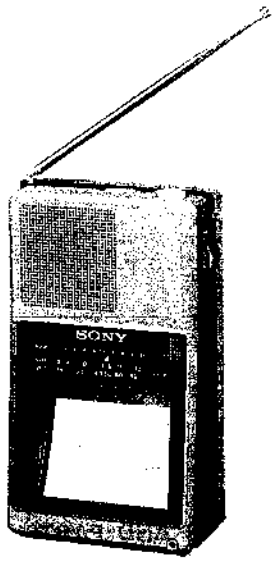
FD-42A

SERVICE MANUAL

6843

US Model
Canadian Model
E Model



SPECIFICATIONS

TV standard American TV standards

TV channel coverage
VHF channels 2-13
UHF channels 14-69

Antenna VHF/UHF telescopic antenna

Picture tube 10-cm (4-inch) picture measured diagonally

Speaker Approx. 5cm (2 inches) dia.

Input US, E model: EXT ANT (mini jack), 75 ohms unbalanced

Output Earphone jack (minijack)
load impedance 8–300 ohms

Battery life

Battery	approx. hours
Sony SUM-2 (NS)	1.5
Sony AM-2 (N)	5
Rechargeable NC-C2	2

Power comsumption
3.2W (6V DC)

Power requirements
6V DC:
Batteries
four size C (R14P) battery
DC IN 6V jack accepts:
AC-D4L AC power adaptor
for use on 120V ac, 60Hz
DDC-40A car battery cord (optional)
for use on 12V DC

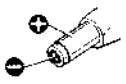
Dimensions Approx. 127x216x66mm (w/h/d) incl. projecting parts and controls

Weight Approx. 1.2kg (2 lb 11 oz) incl. batteries
Approx. 0.93kg (2 lb 1 oz) not incl. batteries

FEATURES

- Miniature B/W TV for portable or desktop use.
- 4-way power supply capability.
- External antenna jack for home and car use. (US, E model)

NOTE: Use only an AC power adaptor or car battery cord manufactured by Sony. The polarity of the plug of other manufactures may be different.


Polarity of Sony plug

MICROFILM

FLAT BLACK AND WHITE TV

SONY

B&W

TABLE OF CONTENTS

FD-40A disassemble and dial string procedures are available for this set. See FD-40A service manual.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

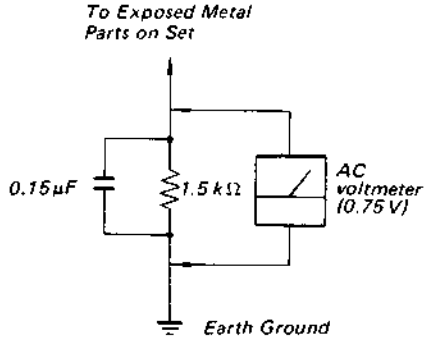


Fig. A. Using an AC voltmeter to check AC leakage.

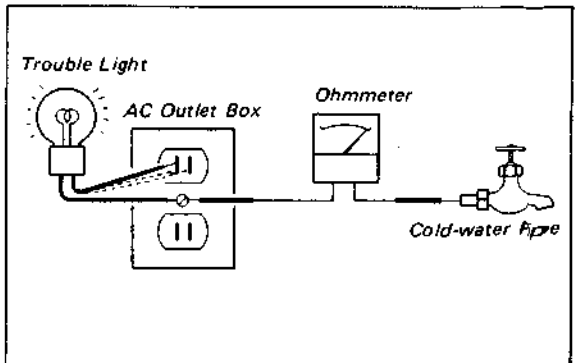
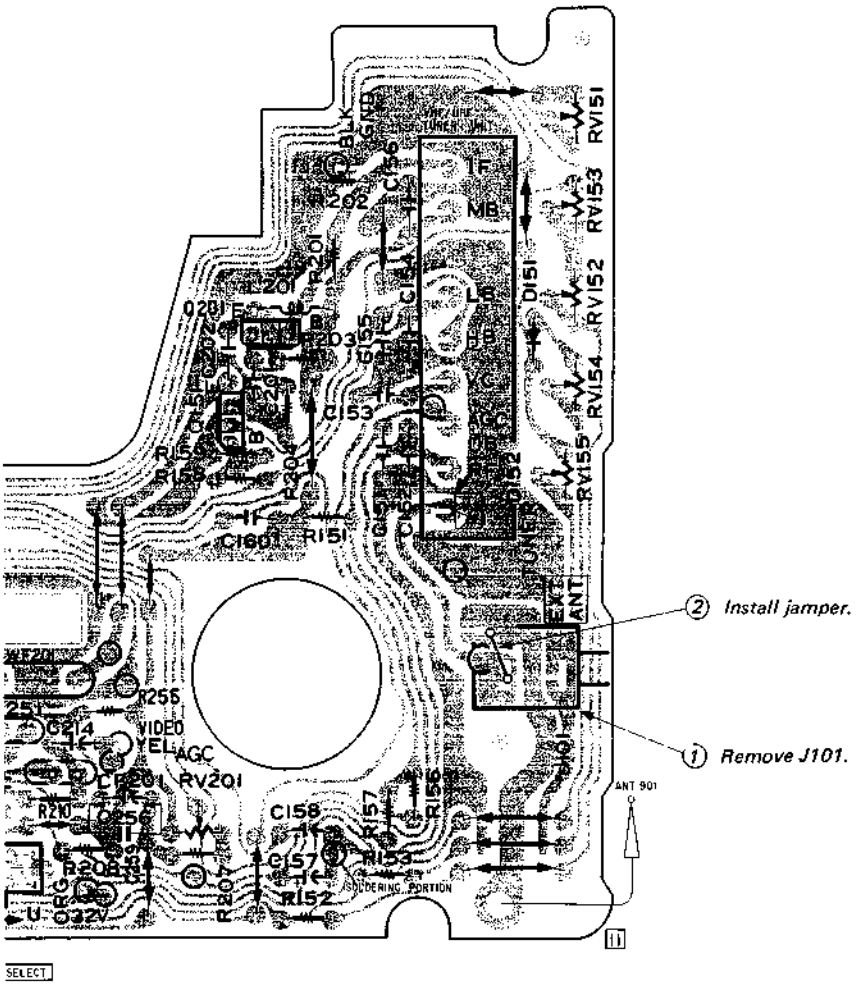


Fig. B. Checking for earth ground.

PRECAUTION FOR A BOARD REPLACEMENT
(Only for Canadian Model)

Perform this parts replacement only for Canadian model.

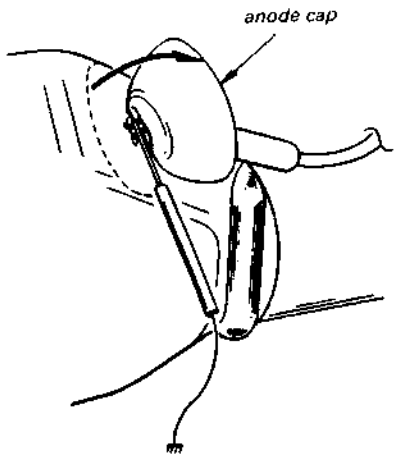
EXT ANT (external antenna) jack J101 is mounted on A board for repair, but J101 should not be used in Canadian model. In case of Canadian model, perform the following procedure.

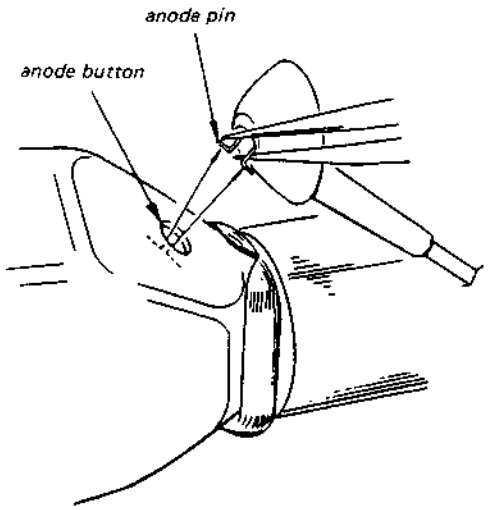


NOTE ON THE ANODE CAP REMOVAL

Even when the power switch is off, the voltage at the anode cap is still high.
Remove the anode cap as follows.

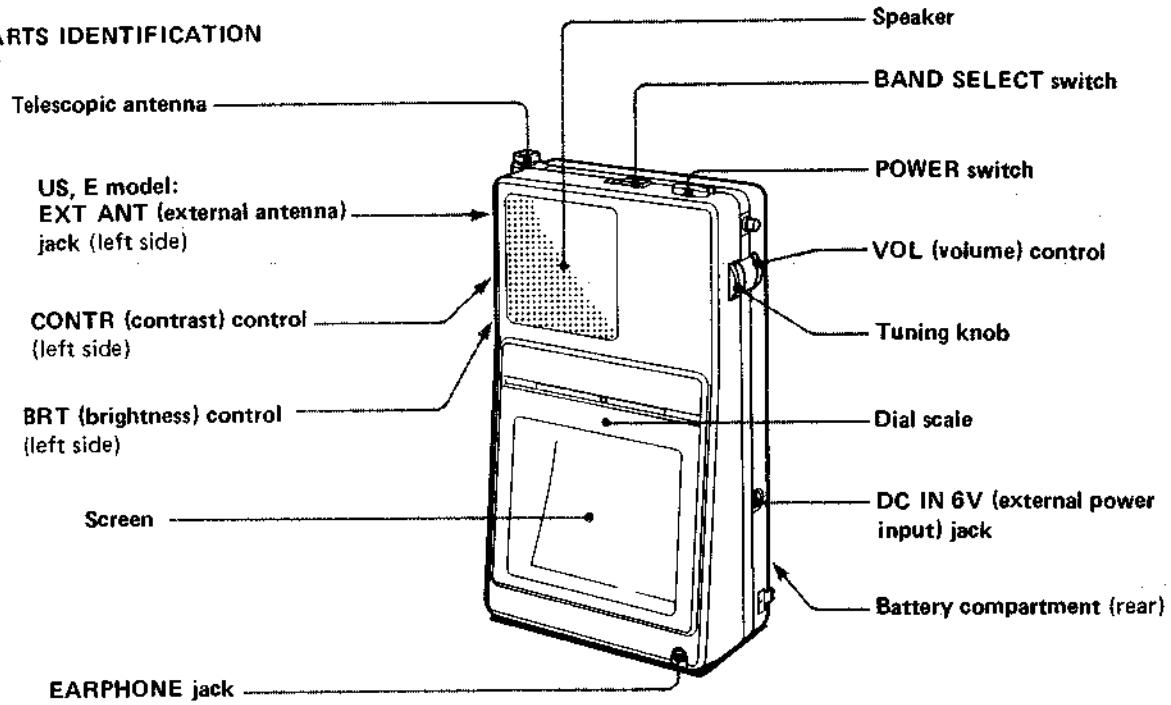
1. Discharge the anode pin to the ground.
2. Pinch and remove the anode pin with a pair of tweezers.
   At this time, be careful not to scratch the anode button.





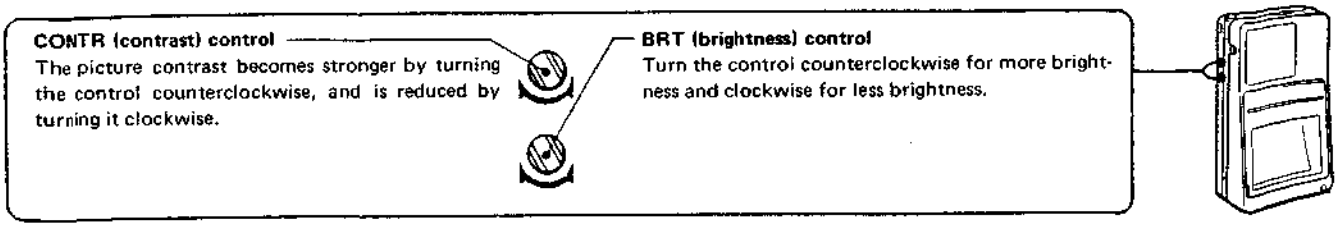
Caution on Reinstallation :
Confirm that the anode button is inserted into the anode cap securely.

PARTS IDENTIFICATION



CONTR (contrast) control
The picture contrast becomes stronger by turning the control counterclockwise, and is reduced by turning it clockwise.

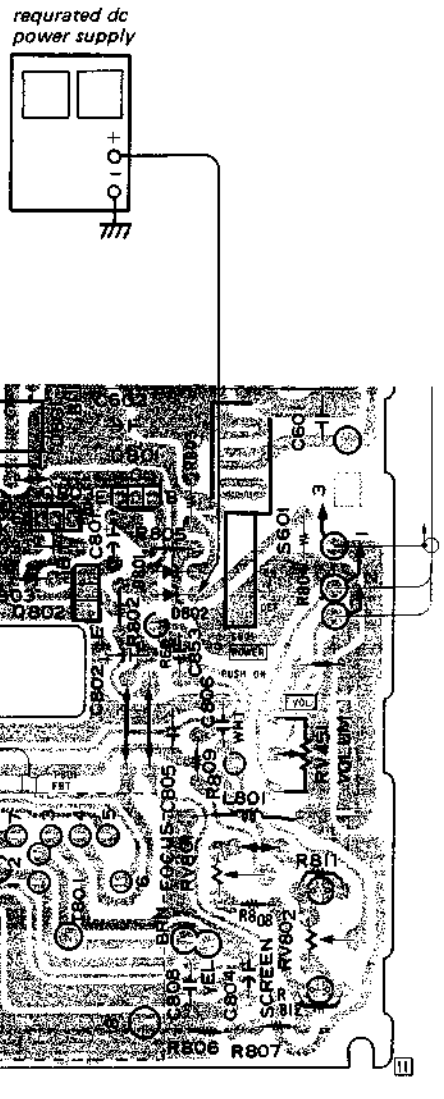
BRT (brightness) control
Turn the control counterclockwise for more brightness and clockwise for less brightness.



SECTION 1
ADJUSTMENTS

HOLD DOWN CIRCUIT CHECK

1. Connect regurated dc power supply to DC IN 6V jack (J601).
2. Confirm that the set operates when applying 7.4 ± 0.1V.
3. Confirm that the set does not operate when applying 8.7 ± 0.1V.
4. Disconnect requrated dc power supply.
5. Connect requrated dc power supply as illustrated.
6. Confirm that the set operates when applying 6.0 ± 0.1V.
7. Confirm that the set does not operate when applying 7.2 $^{+\ 0V}_{-\ 0.1V}$.

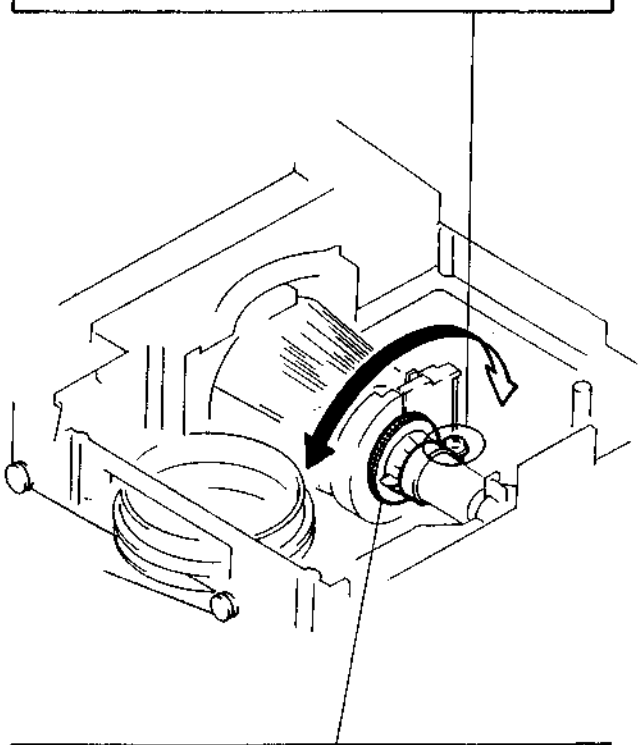


NOTE

1. Test Equipment Required
   - regulated dc power supply
   - color-bar/pattern generator
   - frequency counter
   - digital voltmeter
   - VOM
2. Input Signal
   Cross hatch color-bar or off-the-air signal.
3. The adjustment should be performed with 6V dc and about 5 minutes warmup unless otherwise noted.
4. Position the set vertically with the front side faced to the north for TV-section adjustments.

Horizontal Adjustment

1. Loosen the adjustment screw.
2. Tune in a test or off-the-air signal and adjust deflection yoke for optimum horizontal picture.
3. Tighten the screw after the adjustment.



Centering Adjustment

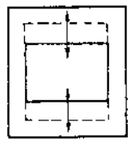
1. Tune in a test or off-the-air signal.
2. Adjust the two centering magnets so that the picture is at the center.
3. Lock the magnets with locking compound after the adjustment.

Horizontal Amplitude (H-SIZE) Adjustment

1. Tune in an off-the-air signal.
2. Adjust RV852 for the best horizontal amplitude.

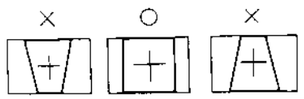
Vertical Amplitude (V-SIZE) Adjustment

1. Tune in an off-the-air signal.
2. Adjust RV851 for the best vertical amplitude.



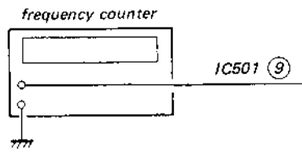
Keystone Correction (KEYST) Adjustment

1. Tune in an off-the-air signal.
2. Adjust RV502 for the optimum picture.



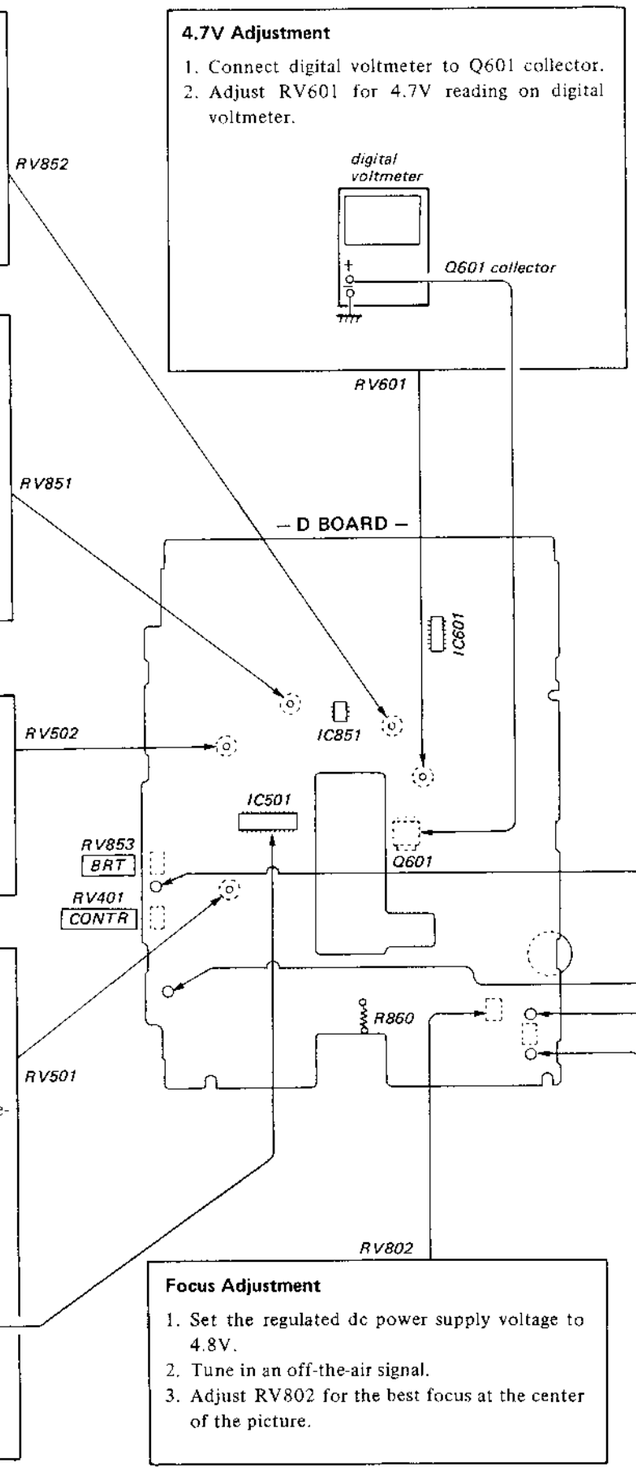
Horizontal Frequency (H-FREQ) Adjustment

1. Short-circuit between IC501 pin (13) and ground with jumper wire.
2. Connect the frequency counter to IC501 pin (9).
3. Adjust RV501 for a 15,734 kHz reading on frequency counter.
4. After the adjustment, remove the jumper wire in step 1.



4.7V Adjustment

1. Connect digital voltmeter to Q601 collector.
2. Adjust RV601 for 4.7V reading on digital voltmeter.

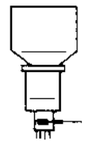


Focus Adjustment

1. Set the regulated dc power supply voltage to 4.8V.
2. Tune in an off-the-air signal.
3. Adjust RV802 for the best focus at the center of the picture.

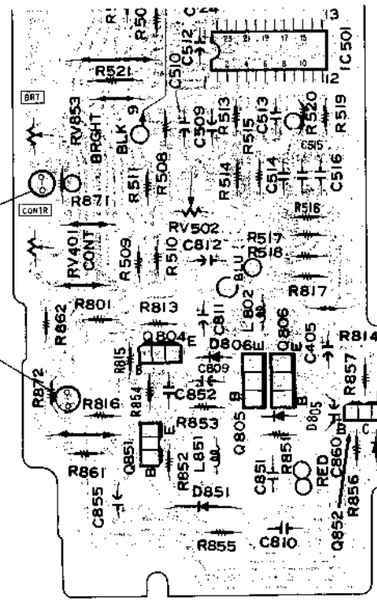
Luminance (BRT) Adjustment

1. Bridge the pattern according to the mark on the neck of the picture tube.

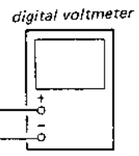


color mark	pattern connection			
	Ⓐ (R811)	Ⓑ (R812)	Ⓒ (R871)	Ⓓ (R872)
red	short	open	open	short
no mark	short	open	open	open
blue	short	open	open	short

2. Turn BRT knob (RV853) fully counterclockwise and then turn CONTR knob (RV401) fully clockwise.



3. Connect the digital voltmeter across R860.
4. Adjust the RV802 for 9.0V dc reading on the digital voltmeter. If not, disconnect pattern connection Ⓐ and connect Ⓑ and adjust again.



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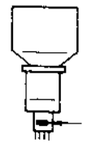
Luminance (BRT) Adjustment

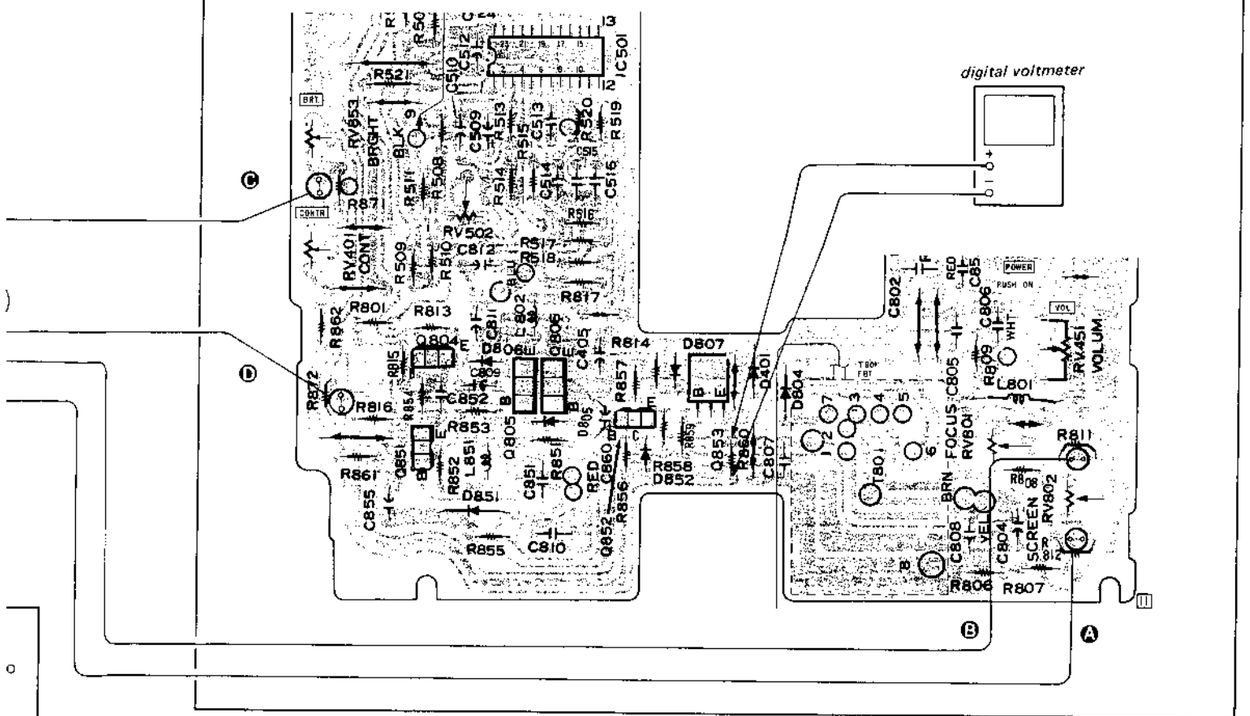
1. Bridge the pattern according to the mark on the neck of the picture tube.



color mark	pattern connection			
	Ⓐ (R811)	Ⓑ (R812)	Ⓒ (R871)	Ⓓ (R872)
red	short	open	open	short
no mark	short	open	open	open
blue	short	open	open	short

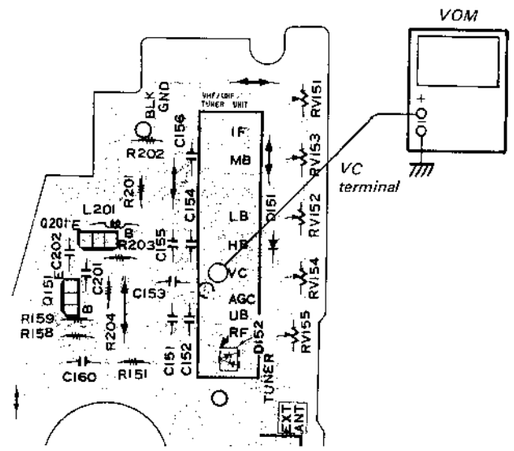
2. Turn BRT knob (RV853) fully counterclockwise and then turn CONTR knob (RV401) fully clockwise.

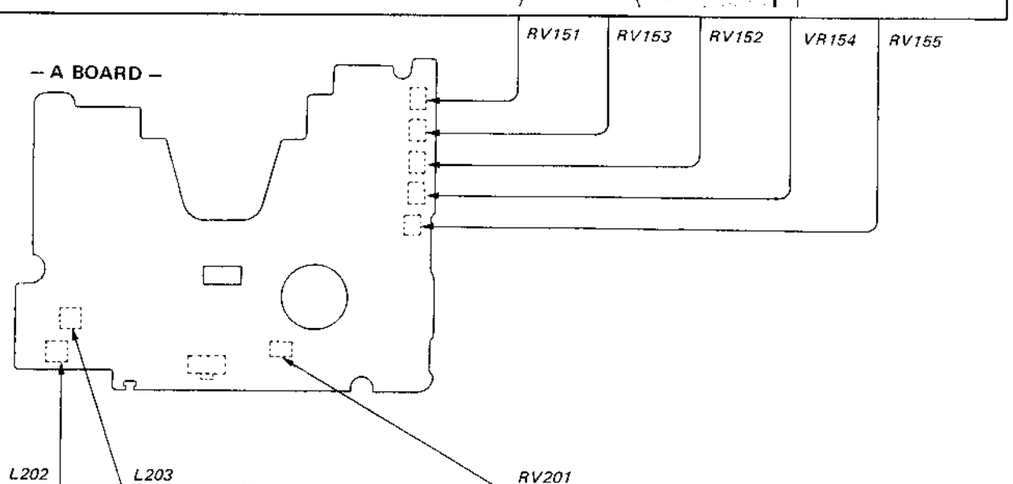
3. Connect the digital voltmeter across R860.
4. Adjust the RV802 for 9.0V dc reading on the digital voltmeter. If not, disconnect pattern connection Ⓐ and connect Ⓑ and adjust again.



Channel Display Adjustment

1. Set the BAND SELECT switch to VHF.
2. Turn the TUNING knob fully clockwise.
3. Turn the TUNING knob, set the dial pointer to the letter "2" on dial scale.
   Adjust RV151 for the optimum picture. In the area where an off-the-air signal can not be tuned in, adjust RV151 for 2.2V reading on VOM. ... (V.L. START)
4. Turn the TUNING knob, set the dial pointer to the letter "6" on dial scale.
   Adjust RV152 for the optimum picture. In the area where an off-the-air signal can not be tuned in, adjust RV152 for 18V reading on VOM. ... (V.L. END)
5. Turn the TUNING knob, set the dial pointer to the letter "7" on dial scale.
   Adjust RV153 for the optimum picture. In the area where an off-the-air signal can not be tuned in, adjust RV153 for 8.4V reading on VOM. ... (V.H. START)
6. Turn the TUNING knob, set the dial pointer to the letter "13" on dial scale.
   Adjust RV154 for the optimum picture. In the area where an off-the-air signal can not be tuned in, adjust RV154 for 20V reading on VOM. ... (V.H. END)
7. When tuning in all the off-the-air signals (VHF CH2–13) capable of receiving, make sure that the dial pointer is correctly set to the dial scale.
8. Set the BAND SELECT switch to UHF.
9. Turn the TUNING knob, set the dial pointer to the letter "69" on dial scale.
   Adjust RV155 for the optimum picture. In the area where an off-the-air signal can not be tuned in, adjust RV155 for 22V reading on VOM. ... (U.END)
10. When tuning in all the off-the-air signals (UHF) capable of receiving, make sure that the pointer is correctly set to the dial scale.





VIF and AFT Adjustments

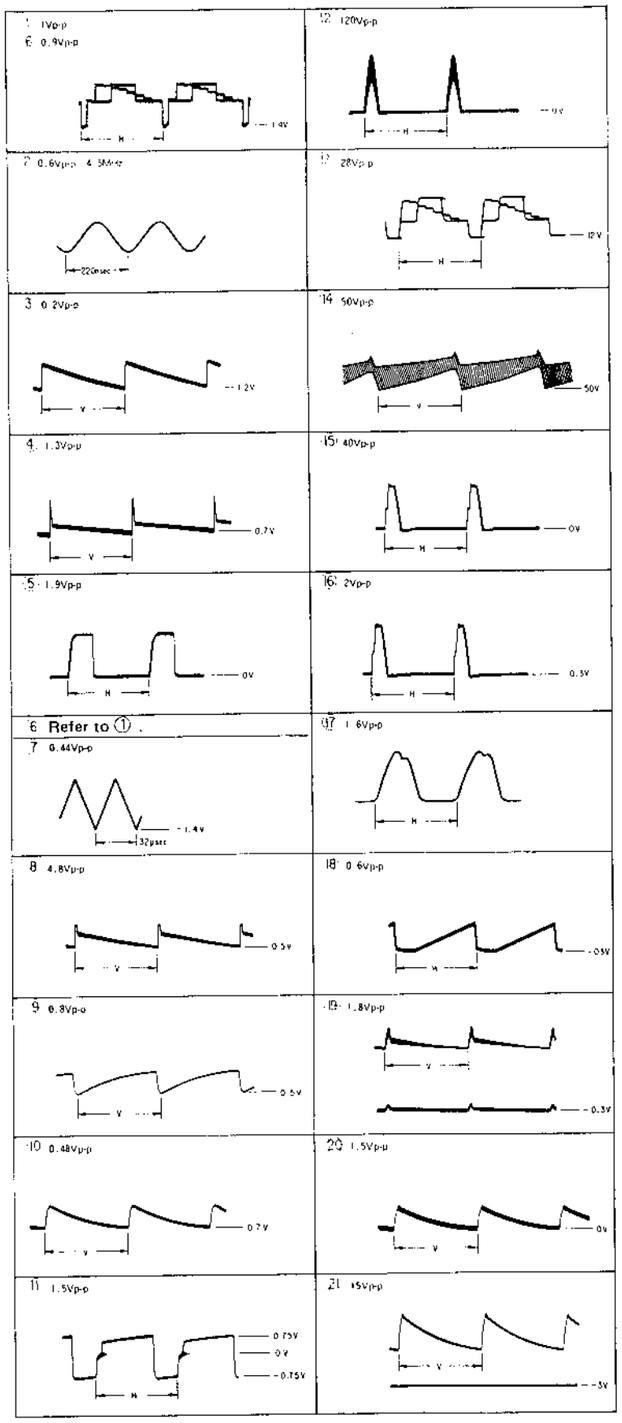
1. Tune in an off-the-air signal.
2. Adjust L202 (VIF) and L203 (AFT) for the best picutre.

RF AGC Adjustment

1. Tune in an off-the-air signal.
2. Adjust RV201 so that snow noise disappears from the picture.

SECTION 2
DIAGRAMS

• Waveforms



2-1. MOUNTING DIAGRAM

• See page 15 for Semiconductor Lead Layouts.

• MOUNTING DIAGRAM Note

• ⊷|⊷ : MELF component.

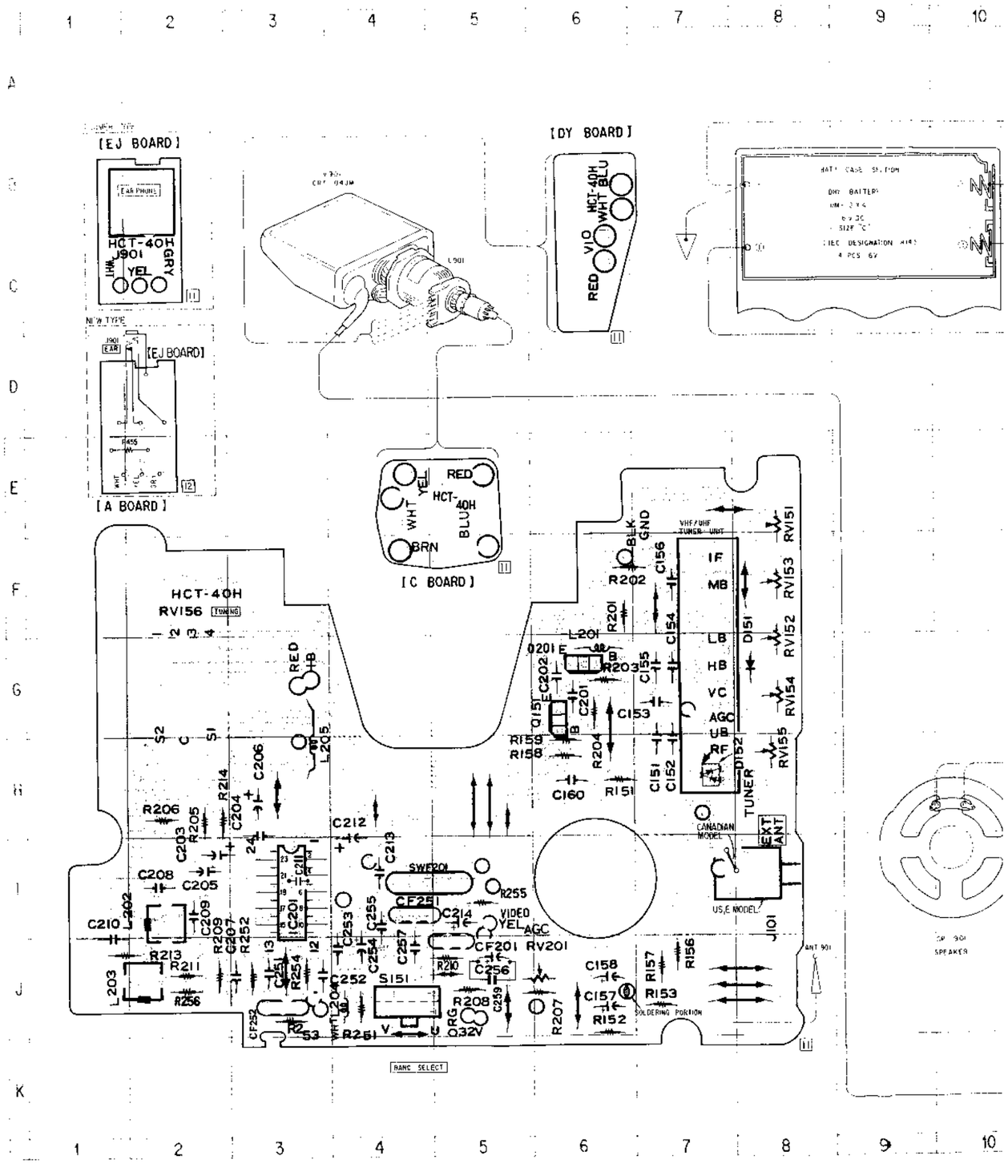
• SCHEMATIC DIAGRAM Note

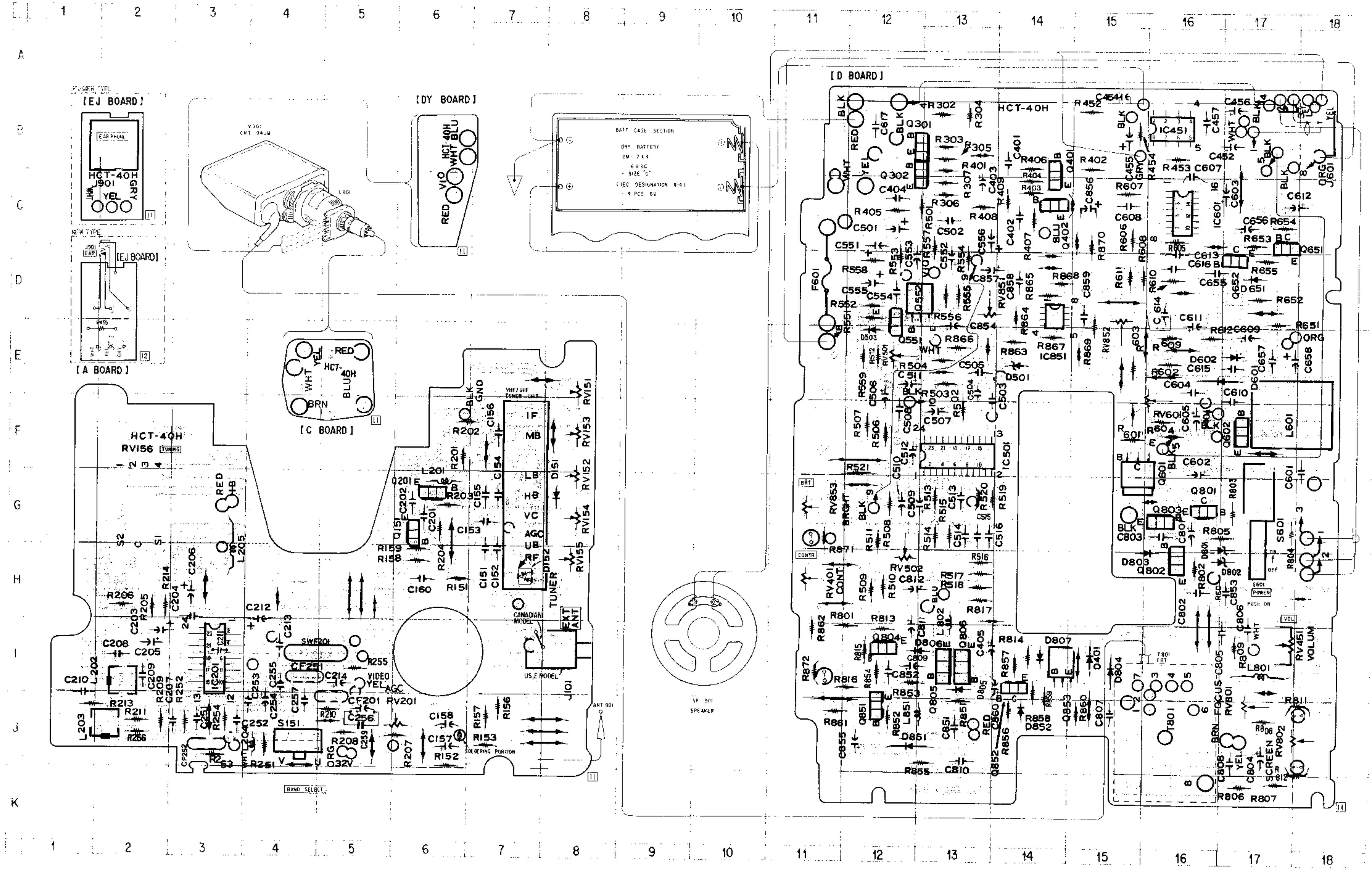
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ⟶ : VIDEO signal path.
- ⟶ : AUDIO signal path.
- ⟶ : B+ bus.
- ▭ : adjustment for repair.
- Power voltage is 6V and fed with dc power supply from DC IN 6V jack. Voltages are dc with respect to ground under no-signal conditions.
  Voltage variations may be noted due to normal production tolerances.
- ◯ : waveform numbers.
- Waveforms are taken to ground in color bar signal receiving mode by using osilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S151	BAND SELECT	VHF
S601	POWER	OFF

• Semiconductor Location

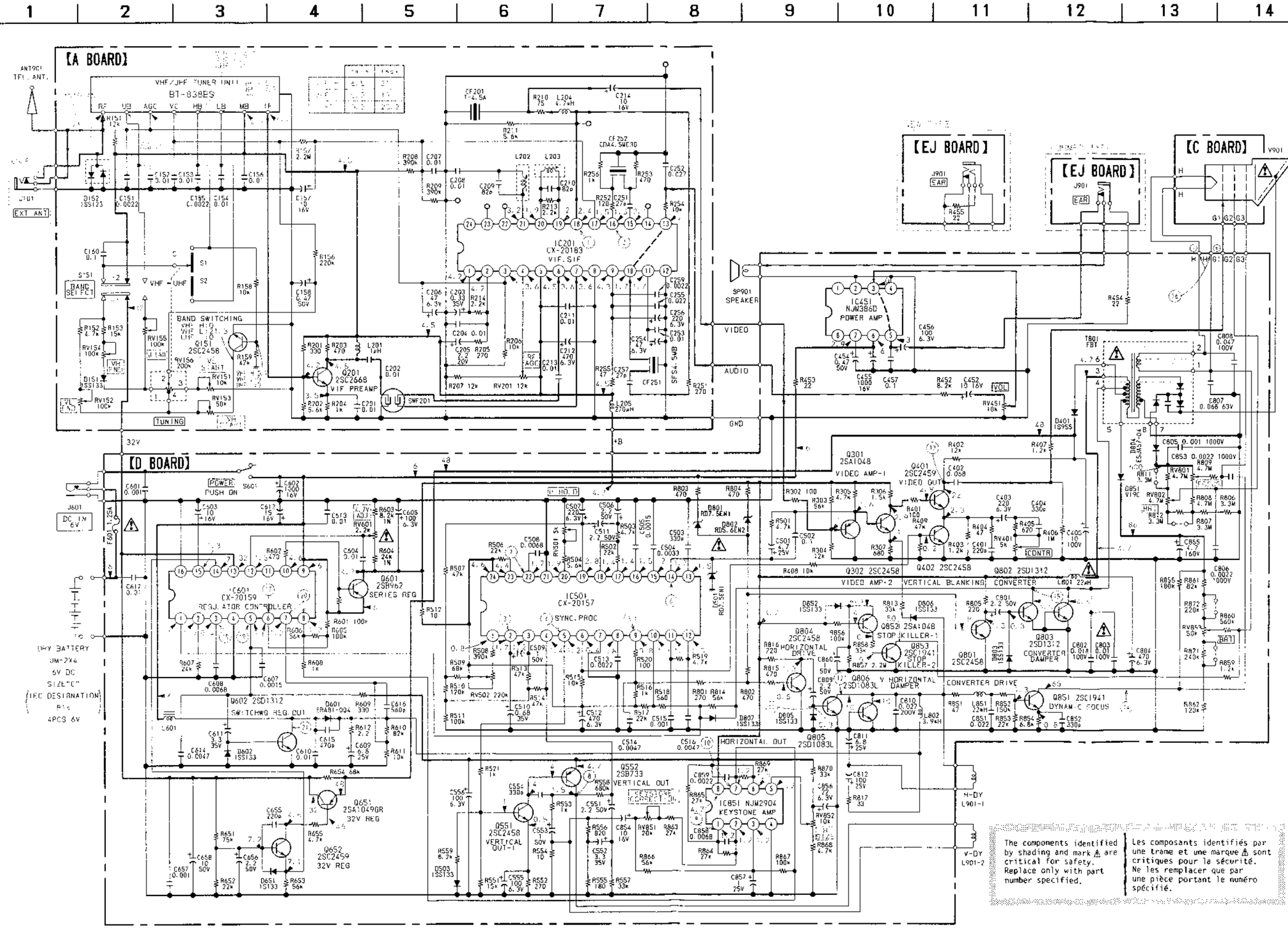
Ref. No.	Location	Ref. No.	Location
D151	G-8	Q151	G-6
D152	H-8	Q201	G-6
D401	I-15	Q301	B-12
D501	E-14	Q302	B-12
D503	E-12	Q401	B-14
D601	E-16	Q402	C-14
D602	E-17	Q551	D-12
D651	D-17	Q552	D-12
D801	G-17	Q601	F-15
D802	H-17	Q602	F-17
D803	H-16	Q651	C-17
D804	I-15	Q652	D-17
D805	I-13	Q801	G-16
D806	I-12	Q802	H-16
D807	I-14	Q803	G-16
D851	J-12	Q804	I-12
D852	J-14	Q805	I-13
		Q806	I-13
IC201	I-3	Q851	J-12
IC451	B-16	Q852	I-14
IC501	F-13	Q853	I-14
IC601	C-16		
IC851	D-14		




[EJ BOARD]
HCT-40H
J901
YEL
GRY
WHT
[A BOARD]
[DY BOARD]
HCT-40H
WHT BLU
VIO
RED
[C BOARD]
RED
YEL
HCT-40H
WHT
BLU
BRN
BATT CASE SECTION
[D BOARD]
HCT-40H
TUNER
EXT ANT
SPEAKER
VOLUM
FOCUS
SCREEN

2-2. SCHEMATIC DIAGRAM

• See page 10 for Note.

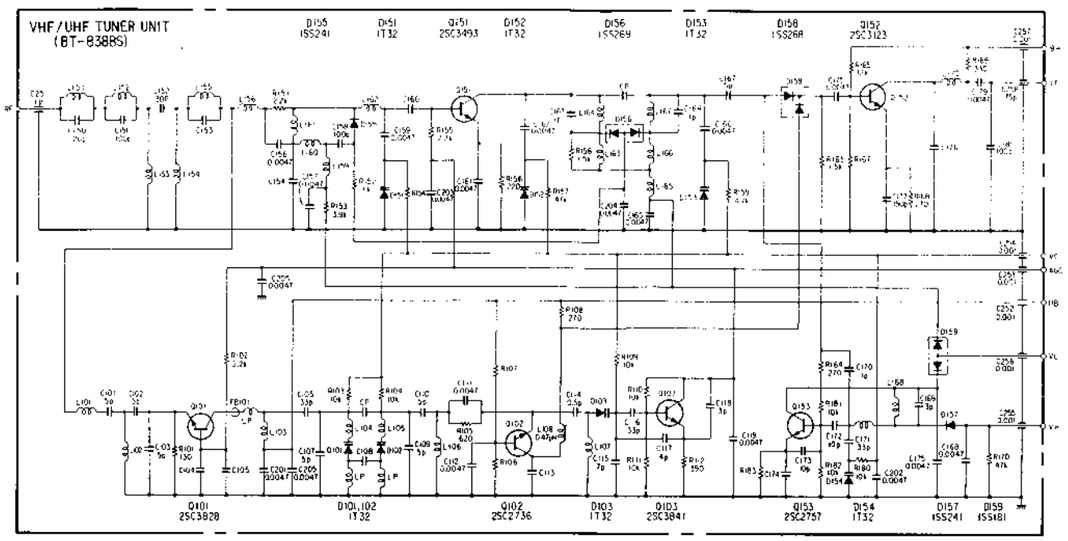


The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

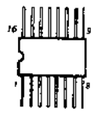
2-3. VHF/UHF TUNER UNIT SCHEMATIC DIAGRAM

The VHF/UHF tuner unit is carefully adjusted at the factory and is supplied as one whole block for replacement.



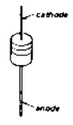
• Semiconducter Lead Layouts

CX20159

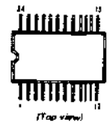


2SA1049
2SA1115P
2SC634SP
2SC2459
2SC2668

1SS133

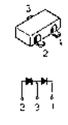


CX20157
CX20183



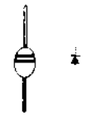
2SB733
2SC1941
2SD1312-K

1SS123



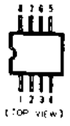
NJM386D

V19G

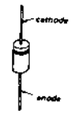


2SB962
2SD1083L

NJM2904M

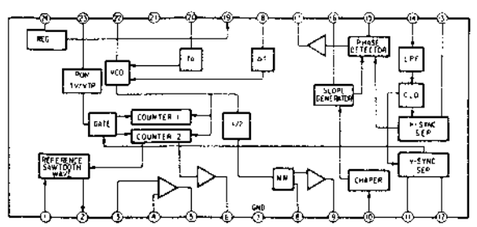


1S955
ERA81-005
ESJA57-04
RD7.5-N2
RD5.6E-N2

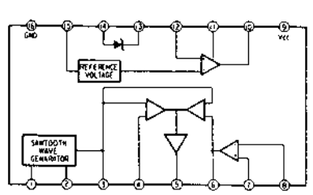


IC BLOCK DIAGRAMS

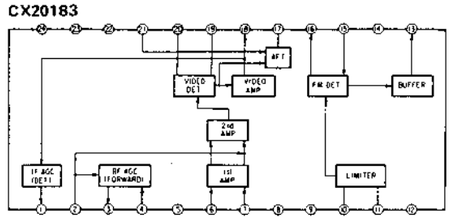
CX20157



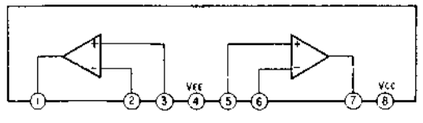
CX20159



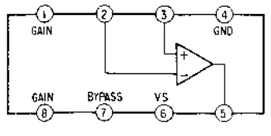
CX20183



NJM2904M



NJM386D



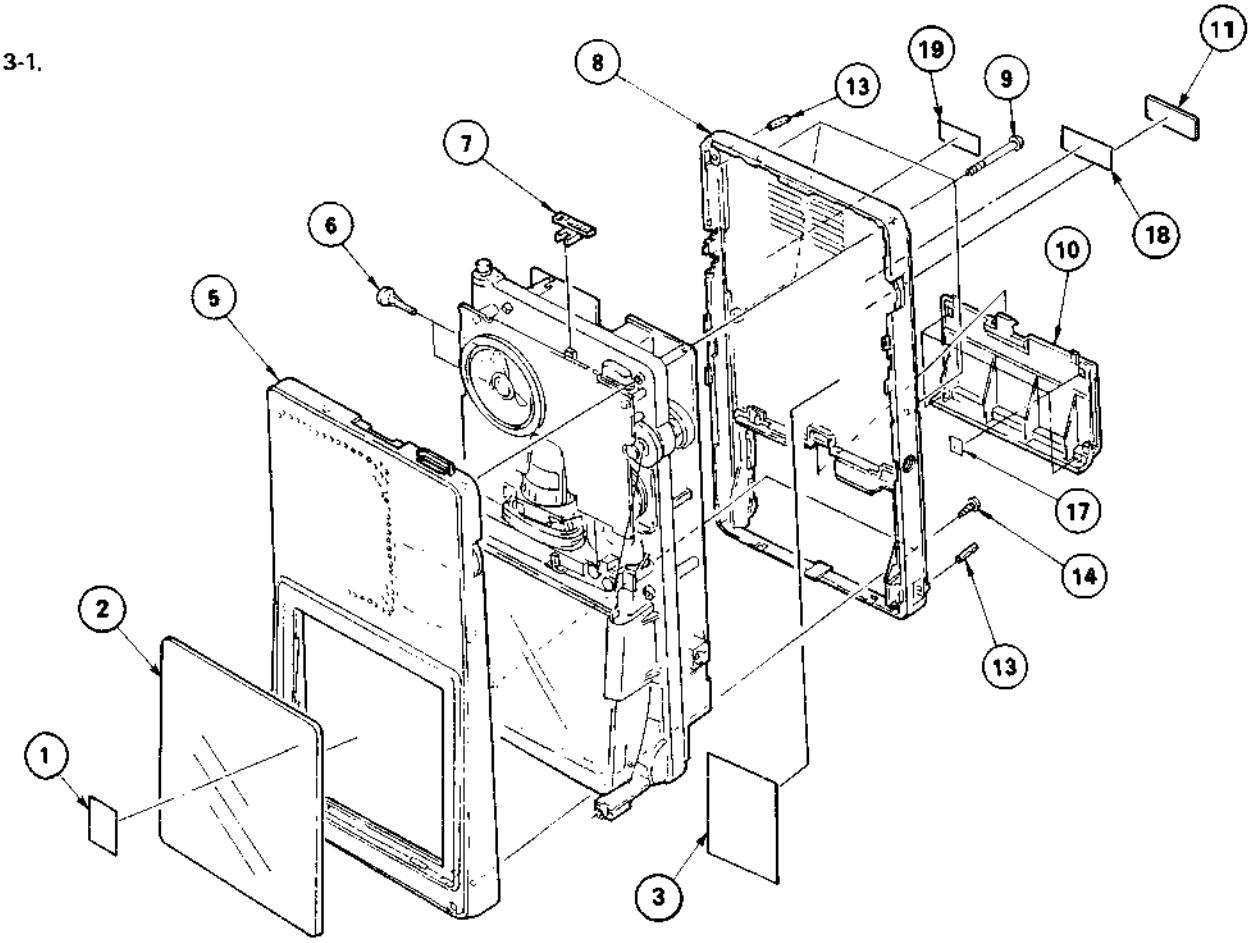
SECTION 3
EXPLODED VIEWS AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color Indication of Appearance Parts
  Example: (RED) ..... KNOB, BALANCE (WHITE)
  (RED) = Cabinet's Color; (WHITE) = Parts' Color

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

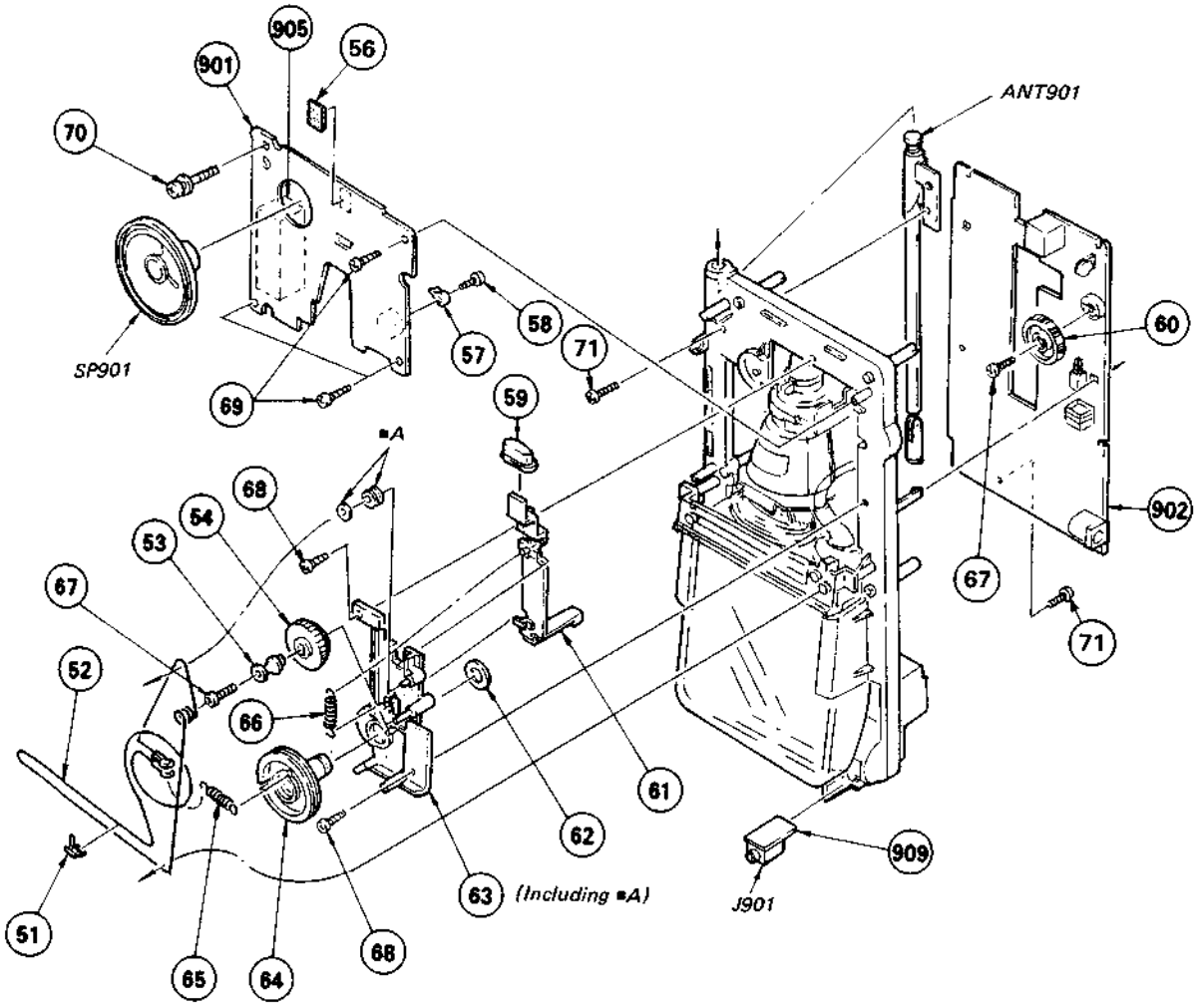
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

3-1.



No.	Part No.	Description	Remarks
1	3-703-710-01	STICKER, SONY SYMBOL (12)	
2	3-323-998-01	FILTER	
3	*3-338-915-01	(US,E)...LABEL, CAUTION	
5	3-323-999-01	(US,E:WHITE).....CABINET, FRONT	
	3-323-999-11	(US,E:GRAY).....CABINET, FRONT	
	3-323-999-21	(US,E:PINK).....CABINET, FRONT	
	3-323-999-31	(US,E:BLUE-GRAY)...CABINET, FRONT	
	3-323-999-41	(Canadian).....CABINET, FRONT	
6	3-323-996-01	KNOB, ADJUSTMENT	
7	3-323-904-01	KNOB, SELECTION, BAND	
8	3-338-901-01	(US,E:WHITE).....CABINET, REAR	
	3-338-901-11	(US,E:GRAY).....CABINET, REAR	
	3-338-901-21	(US,E:PINK).....CABINET, REAR	
	3-338-901-31	(US,E:BLUE-GRAY)...CABINET, REAR	
	3-338-901-41	(Canadian).....CABINET, REAR	
9	3-323-901-01	SCREW (2X36), CABINET	
10	3-323-916-61	(US,E:WHITE).....LID, BATTERY CASE	
	3-323-916-71	(US,E:GRAY,Canadian)...LID, BATTERY CASE	
	3-323-916-81	(US,E:PINK).....LID, BATTERY CASE	
	3-323-916-91	(US,E:BLUE-GRAY).....LID, BATTERY CASE	
11	*3-701-999-00	LABEL, SERIAL NUMBER	
13	7-626-301-31	SPRING PIN 2X10	
14	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT	
17	3-831-441-XX	SPACER	
18	*3-338-936-01	(Canadian)...LABEL, MODEL NUMBER	
19	3-703-281-01	(Canadian)...LABEL, DOC (A)	

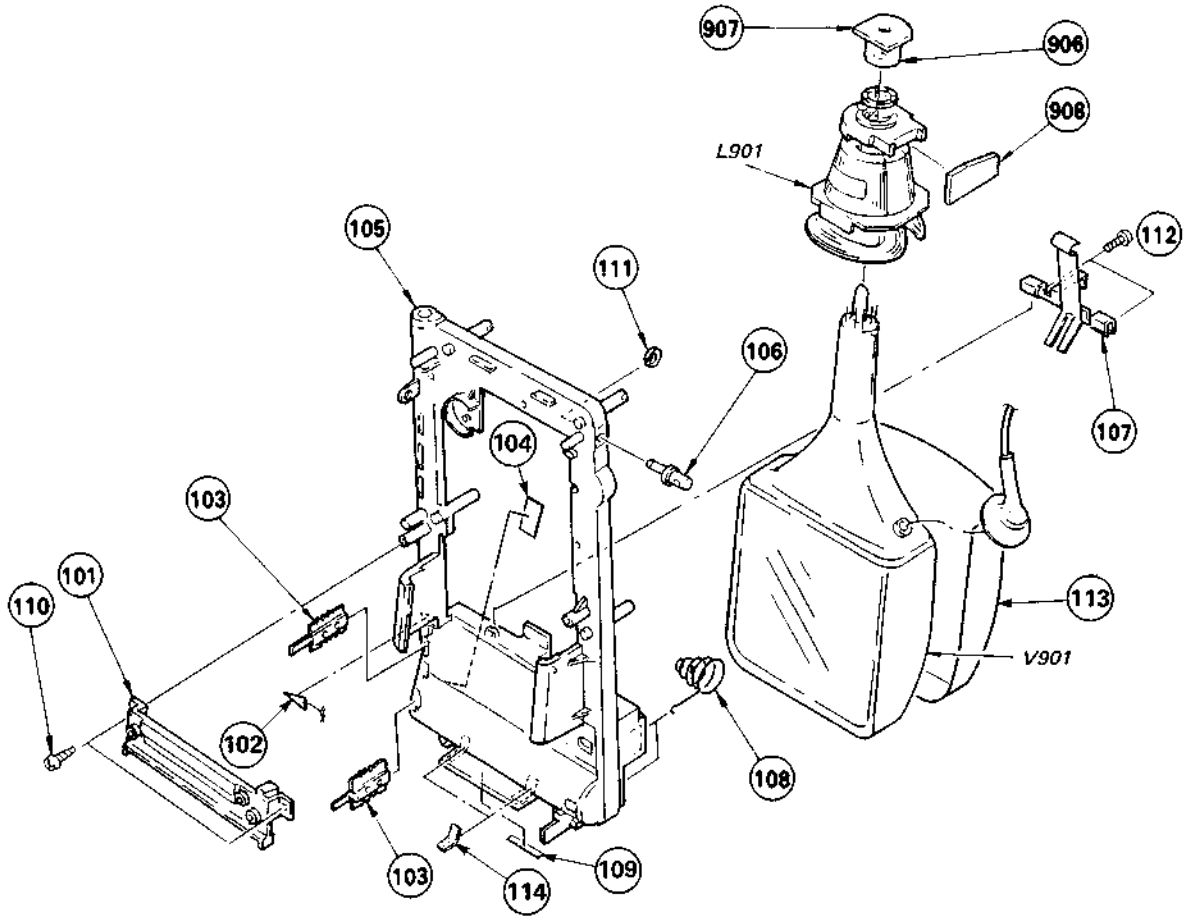
3-2.



No.	Part No.	Description	Remarks
51	3-314-008-00	POINTER	
52	9-911-825-32	STRING DIAL 0.3DIA	
53	3-323-914-01	PULLEY, DIAL	
54	X-3323-902-1	KNOB ASSY, TUNING	
56	3-831-441-11	CUSHION (B)	
57	3-314-006-00	JOINT, TUNING	
58	3-888-156-00	SCREW (1.7X4)	
59	3-323-903-21	BUTTON, POWER	
60	3-323-902-21	KNOB, VOL	
61	3-323-919-01	LEVER (A), SWITCH	
62	3-323-929-01	RING, STOPPER	
63	X-3323-905-1	CHASSIS ASSY, DIAL CORD	
64	3-323-907-01	DRUM, DIAL	
65	3-564-949-00	SPRING, TENSION	

No.	Part No.	Description	Remarks
66	4-858-478-00	SPRING, TENSION	
67	3-888-156-00	SCREW (1.7X4)	
68	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
69	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
70	3-323-948-01	SCREW (M2X18)	
71	7-621-255-25	SCREW +P 2X4	
901	*A-3015-483-A	PC BOARD ASSY, A	
902	*A-3089-242-A	PC BOARD ASSY, D	
905	1-463-790-11	TUNER UNIT (BT-838BS)	
909	*1-621-293-11	PC BOARD, EJ	
ANT901	1-501-330-11	ANTENNA, TLESCOPIC	
J901	1-507-921-00	JACK (EARPHONE)	
SP901	1-503-759-11	SPEAKER	

3-3.



No.	Part No.	Description	Remarks
101	A-3039-031-A	RAIL ASSY, SUSPENDER, DIAL CORD	
102	*3-323-941-01	PLATE, INDUCTION	
103	3-501-056-11	TERMINAL, POSITIVE	
104	3-314-050-00	LABEL, CAUTION, POWER	
105	3-323-925-01	CHASSIS	
106	3-323-926-01	BRACKET, STRAP	
107	*X-3323-903-1	BRACKET ASSY, CRT	
108	3-701-835-00	SPRING	
109	3-314-062-00	LABEL, CAUTION, SERVICE	
110	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
111	7-624-104-04	STOP RING 2.0, TYPE -E	
112	7-621-255-55	SCREW +BVTT 2X8 (S)	
113	*2-153-087-01	COVER, CRT	
114	3-831-441-11	CUSHION (B)	
906	1-526-736-00	SOCKET, CRT	
907	*1-621-297-11	PC BOARD, C	
908	*1-621-295-11	PC BOARD, DY	
L901	1-451-302-11	DEFLECTION YOKE	
V901	⚠8-736-853-00	CRT 04JM	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 4
ELECTRICAL PARTS LIST

NOTE :
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-3015-483-A	PC BOARD ASSY, A			
902	*A-3089-242-A	PC BOARD ASSY, D			
905	1-463-790-11	TUNER UNIT (BT-838BS)			
906	1-526-736-00	SOCKET, CRT			
907	*1-621-297-11	PC BOARD, C			
908	*1-621-295-11	PC BOARD, DY			
909	*1-621-293-11	PC BOARD, EJ			
ANT901	1-501-330-11	ANTENNA, TLESCOPIC			
C151	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C152	1-101-004-00	CERAMIC	0.01MF		50V
C153	1-101-004-00	CERAMIC	0.01MF		50V
C154	1-101-004-00	CERAMIC	0.01MF		50V
C155	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C156	1-101-004-00	CERAMIC	0.01MF		50V
C157	1-124-462-00	ELECT	10MF	20%	16V
C158	1-124-462-00	ELECT	0.47MF	20%	50V
C160	1-136-165-00	MYLAR	0.1MF	10%	50V
C201	1-101-004-00	CERAMIC	0.01MF		50V
C202	1-101-004-00	CERAMIC	0.01MF		50V
C203	1-131-344-00	TANTALUM	0.33MF	10%	35V
C204	1-101-004-00	CERAMIC	0.01MF		50V
C205	1-131-361-00	TANTALUM	2.2MF	10%	20V
C206	1-124-224-00	ELECT	47MF	20%	6.3V
C207	1-101-004-00	CERAMIC	0.01MF		50V
C208	1-101-004-00	CERAMIC	0.01MF		50V
C209	1-102-971-00	CERAMIC	82PF	5%	50V
C210	1-102-971-00	CERAMIC	82PF	5%	50V
C211	1-163-059-00	CERAMIC MELF	0.01MF	30%	16V
C212	1-124-472-11	ELECT	470MF	20%	6.3V
C213	1-101-004-00	CERAMIC	0.01MF		50V
C214	1-123-617-00	ELECT	10MF	20%	16V
C251	1-102-961-00	CERAMIC	27PF	5%	50V
C252	1-130-488-00	MYLAR	0.027MF	5%	50V
C253	1-101-004-00	CERAMIC	0.01MF		50V
C254	1-124-224-00	ELECT	47MF	20%	6.3V
C255	1-161-055-00	CERAMIC	0.022MF	10%	25V
C256	1-124-140-00	ELECT	220MF	20%	6.3V
C257	1-102-961-00	CERAMIC	27PF	5%	50V
C259	1-163-063-00	CERAMIC MELF	0.022MF		25V
C401	1-102-983-00	CERAMIC	220PF	10%	50V
C402	1-136-163-00	MYLAR	0.068MF	10%	50V
C403	1-124-124-00	ELECT	220MF	20%	6.3V
C404	1-102-820-00	CERAMIC	330PF	10%	50V
C405	1-124-667-11	ELECT	10MF	20%	100V
C452	1-123-617-00	ELECT	10MF	20%	16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C454	1-124-465-00	ELECT	0.47MF	20%	50V
C455	1-124-555-00	ELECT	1000MF	20%	16V
C456	1-123-661-00	ELECT	100MF	20%	6.3V
C457	1-136-165-00	MYLAR	0.1MF	10%	50V
C501	1-124-245-00	ELECT	4.7MF	20%	25V
C502	1-136-165-00	MYLAR	0.1MF	10%	50V
C503	1-102-112-00	CERAMIC	330PF	10%	50V
C504	1-130-477-00	MYLAR	0.0033MF	5%	50V
C505	1-130-506-00	MYLAR	0.0015MF	10%	50V
C506	1-124-257-00	ELECT	2.2MF	20%	50V
C507	1-124-124-00	ELECT	220MF	20%	6.3V
C508	1-130-481-00	MYLAR	0.0068MF	10%	50V
C509	1-124-255-00	ELECT	1MF	20%	50V
C510	1-131-346-00	TANTALUM	0.68MF	10%	35V
C511	1-124-257-00	ELECT	2.2MF	20%	50V
C512	1-124-472-11	ELECT	470MF	20%	6.3V
C513	1-130-475-00	MYLAR	0.0022MF	5%	50V
C514	1-101-003-00	CERAMIC	0.0047MF		50V
C515	1-130-471-00	MYLAR	0.001MF	10%	50V
C516	1-130-479-00	MYLAR	0.0047MF	10%	50V
C551	1-124-257-00	ELECT	2.2MF	20%	50V
C552	1-124-258-00	ELECT	3.3MF	20%	35V
C553	1-124-255-00	ELECT	1MF	20%	50V
C554	1-102-820-00	CERAMIC	330PF	10%	50V
C555	1-124-225-00	ELECT	100MF	20%	6.3V
C556	1-123-661-00	ELECT	100MF	20%	6.3V
C601	1-102-074-00	CERAMIC	0.001MF	10%	50V
C602	1-123-839-00	ELECT	1000MF	20%	16V
C603	1-123-617-00	ELECT	10MF	20%	16V
C604	1-136-153-00	MYLAR	0.01MF	10%	50V
C605	1-123-661-00	ELECT	100MF	20%	6.3V
C607	1-130-506-00	MYLAR	0.0015MF	10%	50V
C608	1-130-481-00	MYLAR	0.0068MF	10%	50V
C609	1-127-511-00	ELECT(SOLID)	6.8MF	20%	25V
C610	1-136-153-00	MYLAR	0.01MF	10%	50V
C611	1-124-258-00	ELECT	3.3MF	20%	35V
C612	1-127-498-00	ELECT(SOLID)	15MF	20%	16V
C613	1-101-004-00	CERAMIC	0.01MF		50V
C614	1-130-479-00	MYLAR	0.0047MF	10%	50V
C615	1-102-824-00	CERAMIC	470PF	10%	50V
C616	1-102-115-00	CERAMIC	560PF	10%	50V
C617	1-101-004-00	CERAMIC	0.01MF		50V
C655	1-102-983-00	CERAMIC	220PF	10%	50V
C656	1-124-257-00	ELECT	2.2MF	20%	50V
C657	1-102-074-00	CERAMIC	0.001MF	10%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C658	1-124-261-00	ELECT	10MF	20%	50V
C801	1-124-257-00	ELECT	2.2MF	20%	50V
C802 ⚠	1-106-373-00	MYLAR	0.018MF	5%	100V
C803 ⚠	1-106-196-00	MYLAR	0.01MF	5%	100V
C804	1-124-472-11	ELECT	470MF	20%	6.3V
C805	1-162-697-11	CERAMIC	0.001MF		1KV
C806	1-162-147-00	CERAMIC	0.0022MF		1KV
C807	1-136-550-11	FILM	0.068MF	10%	63V
C808	1-108-385-00	MYLAR	0.047MF	10%	100V
C809	1-124-257-00	ELECT	2.2MF	20%	50V
C810	1-106-377-00	MYLAR	0.027MF	5%	200V
C811	1-127-511-00	ELECT(SOLID)	6.8MF	20%	25V
C812	1-123-333-00	ELECT	100MF	20%	25V
C851	1-136-157-00	MYLAR	0.022MF	10%	50V
C852	1-102-820-00	CERAMIC	330PF	10%	50V
C853	1-162-147-00	CERAMIC	0.0022MF		1KV
C854	1-123-617-00	ELECT	10MF	20%	16V
C855	1-123-932-00	ELECT	4.7MF	20%	160V
C856	1-124-638-11	ELECT	22MF	20%	6.3V
C857	1-131-347-00	TANTALUM	1MF	10%	25V
C858	1-130-481-00	MYLAR	0.0068MF	10%	50V
C859	1-130-475-00	MYLAR	0.0022MF	5%	50V
C860	1-124-255-00	ELECT	1MF	20%	50V
CF201	1-409-370-00	TRAP, CERAMIC 4.5MHZ			
CF251	1-567-115-00	FILTER, CERAMIC			
CF252	1-567-513-11	FILTER, CERAMIC			
D151	8-719-901-33	DIODE 1SS133			
D152	8-719-101-23	DIODE 1SS123			
D401	8-719-108-13	DIODE 1S955			
D501	8-719-102-81	DIODE RD7.5E-N2			
D503	8-719-901-33	DIODE 1SS133			
D601	8-719-908-06	DIODE ERA81-005			
D602	8-719-901-33	DIODE 1SS133			
D651	8-719-901-33	DIODE 1SS133			
D801 ⚠	8-719-102-81	DIODE RD7.5E-N2			
D802 ⚠	8-719-102-71	DIODE RD5.6F-N2			
D803	8-719-901-33	DIODE 1SS133			
D804	8-719-903-28	DIODE ESJAS7-04			
D805	8-719-901-33	DIODE 1SS133			
D806	8-719-901-33	DIODE 1SS133			
D807	8-719-901-33	DIODE 1SS133			
D851	8-719-918-77	DIODE V19G			
D852	8-719-901-33	DIODE 1SS133			
F601 ⚠	1-532-625-00	FUSE, GLASS TUBE (1.25A)			

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
IC201	8-759-602-99	IC CX20183			
IC451	8-759-700-89	IC NJM386D			
IC501	8-752-030-28	IC CX20157			
IC601	8-759-802-39	IC CX20159			
IC851	8-759-701-01	IC NJM2904M			
J101	1-507-814-00	JACK, ANTENNA (EXT ANT)			
J601	1-507-563-00	DC JACK (DC IN 6V)			
J901	(FORMER TYPE)...1-501-921-00 JACK (EARPHONE)				
	(NEW TYPE).....1-507-929-21 JACK (EARPHONE)				
L201	1-408-551-00	MICRO INDUCTOR 1UH			
L202	1-404-633-11	COIL, VIF DETECTOR			
L203	1-404-633-11	COIL, VIF DETECTOR			
L204	1-408-559-00	MICRO INDUCTOR 4.7UH			
L205	1-408-134-11	MICRO INDUCTOR 270UH			
L601	1-448-802-11	TRANSFORMER, DC-DC CONVERTER			
L801 ⚠	1-409-121-00	MICRO INDUCTOR 22UH			
L802	1-407-499-00	MICRO INDUCTOR 3.9MMH			
L851	1-407-508-00	MICRO INDUCTOR 22MMH			
L901	1-451-302-11	DEFLECTION YOKE			
Q151	8-729-600-27	TRANSISTOR 2SC634SP			
Q201	8-729-266-83	TRANSISTOR 2SC2668			
Q301	8-729-600-60	TRANSISTOR 2SA1115P			
Q302	8-729-600-27	TRANSISTOR 2SC634SP			
Q401	8-729-245-91	TRANSISTOR 2SC2459			
Q402	8-729-600-27	TRANSISTOR 2SC634SP			
Q551	8-729-600-27	TRANSISTOR 2SC634SP			
Q552	8-729-113-32	TRANSISTOR 2SB733			
Q601	8-729-102-78	TRANSISTOR 2SB962			
Q602	8-729-111-55	TRANSISTOR 2SD1312-K			
Q651	8-729-204-91	TRANSISTOR 2SA1049			
Q652	8-729-245-91	TRANSISTOR 2SC2459			
Q801	8-729-600-27	TRANSISTOR 2SC634SP			
Q802	8-729-111-55	TRANSISTOR 2SD1312-K			
Q803	8-729-111-55	TRANSISTOR 2SD1312-K			
Q804	8-729-600-27	TRANSISTOR 2SC634SP			
Q805	8-729-301-87	TRANSISTOR 2SD1083L			
Q806	8-729-301-87	TRANSISTOR 2SD1083L			
Q851	8-729-194-12	TRANSISTOR 2SC1941			
Q852	8-729-600-60	TRANSISTOR 2SA1115P			
Q853	8-729-194-12	TRANSISTOR 2SC1941			
R151	1-249-430-11	CARBON	12K	5%	1/6W
R152	1-249-425-11	CARBON	4.7K	5%	1/6W
R153	1-249-425-11	CARBON	4.7K	5%	1/6W
R156	1-215-477-00	CARBON	220K	5%	1/6W
R157	1-259-377-11	CARBON	2.2M	5%	1/6W
R158	1-249-429-11	CARBON	10K	5%	1/6W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R159	1-249-437-11	CARBON	47K	5%	1/6W
R201	1-249-411-11	CARBON	330	5%	1/6W
R202	1-247-849-00	CARBON	5.6K	5%	1/6W
R203	1-249-413-11	CARBON	470	5%	1/6W
R204	1-249-417-11	CARBON	1K	5%	1/6W
R205	1-249-410-11	CARBON	270	5%	1/6W
R206	1-249-429-11	CARBON	10K	5%	1/6W
R207	1-249-430-11	CARBON	12K	5%	1/6W
R208	1-247-893-00	CARBON	390K	5%	1/6W
R209	1-247-893-00	CARBON	390K	5%	1/6W
R210	1-215-394-00	CARBON	75	5%	1/6W
R211	1-247-849-00	CARBON	5.6K	5%	1/6W
R213	1-249-421-11	CARBON	2.2K	5%	1/6W
R214	1-249-421-11	CARBON	2.2K	5%	1/6W
R251	1-249-410-11	CARBON	270	5%	1/6W
R252	1-249-406-11	CARBON	120	5%	1/6W
R253	1-249-413-11	CARBON	470	5%	1/6W
R254	1-249-429-11	CARBON	10K	5%	1/6W
R255	1-249-401-11	CARBON	47	5%	1/6W
R256	1-249-417-11	CARBON	1K	5%	1/6W
R302	1-249-405-11	CARBON	100	5%	1/6W
R303	1-249-438-11	CARBON	56K	5%	1/6W
R304	1-249-430-11	CARBON	12K	5%	1/6W
R305	1-249-425-11	CARBON	4.7K	5%	1/6W
R306	1-249-419-11	CARBON	1.5K	5%	1/6W
R307	1-249-415-11	CARBON	680	5%	1/6W
R401	1-249-405-11	CARBON	100	5%	1/6W
R402	1-249-430-11	CARBON	12K	5%	1/6W
R403	1-249-418-11	CARBON	1.2K	5%	1/6W
R404	1-249-401-11	CARBON	47	5%	1/6W
R405	1-247-826-00	CARBON	620	5%	1/6W
R406	1-215-493-00	CARBON	1M	5%	1/6W
R407	1-249-418-11	CARBON	1.2K	5%	1/6W
R408	1-249-429-11	CARBON	10K	5%	1/6W
R409	1-249-437-11	CARBON	47K	5%	1/6W
R452	1-249-428-11	CARBON	8.2K	5%	1/6W
R453	1-249-397-11	CARBON	22	5%	1/6W
R454	1-249-397-11	CARBON	22	5%	1/6W
R455	1-247-791-00	CARBON	22	5%	1/6W
R501	1-249-425-11	CARBON	4.7K	5%	1/6W
R502	1-249-433-11	CARBON	22K	5%	1/6W
R503	1-249-425-11	CARBON	4.7K	5%	1/6W
R504	1-247-849-00	CARBON	5.6K	5%	1/6W
R506	1-249-433-11	CARBON	22K	5%	1/6W
R507	1-249-437-11	CARBON	47K	5%	1/6W
R508	1-247-893-00	CARBON	390K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R509	1-249-439-11	CARBON	68K	5%	1/6W
R510	1-247-881-00	CARBON	120K	5%	1/6W
R511	1-249-441-11	CARBON	100K	5%	1/6W
R512	1-249-393-11	CARBON	10	5%	1/6W
R513	1-249-437-11	CARBON	47K	5%	1/6W
R514	1-249-437-11	CARBON	47K	5%	1/6W
R515	1-249-429-11	CARBON	10K	5%	1/6W
R516	1-249-417-11	CARBON	1K	5%	1/6W
R517	1-249-433-11	CARBON	22K	5%	1/6W
R518	1-249-414-11	CARBON	560	5%	1/6W
R519	1-249-425-11	CARBON	4.7K	5%	1/6W
R520	1-249-405-11	CARBON	100	5%	1/6W
R521	1-249-417-11	CARBON	1K	5%	1/6W
R551	1-249-431-11	CARBON	15K	5%	1/6W
R552	1-249-410-11	CARBON	270	5%	1/6W
R553	1-249-417-11	CARBON	1K	5%	1/6W
R554	1-249-393-11	CARBON	10	5%	1/6W
R555	1-249-408-11	CARBON	180	5%	1/6W
R556	1-249-416-11	CARBON	820	5%	1/6W
R557	1-249-435-11	CARBON	33K	5%	1/6W
R558	1-247-899-00	CARBON	680K	5%	1/6W
R559	1-249-428-11	CARBON	8.2K	5%	1/6W
R601	1-249-441-11	CARBON	100K	5%	1/6W
R602	1-249-413-11	CARBON	470	5%	1/6W
R603 ⚠	1-215-443-00	METAL	8.2K	1%	1/6W
R604 ⚠	1-215-454-00	METAL	24K	1%	1/6W
R605	1-249-441-11	CARBON	100K	5%	1/6W
R606	1-249-438-11	CARBON	56K	5%	1/6W
R607	1-247-864-00	CARBON	24K	5%	1/6W
R608	1-249-417-11	CARBON	1K	5%	1/6W
R609	1-249-411-11	CARBON	330	5%	1/6W
R610	1-249-440-11	CARBON	82K	5%	1/6W
R611	1-249-429-11	CARBON	10K	5%	1/6W
R612	1-249-385-11	CARBON	2.2	5%	1/6W
R651	1-215-466-00	CARBON	75K	5%	1/6W
R652	1-249-433-11	CARBON	22K	5%	1/6W
R653	1-249-438-11	CARBON	56K	5%	1/6W
R654	1-249-439-11	CARBON	68K	5%	1/6W
R655	1-249-425-11	CARBON	4.7K	5%	1/6W
R801	1-249-410-11	CARBON	270	5%	1/6W
R802	1-249-413-11	CARBON	470	5%	1/6W
R803 ⚠	1-249-413-11	CARBON	470	5%	1/6W
R804 ⚠	1-249-413-11	CARBON	470	5%	1/6W
R805	1-249-409-11	CARBON	220	5%	1/6W
R806	1-259-378-11	CARBON	3.3M	5%	1/6W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R807	1-259-378-11	CARBON	3.3M	5%	1/6W
R808	1-259-379-11	CARBON	4.7M	5%	1/6W
R809	1-259-379-11	CARBON	4.7M	5%	1/6W
R811	1-259-378-11	CARBON	3.3M	5%	1/6W
R812	1-259-378-11	CARBON	3.3M	5%	1/6W
R813	1-249-435-11	CARBON	33K	5%	1/6W
R814	1-249-438-11	CARBON	56K	5%	1/6W
R815	1-249-413-11	CARBON	470	5%	1/6W
R816	1-249-409-11	CARBON	220	5%	1/6W
R817	1-247-795-00	CARBON	33	5%	1/6W
R851	1-249-401-11	CARBON	47	5%	1/6W
R852	1-247-883-00	CARBON	150K	5%	1/6W
R853	1-249-433-11	CARBON	22K	5%	1/6W
R854	1-249-427-11	CARBON	6.8K	5%	1/6W
R855	1-247-885-00	CARBON	180K	5%	1/6W
R856	1-249-441-11	CARBON	100K	5%	1/6W
R857	1-259-377-11	CARBON	2.2M	5%	1/6W
R858	1-249-435-11	CARBON	33K	5%	1/6W
R859	1-249-418-11	CARBON	1.2K	5%	1/6W
R860	1-247-897-00	CARBON	560K	5%	1/6W
R861	1-249-440-11	CARBON	82K	5%	1/6W
R862	1-247-881-00	CARBON	120K	5%	1/6W
R863	1-249-434-11	CARBON	27K	5%	1/6W
R864	1-249-434-11	CARBON	27K	5%	1/6W
R865	1-249-434-11	CARBON	27K	5%	1/6W
R866	1-249-438-11	CARBON	56K	5%	1/6W
R867	1-249-441-11	CARBON	100K	5%	1/6W
R868	1-249-425-11	CARBON	4.7K	5%	1/6W
R869	1-249-434-11	CARBON	27K	5%	1/6W
R870	1-249-435-11	CARBON	33K	5%	1/6W
R871	1-247-888-00	CARBON	240K	5%	1/6W
R872	1-215-477-00	CARBON	220K	5%	1/6W

RV151	1-230-775-11	RES, ADJ, CARBON 10K
RV152	1-230-776-11	RES, ADJ, CARBON 100K
RV153	1-237-617-11	RES, ADJ, CARBON 50K
RV154	1-230-776-11	RES, ADJ, CARBON 100K
RV155	1-230-776-11	RES, ADJ, CARBON 100K
RV156	1-237-613-11	RES, VAR, CARBON (WITH SW)200K (TUNING)
RV201	1-230-775-11	RES, ADJ, CARBON 10K
RV401	1-237-610-11	RES, ADJ, CARBON 5K (CONTR)
RV451	1-228-572-00	RES, VAR, CARBON 10K (VOL)
RV501	1-237-619-11	RES, ADJ, CARBON 5K
RV502	1-237-621-11	RES, ADJ, CARBON 220K
RV601	⚠1-237-618-11	RES, ADJ, CARBON 2.2K

ELECTRICAL PARTS

Ref.No.	Part No.	Description
RV801	1-237-612-11	RES, ADJ, METAL GRAZE 4.7M
RV802	1-237-612-11	RES, ADJ, METAL GRAZE 4.7M
RV851	1-237-620-11	RES, ADJ, CARBON 20K
RV852	1-228-994-00	RES, ADJ, CARBON 10K
RV853	1-237-611-11	RES, ADJ, CARBON 50K (BRT)
S151	1-554-222-00	SWITCH, SLIDE (BAND SELECT)
S601	1-554-358-00	SWITCH, PUSH (POWER)
SP901	1-503-759-11	SPEAKER
SWF201	1-404-635-11	SAWF (DIP TYPE)
T801	⚠1-439-405-11	TRANSFORMER ASSY, FLYBACK
V901	⚠8-736-853-00	CRT 04JM

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-559-523-11	(Canadian)...CORD, MONITOR, VTR
1-504-090-11	(US:SEARS)...EARPHONE (ME-L82)
3-323-930-01	STRAP
3-338-904-01	CUSHION (LEFT)
3-338-907-01	(US,E).....INDIVIDUAL CARTON
3-338-939-01	(Canadian)...INDIVIDUAL CARTON
3-338-938-01	(US:SEARS)...INDIVIDUAL CARTON
3-338-912-01	SHEET, PROTECTION
3-338-914-01	CUSHION (RIGHT)
3-338-937-01	(US:SEARS)...SLEEVE, ADAPTOR
3-701-622-00	BAG, POLYETHYLENE
3-338-913-01	(US).....LABEL, COLOR (BLUE-GRAY)
3-703-898-01	(US,E)...LABEL, COLOR (GRAY)
3-703-904-01	(US).....LABEL, COLOR (PINK)
3-703-908-01	(US,E)...LABEL, COLOR (WHITE)
3-765-864-21	(US,E).....MANUAL, INSTRUCTION
3-765-864-31	(Canadian)...MANUAL, INSTRUCTION
3-764-842-21	(US:SEARS)...INSTRUCTION
4-491-213-22	(US).....INSTRUCTION

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