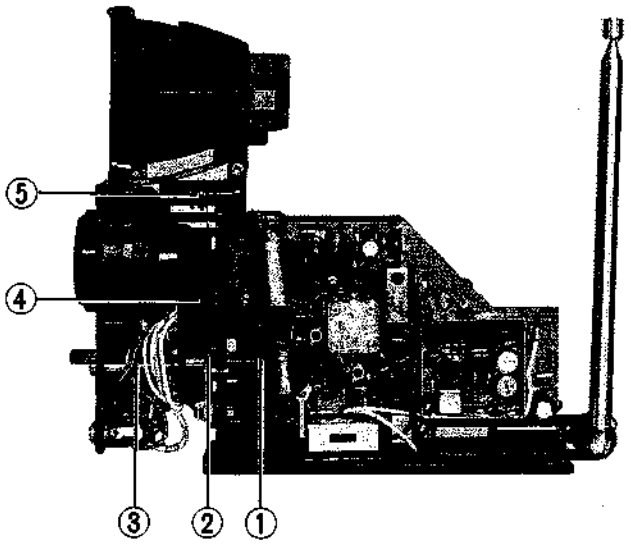


Fig. 29

No.	Parts Name	Parts No.	Q'ty
1	E. Ring	REE3000	1
2	Needle	A45851-001	1
3	Shaft	A45964-001	1
4	Shade	A45984-001	1
5-1	Drum	A45848-001	1
-2	Spring	A45850-001	1
-3	Drum Supporter	A45849-001	1

Block Diagram

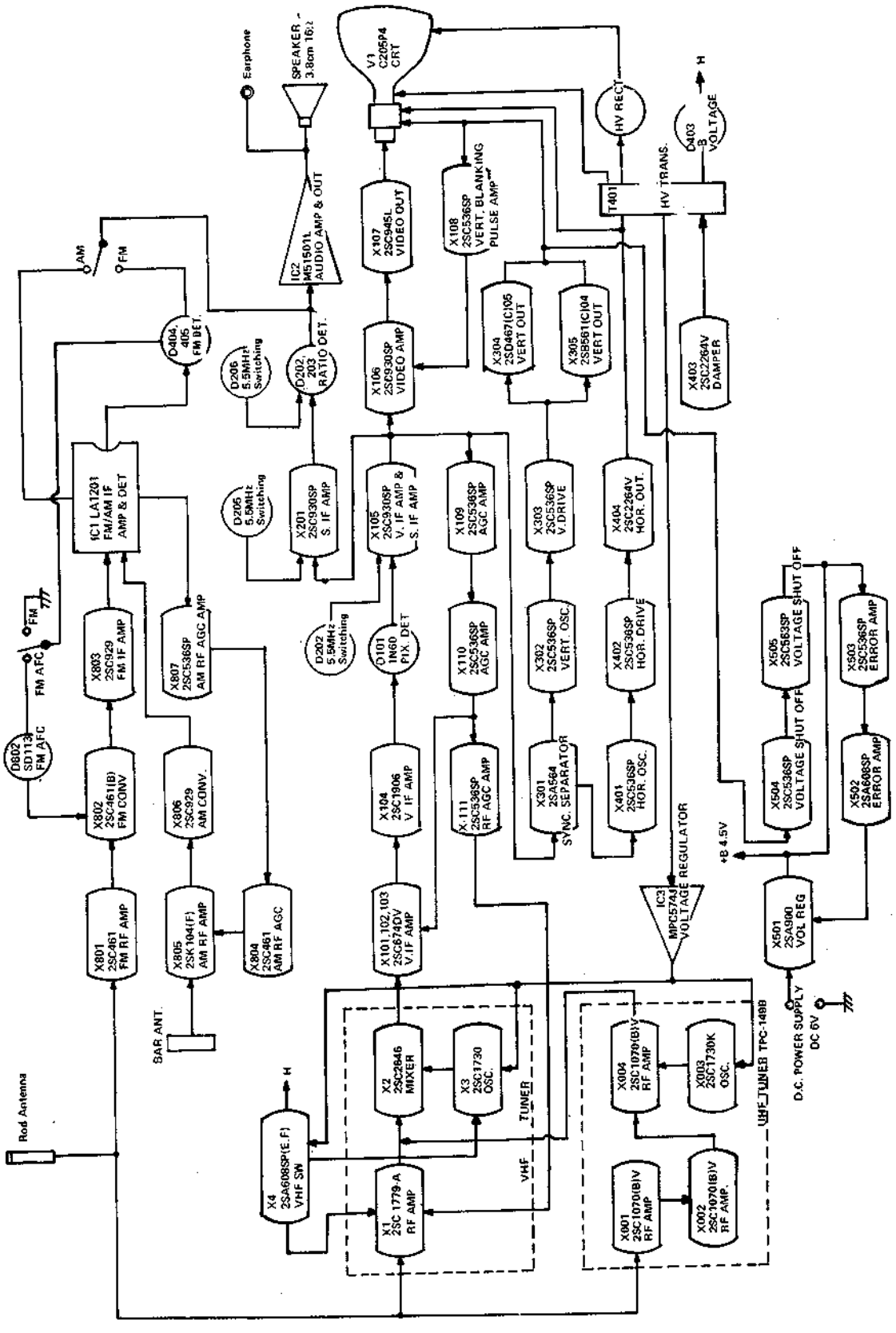


Fig. 30

Electronic Parts List For TV.

Symbol No.	Parts No.	Description
	Transistors	
X1	2SC1779-A	RF Amp.
X2	2SC2646	Mixer
X3	2SC1730(K)	OSC.
X4	2SA608SP(G)	VHF(Low-High) SW
X5	2SC536SP(F,G)	UHF-VHF SW
X101	2SC674DV	V. IF Amp.
X102	2SC674DV	V. IF Amp
X103	2SC674DV	V. IF Amp
X104	2SC1906	V. IF Amp
X105	2SC930SP(D,E)	V. IF Amp & S. IF Amp
X106	2SC930SP(D,E)	Video Amp
X107	2SC945L(P,Q)	Video Out
X108	2SC536SP(F,G)	Vert Blanking Pulse Amp
X109	2SC536SP(G)	AGC Amp
X110	2SC536SP(F,G)	AGC Amp
X111	2SC536SP(V)	RF AGC Amp
X201	2SC930SP(D,E)	S. IF Amp
X202	2SC930SP(D,E)	S. IF Amp.
X301	2SA564(Q)	Sync. Separator
X403	2SC2264V	Damper
X501	2SA900(R,S)	Vol. Reg.
X502	2SA608SP(E,F)	Error Amp
X503	2SC536SP(F,G)	Error Amp
X504	2SC536SP(F,G)	Voltage Shut OFF
X505	2SC536SP(F,G)	Voltage Shut OFF
	ICs	
IC2	M51501L	Audio Amp & Out
IC3	MPC574J	Voltage Regulator
	Diodes	
D1,4,8,202, 205,206	1SS85F8	Band Switch Diode
D2	1S2222	Band Switch Diode
D3,5,9	1SV70BF8	Variable Capacitance Diode
D6,7	1SS85S2	Band Switch Diode
D10,201,401 402,501,505	1S2076F8	Diode
D11	1S954	Diode
D101	1N60-09	Diode
D103,104	HV23GWTS2	Diode
D203,204	1N60	Diode (Pair)
D304	HV23GBLF8	Diode
D403	1S2076S2	Diode
D502	HZ3A3F8	Zener Diode
D503,504	1N60TF1	Diode
	CRT	
V1	C205P4	Picture Tube
	Coils & Transformers	
L1	A45909-15-5-Z	RF. Coil
L2	A60087-21-1-Z	RF. Coil
L3	A45909-17-2-Z	RF. Coil
L4	A45907-5-5-Z	RF. Coil
L5	A45909-3-5-Z	RF. Coil
L6	A45907-7-2-Z	RF. Coil
L7	A60087-19-2-Z	RF. Coil
L8	A45909-11-2-Z	RF. Coil
L9	A45909-19-1-Z	RF. Coil
L10	A45908-7-5-Z	RF. Coil
L11	A60093-17-1-Z	RF. Coil
L12	A45907-7-2-Z	RF. Coil
L13	A45908-7-5-Z	RF. Coil

Symbol No.	Parts No.	Description
L101	A04376-220R	Peaking Coil
L102	A04377-54R	Peaking Coil
L201	A04376-221R	Peaking Coil
L202,203	A04376-221A	Peaking Coil
L204	A45907-15-5-A-Z	RF. Coil
L301,403	A32011-00A	Def. Yoke Ass'y
T1	A45827-00C	Converter Trans. Ass'y
T101(C102)	A60112-00A	Pix. IF. Trans. Ass'y
T102(C117)	A45829-00C	Pix. IF. Trans. Ass'y
T103(C121)	A45830-00C	Pix. IF. Trans. Ass'y
T201(C201)	A45831-00B	S. IF. Trans. Ass'y
T202(C209)	A32008-P0E	Ratio Trans. Ass'y
T203(C211)	A32008-S0E	Ratio Trans. Ass'y
T401	A32010-00B	HV Trans. Ass'y
	Variable Resistors	
R26	QVP6A0B-015	UHF Sub 100kΩB
R27	QVP6A0B-025	VHF High Upper 200kΩB
R28	QVP6A0B-026	VHF Low 200kΩB
R29	QVP6A0B-024	VHF High Lower 20kΩB
R33,S6	A04390-002	Tuner
R155	QVK3A1C-053F	Contrast 5kΩC
R158	QVK3A1B-025F	Bright 200kΩB
R231,S4	QVK2C6A-024K	OFF-Volume 20kΩA
R312	QVP6A0B-024	Height 20kΩB
R313	QVP6A0B-015	V. Hold 100kΩB
R503	QVP6A0B-053	4.5V Adj. 5kΩB
	Resistor	
R310	A04383-001	P. Thermistor (2.2kΩ)
	Electrolytic Capacitors	
C42,43,104, 115,233	QEE40JM-476	47μF 6.3WV
C44	QET41HR-474	0.47μF 50WV
C122	QEE40FM-476	47μF 3.15WV
C134	QEE41VM-154	0.15μF 35WV
C136,231,502	QEE40JM-475	4.7μF 6.3WV
C143,235	QET40JR-107	100μF 6.3WV
C214	QEE40FM-106	10μF 3.15WV
C221,222	QEE41AM-335	3.3μF 10WV
C232,238	QEE41AM-336	33μF 10WV
C236	A04402-001	0.68μF 35WV
C237	QET41AR-227	220μF 10WV
C302,505	QEE40JM-106	10μF 6.3WV
C307	QEV40JR-477	470μF 6.3WV
C401,402	QET41HR-476	47μF 50WV
C403	QEV40JR-477	470μF 6.3WV
C406	QEV41HR-106	10μF 50WV
C501	QEE41CM-106	10μF 16WV
C503	QEV40JR-108	1000μF 6.3WV
C506	QEE40JM-336	33μF 6.3WV
	C.R. Blocks	
CR1	A03008-018	C215,216,217,R215,216
	Speaker	
	DH-17P-V	3.8cm 16Ω
	Sockets & Plug (Connector)	
J2	A03085-00E	Connector Ass'y
J3	QMS2501-003	Earphone Jack Ass'y
J4	A03084-00L	Connector Ass'y

Symbol No.	Parts No.	Description
J5	QMS2501-003X	Ant. Jack
J6	A45858-001	Jack Spring
J7	A31989-00E	CRT Socket Ass'y
J13,S5	A04375-00B	DC Jack Ass'y
P1,4	QMV5002-004	Connector
P2	QMV5002-005	Connector Ass'y
P6	A45868-00A	Connector Ass'y
Switch		
S2	QSS4201-061	Slide Switch (VHF-UHF)
S3	QSS4301-031	Slide Switch (TV-RA-TV)
Miscellaneous		
FP1	A32061-00A	Focus Pack Ass'y
CF1	A04306-B	Ceramic Filter
CF3	A04306-00C	Ceramic Filter
C220	QAT3001-016	Trimmer Capacitor
	QME1208-004	Dynamic Earphone
F1	A45743-00A	U-V Separator

Electronic Parts List for TV Def. Section

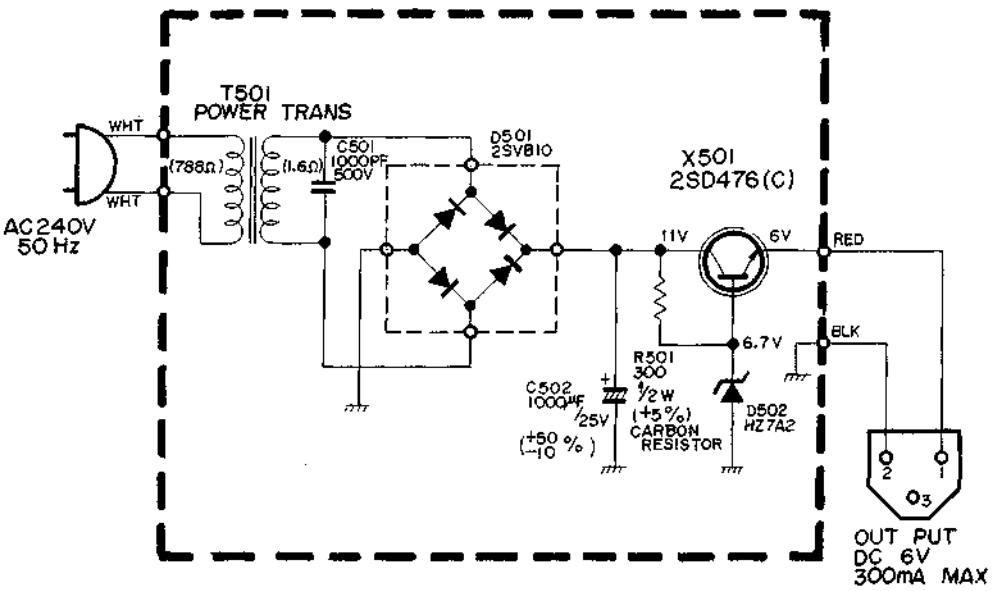
Symbol No.	Parts No.	Description
Transistors		
X302	2SC536SP(F,G)	Vert. Osc.
X303	2SC536SP(F,G)	Vert. Drive
X304	2SD467(C)05	Vert. Out } (Pair)
X305	2SB561(C)04	Vert. Out } (Pair)
X401	2SC536SP(F,G)	Hor. Osc.
X402	2SC536SP(F,G)	Hor. Drive
X404	2SC2264V	Hor. Out
Diodes		
D302,303	HV70	Diode
D405,406,407 408	1N34A	Diode
D409	1S953	Diode
Coils		
L401	A45826-00A	Hor. Osc. Coil Ass'y
L402	A04359-500	Choke Coil
Variable Resistor		
R324	QVP6A0B-053	Lin. 5kΩB
Thermistor		
R327	A04292-005	N. Thermistor (1.4kΩ)
R426	A04292-005	N. Thermistor (1.4kΩ)
Electrolytic Capacitors		
C322	QEE41AK-106	10μF 10WV
C323	QEE40JM-106	10μF 6.3WV
C324	QEE41AK-336	33μF 10WV
C325	QEE40JM-156	15μF 6.3WV
C326	QET40JR-477	470μF 6.3WV
C328	QET40JR-227	220μF 6.3WV
C414	QEW41HA-105	1μF 50WV
C415	QEE41AM-335	3.3μF 10WV
C419	QET40JR-107	100μF 6.3WV
C421	QEE40JM-106	10μF 6.3WV
C423	QET40JR-477	470μF 6.3WV

Electronic Parts List for UHF Tuner

Symbol No.	Parts No.	Description
Transistors		
X001	2SC1070(B)V	RF. Amp.
X002	2SC1070(B)V	RF. Amp.
X003	2SC1730(K)	RF. Osc.
X004	2SC1070(B)V	RF. Mix.
Diodes		
D001,002,003, 004	1S2208L	Variable Capacitance Diode
D005	1S953	Diode
Coils		
L001	A45908-13-5-Z	RF. Coil
L002	A45908-17-1-S	RF. Coil
L003	A45909-21-5-S	RF. Coil
L004	A45910-5-5-Z	RF. Coil
L005	A45907-5-5-Z	RF. Coil
L006	A45908-11-1-S	RF. Coil
L007	A45909-21-5-Z	RF. Coil
L008	A45907-5-5-S	RF. Coil
L009	A45910-5-5-Z	RF. Coil
L011	A45910-7-2-S	RF. Coil
L012	A45907-5-5-S	RF. Coil
L013	A45907-19-2-Z	RF. Coil
L014	A04378-R33	Choke Coil
L015	A04378-1R0	Choke Coil
L016	A45976-9-1-Z	RF. Coil
L017	A60111-3-2-Z	RF. Coil
L018	A45908-17-1-Z	RF. Coil
L019	A45908-15-2-Z	RF. Coil

Electronic Parts List For Radio

Symbol No.	Parts No.	Description
Transistors		
X801	2SC461(B)	FM RF Amp
X802	2SC461(B)	FM Conv.
X803	2SC929(D)	FM IF Amp
X804	2SC461(B)	AM RF AGC
X805	2SK104(F)	AM RF Amp
X806	2SC929(D)	AM Conv.
X807	2SC536SP(G)	AM RF AGC Amp
IC		
IC1	LA1201(B)	FM/AM IF Amp & Det
Diodes		
D801,806	1S953	Diode
D802	SD113	Variable Capacitance Diode
D803	HV70	Diode
D804,805	1N60	Diode (Pair)
Coils & Transformers		
L801,803	A45957-00C	RF Coil
L802	A04378-R68	Choke Coil
T801(C818)	A45958-00A	FM IF Trans.
T802	A45960-00A	Bar Antenna Coil Ass'y
T803(C837, 838)	A45959-00A	MW OSC. Trans.
T805(C853)	A45900-00A	FM IF Trans.
T806(C854)	V03067-25	AM IF Trans.
T807(C858)	A45901-00A	FM Det. Trans.(P)
T808(C859)	A45902-00A	FM Det. Trans.(S)
Variable Resistors		
R832	QVZ3242-001	RF AGC 50kΩB
R835	QVP6A0B-054	IC Bias 50kΩB
Electrolytic Capacitors		
C824	QEE41VM-474	0.47μF 35WV
C831,857	QET40JR-107	100μF 6.3WV
C839,843,851	QEE40JM-106	10μF 6.3WV
C841	QEE40JM-226	22μF 6.3WV
C842	QEE40FM-226	22μF 3.15WV
C860	QEE41AM-335	3.3μF 10WV
Capacitors		
C804,805,814, 815,826,827, 834,835	QAP1224-701	Variable Capacitor
C. R. Blocks		
CR2	A03008-020	C861,862,R844,845
Filters		
CF2	A04403-001	Ceramic Filter
CF3(T804)	V03067-026	Ceramic Filter (AM)
BPF	A45961-00B	Band Pass Filter
Switch		
S1	QSS4301-031	Slide Switch
Connector		
J1	A03084-00A	4P Connector Ass'y
Miscellaneous		
	V04041-1	Test Point



NOTE

1. VOLTAGE VALUES SHOW READINGS BY CIRCUIT TESTER (20KΩ/V)

Schematic Diagram for Model AA-24LEU

Fig.31

Parts List for AC Power Adaptor (AA-100SUK)

Symbol No.	Parts No.	Description
Transistors		
X551	2SD313(E)	Transistor
X552	2SC945L(P,Q)	Transistor
X553	2SA673(C)	Transistor
Diodes		
D551	S4VB20(V)	Si. Diode Stack
D552	HZ7B2L	Zener Diode
D553,556	1S953	Diode
D554	TLR124	L.E. Diode
D555	TLG124	L.E. Diode
D557,558	10E2(V)	Silicon Power Diode
Electrolytic Capacitors		
C555	QET41CR-108	1000μF 16WV
C556	QET41AR-476	47μF 10WV

Symbol No.	Parts No.	Description
CR Block		
CR-1,2	A03008-006	C.R. Block
Miscellaneous		
R555,556	QRG018J-181	O.M. Resistor
R559	QRG018J-560	〃
R562	QVZ3242-002	V. Resistor
	BQ-00604V	Charge Unit
T551	A03203-00E	Power Trans. Ass'y
S11	QSS4201-071	Slide Switch
S12	QSS0037-004	Slide Switch
J11	QMC0263-001	AC Socket Ass'y
J12	A04375-00A	DC Jack Ass'y
FUSE 1	QMF51A2-R20P	Fuse (T200mA)
FUSE 2	QMF51A2-1R25	Fuse (T1.25A)
P11	QMP9017-009	Power Cord
P12	A03077-00A	DC Cord with Plug

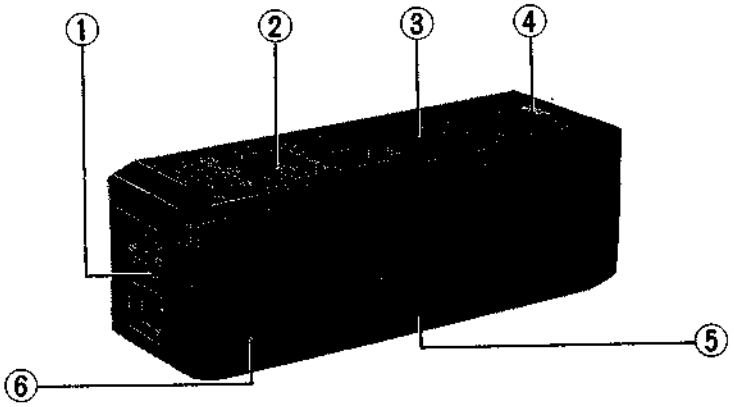


Fig. 32

No.	Parts Name	Parts No.	Q'ty
1	Connector Base	A32050-003	1
2	Name Plate	A45864-006	1
3	Adaptor Case	A20901-003	1
4	Mark	A45866-002	1
5	Adaptor Base	A32049-001	1
6	Screw	SSSP3006JS	3

TELEVISION SCHEMATIC

NOTE

1. ALL DC VOLTAGES ARE MEASURED WITH VOLTMETER (INTERNAL RESISTANCE; 20KΩ/V) ON NORMAL RECEPTION. VOLTAGES OF THE RADIO ARE ON FM RECEPTION AND VOLTAGES IN( ) ARE ON MW RECEPTION.
2. ALIGNMENT ═══ USER CONTROL
   ——— SERVICEMAN CONTROL
3. ALL RESISTANCE VALUES ARE IN OHMS.
   K ; 1,000 M ; 1,000,000
   UNSPECIFIED RESISTORS ; CARBON RESISTOR 1/8 W ±5 %
   TH-N ; NEGATIVE THERMISTOR
   TH-P ; POSITIVE THERMISTOR
4. ALL CAPACITANCE VALUES LESS THAN 1 ARE IN μF AND ABOVE 1 ARE PF UNLESS OTHERWISE INDICATED.
   • UNSPECIFIED CAPACITOR ; CERAMIC CAPACITOR ±5 % 50WV
   • TOLERANCE FOR TEMPERATURE COEFFICIENT (CERAMIC CAP.)

UJ ; −750 ± 120 PPM/°C
CH ; 0 ± 60 PPM/°C

• ND ; NUDE CERAMIC CAPACITOR 1000 PF ± 80/20 % 50WV
• MY ; MYLAR CAPACITOR ±10 % 50WV
• TA ; TANTAL. ELECT. CAPACITOR ±20%

• RATING OF ELECT. CAPACITORS ARE INDICATED BY " CAPACITANCE (μF) / VOLTAGE (WV).
TOLERANCE OF ELECTROLYTIC CAPACITOR VALUES GREATER THAN 4.7μF ARE ±50/10 %
THOSE 4.7μF AND LESS ARE ±75/10 %
UNLESS OTHERWISE INDICATED.

GROUPS OF MODEL & AC ADAPTOR

MODEL	AC ADAPTOR & RATING
P-100EUC	AA-24LEU 220-240V 50Hz
P-100UKC	AA-24LUK 240V 50Hz
P-100CQUHF	AA-24Q 120/240V 50/60Hz

P6 DC 6V INPUT
J6 DC 6V OUTPUT
UM-3X4
J13
P13
AC ADAPTOR
AC POWER SUPPLY
BATTERY CASE(BC-100)

X501 2SA900(R,S) VOL REG
X502 2SA608SP(E,F) ERROR AMP
X503 2SC536SP (F,G) ERROR AMP
X504 } 2SC536SP (F,G)
X505 }
IC 3 MPC574J
S2(VHF→UHF)
X4 2SA608SP(G) VHF (LOW-HIGH)SW
X201 } 2SC
X202 } S. (F

X3 2SC1730(K) OSC
X1 2SC1779-A RF AMP
X2 2SC2646 MIXER
F1 UV SEPARATOR
ROD ANTENNA
EXT ANT TERMINAL

X001 }
X002 } 2SC1070(B)V RF AMP
X003 2SC1730(K) OSC
X004 2SC1070(B)V MIX
D001~D004 1S2208L

TPC-149B UHF TUNER

X201 2SC461 FM RF A

X301 2SA564(Q) SYNC. SEPARATOR

TPC-14 DEF P

JVC
VICTOR COMPANY OF JAPAN, LIMITED
B/W TELEVISION DIVISION

TELEVISION SCHEMATIC DIAGRAM FOR MODEL P-100EUC

-750 ± 120 PPM / °C
0 ± 60 PPM / °C

NUDE CERAMIC CAPACITOR
1000 PF ± 80/20 % 50WV
MYLAR CAPACITOR ±10 % 50WV
TANTAL. ELECT. CAPACITOR ±20%

S OF ELECT. CAPACITORS ARE
TED BY " CAPACITANCE (μF) /
GE (WV).
ANCE OF ELECTROLYTIC CAPACITOR
S GREATER THAN 4.7μF ARE +50 -10 %
4.7μF AND LESS ARE ± 75 %
SS OTHERWISE INDICATED.

GROUPS OF MODEL & AC ADAPTOR

MODEL	AC ADAPTOR & RATING
P-100EUC	AA-24LEU 220-240V 50Hz
P-100UKC	AA-24LUK 240V 50Hz
P-100CQUHF	AA-24Q 120/240V 50/60Hz

R
LY

X801 2SC461(B) FM RF AMP
X802 2SC461(B) FM CONV.
X803 2SC929(D) FM IF AMP
X804 2SC461(B) AM RF AGC
X805 2SK104(F) AM RF AMP
X806 2SC929(D) AM CONV.
X807 2SC536SP(G) AM RF AGC AMP
S1 (AM-FM-FM AFC)
RADIO BAND SW
IC 1 LA1201 FM/AM IF AMP & DET
VOL. REG
AM DET
FM LIMIT. AMP
IF AMP
IF AMP
AM RF AGC
IC BIAS
T801 CF-2 10.7MHz
T802 BAR ANT.
T803 455KHz
T804 455KHz CF3
T808 10.7MHz
CF.3 6.0MHz
CF. 5.5MHz

S3 TV(EU)-RA-TV(UK)
J1
P1
S2 (VHF↔UHF)
X4 2SA608SP(G) VHF (LOW-HIGH) SW
X201 } 2SC930SP(D,E)
X202 } S. IF AMP
TPC-150B TV P.W.B. ASS'Y
VHF HIGH L
UHF SUB
VHF HIGH
VHF LO
X201 2SC930SP(D,E) S. IF AMP
T202 6.0MHz
T203 6.0MHz
CR1
IC 2 M51501L AUDIO AMP & OUT
VOLUME
S4 POWER SWITCH
X101, 102, 103 2SC674DV V. IF AMP
T101 36.8MHz
T102 36.8MHz
T103 44MHz
X104 2SC1906 V. IF AMP
X105 2SC930SP(D,E) VIDEO AMP & S. IF AMP
X106 2SC930SP(D,E) VIDEO AMP
X107 2SC945L VIDEO OUT
X108 2SC536SP(F,G) VERT BLANKING PULSE AMP
CONTRAST
BRIGHT
X109 2SC536SP(G) AGC AMP
X110 2SC536SP(F,G) AGC AMP
X111 2SC536SPFV RF AGC AMP
X2 2SC2646 MIXER
X003
X004
TPC-149B UHF TUNER
2SC1070(B)V RF AMP
2SC1730(K) OSC
2SC1070(B)V MIX
D004 IS2208L

X303 2SC536SP(F,G) V. DRIVE
X304 2SD467(C)05
X305 2SB561(C)04 VERT OUT
X301 2SA564(Q) SYNC. SEPARATOR
X302 2SC536SP(F,G) VERT OSC
V. HOLD
V. HEIGHT
V. LIN
TH-P
TH-N
X401 2SC536SP (F,G) HOR OSC
X402 2SC536SP (F,G) HOR DRIVE
X403 2SC2264V DAMPER
X404 2SC2264V HOR OUT
H. HOLD
L401 H OSC COIL
HVT T401
HV RECT
FP
FOCUS PACK
FOCUS
TPC-140B DEF P.W.B. ASS'Y

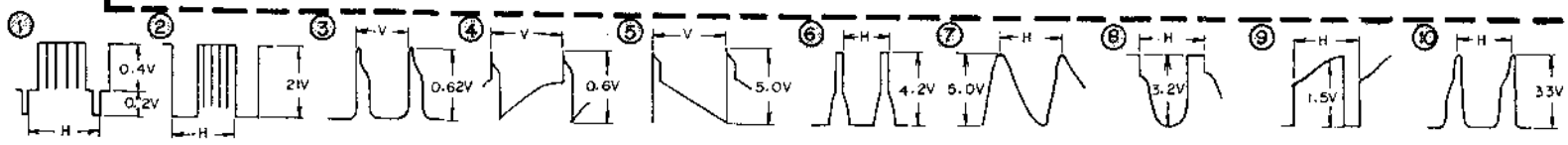
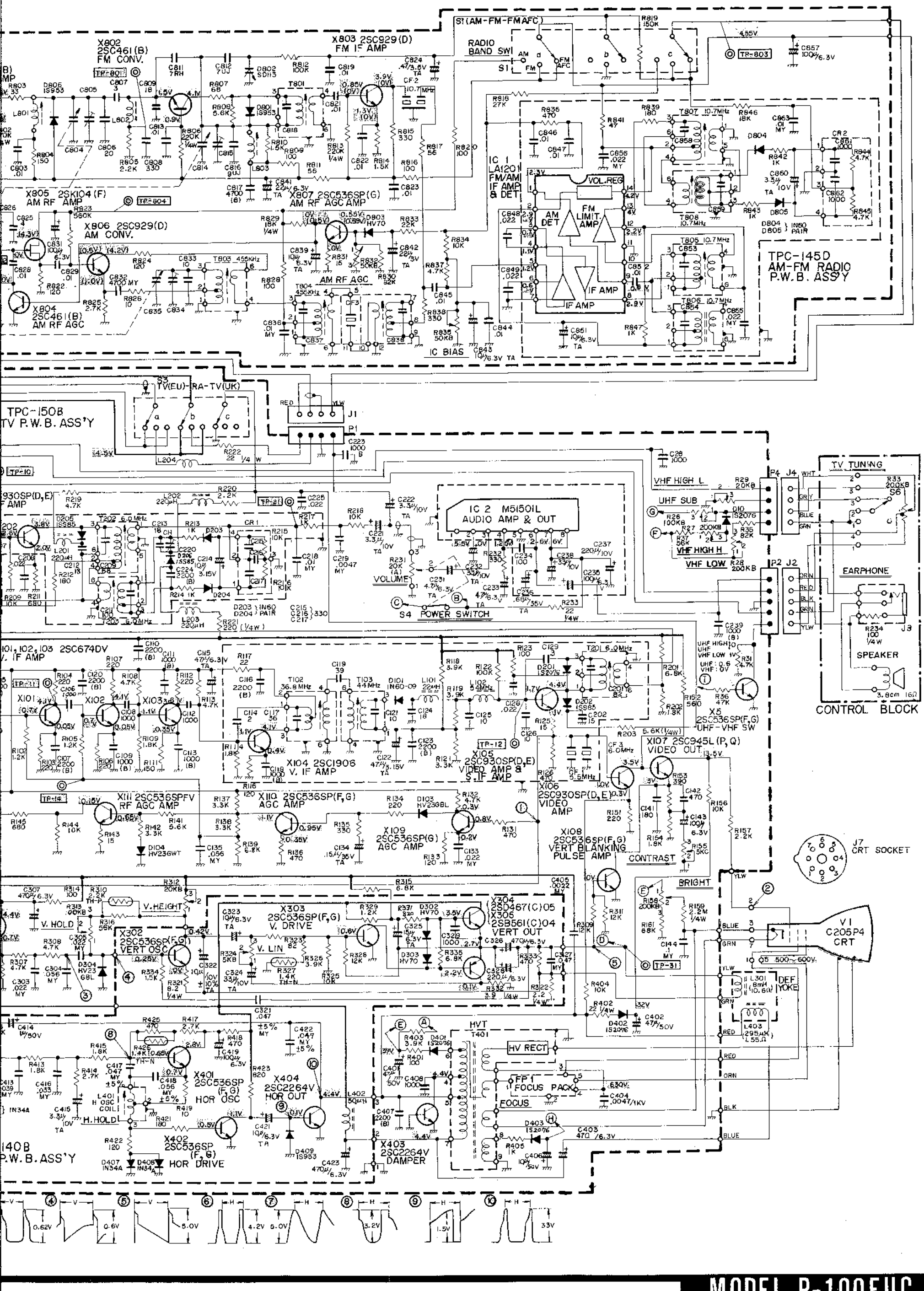


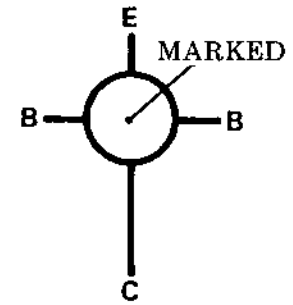
DIAGRAM FOR MODEL P-100EUC



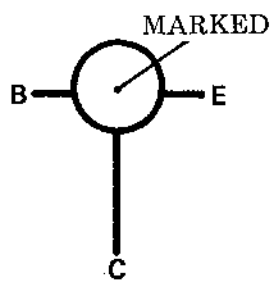
MODEL P-100EUC

MODEL P-100EUC PARTS ARRANGEMENT ON PATTERN OF PRINTED CIRCUIT BOARD

IC & TRANSISTOR BASING

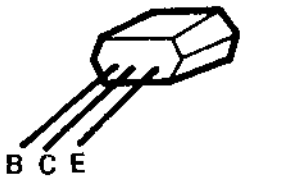


2SC1070(B)

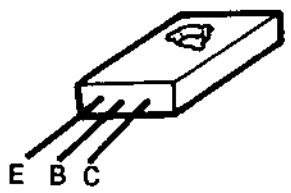


2SC288A(5B)
2SC606(T)

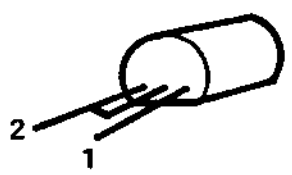
2SA564(Q)
2SA608SP(E,F)
2SB561(C)04
2SC461(B)
2SC536SP(F,G)
2SC536SP(G)
2SC929(D)
2SC930SP(D,E)
2SC945L(P,Q)
2SC1215
2SC1675(L)
2SC1730(K,L)
2SC1906
2SD467(C)05
2SK104(F)



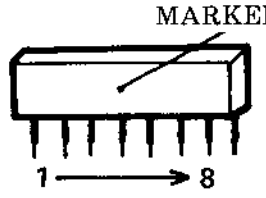
2SC674DV



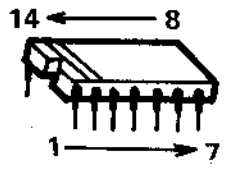
2SA900(R,S)



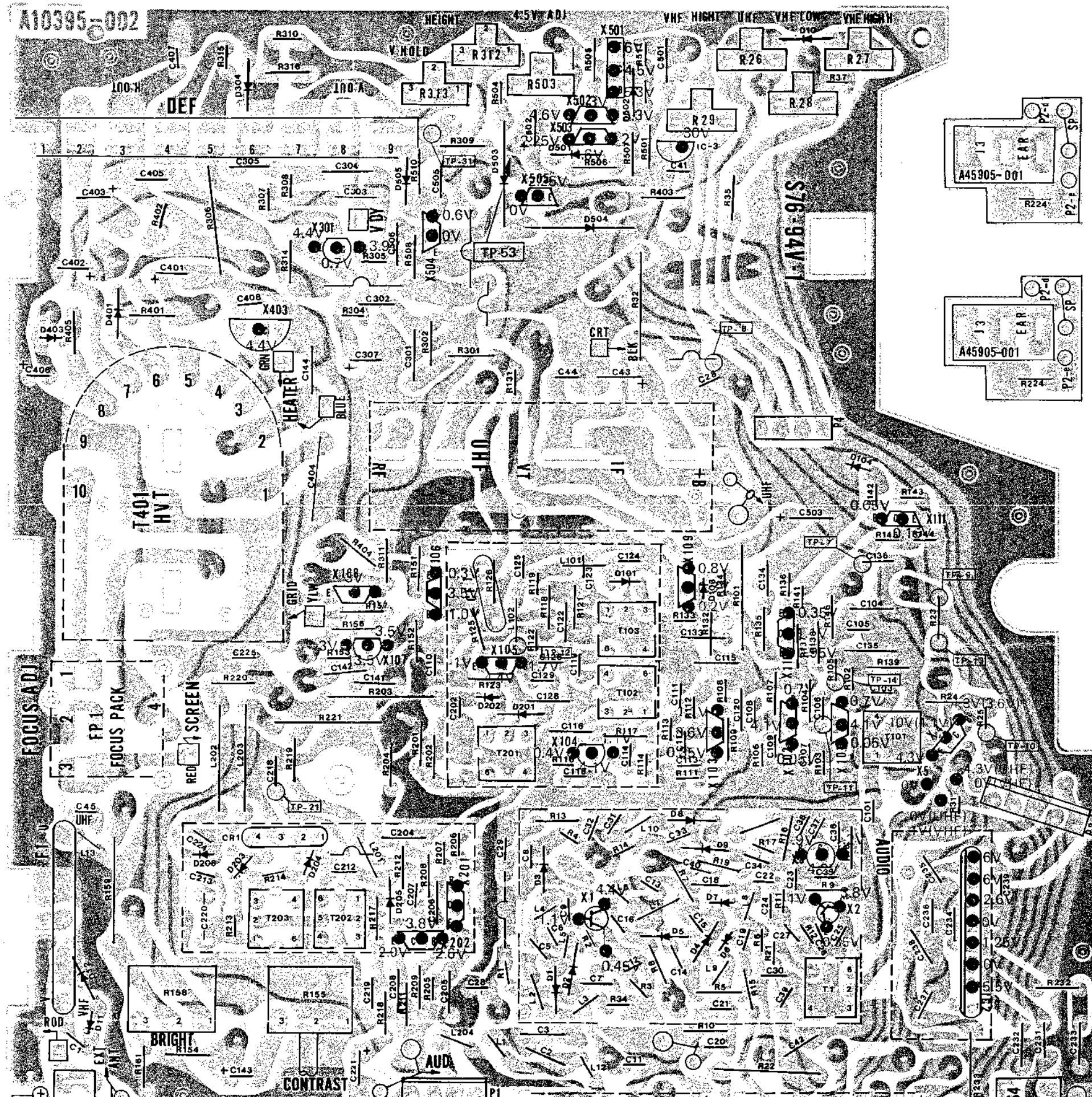
μPC574J



M51501L

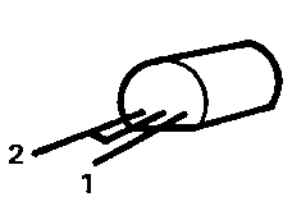


LA1201(B)

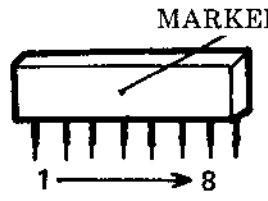


2SC1675(L)
2SC1730(K,L)
2SC1906
2SD467(C)05
2SK104(F)

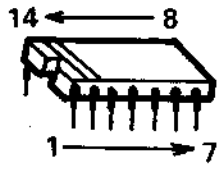
2SA900(R,S)



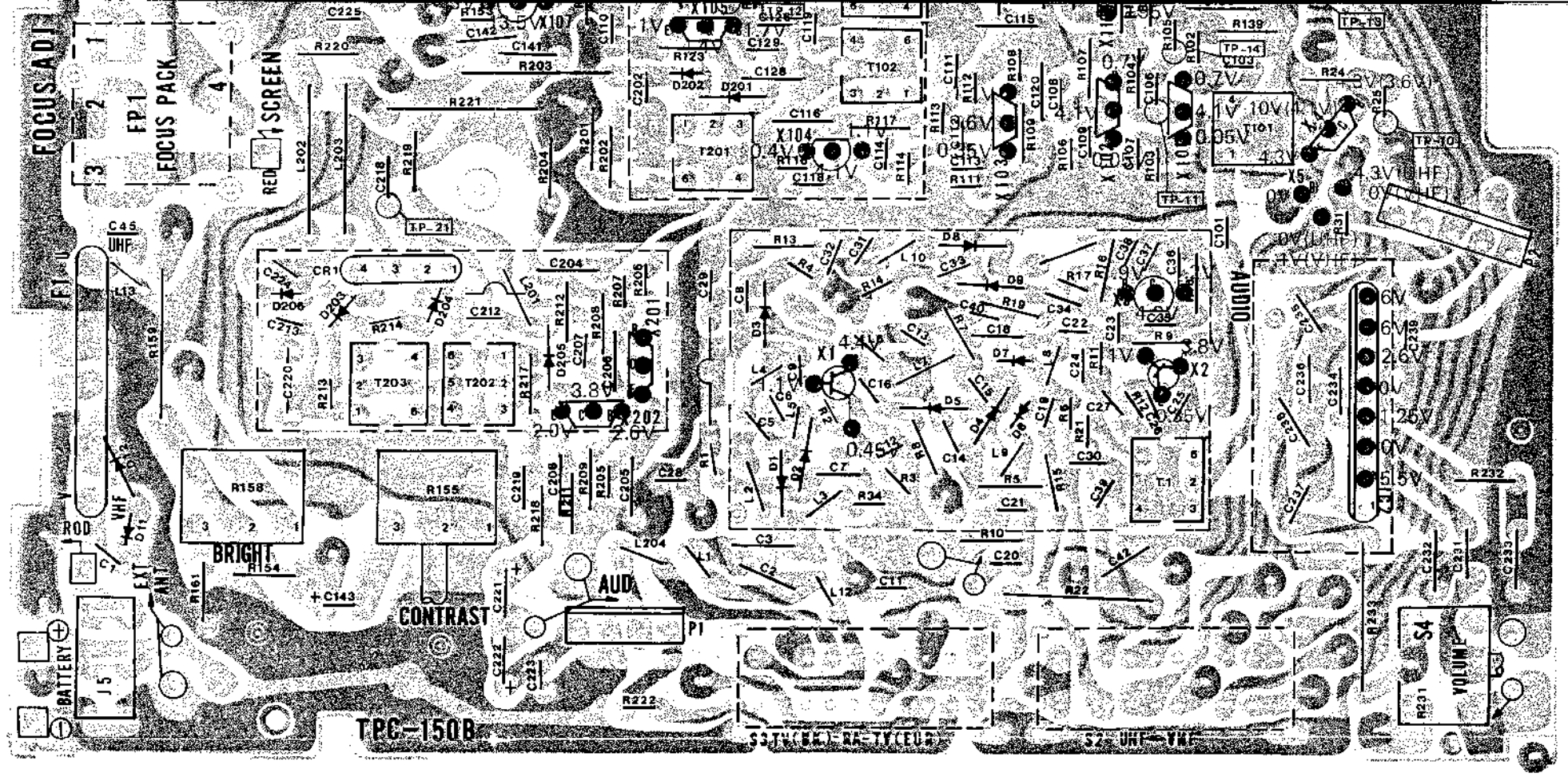
μPC574J



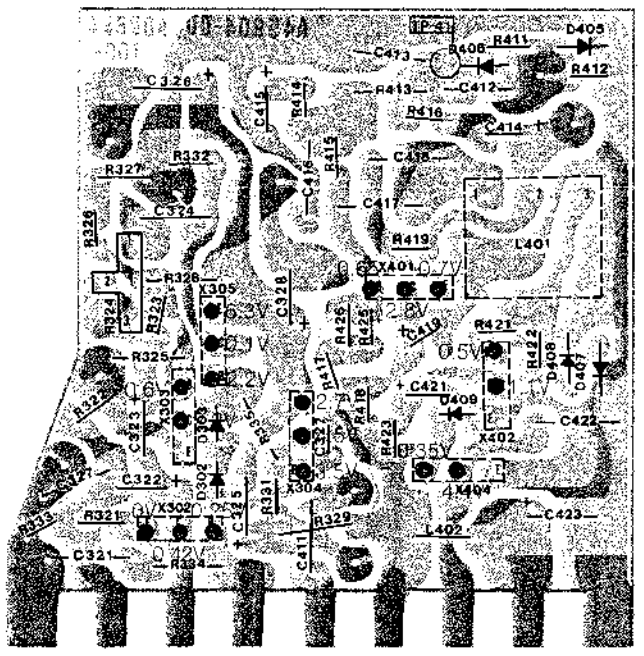
M51501L



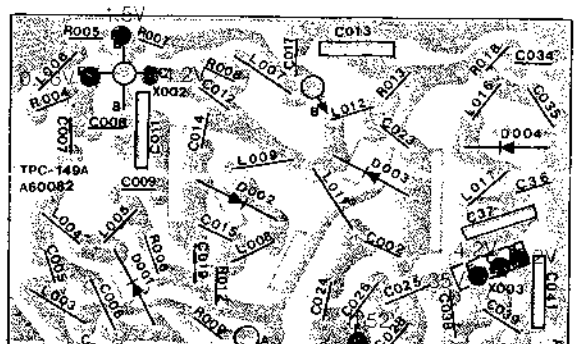
LA1201(B)

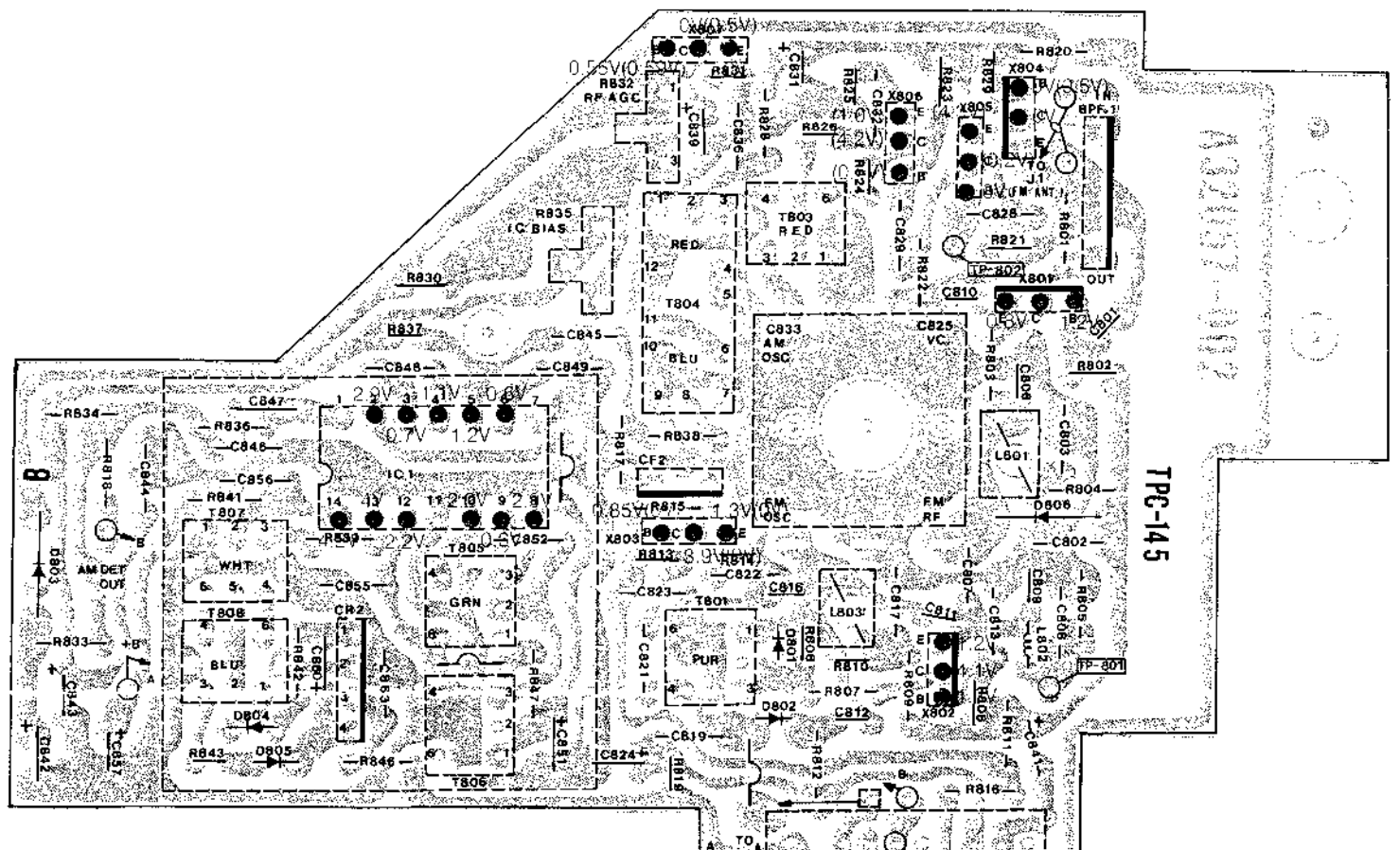


PRINTED CIRCUIT BOARD FOR TV

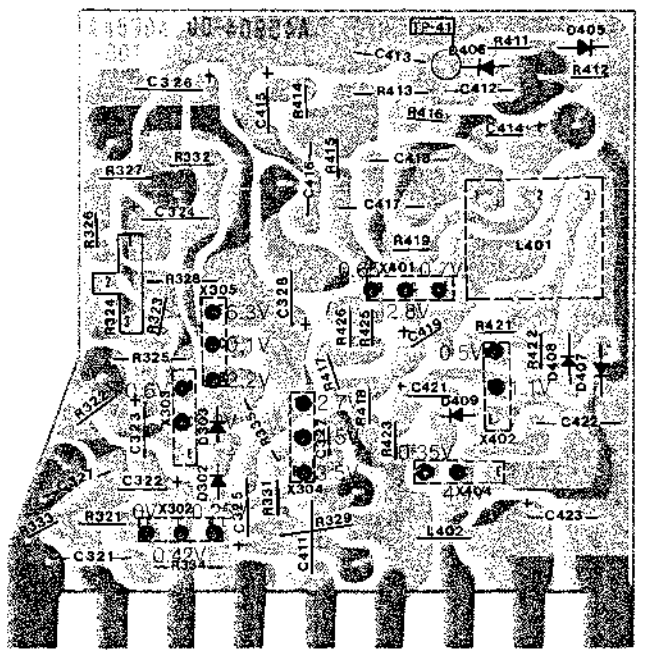


PRINTED CIRCUIT BOARD FOR TV DEF. CIRCUIT

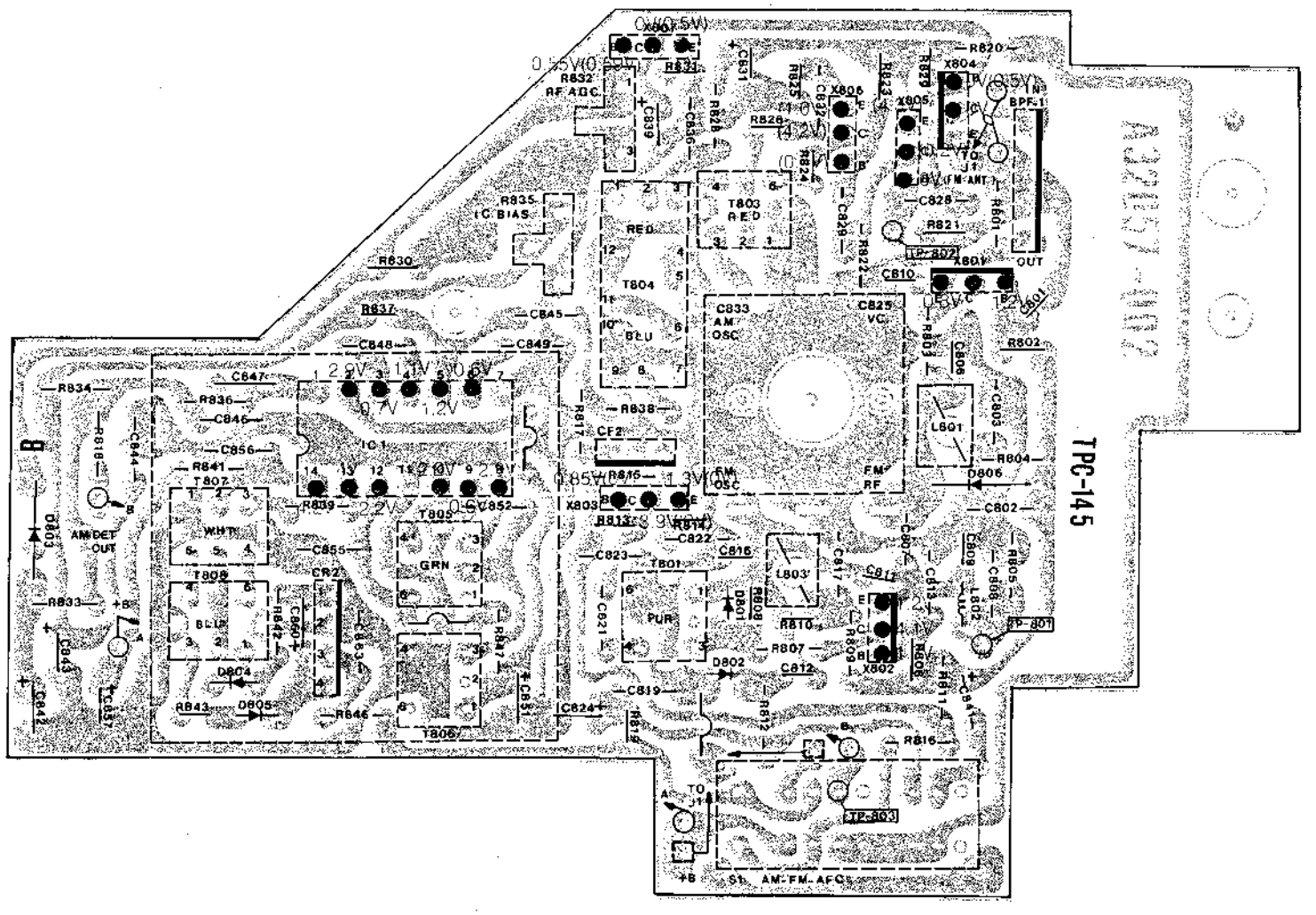




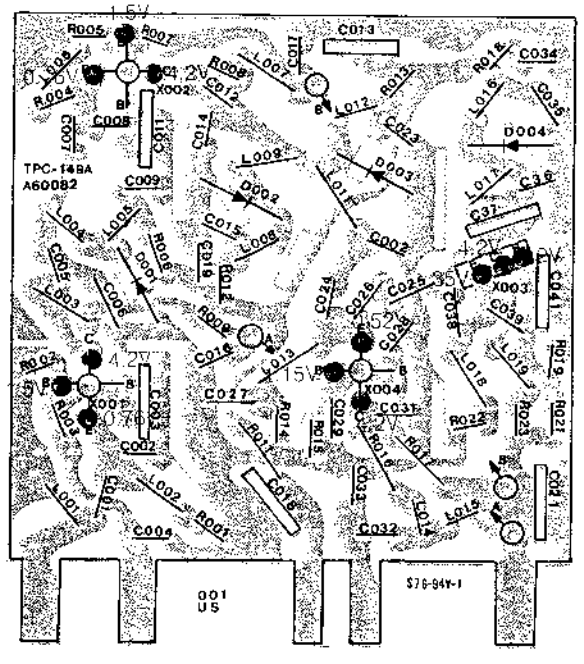
PRINTED CIRCUIT BOARD FOR TV



PRINTED CIRCUIT BOARD FOR TV DEF. CIRCUIT



PRINTED CIRCUIT BOARD FOR RADIO



PRINTED CIRCUIT BOARD FOR UHF TUNER

[NOTES]

Colored is the face pattern of printed circuit board.

Colored is the reverse pattern of printed circuit board.

— Protecting circuit for ion burn of CRT —

When the batteries become exhausted, the picture will gradually become smaller and then the lateral line of raster appears at the center of the CRT face.
The protecting circuit is employed to prevent the CRT against the ion burn by the lateral line.
Namely, this circuit automatically operates to Cut off the B power supply as soon as the lateral line of raster is appeared and, then the vertical oscillating circuit is stopped. If B power supply or vertical oscillating circuit, therefore, is in fault, you may be taken the oppositing mistaken judgement for it.
In such a case, it is recommnd that the TP-53 soldered portion illustrated in TV printed circuit board diagram is unsoldered to operate the each circuit separately, independent of the mutual relation.

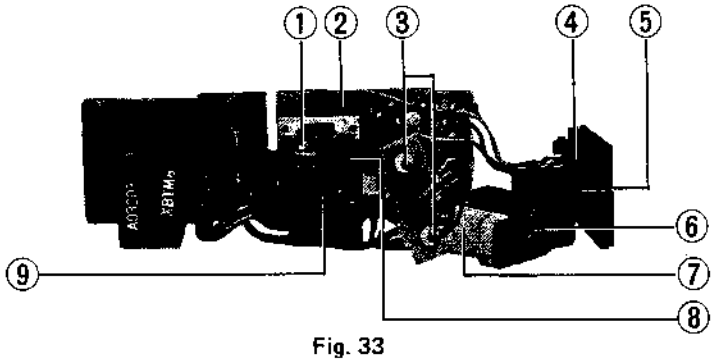
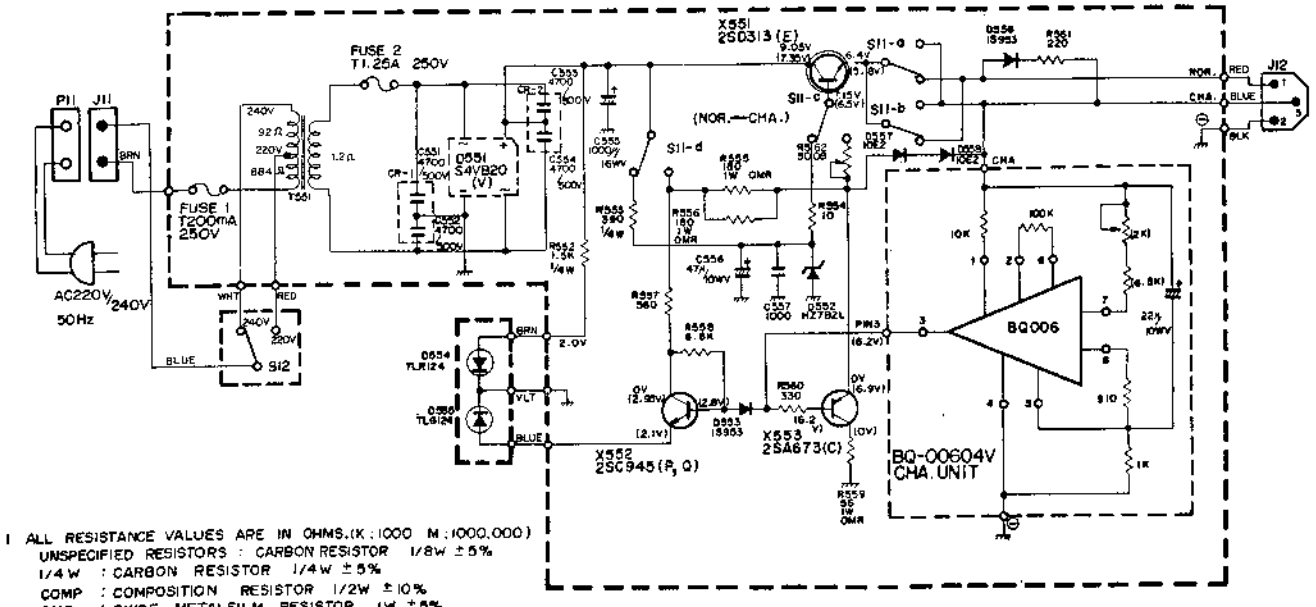


Fig. 33

No.	Parts Name	Parts No.	Q'ty
1-1	Washer	Bush-F	1
-2	Spacer	IS-313	1
-3	Ass'y Screw	LPSP3008ZS	1
-4	Washer	WNS3000Z	1
-5	Nut	NNZ3000ZS	1
2	Rubber Sheet	A45993-001 for switch S11	1
3	Washer	Bush-P for D554,555	2
4	DC Jack Ass'y	A04375-00A J12	1
5	Connector Base	A32050-003	1
6	AC Socket Ass'y	QMC0263-001 J11	1
7	Cap Ass'y	V44399-00C	1
8	Sheet	A60057-001	1
9	Heat Sink Ass'y	A32092-00A for X551	1



1 ALL RESISTANCE VALUES ARE IN OHMS.(K:1000 M:1000,000)
UNSPECIFIED RESISTORS : CARBON RESISTOR 1/8W ±5%
1/4W : CARBON RESISTOR 1/4W ±5%
COMP : COMPOSITION RESISTOR 1/2W ±10%
OMR : OXIDE METALFILM RESISTOR 1W ±5%
2 ALL CAPACITANCE VALUES LESS THAN 1 ARE IN μF AND ABOVE 1 ARE IN PF.
CERAMIC CAPACITOR ±80 %
RATING OF ELECT. CAPACITORS ARE INDICATED BY CAPACITANCE(μF) / VOLTAGE(WV).

NOTE ALL DC VOLTAGES SHOW READINGS OF CIRCUIT TESTER(20KΩ/V) ON NORMAL OPERATION (LOAD CURRENT AT 250mA) AND VOLTAGES IN( ) SHOW READINGS OF CIRCUIT TESTER ON CHARGING OPERATION (TERMINAL VOLTAGE OF BATTERIES AT 5.8V).

Schematic Diagram for Model AA-100SUK

Fig. 34

Accessories

AC adaptor (AA-24LEU) 1
Dynamic earphone. 1
Hood with case (TM-100) 1
Carrying bag with belt 1