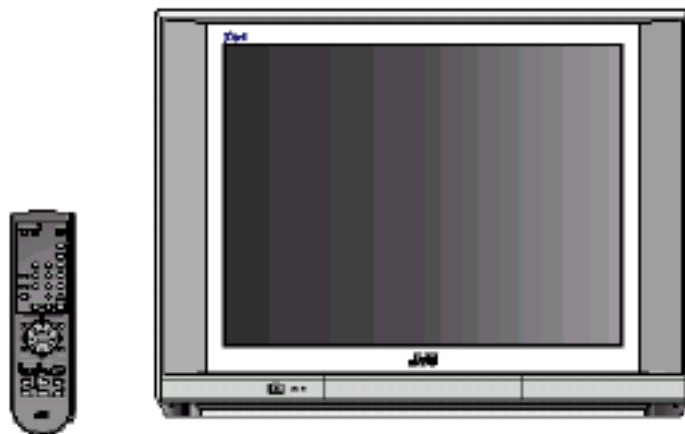


# JVC

# SERVICE MANUAL

## COLOR TELEVISION

# AV-24F702



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# SPECIFICATIONS

Items	Contents
<b>Dimensions (W×H×D)</b>	67.0cm×48.4cm×50.9cm
<b>Mass</b>	72.6lbs
<b>TV System and Color system</b>	
<b>TV RF System</b>	CCIR(M)
<b>Color System</b>	NTSC
<b>TV Receiving Channels and Frequency</b>	
<b>VHF</b>	2-13
<b>UHF</b>	14-69
<b>CATV</b>	01-97 (5A)-(A-3) 98-99 (A-2)-(A-1) 14-22 (A)-(I) 23-36 (J)-(W) 37-65 (AA)-(FFF) 66-125 (GGG)-(125)
<b>TV/CATV Total Channel</b>	180 Channels
<b>Intermediate Frequency</b>	
<b>Video IF Carrier</b>	45.75 MHz
<b>Sound IF Carrier</b>	41.25 MHz (4.5MHz)
<b>Color Sub Carrier</b>	3.58 MHz
<b>Power Input</b>	120V AC, 60Hz
<b>Power Consumption</b>	137W
<b>Picture Tube</b>	24"
<b>Speaker</b>	2" x 4-3/4", 8 ohm x 2
<b>Audio Power Output</b>	5 W + 5 W
<b>Input (1 / 2 /3)</b>	Video : 1Vp-p 75ohm (RCA pin jack) Audio : -8dB, 47kohm (RCA pin jack) S-Video Y : 1.0Vp-p, 75 ohm C : 0.3Vp-p, 75 ohm
<b>Component Input</b>	Y: 1.0Vp-p, 75 ohm PB: 0.7Vp-p, 75 ohm PR: 0.7Vp-p, 75 ohm
<b>Antenna terminal</b>	75Ω (VHF/UHF) Terminal, F-Type Connector
<b>Remote Control Unit</b>	RM-C309G

*Design & specification are subject to change without notice.*

# SAFETY PRECAUTIONS

Operating the receiver outside of its cabinet or with its back removed involves a shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage RF terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis, escutcheon, picture tube dag and tuner cluster when operating the chassis.

These receivers have a "polarized" AC line cord. The AC plug is designed to fit into standard AC outlets in one direction only. The wide blade connects to the "ground side" and the narrow blade connects to the "hot side" of the AC line. This assures that the TV receiver is properly grounded to the house wiring. If an extension cord must be used, make sure it is of the "polarized" type.

Since the chassis of this receiver is connected to one side of the AC supply during operation, service should not be attempted by anyone not familiar with the precautions necessary when working on these types of equipment.

When it is necessary to make measurements or tests with AC power applied to the receiver chassis, an Isolation Transformer must be used as a safety precaution and to prevent possible damage to transistors. The Isolation Transformer should be connected between the TV line cord plug and the AC power outlet.

Certain HV failures can increase X-ray radiation. Receivers should not be operated with HV levels exceeding the specified rating for their chassis type. The maximum operating HV specified for the chassis used in these receivers is 32.5kV 1.0kV at zero beam current with a line voltage of 120V AC. Higher voltage may also increase the possibility of failure in the HV supply.

It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the receiver that could cause a rise in high voltage, or operating supply voltages. No changes should be made to the original design of the receiver.

Components shown in the shaded areas on the schematic diagram and/or identified by  $\triangle$  in the replacement parts list should be replaced only with exact factory recommended replacement parts. The use of unauthorized substitute parts may create shock, fire, X-ray radiation, or other hazards.

To determine the presence of high voltage, use an accurate high impedance HV meter connected between the second anode lead and the CRT dag grounding device. When servicing the High Voltage System, remove static charges from it by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the picture tube dag and 2nd anode lead (have AC line cord disconnected from AC supply).

The picture tube used in this receiver employs integral implosion protection. Replace with a tube of the same type number for continued safety. Do not lift picture tube by the neck. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely. Keep others without shatterproof goggles away.

When removing springs or spring mounted parts from the tuner, tuner cluster or chassis, shatterproof goggles must be worn. Keep others without shatterproof goggles away.

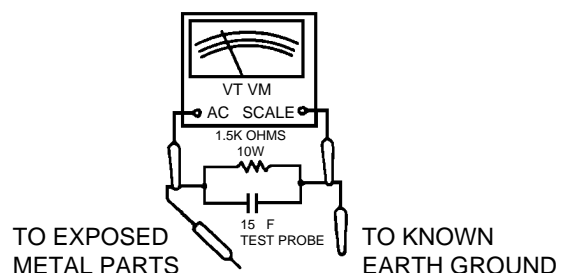
Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Replace all protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, a check for the presence of leakage current should be made at each exposed metal part having a return path to the chassis (antenna, cabinet metal, screw heads, knobs and/or shafts, escutcheon, etc.) in the following manner.

Plug the AC line cord directly into a 120V AC receptacle. (Do not use an Isolation Transformer during these checks.) All checks must be repeated with the AC line cord plug connection reversed. (If necessary, a nonpolarized adapter plug must be used only for the purpose of completing these checks.)

If available, measure current using an accurate leakage current tester. Any reading of 0.35mA or more is excessive and indicates a potential shock hazard which must be corrected before returning the receiver to the owner.

If a reliable leakage current tester is not available, this alternate method of measurement should be used. Using two clip leads, connect a 1500 ohm, 10 watt resistor paralleled by a 0.15 F capacitor in series with a known earth ground, such as a water pipe or conduit and the metal part to be checked. Use a VTVM or VOM with 1000 ohms per volt, or higher, sensitivity to measure this AC voltage drop across the resistor. Any reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the receiver to the owner.



# SPECIFIC SERVICE INSTRUCTIONS

## DISASSEMBLY INSTRUCTIONS

### 1. REMOVAL OF ANODE CAP

Read the following **NOTED** items before starting work.

- \* After turning the power off there might still be a potential voltage that is very dangerous. When removing the Anode Cap, make sure to discharge the Anode Cap's potential voltage.
- \* Do not use pliers to loosen or tighten the Anode Cap terminal, this may cause the spring to be damaged.

#### REMOVAL

1. Follow the steps as follows to discharge the Anode Cap. **(Refer to Fig. 1-1.)**

Connect one end of an Alligator Clip to the metal part of a flat-blade screwdriver and the other end to ground. While holding the plastic part of the insulated Screwdriver, touch the support of the Anode with the tip of the Screwdriver. A cracking noise will be heard as the voltage is discharged.

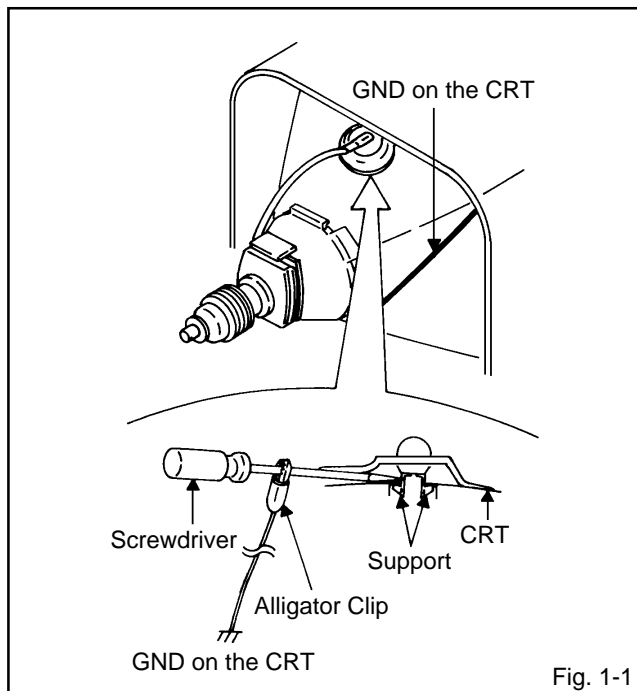


Fig. 1-1

2. Flip up the sides of the Rubber Cap in the direction of the arrow and remove one side of the support. **(Refer to Fig. 1-2.)**

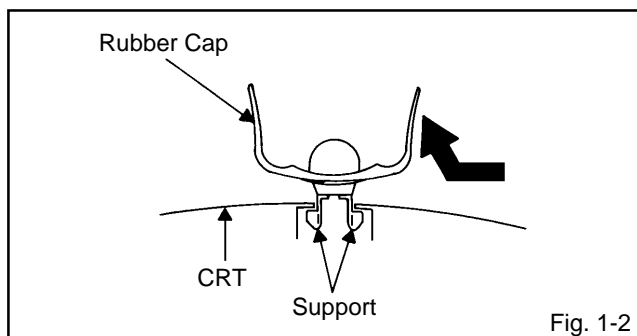


Fig. 1-2

3. After one side is removed, pull in the opposite direction to remove the other.

#### NOTE

Take care not to damage the Rubber Cap.

#### INSTALLATION

1. Clean the spot where the cap was located with a small amount of alcohol. **(Refer to Fig. 1-3.)**

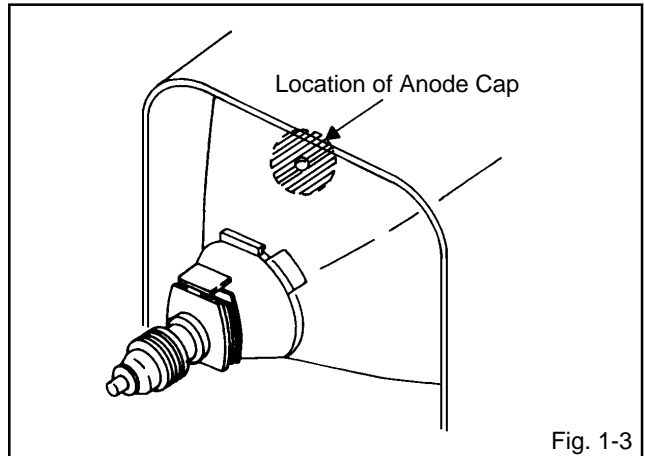


Fig. 1-3

#### NOTE

Confirm that there is no dirt, dust, etc. at the spot where the cap was located.

2. Arrange the wire of the Anode Cap and make sure the wire is not twisted.
3. Turn over the Rubber Cap. **(Refer to Fig. 1-4.)**

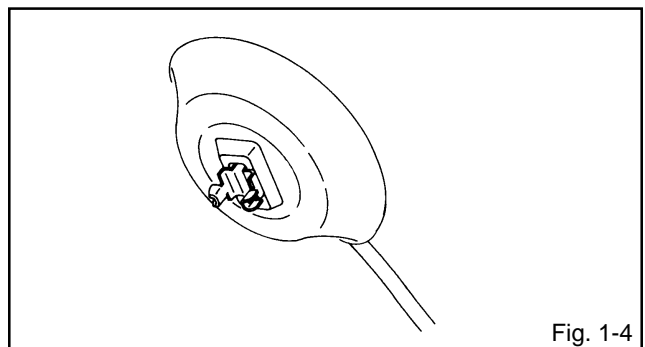


Fig. 1-4

4. Insert one end of the Anode Support into the anode button, then the other as shown in Fig. 1-5.

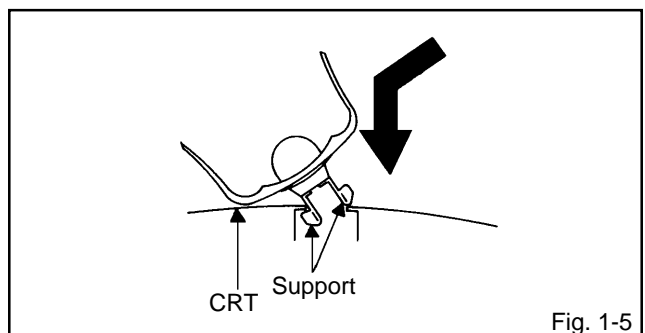


Fig. 1-5

5. Confirm that the Support is securely connected.
6. Put on the Rubber Cap without moving any parts.

## NOTE FOR THE REMOVAL OF MAIN PCB

Remove the bindings of Fig. 1 and Fig. 2. After the unplugging of all connectors, remove Main PCB.

Note : When installing of the Main PCB, bind them as they were bound.

Cut the unnecessary section of the binding band.

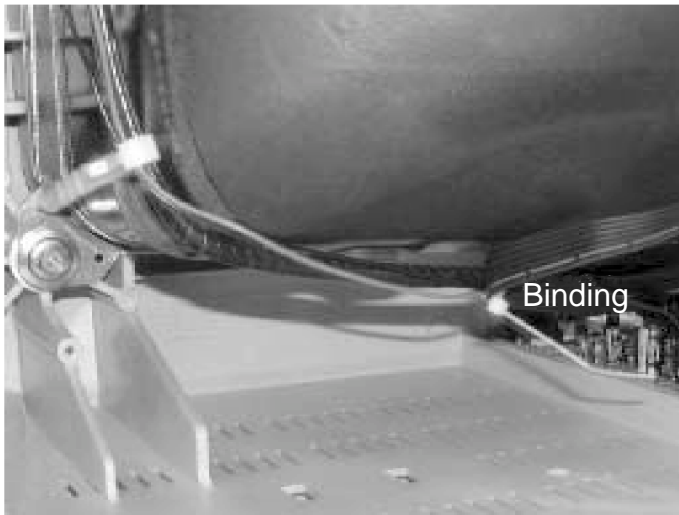


Fig. 1

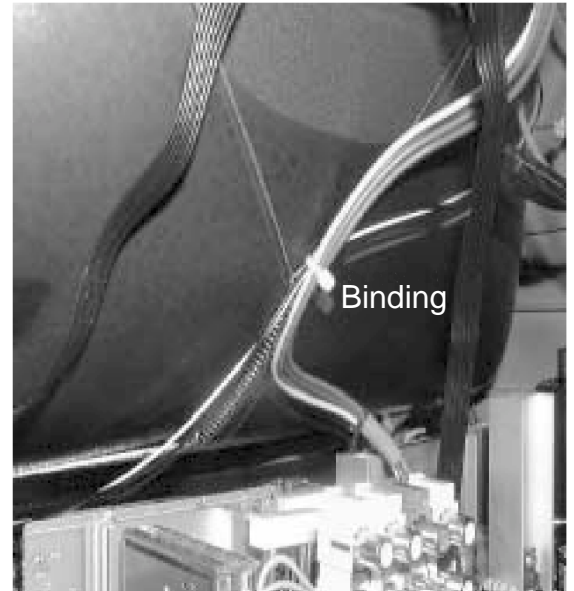


Fig. 2

## SERVICE MODE LIST

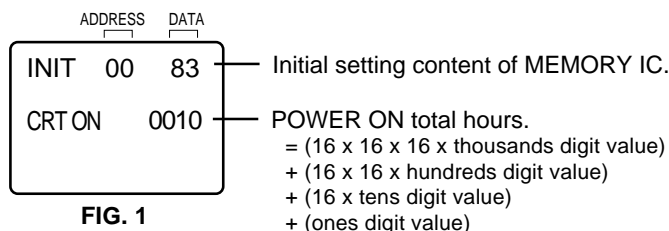
This unit provided with the following SERVICE MODES so you can repair, examine and adjust easily. To enter the Service Mode, press both set key and remote control key for more than 1 second.

Set Key	Remocon Key	Operations
VOL. (-) MIN	0	Releasing of V-CHIP PASSWORD.
VOL. (-) MIN	1	Initialization of the factory. NOTE: Do not use this for the normal servicing.
VOL. (-) MIN	6	POWER ON total hours is displayed on the screen. Refer to the "CONFIRMATION OF USING HOURS".  Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "NOTE FOR THE REPLACING OF MEMORY IC".
VOL. (-) MIN	8	Writing of EEPROM initial data. NOTE: Do not use this for the normal servicing.
VOL. (-) MIN	9	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

## CONFIRMATION OF USING HOURS

POWER ON total hours can be checked on the screen. Total hours are displayed in 16 system of notation.

1. Set the VOLUME to minimum.
2. Press both VOL. DOWN button on the set and Channel button (6) on the remote control for more than 1 second.
3. After the confirmation of using hours, turn off the power.



## NOTE FOR THE REPLACING OF MEMORY IC

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to TABLE 1.

INI	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	E1	C3	00	00	31	B3	27	37	9F	E8	FF	84	00	00	00	30
10	0F	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 1

1. Enter DATA SET mode by setting VOLUME to minimum.
2. Press both VOL. DOWN button on the set and Channel button (6) on the remote control for more than 1 second. ADDRESS and DATA should appear as FIG 1.
3. ADDRESS is now selected and should "blink". Using the VOL. UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
4. Press ENTER to select DATA. When DATA is selected, it will "blink".
5. Again, step through the DATA using VOL. UP/DOWN button until required DATA value has been selected.
6. Pressing ENTER will take you back to ADDRESS for further selection if necessary.
7. Repeat steps 3 to 6 until all data has been checked.
8. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input. The unit will now have the correct DATA for the new MEMORY IC.

# SERVICE ADJUSTMENT

## ELECTRICAL ADJUSTMENTS

### 1. BEFORE MAKING ELECTRICAL ADJUSTMENTS

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

#### CAUTION

- Use an isolation transformer when performing any service on this chassis.
- Before removing the anode cap, discharge electricity because it contains high voltage.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.  
Inferior silicon grease can damage IC's and transistors.
- When replacing IC's and transistors, use only specified silicon grease.  
Remove all old silicon before applying new silicon.

Prepare the following measurement tools for electrical adjustments.

1. Synchro Scope
2. Digital Voltmeter

#### On-Screen Display Adjustment

1. In the condition of NO indication on the screen.  
Press the VOL. DOWN button on the set and the Channel button (9) on the remote control for more than 1 second to appear the adjustment mode on the screen as shown in Fig. 1-1.

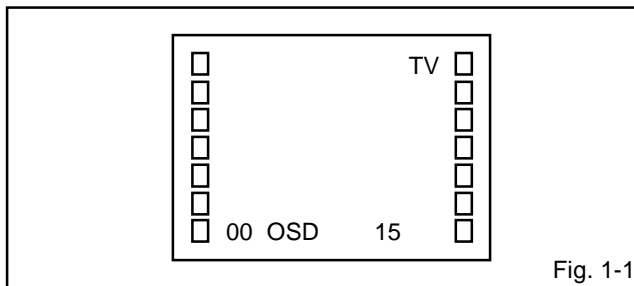


Fig. 1-1

2. Use the Channel UP/DOWN button or Channel button (0-9) on the remote control to select the options shown in Fig. 1-2.
3. Press the MENU button on the remote control to end the adjustments.

NO.	FUNCTION	NO.	FUNCTION
00	OSD H	17	SUBCONT
01	CUT OFF	18	UNI COL
02	RF. AGC	19	---
03	---	20	TINT
04	H. POSI	21	SHARP
05	V. POSI	22	RGB CONT
06	H. SIZE	23	PARABOLA
07	V. SIZE	24	TRAPEZIU
08	V. CENT	25	COR TOP
09	V. LIN	26	COR BTM
10	VS. CORR	27	V EHT
11	G. DRV	28	H EHT
12	B. DRV	29	FM. LVL
13	R. BIAS	30	LEVEL
14	G. BIAS	31	SEP1
15	B. BIAS	32	SEP2
16	BRI	33	T. STE

Fig. 1-2

### 2. BASIC ADJUSTMENTS

#### 2-1: CONSTANT VOLTAGE

1. Set condition is AV MODE without signal.
2. Connect the digital voltmeter to TP002.
3. Adjust the VR502 until the digital voltmeter is  $116 \pm 0.5V$ .

#### 2-2: RF AGC

1. Receive a UHF Signal.
2. Connect the digital voltmeter between the TP001 and the GND.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (02) on the remote control to select "RF. AGC".
4. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is  $1.95 \pm 0.05V$ .

#### 2-3: CUT OFF

1. Adjust the unit to the following settings.  
G. DRIVE=64, B. DRIVE=64, R. BIAS=10, G. BIAS=10, B. BIAS=10
2. Place the set with Aging Test for more than 15 minutes.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (01) on the remote control to select "CUT OFF".
4. Adjust the Screen Volume until a dim raster is obtained.

#### 2-4: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustment.

1. Place the set with Aging Test for more than 10 minutes.
2. Receive the white 100% signal from the Pattern Generator.
3. Using the adjustment control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (13) on the remote control to select "R. BIAS".
5. Using the VOL. UP/DOWN button on the remote control, adjust the R. BIAS.
6. Press the CH. UP/DOWN button on the remote control to select the "G. DRV", "B. DRV", "G. BIAS" or "B. BIAS".
7. Using the VOL. UP/DOWN button on the remote control, adjust the G. DRV, B. DRV, G. BIAS or B. BIAS.
8. Perform the above adjustments 6 and 7 until the white color is looked like a white.

#### 2-5: FOCUS

1. Receive a 70dB monoscope pattern.
2. Turn the Focus Volume fully counterclockwise once.
3. Adjust the Focus Volume until picture is distinct.

#### 2-6: HORIZONTAL POSITION

1. Receive the center cross signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (04) on the remote control to select "H. POSI".
4. Press the VOL. UP/DOWN button on the remote control until the right and left screen size of the vertical line becomes the same.

**2-7: HORIZONTAL SIZE**

**NOTE:** Adjust after performing adjustments in section 2-6.

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(06)** on the remote control to select "H. SIZE".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes  $10 \pm 2\%$ .

**2-8: VERTICAL POSITION**

**NOTE:** Adjust after performing adjustments in section 2-7.

1. Receive the center cross signal from the Pattern Generator.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(05)** on the remote control to select "V. POSI".
3. Press the VOL. UP/DOWN button on the remote control until the horizontal line becomes fit to the notch of the shadow mask.

**2-9: VERTICAL SIZE**

**NOTE:** Adjust after performing adjustments in section 2-8.

1. Receive the crosshatch signal from the Pattern Generator.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(07)** on the remote control to select "V. SIZE".
3. Press the VOL. UP/DOWN button on the remote control until the rectangle on the center of the screen becomes square.
4. Receive a broadcast and check if the picture is normal.

**2-10: PARABOLA**

1. Receive the crosshatch signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(23)** on the remote control to select "PARABOLA".
4. Press the VOL. UP/DOWN button on the remote control until the right and left vertical lines are straight.

**2-11: TRAPEZIUM**

1. Receive the crosshatch signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(24)** on the remote control to select "TRAPEZIU".
4. Press the VOL. UP/DOWN button on the remote control until the both vertical lines of the screen become parallel.

**2-12: CORNER CORR TOP**

1. Receive the crosshatch signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(25)** on the remote control to select "COR TOP".
4. Press the VOL. UP/DOWN button on the remote control until the upper section of the both ends vertical lines are straight.

**2-13: CORNER CORR BOTTOM**

1. Receive the crosshatch signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(26)** on the remote control to select "COR BTM".
4. Press the VOL. UP/DOWN button on the remote control until the bottom section of the both ends vertical lines are straight.

**2-14: OSD HORIZONTAL**

1. Activate the adjustment mode display of **Fig. 1-1**.
2. Press the VOL. UP/DOWN button on the remote control until the difference of A and B becomes minimum.  
**(Refer to Fig. 2-1)**

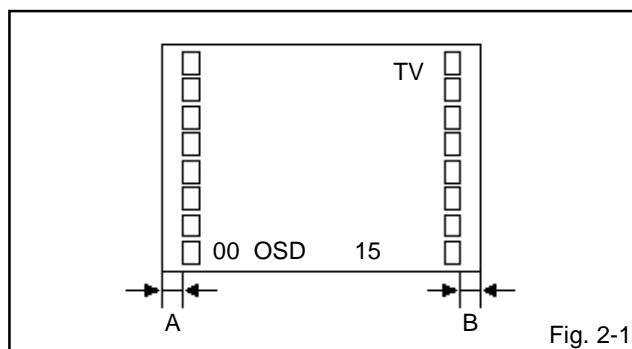


Fig. 2-1

**2-15: LEVEL**

1. Receive a 70dB monoscope pattern.
2. Connect the AC voltmeter to **TP901**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(30)** on the remote control to select "LEVEL".
4. Press the VOL. UP/DOWN button on the remote control until the AC voltmeter is  $75 \pm 2\text{mV}$ .



**2-16: SEPARATION 1, 2**

1. Receive the stereo signal (L=2KHz, R=400Hz).
2. Connect the AC voltmeter to **AUDIO OUT JACK** through stereo filter (L=400Hz, R=2KHz).
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**31**) on the remote control to select "SEP1".
4. Press the VOL. UP/DOWN button on the remote control until the output of L-CH and R-CH become minimum.
5. Press the CH UP button once the set to "SEP2" mode.
6. Press the VOL. UP/DOWN button on the remote control until the output of L-CH and R-CH become minimum.
7. Press the CH DOWN button once the set to "SEP1" mode.
8. Repeat step 4 to step 7 several times.  
The output difference of the between with Filter and without Filter should be more than 25db for both L and R.

**2-17: BRIGHTNESS**

1. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**16**) on the remote control to select "BRI".
2. Press the VOL. UP/DOWN button on the remote control until the brightness step No. becomes "47"
3. Press the INPUT button on the remote control to set to the AV mode.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**16**) on the remote control to select "BRI".
5. Press the VOL. UP/DOWN button on the remote control until the brightness step No. becomes "46"
6. Press the INPUT button on the remote control to set to the CS mode.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**16**) on the remote control to select "BRI".
8. Press the VOL. UP/DOWN button on the remote control until the brightness step No. becomes "48"

**2-18: UNI-COLOR**

1. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**18**) on the remote control to select "UNI COL".
2. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "9"
3. Press the INPUT button on the remote control to set to the AV mode.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**18**) on the remote control to select "UNI COL".
5. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "6"
6. Press the INPUT button on the remote control to set to the CS mode. Then perform the above adjustments 4-5.

**2-19: SUB TINT/SUB COLOR**

1. Receive the color bar pattern. (RF Input)
2. Connect the synchro scope to **TP806**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**20**) on the remote control to select "TINT".
4. Press the VOL. UP/DOWN button on the remote control until the waveform becomes as shown in **Fig. 2-2**.
5. Connect the synchro scope to **TP804**.
6. Press the CH DOWN button 3 times to set to "SUBCONT" mode.
7. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to 110% of the white level. (**Refer to Fig. 2-3**)
8. Receive the color bar pattern. (Audio Video Input)
9. Press the INPUT button on the remote control to set to the AV mode. Then perform the above adjustments 2-7.
10. Receive the color bar pattern. (Audio Video Input)
11. Press the INPUT button on the remote control to set to the CS mode. Then perform the above adjustments 2-6.
12. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to 135% of the white level. (**Refer to Fig. 2-4**)

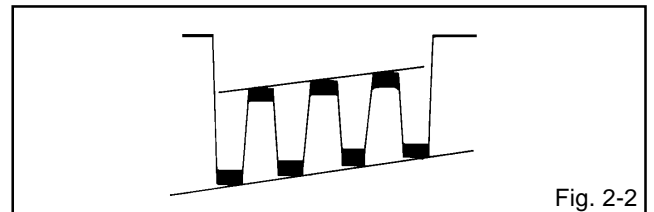


Fig. 2-2

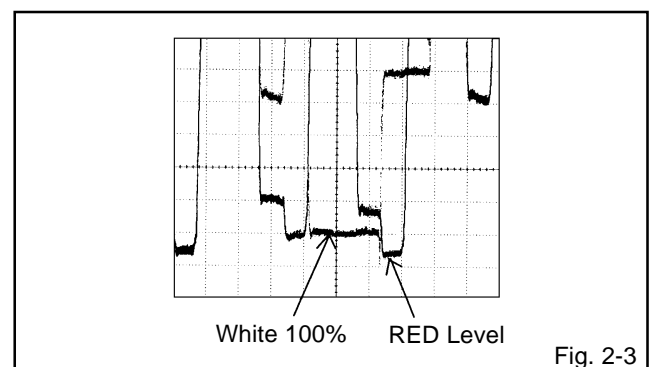


Fig. 2-3

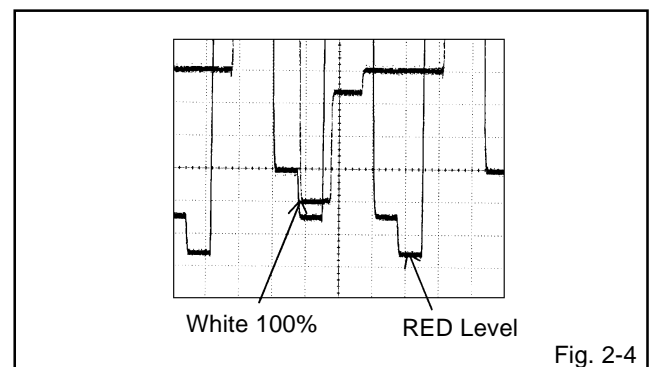


Fig. 2-4

### 3. PURITY AND CONVERGENCE ADJUSTMENTS

**NOTE**

1. Turn the unit on and let it warm up for at least 30 minutes before performing the following adjustments.
2. Place the CRT surface facing east or west to reduce the terrestrial magnetism.
3. Turn ON the unit and demagnetize with a Degauss Coil.

**3-1: STATIC CONVERGENCE (ROUGH ADJUSTMENT)**

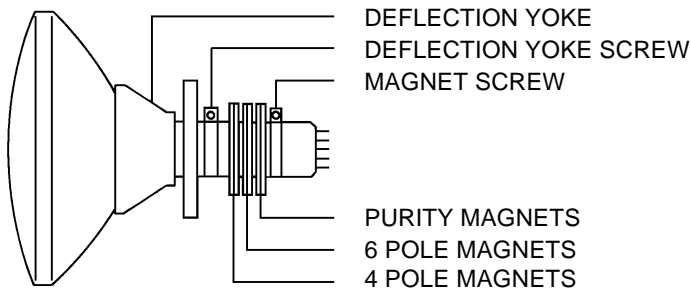
1. Tighten the screw for the magnet. Refer to the adjusted CRT for the position. **(Refer to Fig. 3-1)**  
If the deflection yoke and magnet are in one body, untighten the screw for the body.
2. Receive the green raster pattern from the color bar generator.
3. Slide the deflection yoke until it touches the funnel side of the CRT.
4. Adjust center of screen to green, with red and blue on the sides, using the pair of purity magnets.
5. Switch the color bar generator from the green raster pattern to the crosshatch pattern.
6. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
7. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.
8. Adjust the crosshatch pattern to change to white by repeating steps 6 and 7.

**3-2: PURITY**

**NOTE**

Adjust after performing adjustments in section 3-1.

1. Receive the green raster pattern from color bar generator.
2. Adjust the pair of purity magnets to center the color on the screen.  
Adjust the pair of purity magnets so the color at the ends are equally wide.
3. Move the deflection yoke backward (to neck side) slowly, and stop it at the position when the whole screen is green.
4. Confirm red and blue colors.
5. Adjust the slant of the deflection yoke while watching the screen, then tighten the fixing screw.



**Fig. 3-1**

**3-3: STATIC CONVERGENCE**

**NOTE**

Adjust after performing adjustments in section 3-2.

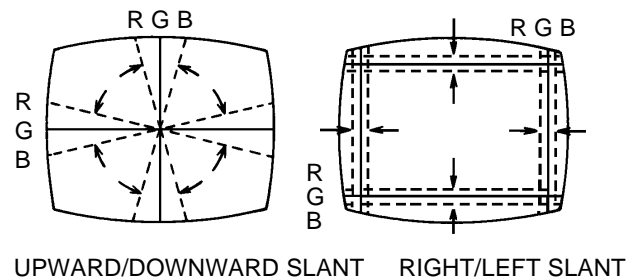
1. Receive the crosshatch pattern from the color bar generator.
2. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

**3-4: DYNAMIC CONVERGENCE**

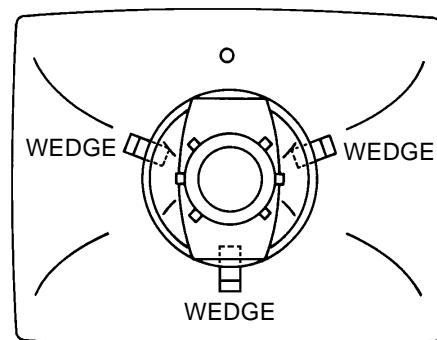
**NOTE**

Adjust after performing adjustments in section 3-3.

1. Adjust the differences around the screen by moving the deflection yoke upward/downward and right/left. **(Refer to Fig. 3-2-a)**
2. Insert three wedges between the deflection yoke and CRT funnel to fix the deflection yoke. **(Refer to Fig. 3-2-b)**

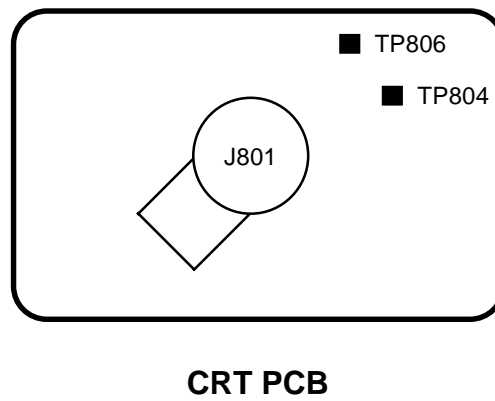
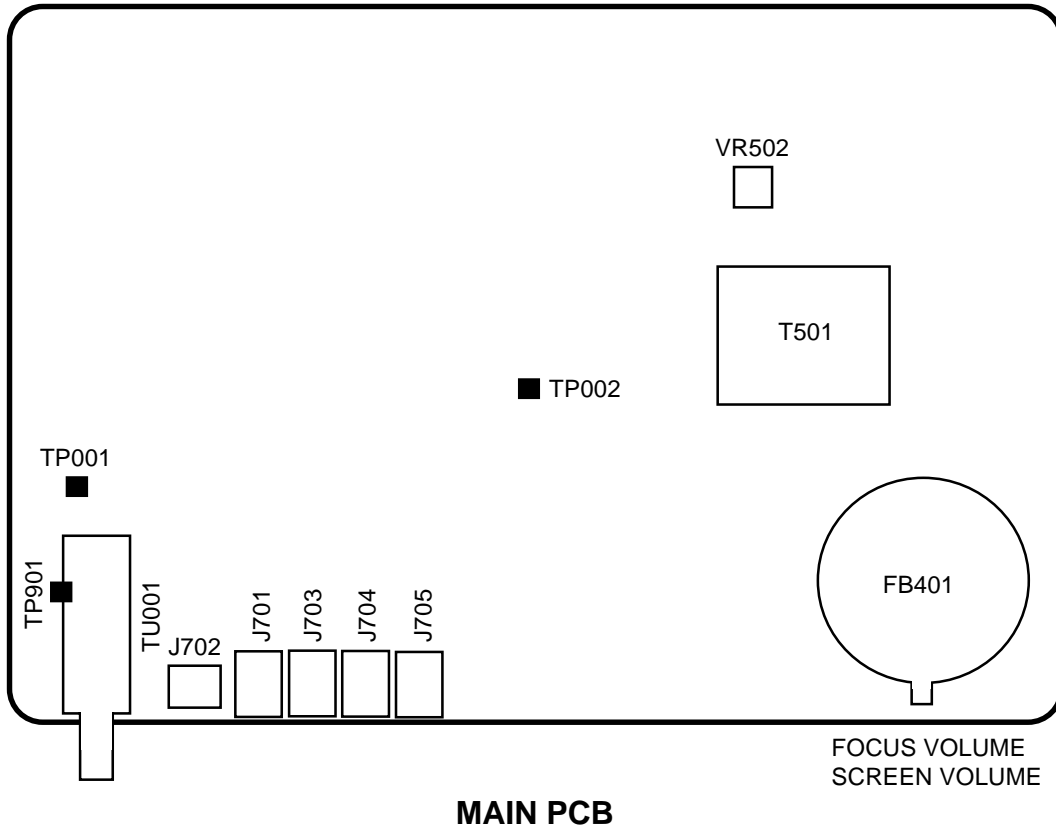


**Fig. 3-2-a**



**Fig. 3-2-b**

## MAJOR COMPONENTS LOCATION GUIDE



# GUIDE FOR REPAIRING

## IC DESCRIPTION

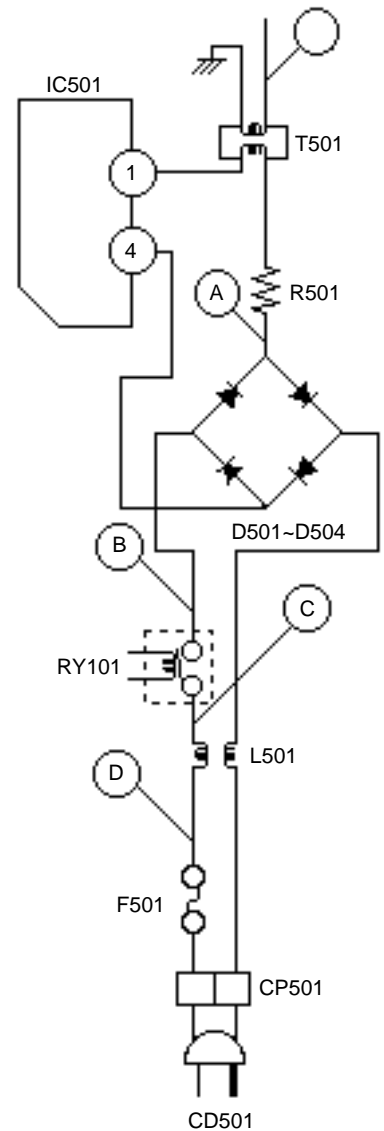
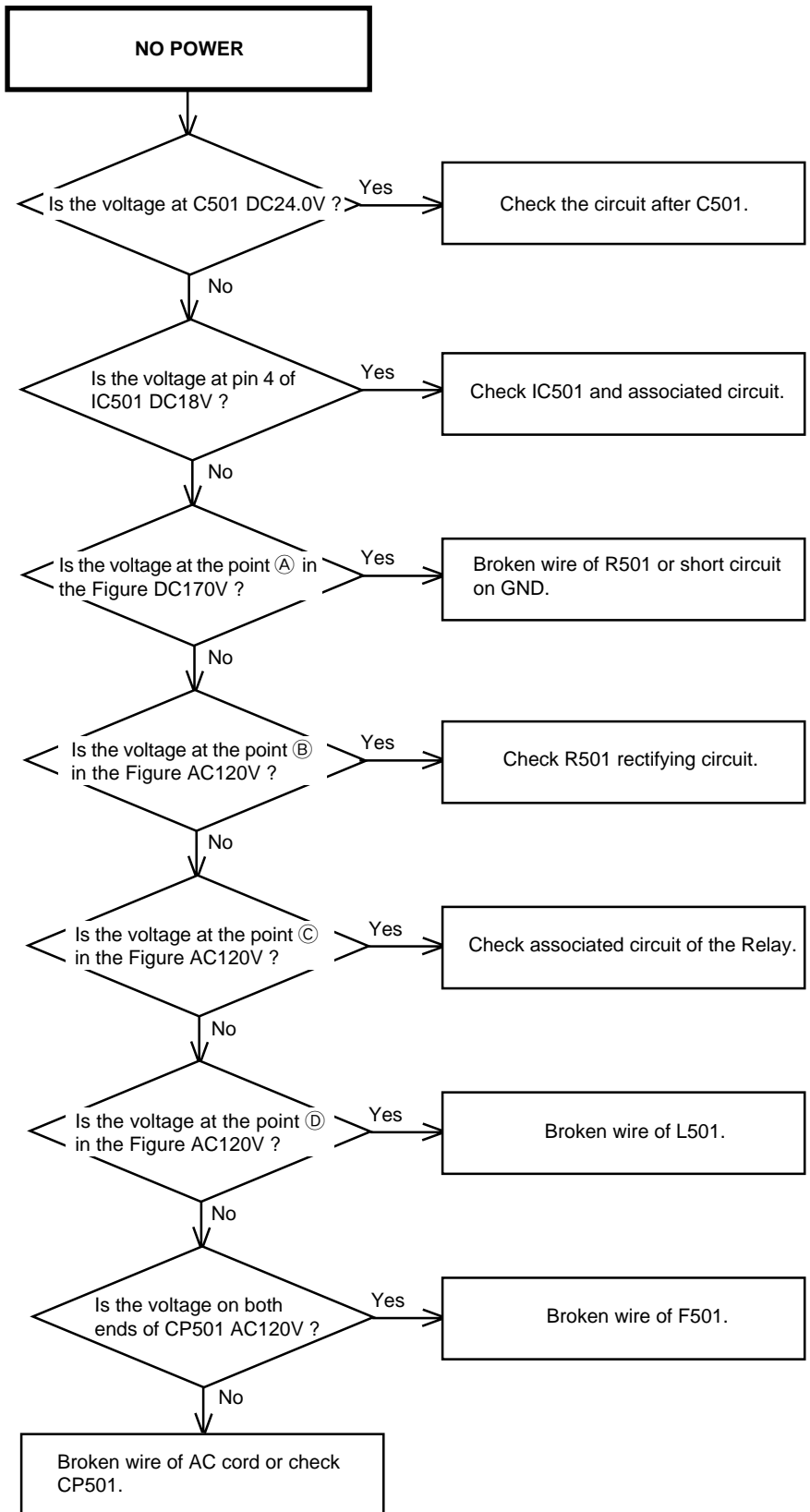
### SYSCON PCB OEC7055A(IC101)

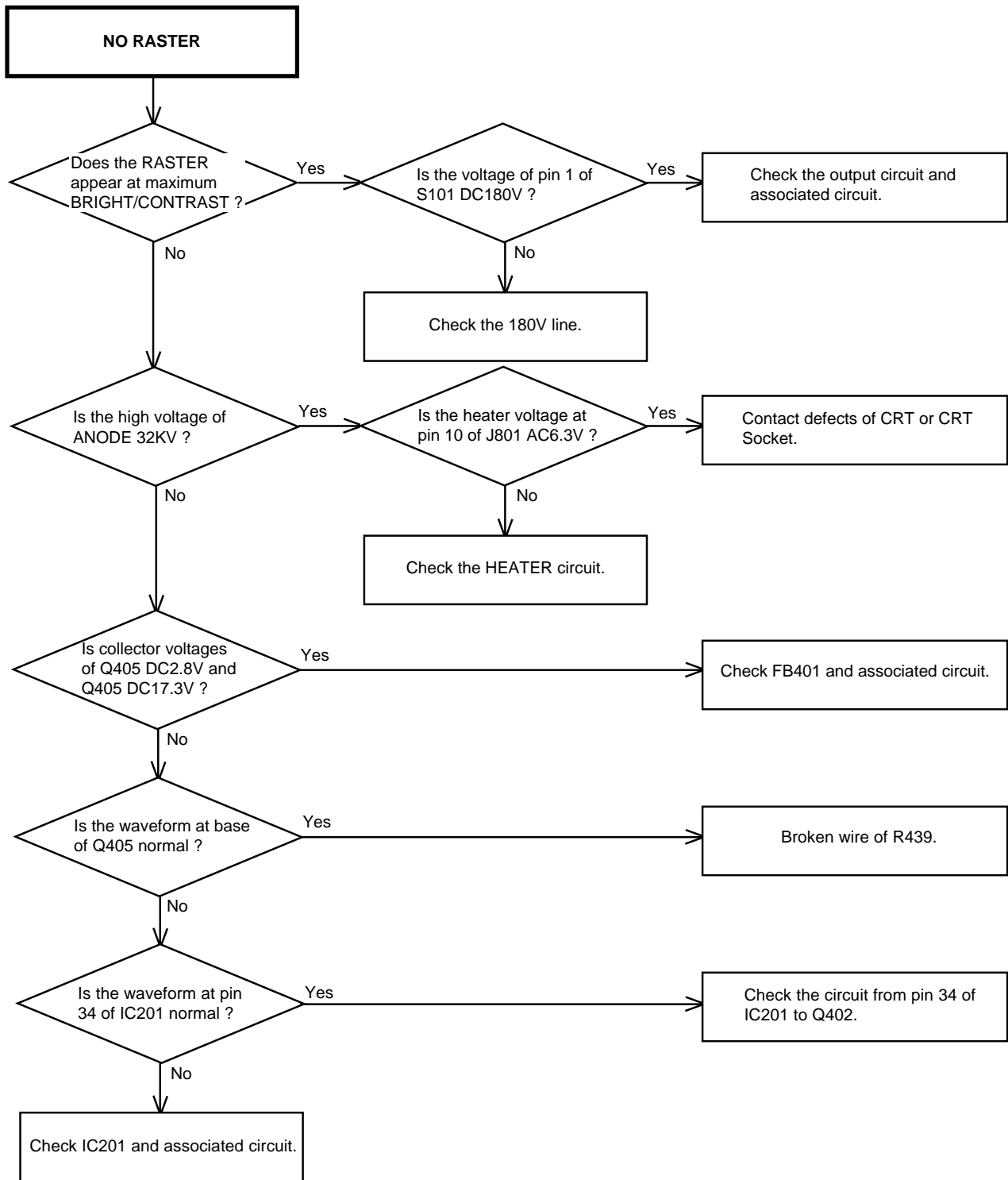
NO.	Symbol	I/O	Logic	Function	Option
1	H.SYNC	Input	0	Horizontal synchronization input	-
2	V.SYNC	Input	0	Vertical synchronization input	-
3	-	Input	-	Unused	-
4	REMOCON	Input	-	Remote control input	-
5	-	Input	-	Unused	-
6	SYNC	Input	-	Synchronization detector input	-
7	KEY1	Input	-	Voltage of the TV button input(power,vol down, ch down)	C-MOS
8	KEY2	Input	-	Voltage of the TV button input(vol up, ch up)	C-MOS
9	X-RAY	Input	-	X-RAY detector input	C-MOS
10	AFT	Input	-	Voltage of tuning input	C-MOS
11	-	Input	-	Unused	N-OD
12	-	Input	-	Unused	N-OD
13	-	Input	-	Unused	N-OD
14	-	Output	-	Unused	C-MOS
15	POWER FAIL	Input	0	Power failure detector input	-
16	-	Input	-	Unused	N-OD
17	-	Input	-	Unused	N-OD
18	AVCC	-	-	Positive power supply for analog block (5v nom,)	-
19	HLF	-	-	Filter for CCD	-
20	RVCO	-	-	Resistor for CCD	-
21	VHOLD	-	-	Capacity for CCD	-
22	CVIN	I	-	Video signal for CCD	-
23	CNVSS	-	-	Negative power supply for analog block (ground)	-
24	XN	Input	-	Main Oscillation (8MHz)	-
25	XOUT	Output	-	Main Oscillation (8MHz)	-
26	VSS	-	-	Negative power supply for digital block (ground)	-
27	VCC	-	-	Positive power supply for digital block (5v nom,)	-
28	OSC1	-	Input	Oscillation for OSD	-
29	OSC2	-	Output	Oscillation for OSD	-
30	RESET	Input	0	Reset signal input	-
31	AV1	O	-	External SW output1	C-MOS
32	AV2	O	-	External SW output2	C-MOS
33	ONTIMER	O	1	On timer LED output	C-MOS
34	DEGAUSS H	O	1	Degauss output	C-MOS
35	SPOT OFF	O	0	Spot killer output	C-MOS
36	-	I	-	Unused	N-OD
37	SDA	I/O	1	Serial data input/output	N-OD
38	-	I	-	Unused	N-OD
39	SCL	O	1	Serial clock output	N-OD
40	HALFTONE	O	1	Half tone output	C-MOS
41	POWER	O	1	Power control output	C-MOS
42	COMP H	O	1	Component output	C-MOS

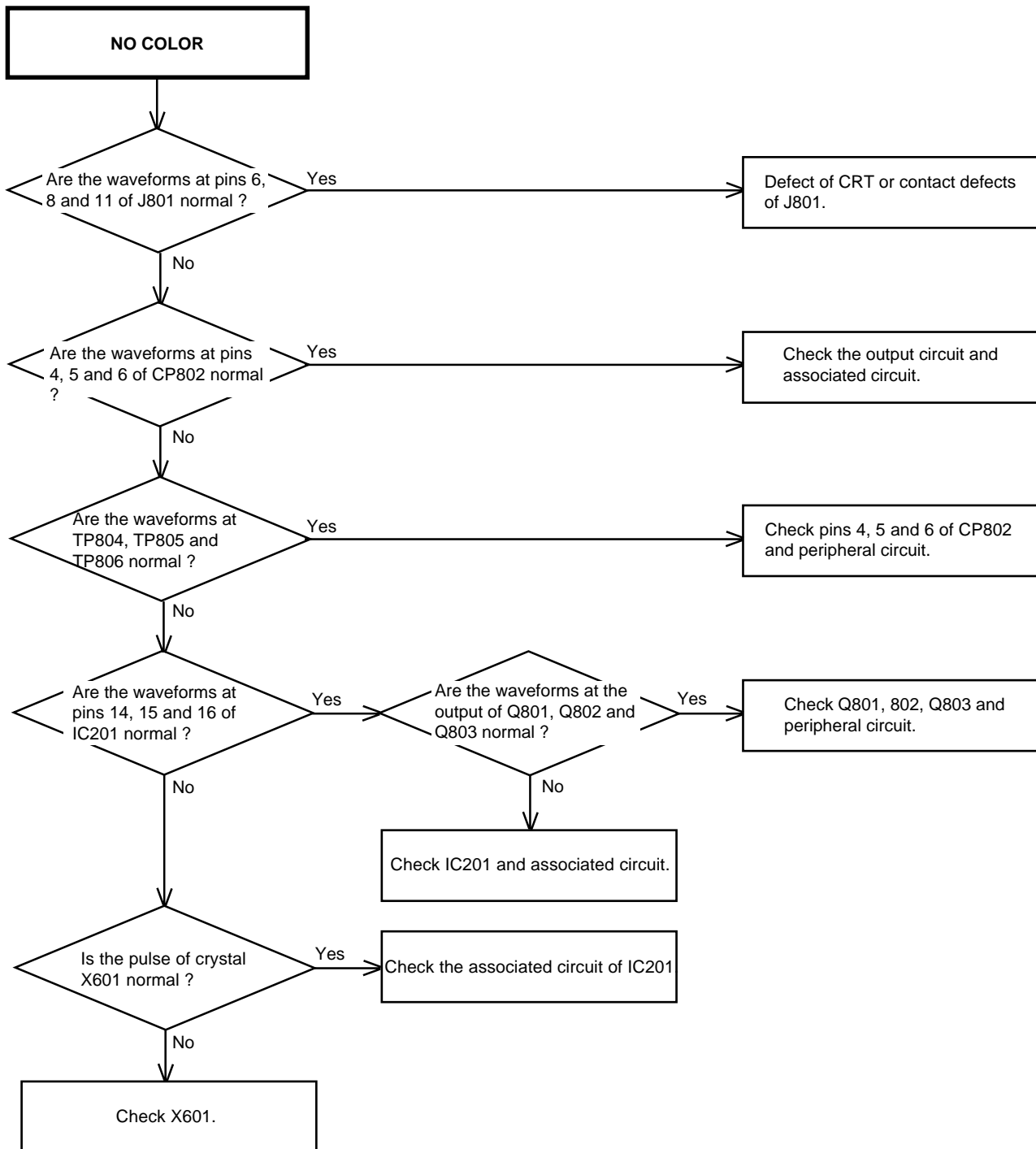
**SYS CON PCB OEC7055A(IC101)**

NO.	Symbol	I/O	Logic	Function	Option
43	ICOFF	I	0	Serialcbck/datastop input	C-MOS
44	BBE H	O	1	BBE control output	C-MOS
45	TV MUTE	O	0	Volume muting output for loudspeaker	N-OD
46	EXT MUTE	O	1	Volume muting output for external	N-OD
47	-	O	-	Unused	N-OD
48	XRAYTEST	O	1	X-RAY test output	N-OD
49	BL	O	1	Fast blanking control signal	C-MOS
50	B	O	1	Blue output of OSD	C-MOS
51	G	O	1	Green output of OSD	C-MOS
52	R	O	1	Red output of OSD	C-MOS

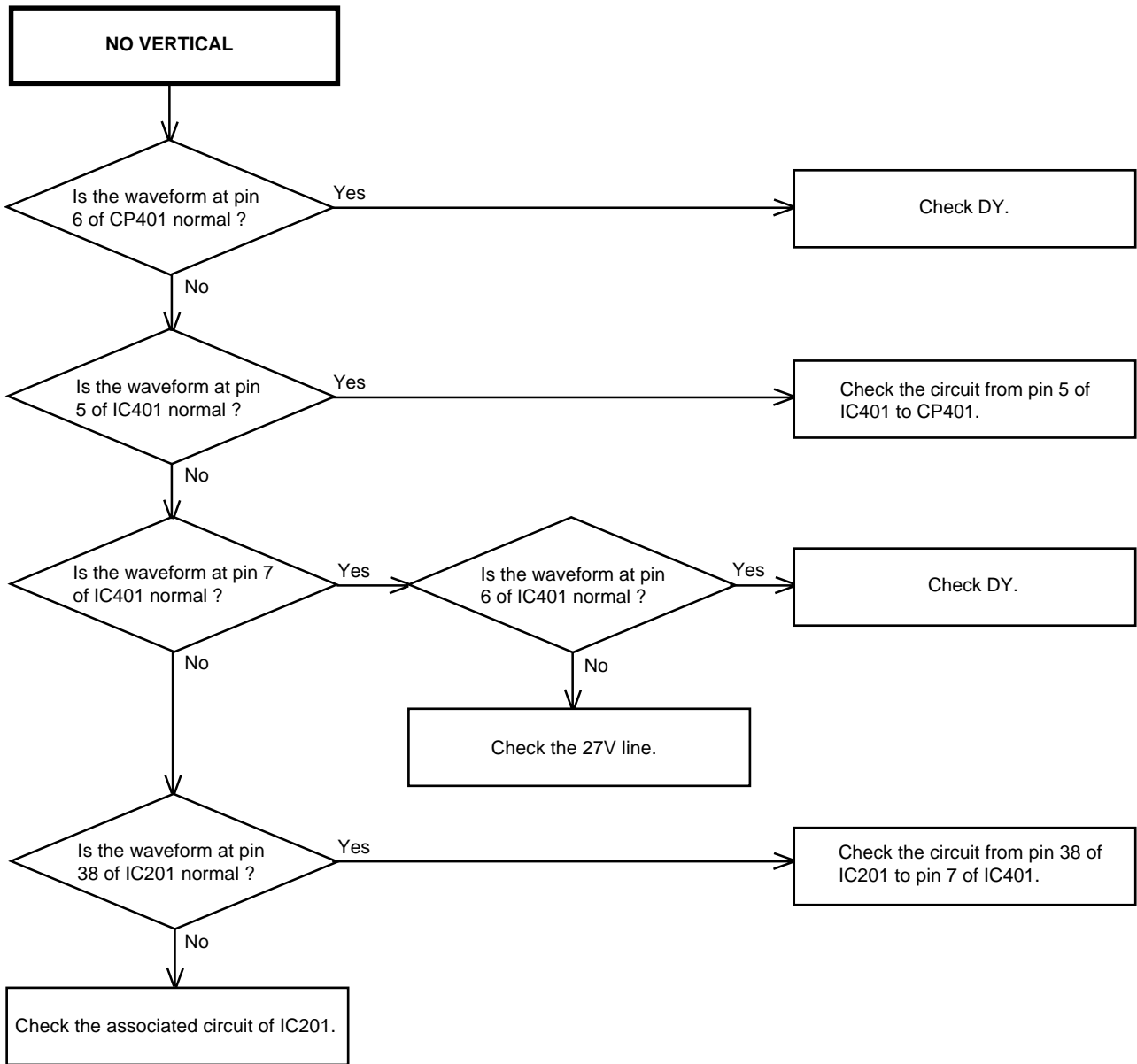
### TROUBLESHOOTING GUIDE

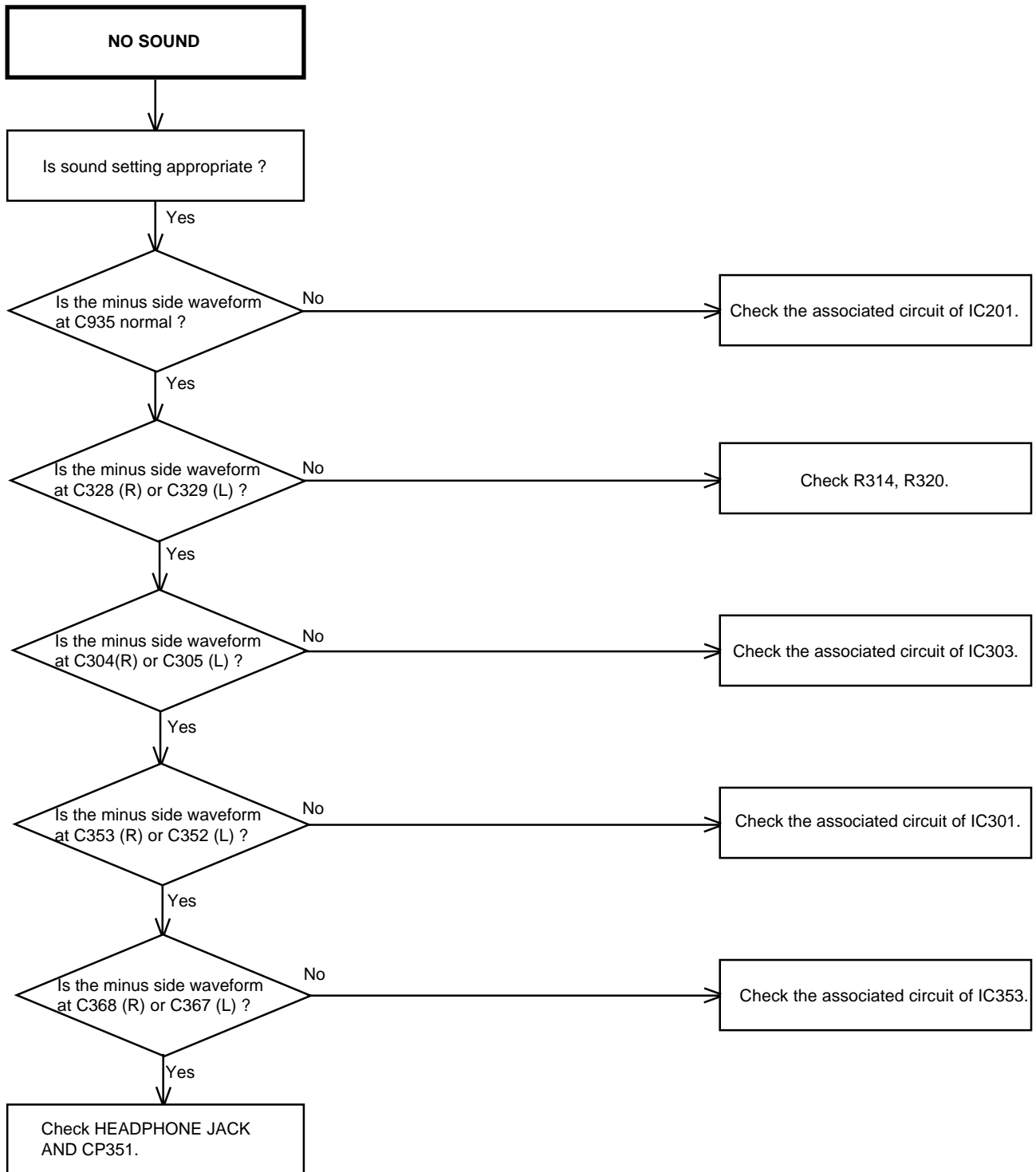


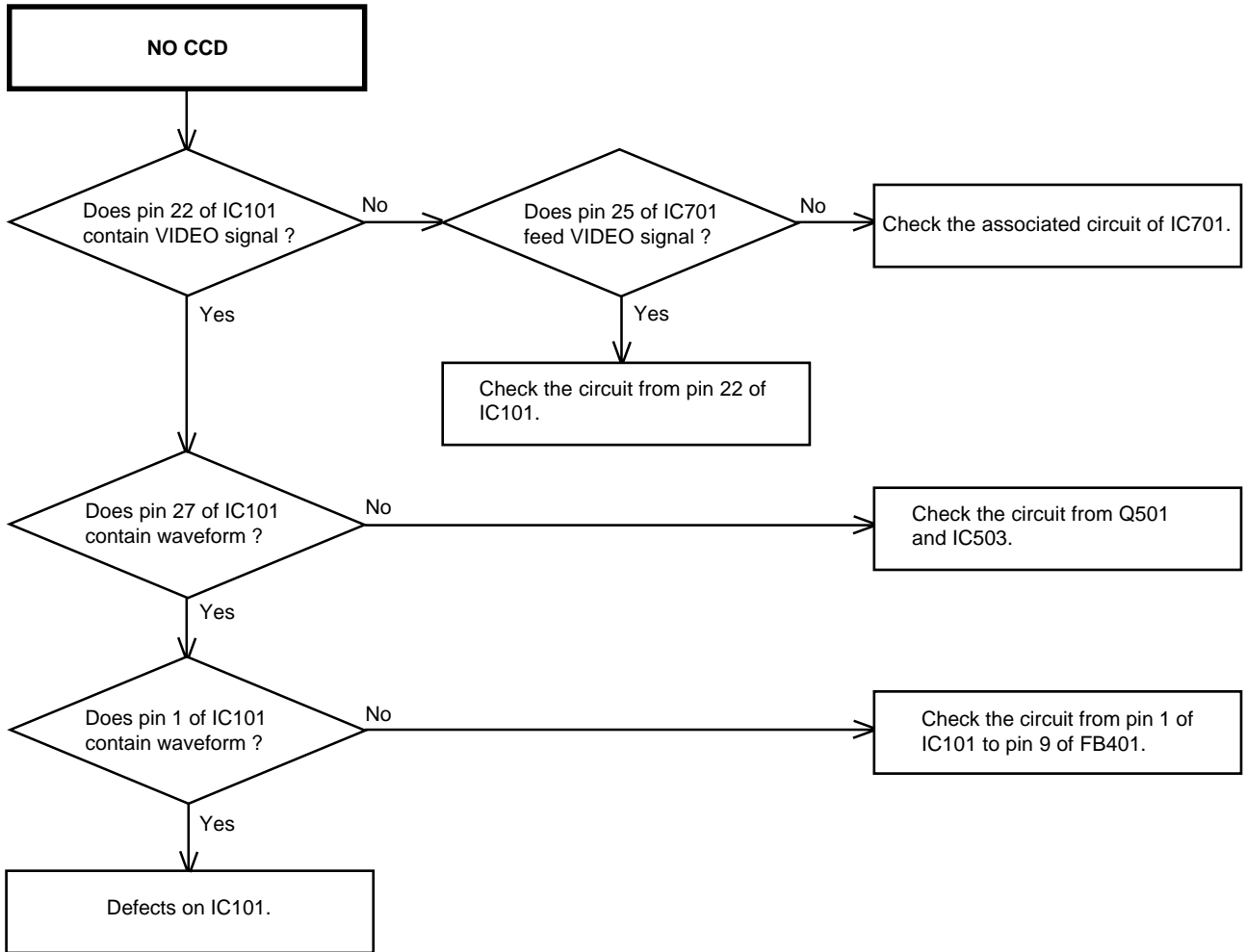












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