JVC

SERVICE MANUAL

MODEL 3050EUO

B/W PORTABLE TELEVISION RECEIVER WITH FM/SW/MW RADIO

No. 3224
February 1976

Index

Specifications

DIMENSIONS : Height 30.2cm Depth 10.8cm Width 25.1cm

Weight : Net 3.3kg ("D" size dry-cells 6pcs included)
Gross 4.5kg ("D" size dry-cells 6pcs and power adaptor included)

TV Section

Receiving Channels :	Channels 2 thru 12 VHF, 21 thru 69 UHF, CCIR standard (Sound IF 6.5MHz)
Antenna VHF :	Built-in monopole antenna or external antenna
UHF :	Built-in monopole antenna or external antenna
Antenna Input Impedance :	Balanced 300Ω (Both VHF and UHF) Unbalanced 75Ω (Built-in monopole antenna)
Power Input Rating :	AC 220V, 50Hz DC 9V (6 "D" size dry-cells) or optional rechargeable battery. DC 12V Car battery (with an auto plug)
Power Consumptions :	AC 10W on operating TV at volume max. DC 4.5W on operating TV at volume max.
Fuse Device :	1.25A and 1A
Speaker :	12cm Round type, voice coil impedance 8Ω
Audio Power Output (Max.) :	1.4W (Audio power output at 10% distortion is 1W)
Picture Tube :	85JB4 (3-inch diagonal)
Transistors :	27pcs (Included power adaptor)
Diodes :	38pcs (Included power adaptor)
IC :	1pc
Cabinet :	Plastics

Radio Section

Frequency Range :	MW 510 – 1600kHz, FM 88 – 108MHz SW 6 – 18MHz
Antenna FM :	Built-in monopole antenna or external antenna
MW/SW :	Ferrite core antenna
Power Consumptions :	AC 4.5W on operating radio at volume max. DC 2W on operating radio at volume max.
Transistors :	5pcs
Diodes :	9pcs
ICs :	2pcs

Controls

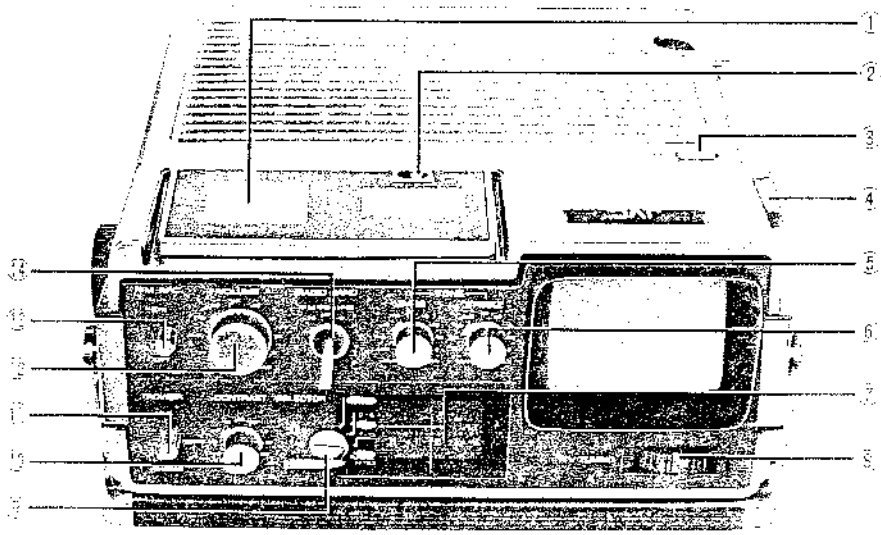


Fig. 1

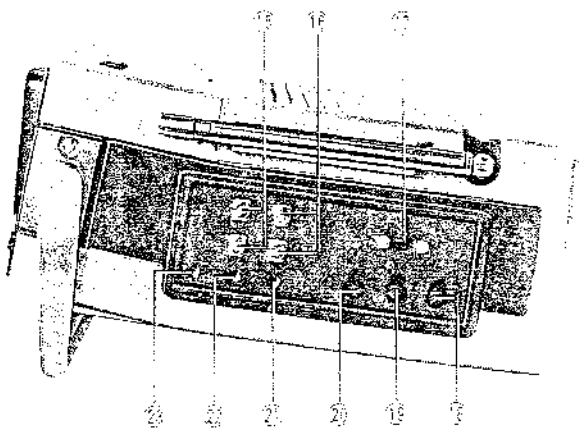


Fig. 2

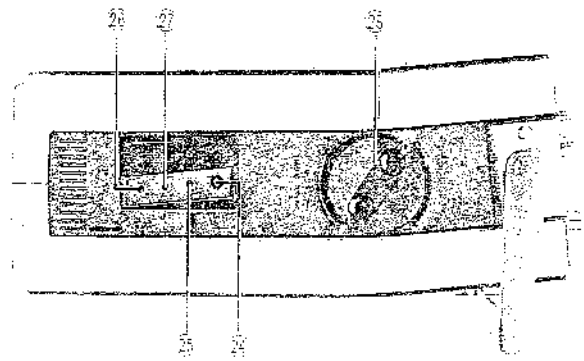


Fig. 3

1	Dial Scale (MW, SW and FM)	15	VHF/FM Antenna Terminal
2	Battery/Tuning Meter Switch	16	UHF Antenna Terminal
3	Lighting Button	17	Antenna Switch
4	Rod Antenna	18	Brightness
5	Bass	19	H.Hold
6	Treble	20	V.Hold
7	Dial Scale (VHF & UHF)	21	Height
8	TV Tuning	22	V.Lin.
9	Selector (TV/Radio)	23	AGC
10	Contrast	24	DC 9V Jack
11	Power Switch	25	Timer Jack
12	Volume	26	Earphone Jack
13	FM, AFC Switch	27	Recording Jack
14	Radio Band Selector	28	Radio Tuning

Servicing in the Field

Cleaning the Cabinet

Clean the external appearance of cabinet body when necessary, with a clean soft colth 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 rotating 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 ½ inch beyond the mask until the picture or test pattern is symmetrical from top to bottom.

The height control extends (or shrinks) mainly a lower part of raster, and the linearity control, upper part.

AGC Adjustment

Adjust the AGC control when picture is a very slight bend at it's top, or excessive snow.

AGC may be adjusted by turning the control fully counterclockwise when there is a very slight bend, and clockwise when snow.

In Servicing

- When taking short circuit of +B by mistake, the circuit components will be protected by cut-off operating of power transistor X601,602 or X603,604.
  In this case, turn set off for over several seconds to restore the circuit components except for fuse blowing.
- In replacement of variable capacitance diodes (MA370G2V D7,8,9 and 1S2208 D001,002,004) exchange surely together with D7,8,9 and D001,002,004.
  Because if the characteristics of each diode differ, it will be unable to be done correct tracking adjustments.

Disassembly Instructions

Handle Removal

1. Unfasten 4 screws fastening handle indicated in Fig. 4. (both side of handle)
2. Remove the handle.

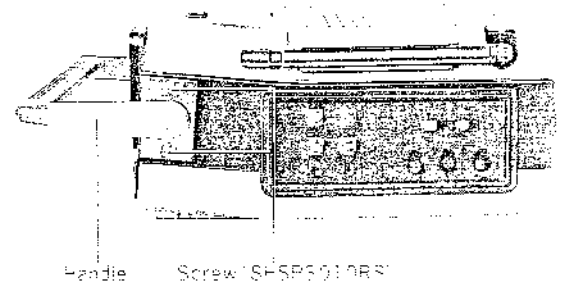


Fig. 4

Rear Cover Removal

1. Unfasten 6 screws fastening rear cover indicated in Fig. 5.
2. Remove the earphone pocket, cover, by pushing them and disconnect a connector connected to printed circuit board.
3. Remove the rear cover.

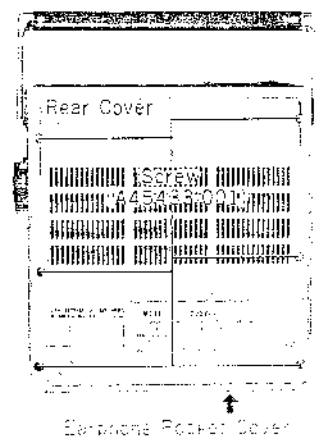


Fig. 5

Printed Circuit Board of TV Removal

1. Remove rear cover. Refer to "rear cover removal".
2. Pull out contrast and selector knobs.
3. Unfasten a blue color screw fastening printed circuit board indicated in Fig. 6, and disconnect the wire connected to UHF antenna terminals and the wire between printed circuit board of TV and rear cover (Fig. 6).
4. Pull out printed circuit board of TV (Fig. 7).

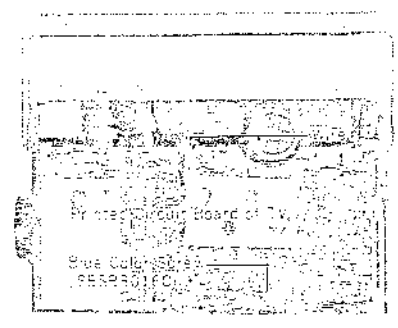


Fig. 6

Tuning/Battery Meter and Indicator Plate Removal

1. Remove the front grille. Refer to "front grille removal".
2. Remove the top panel. Refer to "top panel removal".
3. Unfasten 2 screws fastening indicator plate indicated in Fig. 16 and disconnect the wires connected to tuning/battery meter.
4. Remove the indicator plate and tuning/battery meter.

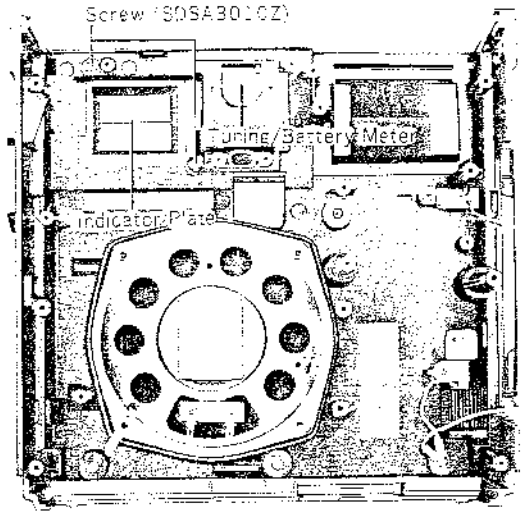


Fig. 16

Adaptor Case Removal (power adaptor)

1. Unfasten 2 screws fastening adaptor case indicated in Fig. 17. (both sides of adaptor case)
2. Remove the adaptor case

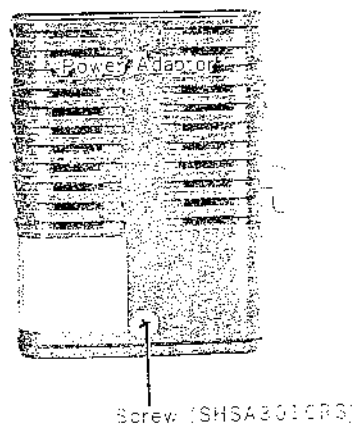


Fig. 17

Alignment Instructions for TV.

Pix IF Alignment

Test Equipments

Sweep Generator with Marker
Sweep frequency range 40~50MHz, marker generator frequency 40.4, 38.9, 36.8, 34.7, 33.4MHz.
Power Source
DC +0.7V (for AGC voltage)
Oscilloscope

Preparation Before Alignment

1. Set the "Selector" knob to "2-4 VHF".
2. Connect the capacitor and resistor (1000pF & 560Ω) in series between TP-6 and output of the sweep generator.
3. Connect the resistor (10kΩ) between TP-12 and input of the oscilloscope.
4. Supply +0.7V of AGC voltage to TP-14.

Alignment Procedure

1. Adjust the wave center to 36.8MHz and also to maximum gain with L101.
2. Adjust the T102 to obtain a response curve in Fig. 18

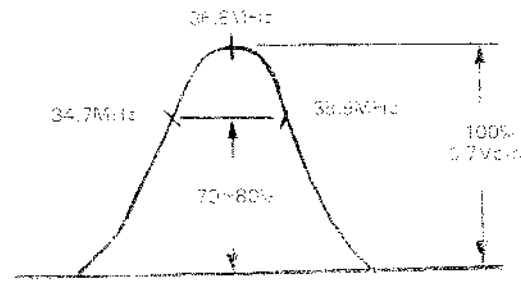


Fig. 18

Over-all Alignment

Preparation Before Alignment

1. Set the selector knob to "2-4 VHF".
2. Connect the capacitor and resistor (1000pF, 560Ω series between TP-6 and output of the sweep generator.
3. Connect the resistor (10kΩ) between TP-12 and input of the oscilloscope.
4. Supply +0.7V of AGC voltage to TP-14.

Alignment Procedure

1. Adjust the T2 and T101 to obtain a response curve in Fig. 19

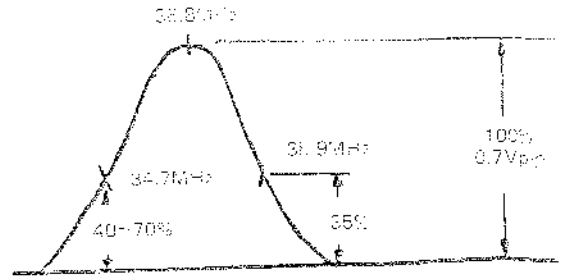


Fig. 19

VHF Tuner Alignment

Test Equipments

Sweep Generator with Marker
  Sweep frequency range 40~250MHz.
Power Source
  DC +0.7V (for AGC voltage)
V.T.V.M.
Oscilloscope

Preparation Before Alignment

1. The VHF tuner alignment must be done after Pix. IF was aligned.
2. Connect RF output of the sweep generator to TP-4.
3. Connect the resistor (10kΩ) between TP-12 and input of the oscilloscope.
4. Connect the V.T.V.M. to pin 2 of "TV tuning volume" (R32).
5. Supply +0.7V of AGC voltage to TP-14.

Alignment Procedure

1. Set the "Selector" knob to "2-4 VHF".
2. Adjust for minimum gain (38.9MHz) with L1.
3. Adjust "TV tuning volume" (R32) so that the V.T.V.M. may indicate +5.15V.
4. Set the sweep generator to 3CH (57MHz).
5. Adjust the wave center to 57MHz with L9 (Fig. 20).
6. Adjust for maximum gain with L3 and L8.

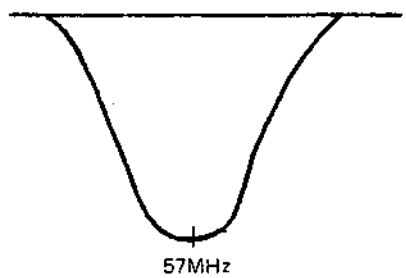


Fig. 20

7. Set the "Selector" knob to "5-12 VHF".
8. Adjust "TV tuning volume" (R32) so that the V.T.V.M. may indicate +7.6V.
9. Adjust the wave center to 205MHz with L11 (Fig. 21).
10. Adjust for maximum gain with L3 and L5.

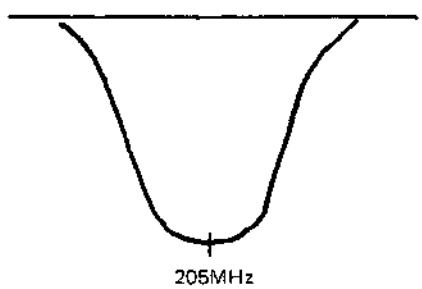


Fig. 21

UHF Tuner Alignment

Test Equipments

Sweep Generator with Marker
  Sweep frequency range 450~900MHz.
Oscilloscope

Preparation Before Alignment

1. The UHF tuner alignment must be done after Pix. IF and VHF tuner were aligned.
2. Set the "Selector" knob to "UHF".
3. Connect RF output of the sweep generator to TP-3.
4. Connect the resistor (10kΩ) between TP-12 and input of the oscilloscope.
5. Supply +0.7V of AGC voltage to TP-14.

Alignment Procedure

1. Set the sweep generator to 21CH (470MHz).
2. Adjust the wave center to 471.25MHz with "TV tuning volume" (R32) (Fig. 22).
3. Adjust for maximum gain with L001 and L007.
4. Set the sweep generator to 69CH (855.25MHz).
5. Adjust the wave center to 855.25MHz with tuning volume (R32) (Fig. 23).
6. Adjust for maximum gain with C003.

* Repeat the steps 1~6.

Fig. 22

Fig. 23

Sound IF Alignment

Test Equipments

Sweep Generator with Marker
  Sweep frequency range 6.5MHz ±500kHz and marker generator frequency 6.5MHz.
Oscilloscope

Preparation Before Alignment

1. Connect the capacitor and resistor (1000pF & 560Ω) in series between TP-12 and output of the sweep generator.
2. Connect input of the oscilloscope to TP-21.
3. Set the "TV tuning volume" (R32) to any non-signal position.

Alignment Procedure

1. Make strongly output of the sweep generator.
2. Adjust the wave center to 6.5MHz with T202.
3. Make weakly output of the sweep generator.
4. Adjust the wave center to 6.5MHz and also for maximum gain with T201, T203 (Fig. 24).

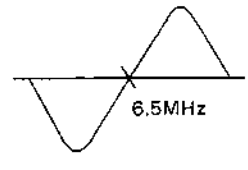


Fig. 24

Alignment Instructions for Radio

MW & SW IF Alignments

Preparation Before Alignment

1. Set the "Selector" knob to "radio" and the "radio band" knob to "MW".
2. Set the volume control to minimum and the variable capacitor near the minimum capacity where no signal comes in.
3. Connect output of the sweep generator (with marker 455kHz) to TP-801.
4. Connect input of the oscilloscope to TP-802.

Alignment Procedure

1. Adjust the wave center to 455kHz and also for symmetrize "A" and "B" with T805,806,808.(Fig. 25)
2. Adjust for maximum gain (455kHz) with T805,806,808.
3. Make weakly output of the sweep generator.
4. Adjust for maximum gain with T832.

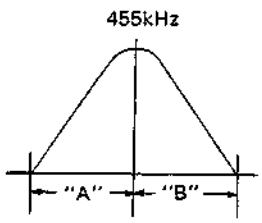


Fig. 25

MW & SW RF Alignment

Preparation Before Alignment

1. Set the "Selector" knob to "radio" and the "radio band" knob to "MW" or "SW" (See chart 1).
2. Connect output of the standard signal generator (AM modulation 400Hz, 30%) to loop antenna.
3. Connect the V.T.V.M. to terminal of speaker.

Alignment Procedure

Step	Band	Frequency of marker	Set the variable capacitor to	Adjust	V.T.V.M. Reading
1	MW	500kHz	Maximum	T804	Maximum
2		1650kHz	Minimum	C835	
3		Repeat the steps 1~2.			
4		620kHz	620kHz, Tune in	T802 (MW)	Maximum
5		1400kHz	1400kHz, Tune in	C829	
6		Repeat the steps 4~5.			
7	SW	5.8MHz	Maximum	T803	Maximum
8		18.6MHz	Minimum	C838	
9		Repeat the steps 7~8.			
10		6MHz	6MHz, Tune in	T802 (SW)	Maximum
11		18MHz	18MHz, Tune in	C828	
12		Repeat the steps 10~11.			

Chart 1

Note: Keep the standard signal generator output level always on about 50mW (0.63V/8Ω) when alignment.

FM IF Alignment

Preparation Before Alignment

1. Set the "Selector" knob to "radio" and the "radio band" knob to "FM".
2. Set the variable capacitor to minimum capacity.
3. Connect the capacitor and resistor (33pF & 33kΩ) in series between TP-1 and output of the sweep generator (10.7MHz).
4. Connect input of the oscilloscope to TP-802.

Alignment Procedure

1. Adjust the T801,807,809,810, of FM IFT so that the response of the "S" curve may become maximum and symmetric. (Fig. 26)

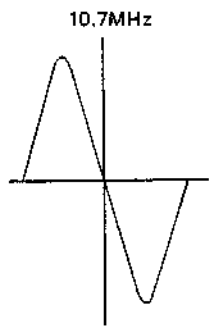


Fig. 26

FM RF Alignment

Preparation Before Alignment

1. Set the "Selector" knob to "radio" and the "radio band" knob to "FM".
2. Unscrew a screw fastening wire of rod antenna. Connect output of the standard signal generator (FM modulation 400Hz, 30%) to TP-4.
3. Connect the V.T.V.M. to terminal of speaker.

Alignment Procedure

Step	Frequency of S.S.G.	Adjust	Set the variable capacitor to	V.T.V.M. Reading
1	87.5MHz	L805	Maximum	Maximum
2	109MHz	C821	Minimum	Maximum
	Repeat the steps 1~2.			
3	90MHz	L804	90MHz, Tune in	Maximum
4	106MHz	C812	106MHz, Tune in	Maximum
	Repeat the steps 3~4.			

Chart 2

Note: Keep the standard signal generator output level always on about 50mW (0.63V/8Ω) when alignment.

Parts Arrangement for Alignment

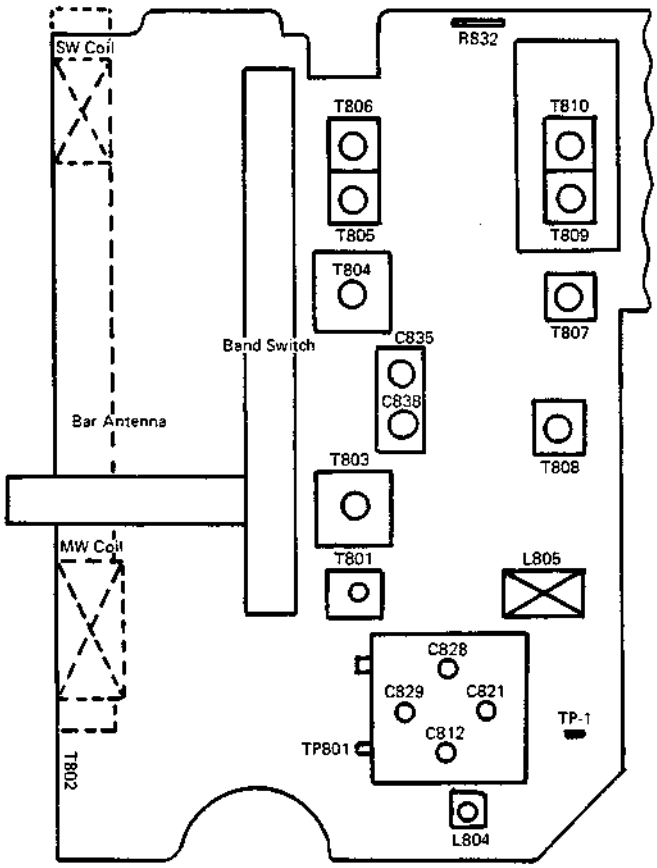


Fig. 27

Power Adaptor (Model AA-23JEU) Alignment

Preparation Before Alignment

1. Remove adaptor case. Refer to "adaptor case removal" (Fig. 17).
2. Plug cord of power adaptor to "DC 9V" terminal of set and connect AC power cord to "AC 220V" terminal of power adaptor.
3. While receiving broadcast of TV, set the "volume" knob to minimum.
4. Connect the DC voltmeter (10 volts) between collector of X501 and earth.

Alignment

1. Adjust R508 so that the DC voltmeter may indicate +9.1 volts.

B. Voltage Alignment

Preparation Before Alignment

1. The B. voltage alignment must be done after power adaptor (model AA-23JEU) was aligned.
2. Plug cord of power adaptor to "DC 9V" terminal of set and connect AC power cord to "AC 220V" terminal of power adaptor.
3. While receiving broadcast of TV, set the "volume" knob to minimum.
4. Connect the DC voltmeter (10 volts) between TP-91 and earth.

Alignment

1. Adjust R518 so that the DC voltmeter may indicate +6.0 volts.

Dial Tracking Alignment

1. Set the selector knob to "VHF 2-4" position.
2. By turning TV tuning knob, fit figure "4" to be printed on indicator film to indicator line of channels (Fig. 28) and receive 4CH broadcasting by adjusting sub-volume R31.
3. In the same way, adjust "VHF 5-12" and "UHF" bands according to following chart 3.

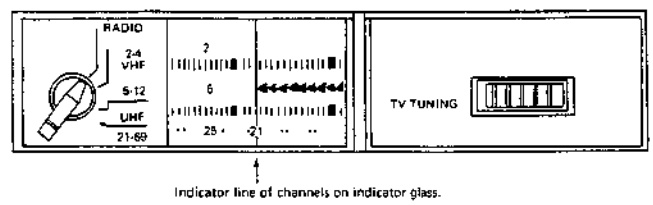


Fig. 28

Selector Knob Setting	Channel Number	Sub Volume
VHF 2-4	4	R31
VHF 5-12	12	R29
	5	R27
UHF	69	R28
	21	R26

Chart 3

How to Fit Dial Cord for TV

1. Unfasten 2 screws fastening TV tuning base ass'y indicated in Fig. 8 and remove it.
2. Set tuning resistor fully counter-clockwise previously and fit dial cord according to the arrow marks indicated in Fig. 29. (length of dial cord is 63cm)

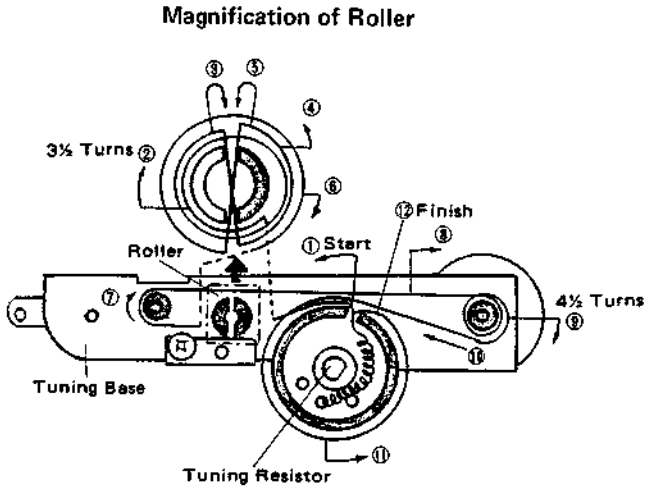


Fig. 29

How to Set dial Indicator Film for TV

1. Unfasten 2 screws fastening TV tuning base ass'y indicated in Fig. 8 and remove it.
2. Turn drum "A" indicated in Fig. 30 10 times clockwise previously and stick left end of dial indicator film to drum "A".
   Then the film will be wound up to drum "A".
3. Stick other end of the film to drum "B".
4. Unfasten a setting screw fastening drum shaft of drum "B" and pull up drum shaft a little from drum "B" (Fig. 30).
5. By tuning drum "B", set the figure of dial indicator to be receiving the broadcasting to checking lines marked on left side of tuning base ass'y and fasten a setting screw unfasten previously.

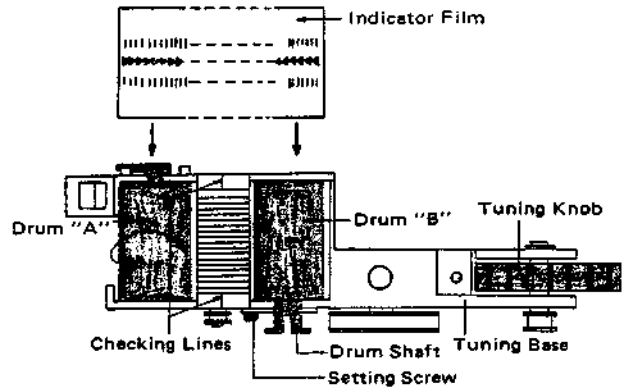


Fig. 30

How to Fit Dial Cord for Radio

1. Remove printed circuit board of radio. Refer to "printed circuit board of radio removal".
2. Set the variable capacitor to minimum capacity previously and fit dial cord according to the arrow marks indicated in Fig. 31. (length of dial cord is 900m/m)

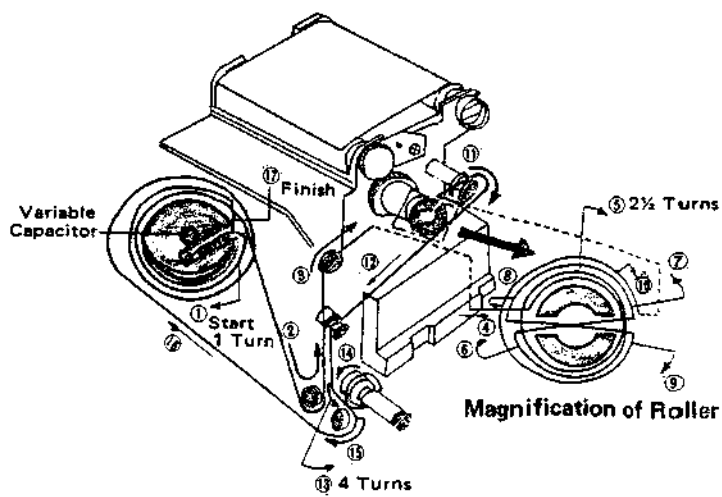


Fig. 31

How to Set Indicator Film for Radio

1. Remove printed circuit board of radio. Refer to "printed circuit board of radio removal".
2. Set the variable capacitor to minimum capacity.
3. Remove the drum "A" to rightward (Fig. 32).
4. Stick right end of dial indicator film to drum "A", wind up the film to drum "A" and insert the spring into drum "A" (Fig. 33).
5. Stick other end of the film to drum "B".

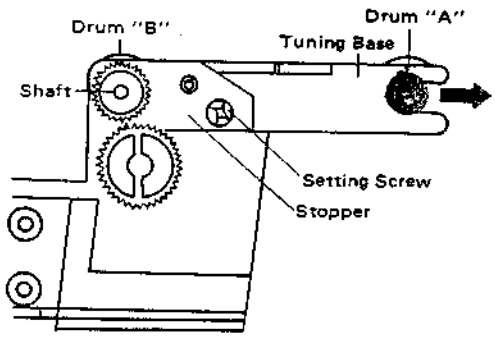


Fig. 32

6. Set the drum "A" to tuning base (Fig. 33).

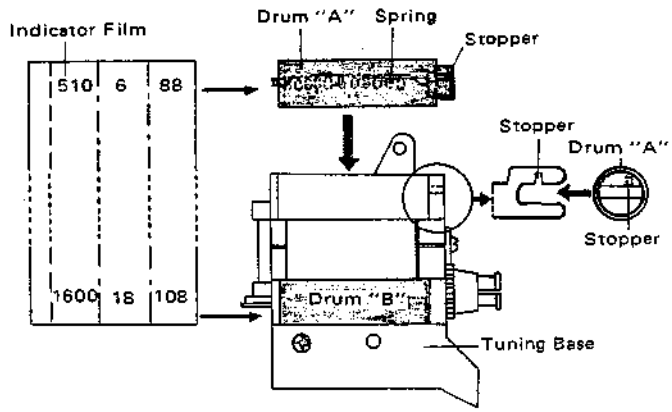


Fig. 33

7. Unfasten a setting screw, remove stopper (Fig. 32) and pulling shaft a little from drum "B" (Fig. 34).
8. By tuning the shaft, set the figure of dial indicator to checking lines marked on center of tuning base (Fig. 34) and fasten a setting screw, stopper unfasten previously (Fig. 32).

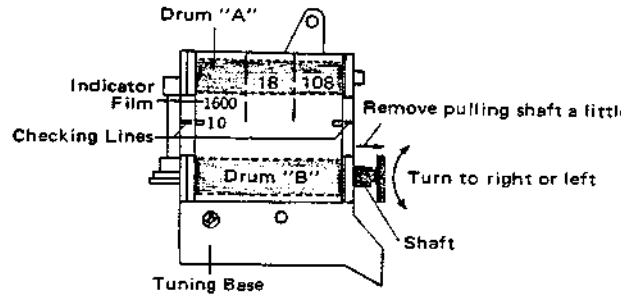


Fig. 34

Mechanical Parts Diagram

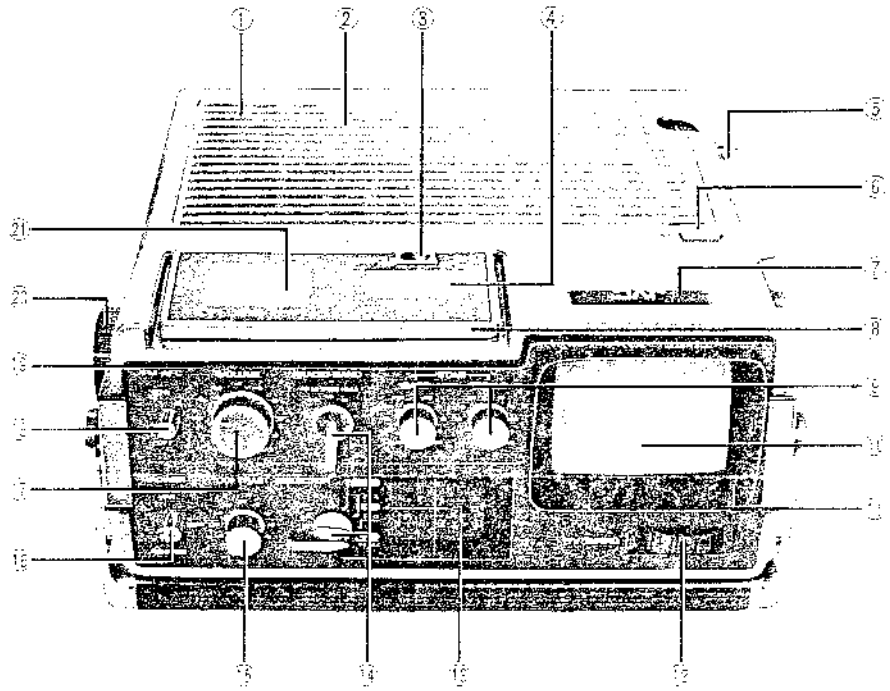


Fig. 35

No.	Parts Name	Parts No.	Q'ty
1	Front Grille	A10311-002	1
2	Salon Net	A46434-001	1
3	Slide Switch (S4)	QS51201-011	1
4	Meter (Batt. Tuning)	A46366-004	1
	Stick Sheet	A41545-078	1
5	Rod Antenna	QZR2110-001	1
6	Lamp Knob	A46366-001	1
7	Mark	QXM2241-001	1
8	Ornament Panel	A20822-001	1
9	Control Knob	A46361-001	2
10	Protector Glass	A31854-001	1
11	Shadow Mask	A31862-001	1
12	Tuning Knob (TV)	A46346-001	1
13	Indicator Plate (TV)	A46372-003	1
14	Selector Knob	A46362-001	2
15	Control Knob	A46361-001	1
16	Knob (Power)	V43970-002	1
17	Volume Knob	A46360-001	1
18	Knob (AFC)	V43970-001	1
19	Top Panel	A10313-006	1
20	Tuning Knob (Radio)	A31859-001	1
21	Indicator Plate (Radio)	A31873-003	1

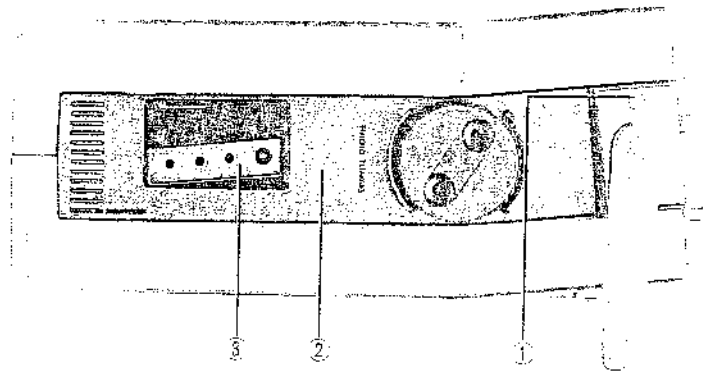


Fig. 36

No.	Parts Name	Parts No.	Q'ty
1	Screw (both sides)	S4SP3010FS	4
2	Chassis Base	A10310-00B	1
3	Jack Board Assy (J1 - 4)	A45403-00A	1

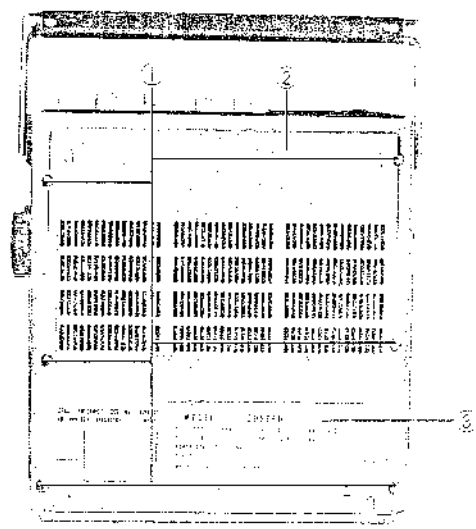


Fig. 37

No.	Parts Name	Parts No.	Q'ty
1	Tao Screw	A45433-001	6
2	Rear Cover	A10312-002	1
3	Rating Label	A31689-049	1

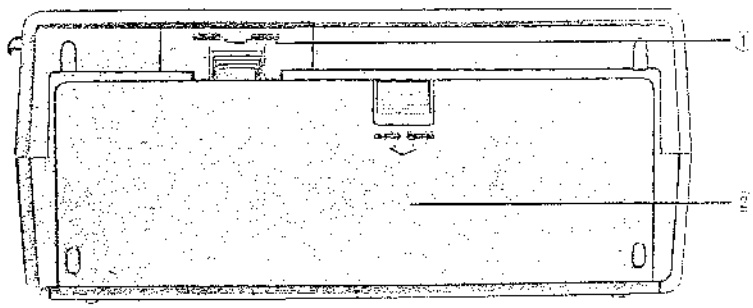


Fig. 38

No.	Parts Name	Parts No.	Q'ty
1	Earphone Cover	A31855-001	1
2	Battery Cover	A20819-002	1

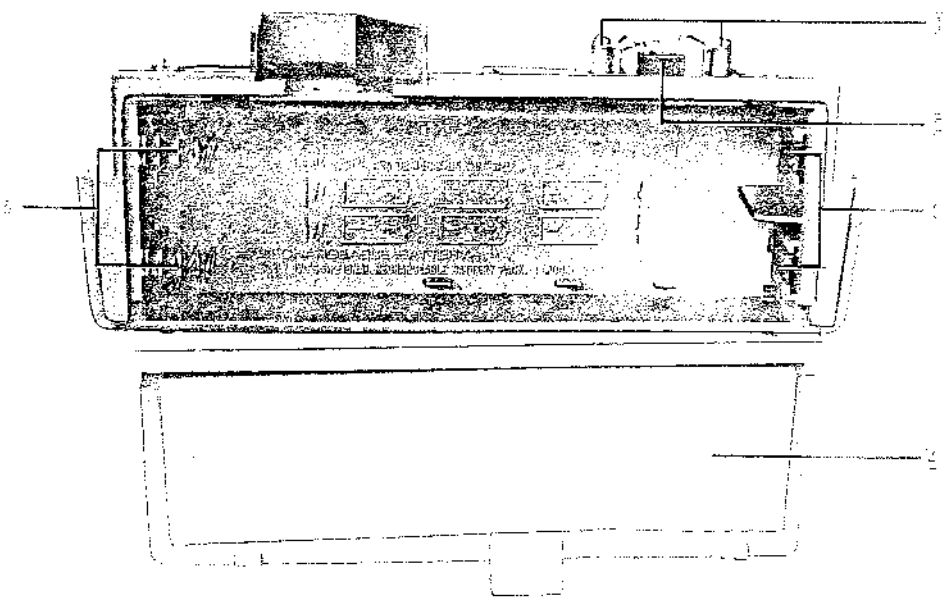


Fig. 39

No.	Parts Name	Parts No.	Q'ty
1	Tap Screw	SBSB3012Z	2
2	Socket Ass'y (J13)	QMC0233-101	1
3	Battery Plate	A45375-001	2
4	Cushion	A41455-042	1
5	Contact Spring	A45377-001	2

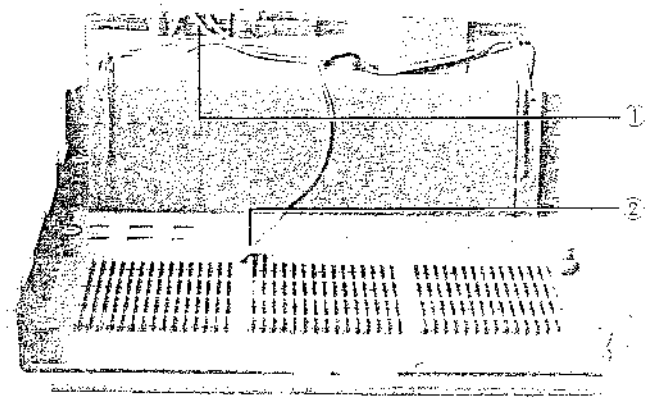


Fig. 40

No.	Parts Name	Parts No.	Q'ty
1	Jack Holder	A45428-001	1
2	Socket Ass'y (J8)	QMC0357-001	1

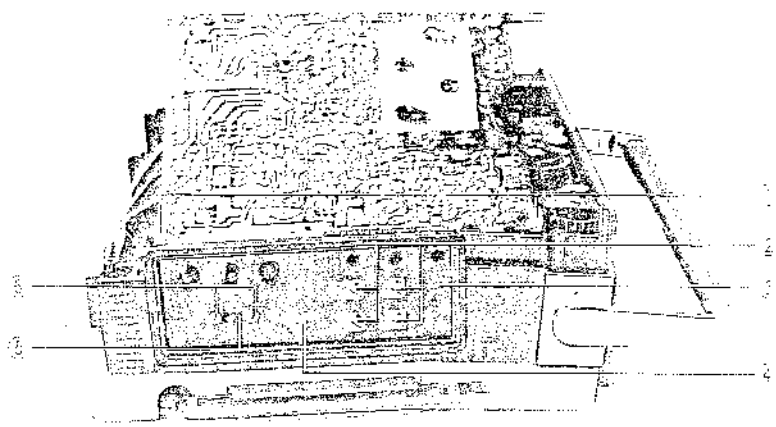


Fig. 41

No.	Parts Name	Parts No.	Q'ty
1	Hinge Insulator	A45368-001	2
2	Terminal	Q30150-3S	4
	Screw	A45435-001	4
3	Terminal Cap	A45487-001	1
4	Terminal Board	A20821-002	1
5	Slide Switch (Ant. S6)	QSS2201-031	1
6	Screw	SDSP2606N	2

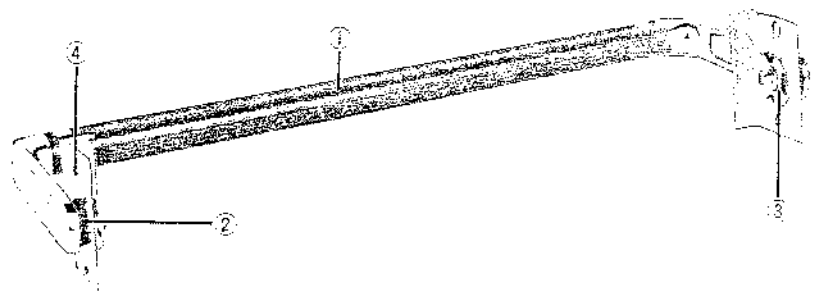


Fig. 42

No.	Parts Name	Parts No.	Q'ty
1	Handle Ass'y	A31860-00A	1
2	Handle Insulator	A45367-001	2
3	Handle Spring	A45371-001	2
	Washer	WNS4000Z	2
	Ass'y Screw	LPSP4008ZS	2
4	Handle Plate	A45370-001	2

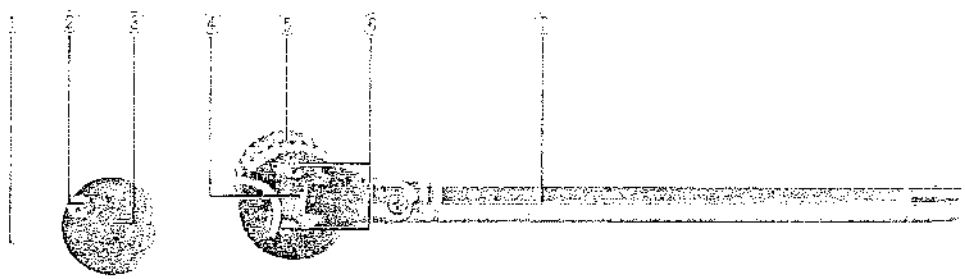


Fig. 43

No.	Parts Name	Parts No.	Q'ty
1	Lug	50388	1
2	Tap Screw	SDSA2612Z	1
3	Rotor Cap	A45508-001	1
4	Spring	A45507-001	1
5	Rotor Ass'y	A31892-00A	1
6	Tap Screw	SDSA3012Z	2
7	Rod Antenna	QZR2110-001	1

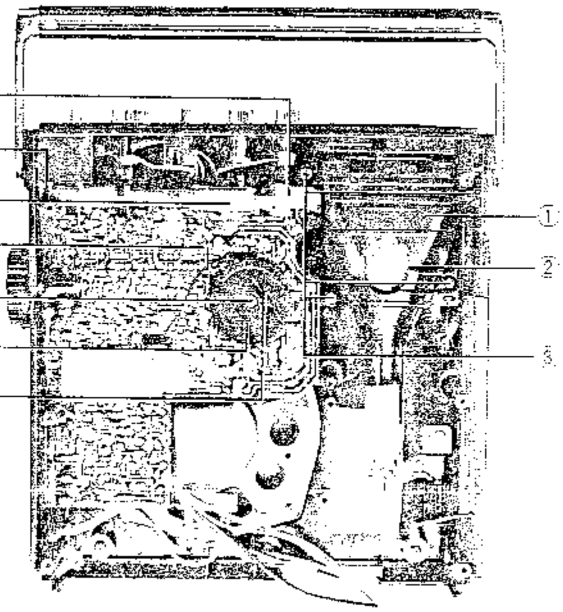


Fig. 44

No.	Parts Name	Parts No.	Q'ty
1	CRT Holder	A20820-001	1
2	Earth Plate	A45442-001	1
3	Tap Screw	SBSB3016Z	4
4	Spring	63498-3	1
5	Dial Drum	A45003-001	1
6	Screw	SSBP2608N	1
7	Dial Cord 900mm	A45316-001	1
8	Bar Antenna Ass'y (1800)	A31887-004	1
9	Bar Antenna Clamp	A45409-001	1
10	Bar Antenna Holder	A45410-001	1

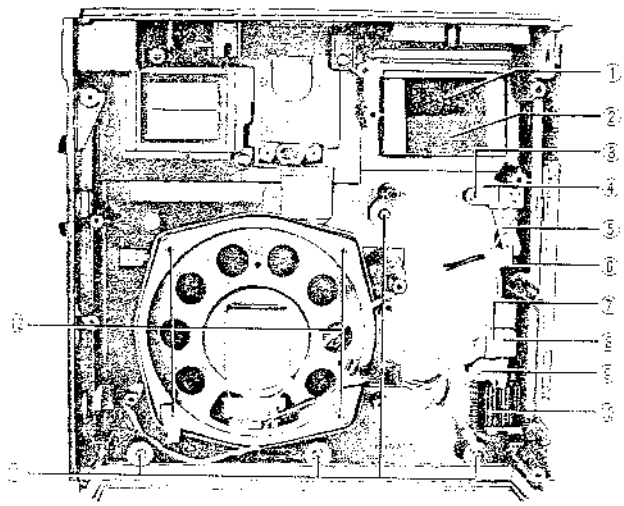


Fig. 45

No.	Parts Name	Parts No.	Q'ty
1	Stick Sheet	A41545-074	1
2	Stick Sheet	A41545-075	1
3	Tap Screw	SDSA3010Z	1
4	Lamp Bracket (S8)	A45369-001	1
5	Lamp Lever (S8)	A45374-001	1
6	Tap Screw	SDSA3010Z	1
7	Rotor Holder	A45445-001	1
8	Tap Screw	SDSA3012Z	1
9	Tap Screw	SDSA3012Z	1
10	Rotor Spring	A45444-001	1
11	Tap Screw	SBSB3014Z	4
12	Washer	WNS4000Z	1
	Flange Nut	NFZ3000ZS	4
	Wire Clamp	55234-5	1

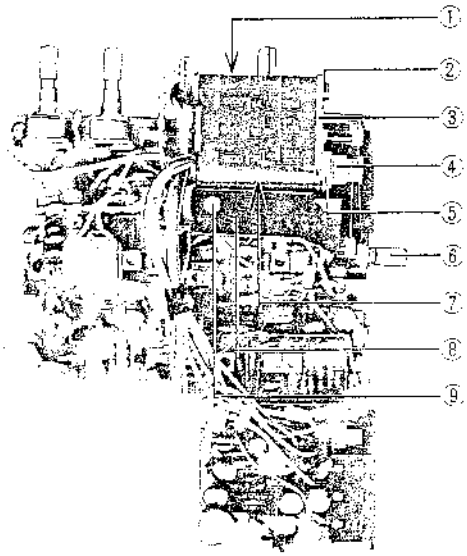


Fig. 46

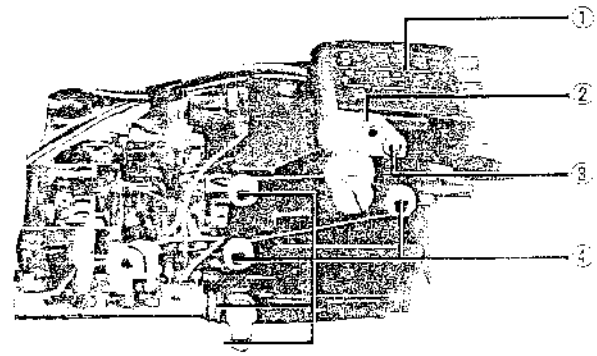


Fig. 47

(Refer to Fig. 46)

No.	Parts Name	Parts No.	Q'ty
1	Drum (A)	V44057-002	1
	Spring (Inside of drum (A))	A45470-001	1
2	Pin	V44059-001	1
3	Lens	A45358-001	1
4	Gear Ass'y	A45356-00A	1
	"E" Washer	REE2000	1
5	Gear	A45355-001	1
6	Tuning Shaft	A45357-001	1
	"E" Washer	REE4000	1
7	Drum (B)	V44060-002	1
8	Tuning Base	A20824-001	1
9	Tap Screw	SBSB3008Z	1

(Refer to Fig. 47)

No.	Parts Name	Parts No.	Q'ty
1	Indicator Film	A31858-003	1
2	Stopper	V44092-001	1
3	Tap Screw	SBSB2606Z	1
4	Roller	V40409-3	5
	"S." Washer	V42562-1	5

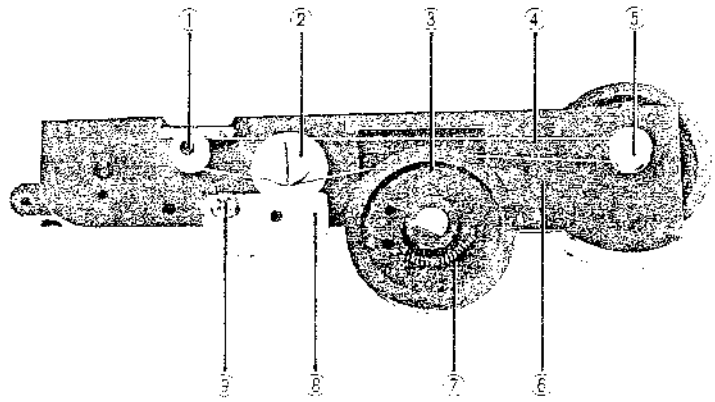


Fig. 48

No.	Parts Name	Parts No.	Q'ty
1	Roller	V40409-3	1
	"S" Washer	V42562-1	1
2	Drum Shaft	A45348-001	1
3	Dial Drum	A31856-001	1
4	Dial Cord (63cm	A45316-001	1
5	Tuning Shaft	A45347-001	1
6	Tuning Base	A20823-001	1
7	Spring	53498-3	1
8	Shaft Holder	A45350-001	1
9	Tap Screw	SDSA3010Z	1

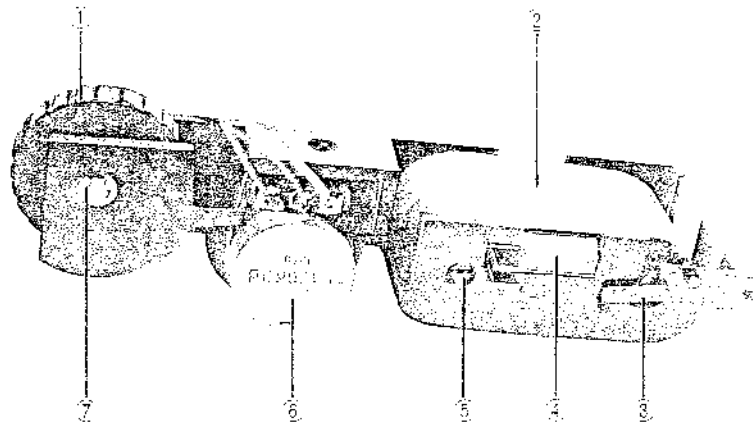


Fig. 49

No.	Parts Name	Parts No.	Q'ty
1	Tuning Knob	A45346-001	1
2	Indicator Film	A31857-301	1
3	Film Drum	A45351-001	1
	Spring Holder (Inside of film drum)	A45352-001	1
	Spring (Inside of film drum)	A45353-001	1
4	Lens	A45354-001	1
5	Film Drum	A45349-001	1
6	Variable Resistor (R32)	OVA9A6B-015	1
7	"E" Washer	REE3000	1

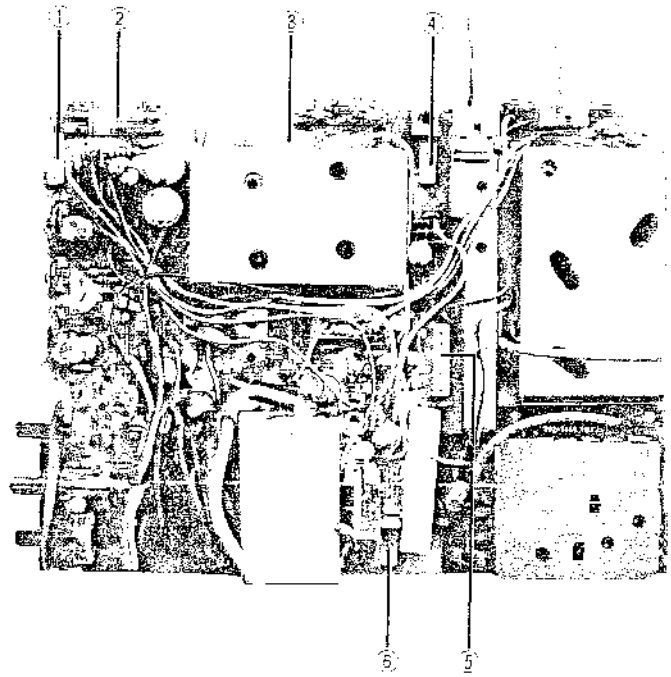


Fig. 50

No.	Parts Name	Parts No.	Q'ty
1	Plug Ass'y P7	QMC0427-001	1
2	Fuse (250V, 1A)	QMF51A2-1R0	1
3	Plug Ass'y P9	QMC0327-001	1
4	Plug Ass'y P5	QMC0327-001	1
5	Plug Ass'y P6	QMC0627-001	1
6	Plug Ass'y P8	QMC0327-001	1

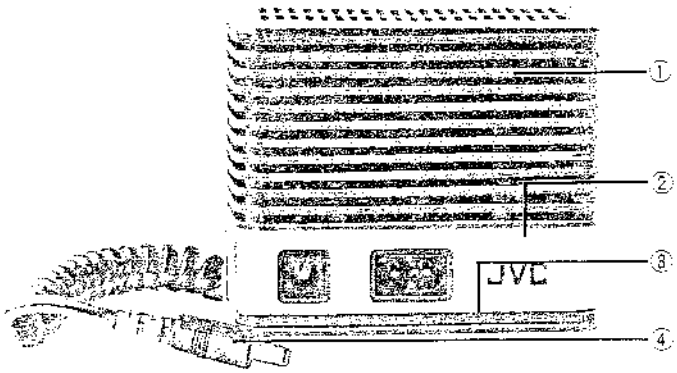


Fig. 51

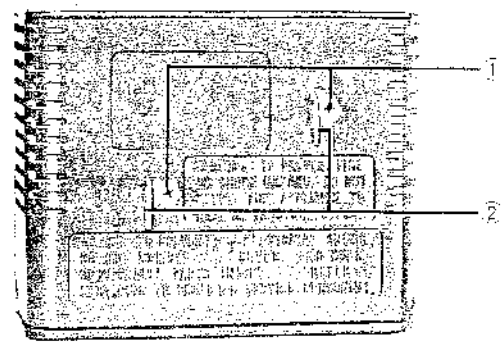


Fig. 52

(Refer to Fig. 51)

No.	Parts Name	Parts No.	Q'ty
1	Adaptor Case	A20818-001	1
2	Plate	A31853-003	1
3	Adaptor Base	A20817-001	1
4	Plug & Lead Ass'y (P1)	QMA0911-102	1

(Refer to Fig. 52)

No.	Parts Name	Parts No.	Q'ty
1	Screw	SSSP3005RS	2
2	Holder	A45337-001	2

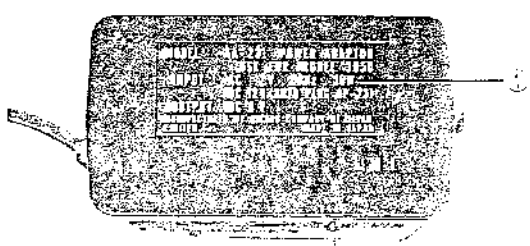


Fig. 53

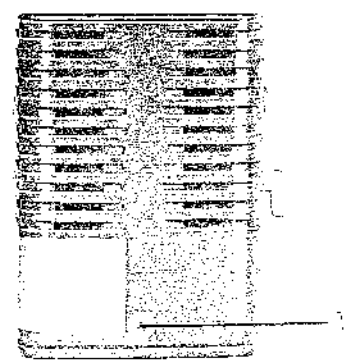


Fig. 54

(Refer to Fig. 53)

No.	Parts Name	Parts No.	Q'ty
1	Label (Rating)	A31694-037	1

(Refer to Fig. 54)

No.	Parts Name	Parts No.	Q'ty
1	Screw	SHSA3010RS	2
	Tapping Plate	A43503-2S	2

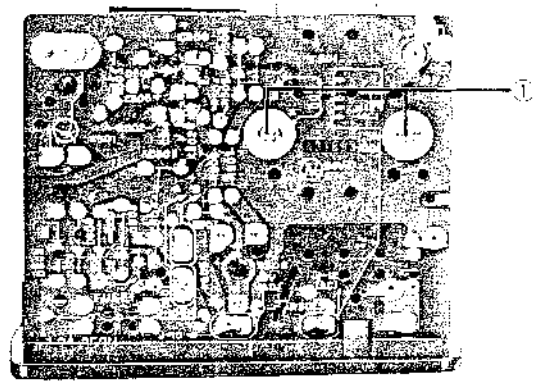


Fig. 55

No.	Parts Name	Parts No.	Q'ty
1	Ass'y Screw	SPSP3006ZS	2
	Washer	Q03091-105	2

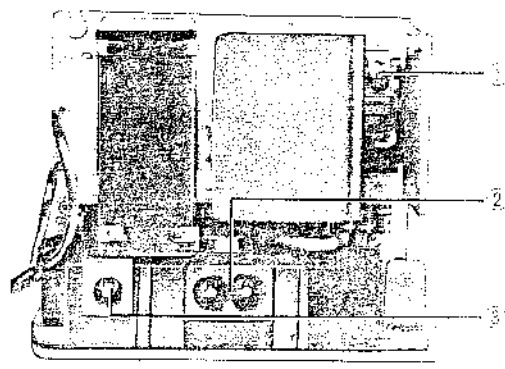


Fig. 56

No.	Parts Name	Parts No.	Q'ty
1	Tap Screw	SBSB3006Z	1
2	AC Socket Ass'y (J12,S9)	QMC0263-001	1
3	Ext. Battery Jack Ass'y (J10)	QMA1221-001	1

Block Diagram

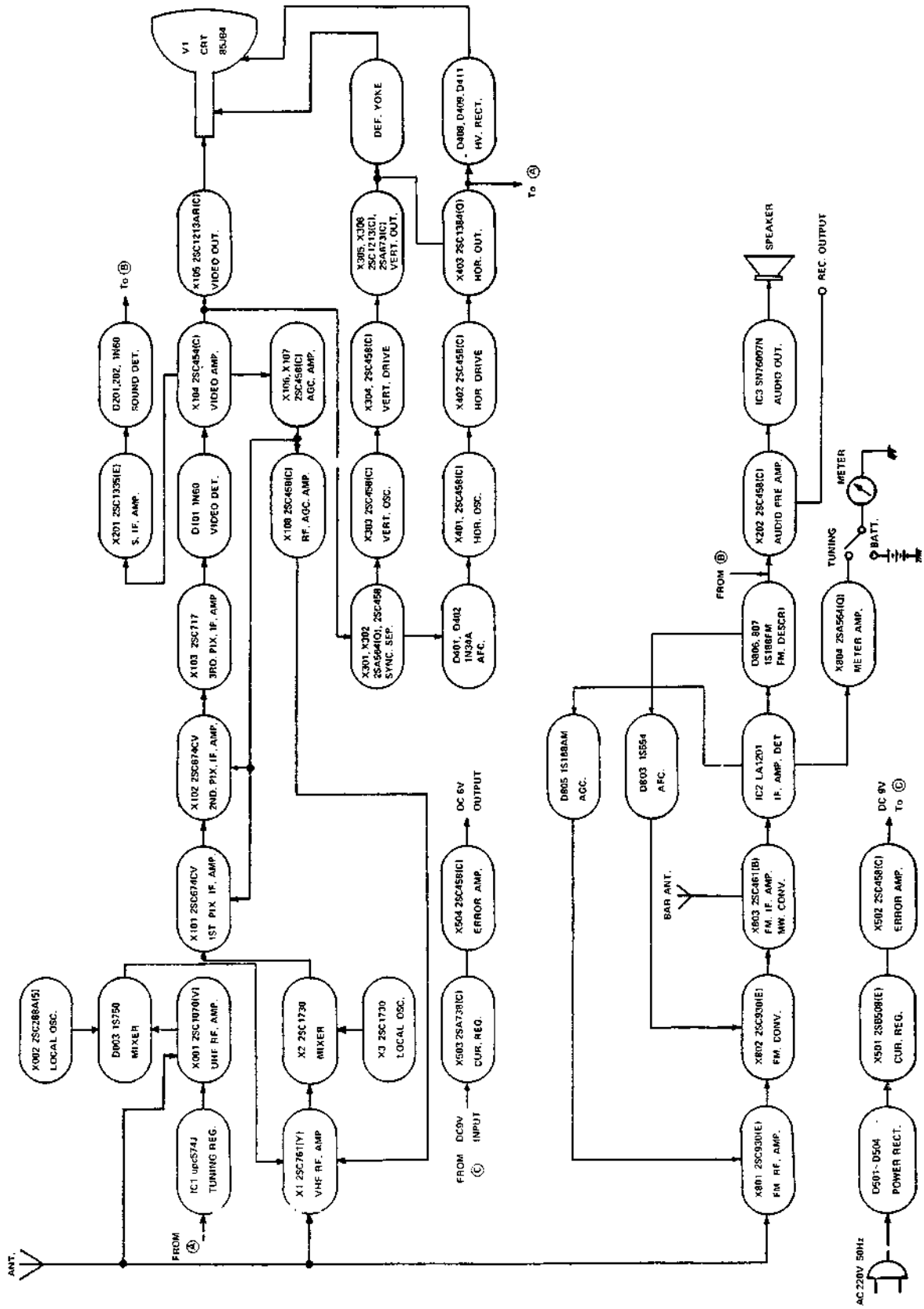


Fig. 57

Packing

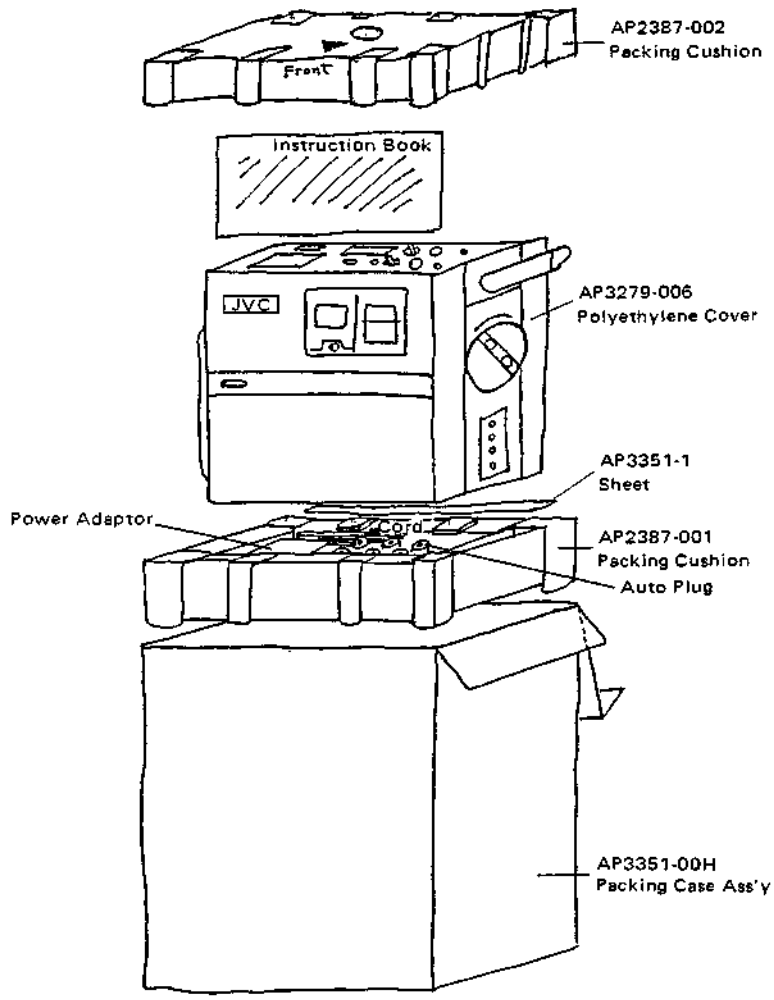


Fig. 58

Accessories

	Q'ty
Power Adaptor (Model AA-23JEU)	1
AC Power Cord	1
Auto Plug (Model AP-23)	1
Earphone Ass'y	1
Instruction Book	1
Schematic Diagram	1

JVC Optional Accessories

Rechargeable Battery (Model BP-001)
Timer (Model RT-30E)
Sun-Screen Hood (Model TH-001)
Carrying Case (Model TCB-001)

Parts Arrangement on the Face of Printed Circuit Board for TV.

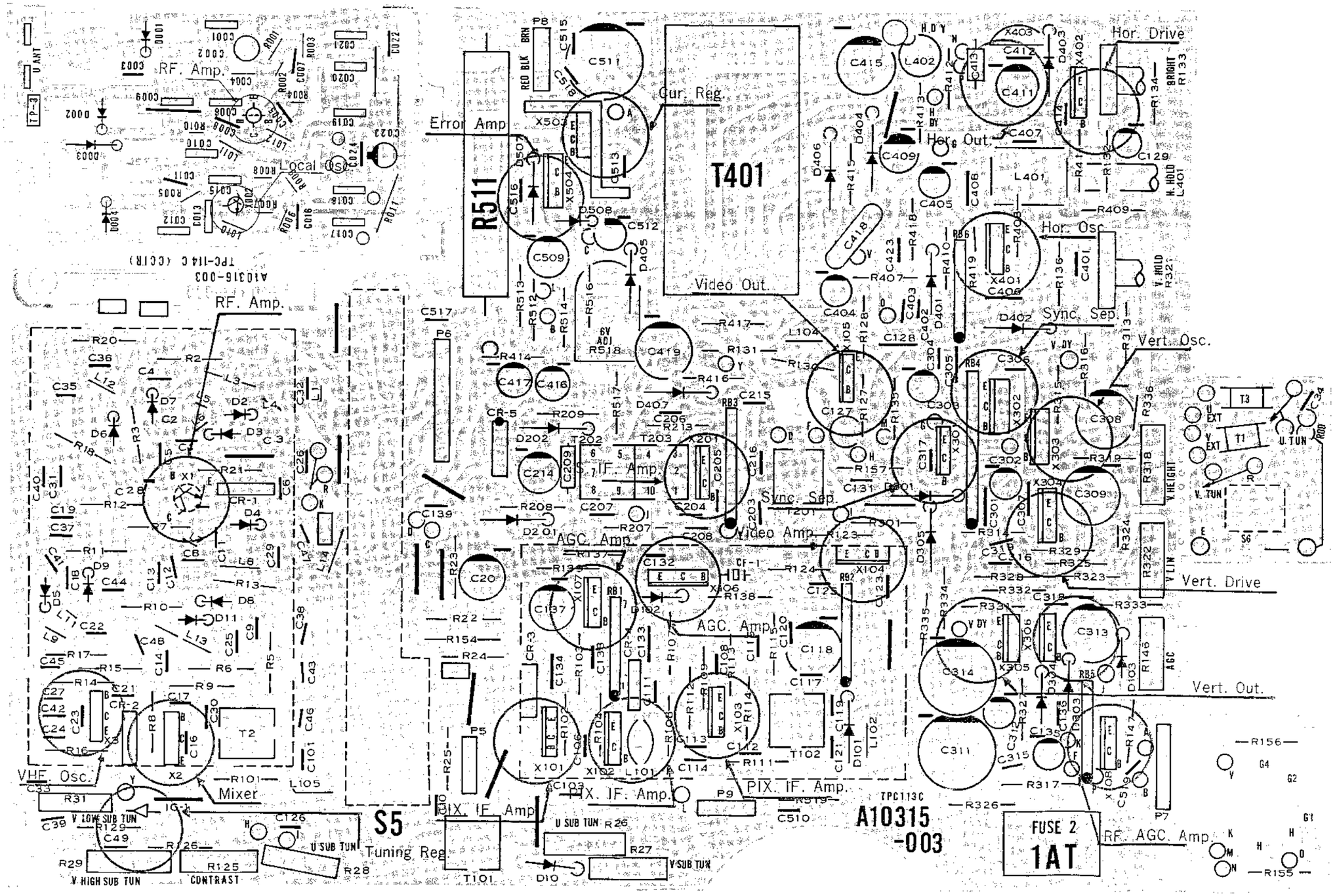


Fig. 59

Parts Arrangement on the Reverse of Printed Circuit Board for TV.

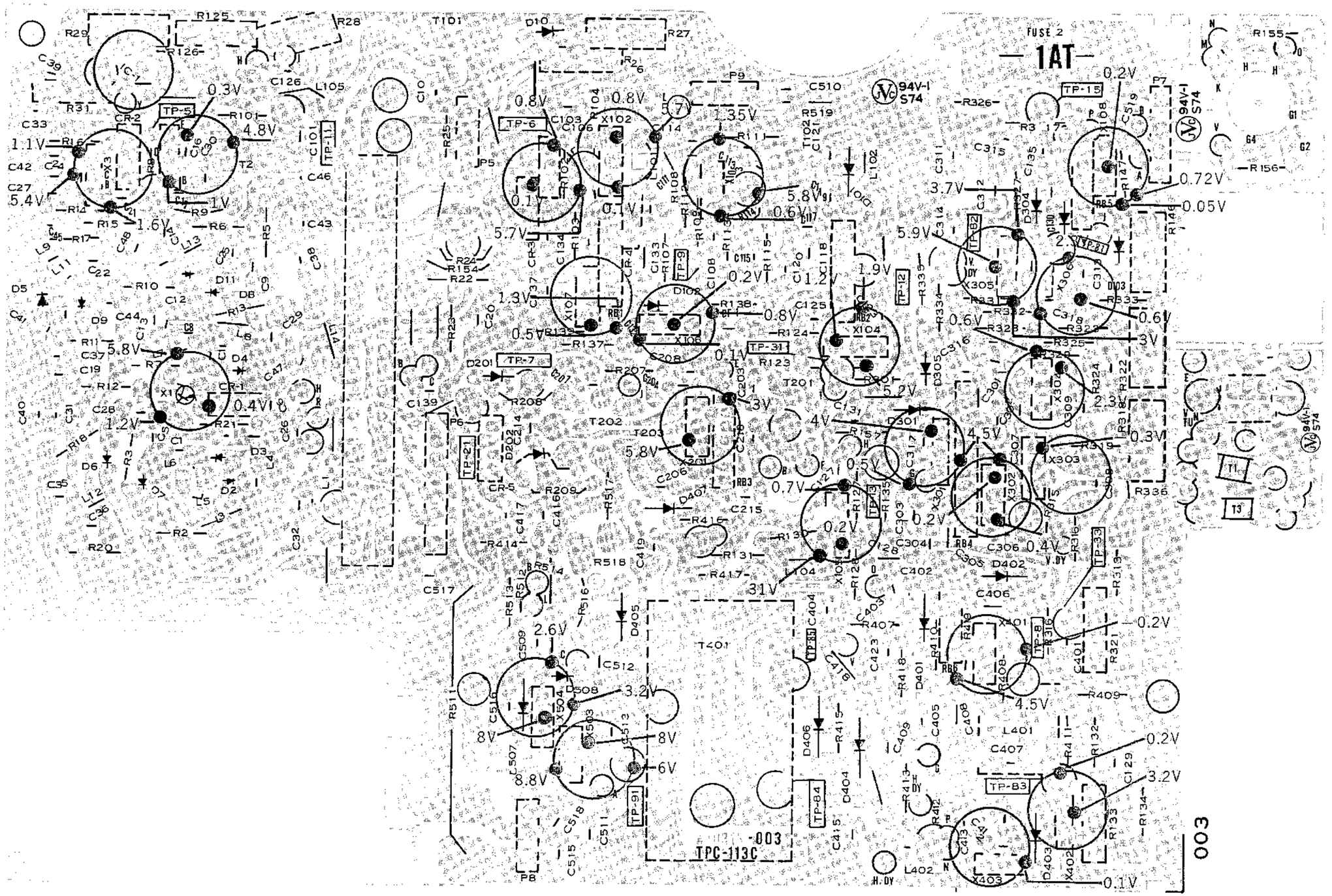
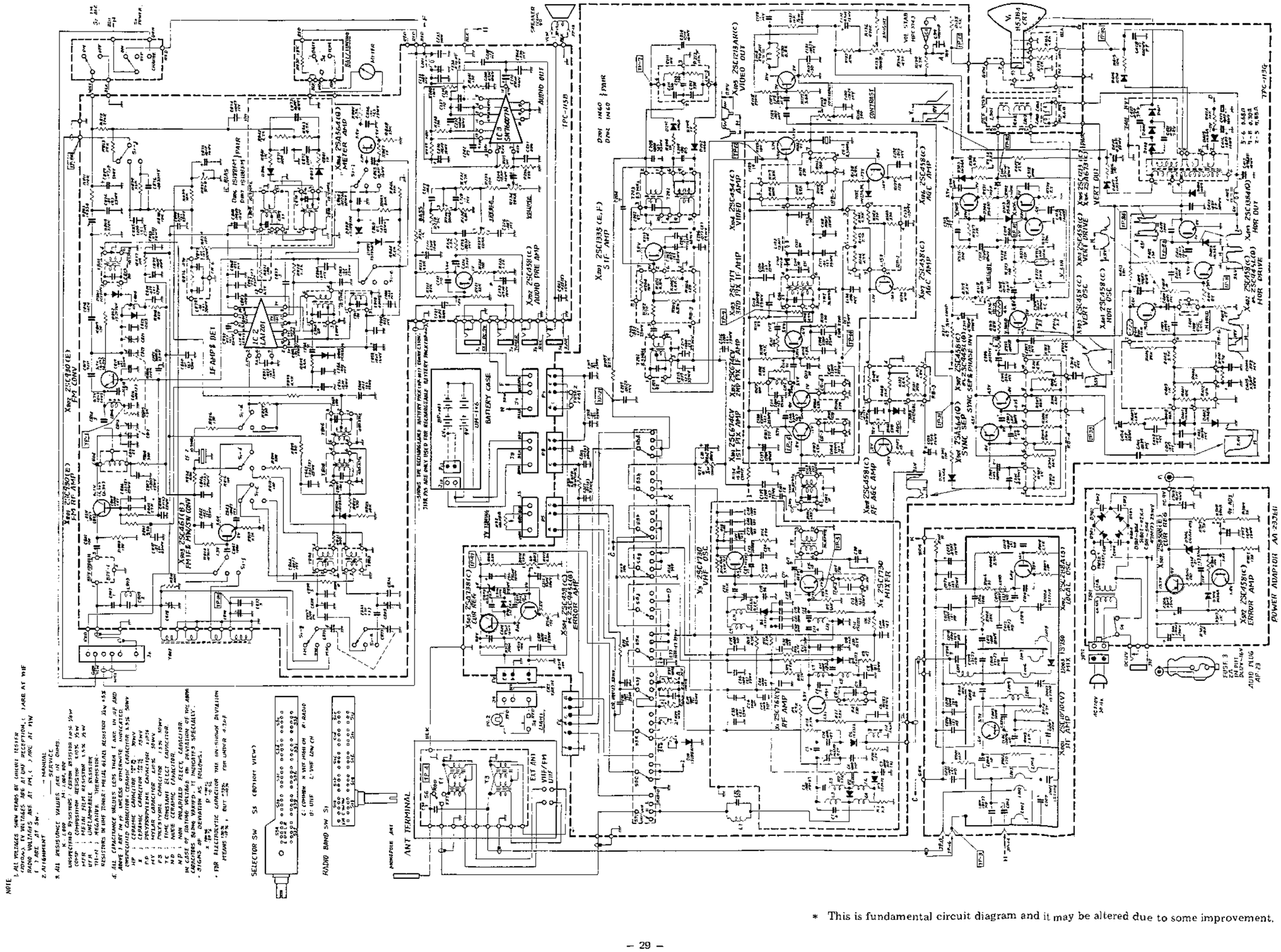


Fig. 60

TV & Radio Schematic Diagram Model 3050EUO



* This is fundamental circuit diagram and it may be altered due to some improvement.

Parts Arrangement on the Face of Printed Circuit Board for Radio

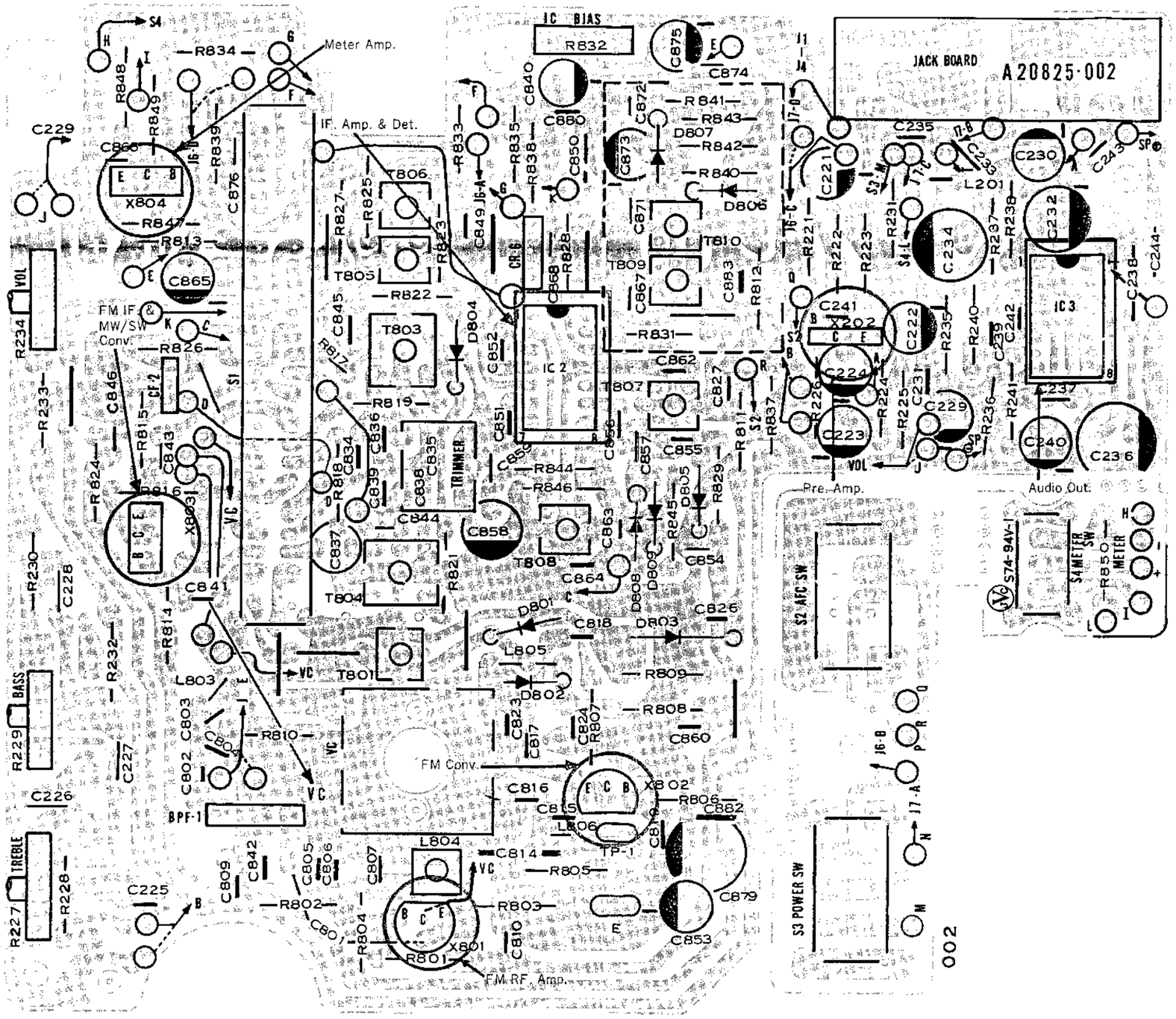


Fig. 61

Parts Arrangement on the Reverse of Printed Circuit Board for Radio

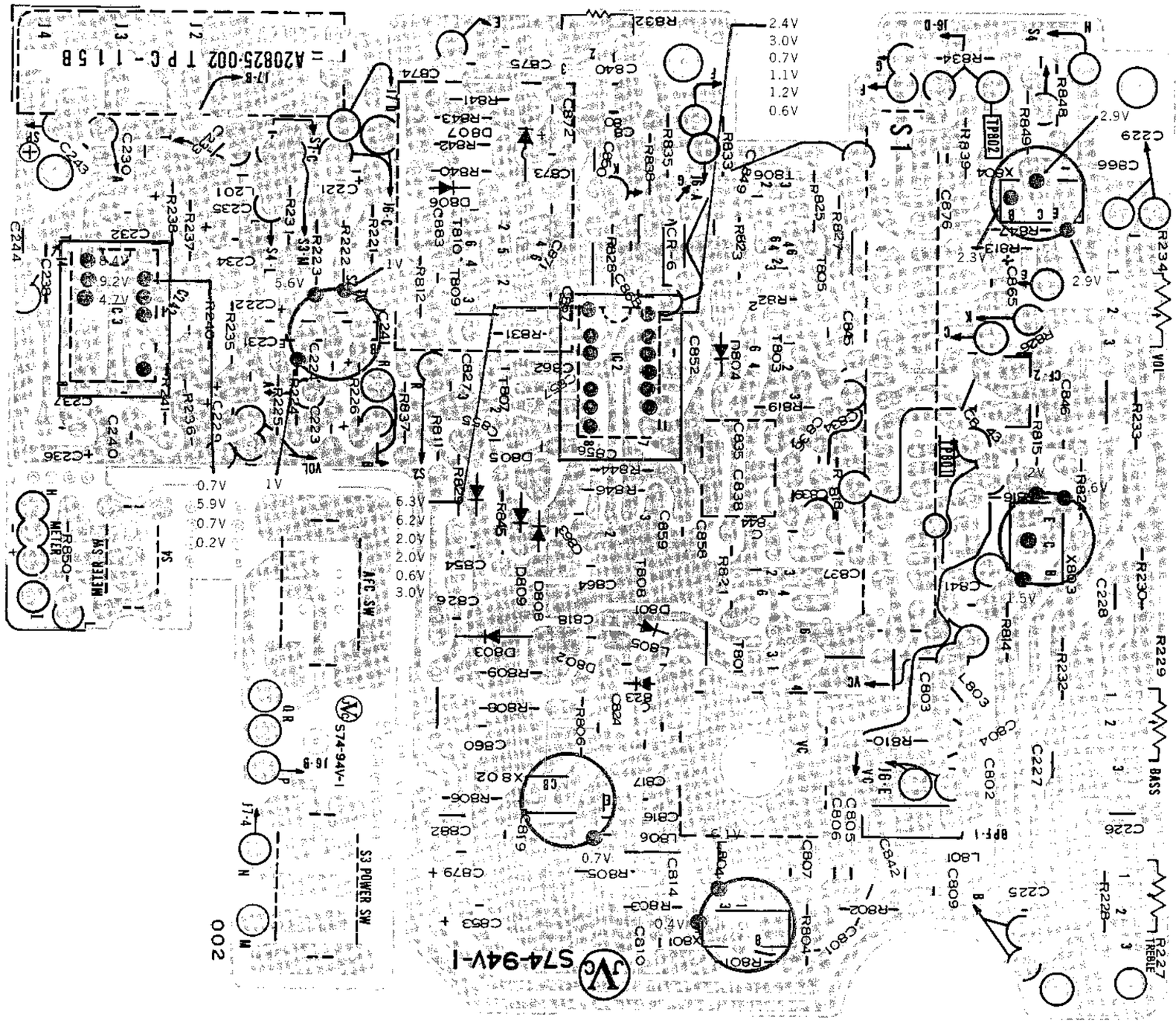
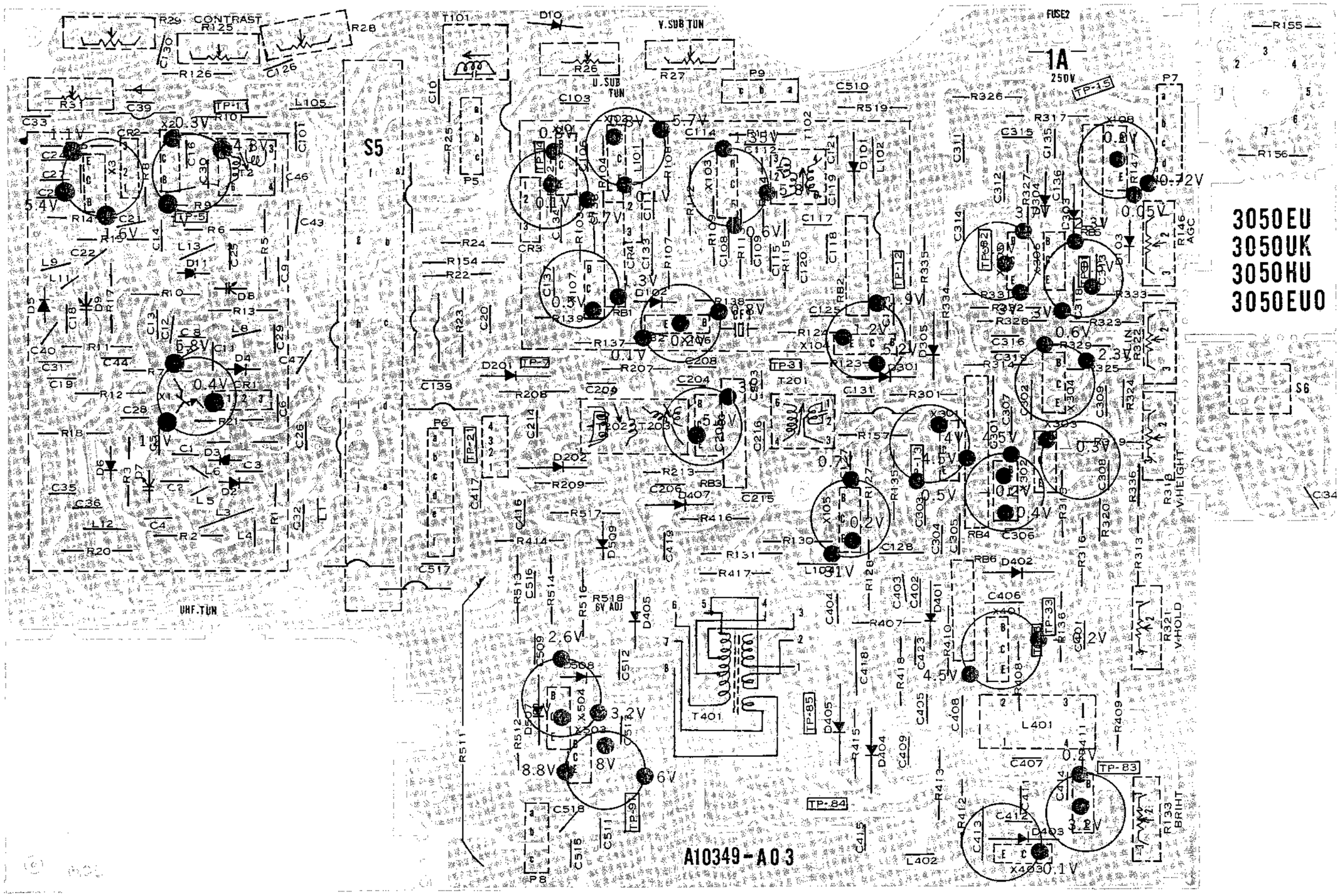


Fig. 62

Parts Arrangement on the Reverse of Printed Circuit Board for TV.



JVC

Supplementary
SERVICE MANUAL
for
MODEL 3050EUO

Model 3050EUO has been changed the printed circuit board for TV.
This alteration is of parts arrangement on the board to perform more easy manufacturing in plant, not due to of circuit and components and also is interchangeable between each assembled board.
Please file this together with the service manual for model 3050EUO (No. 3224) issued previously and refer to the parts arrangement diagram attached in repairing of the set.

Note: Affected serial No. 1251 up

JVC

VICTOR COMPANY OF JAPAN, LIMITED
B/W TELEVISION DIVISION

Printed in Japan
— 5201 — 0 —

Electronic Parts List for TV.

Symbol No.	Parts No.	Description
	Transistors	
X1	2SC761(Y)	VHF RF. Amp.
X2	2SC1730	Mixer
X3	2SC1730	Oscillator
X101	2SC674CV	1st. Pix. IF. Amp.
X102	2SC674CV	2nd. Pix. IF. Amp.
X103	2SC717	3rd. Pix. IF. Amp.
X104	2SC454(C)	Video Amp.
X105	2SC1213AR(C)	Video Output
X106	2SC458(C)	AGC. Amp.
X107	2SC458(C)	AGC. Amp.
X108	2SC458(C)	RF. AGC. Amp.
X201	2SC1335(E,F)	S. IF. Amp.
X301	2SA564(Q)	Sync. Sep.
X302	2SC458(C)	Sync. Sep. [or 2SC945L(Q)]
X303	2SC458(C)	Vert. Osc.
X304	2SC458(C)	Vert. Drive
X305	2SC1213(C) } Pair	Vert. Output
X306	2SA673(C) }	Vert. Output
X401	2SC458(C)	Hor. Oscillator
X402	2SC458(C)	Hor. Drive [or 2SC945L(Q)]
X403	2SC1384(Q)	Hor. Output
X503	2SA738(C)	Cur. Reg.
X504	2SC458(C)	Error Amp. [or 2SC945L(Q)]
X001	2SC1070(V)	UHF RF. Amp.
X002	2SC288A(5)	Oscillator
	IC	
IC1	μpc574J	Tuning Reg.
	Diodes	
D2,3,4,5,6,11	1S2222	Band Switch Diode
D7,8,9	MA320G2V	Variable Capacitance Diode
D10	1S188AM	Diode
D101	1N60TF1	Diode
D102,103	HV32GBLV	Diode
D201,202	1N60TF1	Diode (Pair)
D301,305,401, 402,403,405, 407,507	1N34ATF1	Diode
D303,304	DS430	Diode
D404	A04331-023	Silicon Power Diode (10D2)
D406	BB-6	Silicon Power Diode
D508	RD3.6EB	Zener Diode
D001,002,004	1S2208	Variable Capacitance Diode
D003	1S750	Diode
	CRT	
V1	85JB4	Picture Tube
	Coils & Transformers	
L1	A44900-13-1	RF. Coil
L3	A44900-45-2	RF. Coil
L4	A44900-45-2	RF. Coil
L5	A44899-5-5	RF. Coil
L6	A44899-3-1	RF. Coil
L7	A44900-5-1	RF. Coil
L8	A44900-45-2	RF. Coil
L9	A44900-25-1	RF. Coil
L11	A44899-5-5	RF. Coil
L12	A04725-5.6	Peaking Coil
L13	A44900-49-1	RF. Coil
L101	A45412-00B	2nd. Pix. IF. Coil
L102	A04725-15	Peaking Coil

Symbol No.	Parts No.	Description
L104	A04725-390	Peaking Coil
L105	A44899-15-1	RF. Coil
L301,403	A31867-00A	Def. Yoke Ass'y
L401	A44897-00C	Hor. Osc. Coil Ass'y
L402	A45384-101	Choke Coil
T1	A45427-00A	Matching Trans. Ass'y
T2	A45379-00C	Converter Trans. Ass'y
T3	A45427-00A	Matching Trans. Ass'y
T101	A45380-00B	1st. Pix. IF. Trans. Ass'y
T102	A45381-00C	3rd. Pix. IF. Trans. Ass'y
T201	A45382-00D	Sound IF. Trans. Ass'y
T202,203	A31101-00C	Ratio Trans. Ass'y
T401 (D408, 409,411)	A31866-00A	HV. Trans. Ass'y
L010,011,012	A44899-23-5	RF. Coil
	Variable Resistors	
R26	QVP2A0B-053	Sub-Volume 5kΩB
R27	QVP2A0B-014	Sub-Volume 10kΩB
R28	QVP2A0B-015	Sub-Volume 100kΩB
R29	QVP2A0B-015	Sub-Volume 100kΩB
R31	QVP2A0B-015	Sub-Volume 100kΩB
R32	QVA9A6B-015	Tuning 100kΩB
R125	QVG0A3B-013	Contrast 1kΩB
R133	QVF8A2B-025	Brightness 200kΩB
R146	QVP2A0B-053	AGC. 2kΩB
R318	QVP2A0B-024	Height 20kΩB
R321	QVF8A2B-015	V.Hold 100kΩB
R322	QVP2A0B-053	V.Lin. 5kΩB
R518	QVP5A0B-023	6V. Adjust 2kΩB
	Resistors (Power & Special)	
R324	A04292-104	Negative Thermistor
R336	A04361-002	Negative Thermistor
R419	A04292-107	Negative Thermistor
R331,332	QRX126J-1R0	Metal Film Resistor
R511	QRZ0038-5R8	Unflammable Resistor
R001,005,010	QRS165J-103	Metal Glaze Resistor
R002	QRS165J-221	Metal Glaze Resistor
R003	QRS165J-152	Metal Glaze Resistor
R004	QRS165J-472	Metal Glaze Resistor
R006	QRS165J-330	Metal Glaze Resistor
R007	QRS165J-101	Metal Glaze Resistor
R008	QRS165J-122	Metal Glaze Resistor
R009	QRS165J-272	Metal Glaze Resistor
	Electrolytic Capacitors	
C20,118,409	QEW61AA-107	100μF 10WV
C127	QEN41HA-105	1μF 50WV
C129,135	QEW61EA-475	4.7μF 25WV
C137,511	QEW61AA-227	220μF 10WV
C214,309,312, 313,416,417	QEW61CA-106	10μF 16WV
C302,303,404	QEW61HA-105	1μF 50WV
C308	A04338-106	10μF 50WV
C311,314	QEW61AA-477	470μF 10WV
C512	QEW61AA-336	33μF 10WV
C405	QEW61EA-335	3.3μF 25WV
C411	QEW61CA-106	10μF 16WV
C415	QEW61AA-477	470μF 16WV
C419	QEW61HA-476	47μF 50WV
C509	QEW61CA-476	47μF 16WV
C023	QEW61AA-476	47μF 10WV

Symbol No.	Parts No.	Description
	Capacitors	
C209	QFS21HJ-181	Polystyrol Capacitor
C413	QFP32DK-223	Polypropylene Capacitor
C418	QFP32XK-103	Polypropylene Capacitor
C002	QAT3001-012	Trimmer Capacitor Ass'y
C003	A45246-001	Plate
	C.R. Blocks	
CR1	A03008-016	C7, R4
CR2	A03008-013	C15, R19
CR3	A03008-013	C104, R105
CR4	A03008-013	C107, R106
CR5	A03008-018	C211,212,213, R211,212
	R. Blocks	
RB1	A03071-001	R141~145
RB2	A03071-002	R116~119,121,122
RB3	A03071-003	R201~206
RB4	A03071-004	R302~309,311,312
RB5	A03071-005	R148,149,151~153
RB6	A03071-006	R401~406
	Speaker	
	SK2092-YM	8Ω 12cm

Symbol No.	Parts No.	Description
	Sockets & Plugs (Connector)	
J5,8,9	QMC0357-001	Socket Ass'y
J13	QMC0233-101	Socket Ass'y
	A44397-00B	CRT Socket Ass'y
P5,8,9	QMC0327-001	Plug Ass'y
P6	QMC0627-001	Plug Ass'y
P7	QMC0427-001	Plug Ass'y
	Switch	
S5	QSR60A4-302	Rotary Switch
S6	QSS2201-031	Slide Switch
S8	A45374-001	Lamp Lever
	Miscellaneous	
PL2	QLP3104-212	Pilot Lamp (RA)
	AP3351-00H	Packing Case Ass'y
	QME1308-004	Earphone
	AN1192-001E	Instruction Book
	AN1110-001S	Schematic Diagram
CF-1	A04362-001	Ceramic Filter
Fuse 2	QMF51A2-1R0	250V, 1A
P12	QMP3950-183	Power Cord with Plug

Electronic Parts List for Radio

Symbol No.	Parts No.	Description
	Transistors	
X202	2SC458(C)	Tone Control Amp.
X801	2SC930(E)	FM RF. Amp.
X802	2SC930(E)	FM Conv.
X803	2SC461(B)	FM IF. & MW,SW Conv.
X804	2SA564(Q)	Meter Amp.
	ICs	
IC2	LA1201	FM IF. Amp. MW Det.
IC3	SN76007N	Audio Output
	Diodes	
D801	HV80V	Diode
D802	1S2076V	Diode
D803	1S554	Diode
D804,805,808, 809	1S188AM	Diode
D806,807	1S188FM	Diode (pair)
	Coils & Transformers	
L201	A04359-100	Choke Coil

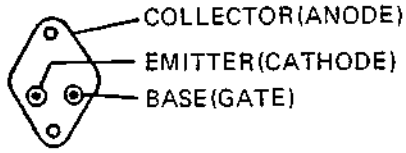
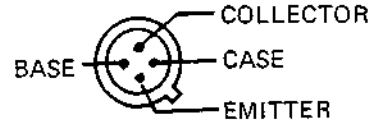
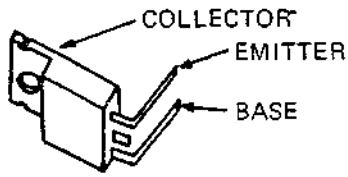
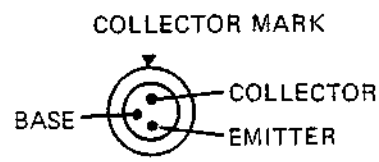
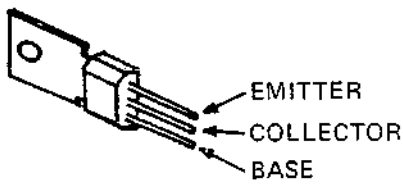
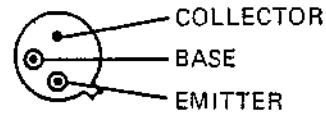
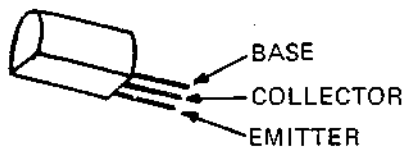
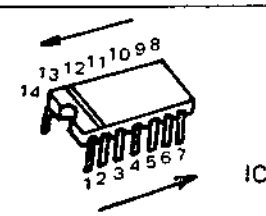
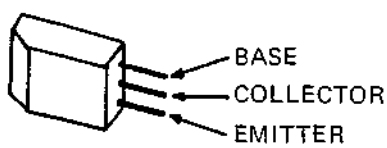
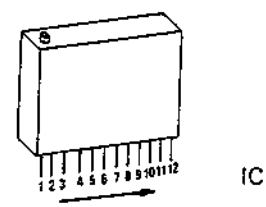
Symbol No.	Parts No.	Description
L803	V03047-11	Ant. Coil (SW)
L804	A45485-00A	RF. Coil (FM)
L805	A45489-001	Osc. Coil (FM)
L806	03226-1	IF. Trap Coil
T801	V03068-7	IFT. (FM)
T802	A31887-00A	Bar Ant. Ass'y
T803	46923-47	Osc. Trans. (MW)
T804	V03101-4	Osc. Trans. Ass'y (SW)
T805	V03067-16	IFT. (MW,SW)
T806	V03067-6	IFT. (MW,SW)
T807	V03068-23	IFT. (FM)
T808	V03067-7	IFT. (MW,SW)
T809	V03068-24	IFT. (FM)
T810	V03068-11	IFT. (FM)
	Variable Resistors	
R227	QVG0A7A-054	Treble 50kΩA
R229	QVG0A7A-054	Bass 50kΩA
R234	QVG0A7A-024	Volume 20kΩA
R832	QVP2A0B-054	IC Bias 50kΩB

Symbol No.	Parts No.	Description		Symbol No.	Parts No.	Description
Electrolytic Capacitors				**C.R. Block**		
C221,229,853, 858,865,866, 873,875	QEW41CA-106	10μF	16WV	CR-6	03126-15	R830, C864,865
C222,223,240	QEW41AA-476	47μF	10WV	**Filters**		
C224	QEW41EA-335	3.3μF	25WV	BPF-1	A45437-00A	Band Pass Filter
C230,232,840, 879	QEW41AA-107	100μF	10WV	CF-2	V03059-3	Ceramic Filter
C234	QEW41AA-477	470μF	10WV	**Switch**		
C236	QEW41CA-477	470μF	16WV	S1	QSR57A3-500	Rotary Switch
Capacitors				S2	QSL2218-112	Lever Switch (AFC)
C812,813,821, 822,828,829, 832,833	QAP1224-502	Variable Capacitor		S3	QSL2318-002	Lever Switch (Power)
C835,838	QAT2002-001	Trimmer Capacitor		S4	QSS1201-011	Slide Switch (Batt./Tun)
C834,837	QFS41HJ-322	Polystyrol Capacitor		**Sockets & Jacks**		
				J1~4	A45408-00A	Jack Board Ass'y
				J6	QMC0657-001	Socket Ass'y
				J7	QMC0457-001	Socket Ass'y

Electronic Parts List for Power Adaptor

Symbol No.	Parts No.	Description		Symbol No.	Parts No.	Description
Transistors				**C.R. Blocks**		
X501	2SB508(E)	Cur. Reg.		C501,504	A03008-006	
X502	2SC458(C)	Error Amp.		C502,503	A03008-006	
Diodes				**Variable Resistor**		
D501~504	A04350-022	Silicon Power Diode		R508	QVP5A0B-052	500ΩB
D505	1N34ATF1	Diode		**Jack & Socket**		
D506	A04344-007	Zener Diode		J10	QMA1221-001	Ext. Batt. Jack Ass'y
Transformer				J12, S9	QMC0263-001	AC Socket Ass'y
T501	A45417-00C	Power Trans. Ass'y		**Miscellaneous**		
Electrolytic Capacitors				Fuse 1	QMF51A2-1R25	250V 1.25A
C505	QEW61EA-228	2200μF	25WV	P1	QMA0911-102	Plug & Lead Ass'y
C506	QEW61EA-336	33μF	25WV			
C507,508	QEW61CA-106	10μF	16WV			

Basing of Transistor

VIEW	VIEW
	
	
	
	
	

Requirement to Customers

To ensure prompt supply of service parts, list part number, part name, and model number when you order.