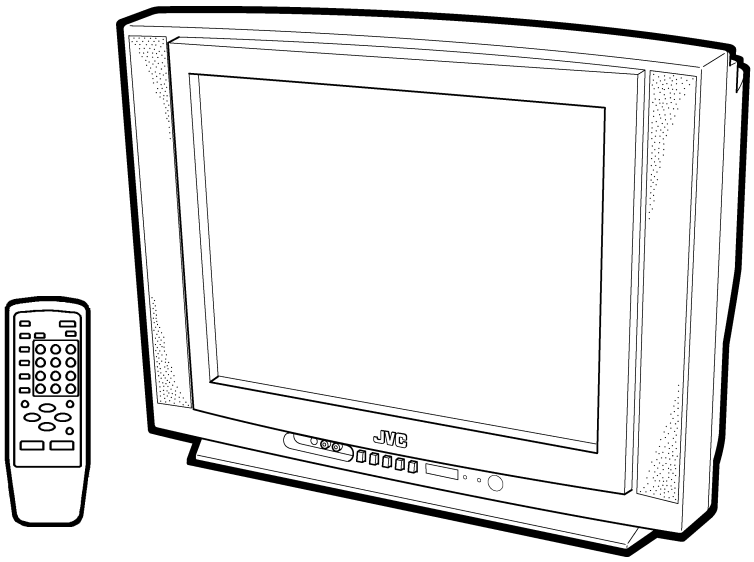
JVC

SERVICE MANUAL

COLOUR FLAT TELEVISION

BASIC CHASSIS
CG-F

AV-21L41/BK



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No. 51859
Oct. 2001

SPECIFICATIONS

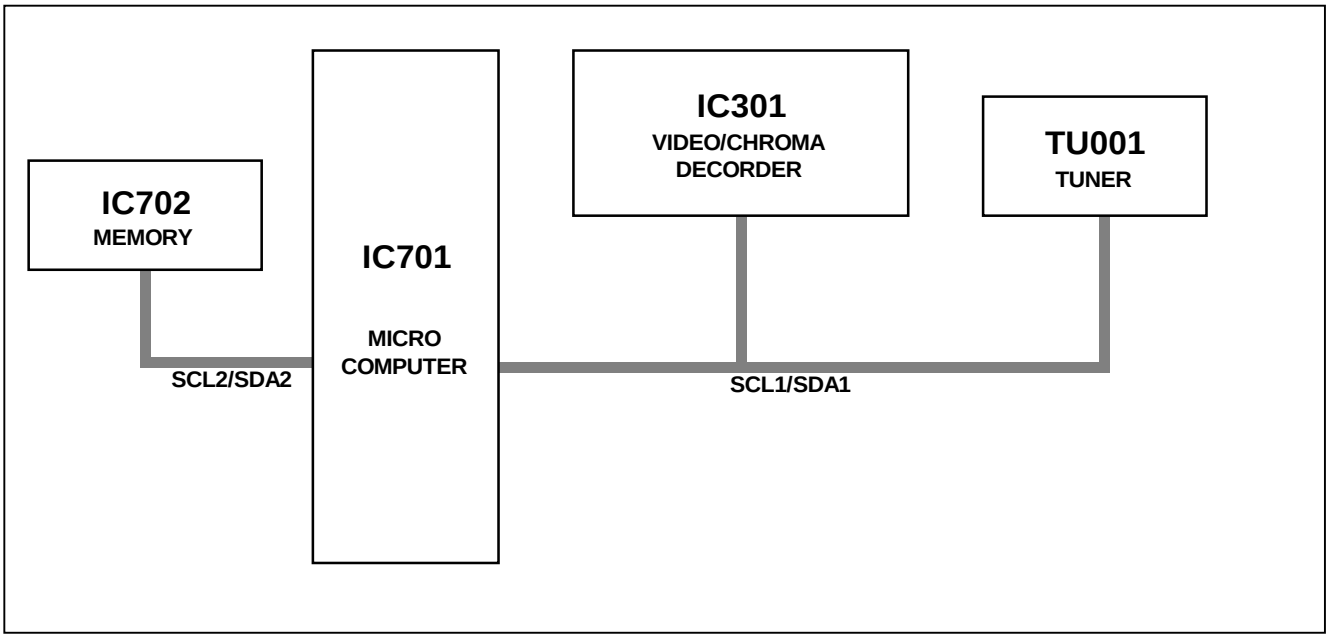
ITEM			CONTENT
Dimensions(W × H × D)			598mm × 468mm × 471.5mm
Mass			24kg
TV RF System			B/G, I, D/K
Colour System		RF Mode	PAL / SECAM
		VIDEO Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
Sound System			A_2 (Bilingual) system
Receiving Frequency		VHF (VL)	46.25MHz～168.25MHz
		VHF (VH)	175.25MHz～463.25MHz
		UHF	471.25MHz～863.25MHz
		CATV	Cable TVs of Mid (X-Z, S1-S10)Super (S11-S20) & Hyper (S21-S41) bands receivable
Intermediate Frequency	VIF Carrier		38.0MHz
	SIF Carrier		32.5MHz(5.5MHz)/33.5MHz (4.5MHz) 31.5MHz (6.5MHz)
Colour Sub Carrier Frequency			PAL (4.43MHz), SECAM (4.40625MHz / 4.25MHz) NTSC (3.58MHz / 4.43MHz)
Power Input	Rated Voltage		AC110～240V, 50 / 60Hz
	Operating Voltage		AC90～260V, 50 / 60Hz
Power Consumption			105W (Max) 68W(Avg)
Picture Tube			Visible size: 51cm measured diagonally
High Voltage			26.5kV±1.5kV(at zero beam current)
Speaker			5cm × 12 cm, Oval type × 2
Audio Output			5W (monaural,Bilingual)
Aerial Input Terminal			75Ω Unbalanced
Input	Video		1V(p-p), 75Ω (Front / Rear)
	Audio		500mV(rms) (-4dBs), High impedance, (Front / Rear)
Output	Video		1V(p-p), 75Ω(Rear)
	Audio		500mV(rms) (-4dBs), Low impedance,(Rear)
Headphone jack			3.5mm mini jack
Remote Control Unit			RM-C365GY (Battery size : AA / R06 / UM-3 × 2)

Design and specifications are subject to change without notice.

FEATURES

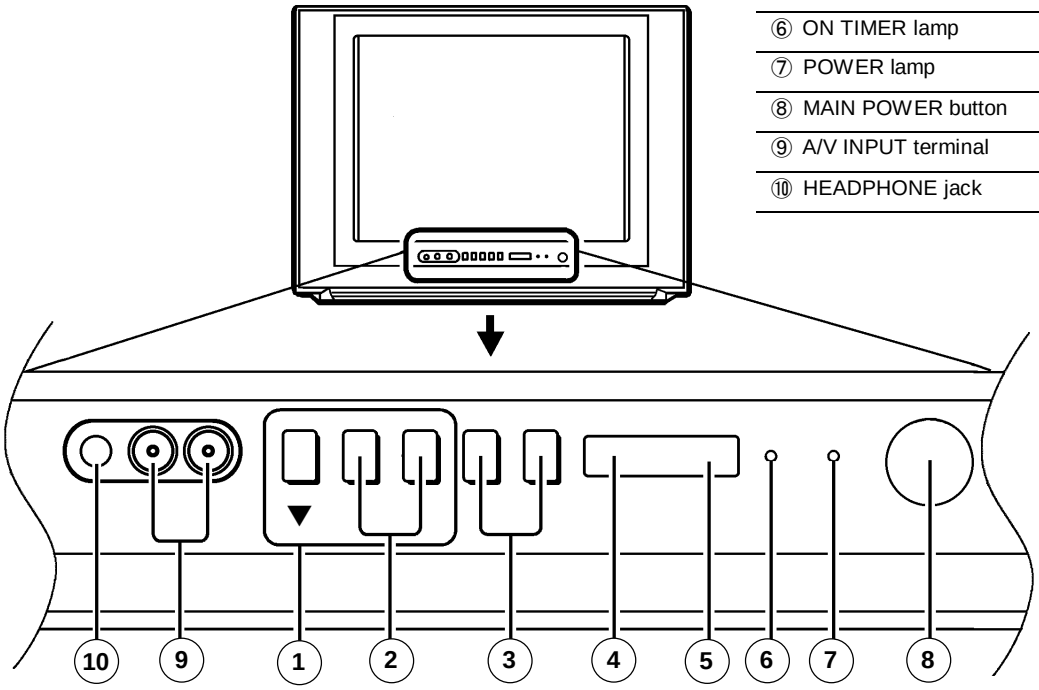
- New chassis design enables use of an interactive on-screen control.
- Wide range voltage (110V～240V) AC power input.
- With AUDIO / VIDEO INPUT & OUTPUT terminal.
- MUTING button can reduce the audio level to zero instantly.
- Functional remote control to operate TV set (for channel select, volume control, power ON/OFF, etc.) from a distance.
- I^2C bus control utilizes single chip ICs for IF, V/C, DEF. VSM PRESET, PRESET & TURBO TIMER.
- By means of AUTO PROGRAM, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
- The sound system has a built-in A_2 bilingual system
- Built-in AI ECO (ECONOMY, ECOLOGY) sensor.
  In accordance with the brightness in a room, the brightness and / of contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Built – in ON TIMER, RETURN + & CHILD LOCK.

SYSTEM BLOCK DIAGRAM



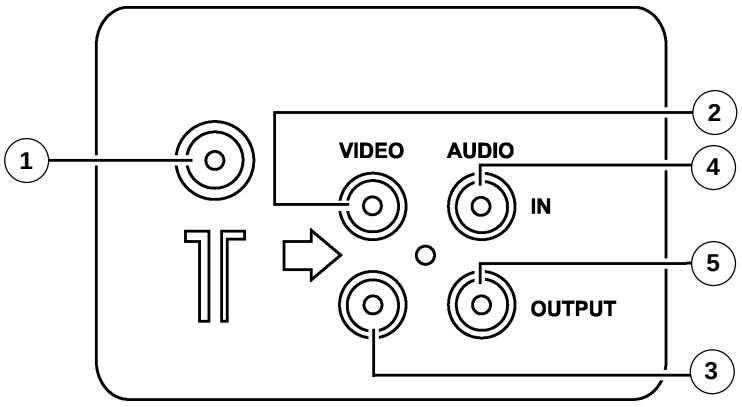
FUNCTIONS

■FRONT PANEL



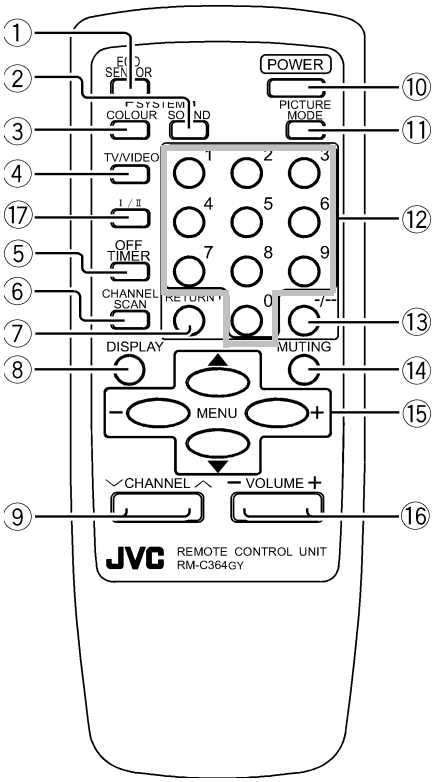
① MENU buttons
② CHANNEL −/+ buttons
③ VOLUME −/+(/EXT) buttons
④ ECO sensor
⑤ REMOTE CONTROL sensor
⑥ ON TIMER lamp
⑦ POWER lamp
⑧ MAIN POWER button
⑨ A/V INPUT terminal
⑩ HEADPHONE jack

■REAR TERMINAL



① ANT Terminal
② VIDEO INPUT Terminal
③ VIDEO OUTPUT Terminal
④ AUDIO INPUT Terminal
⑤ AUDIO OUT PUT Terminal

■ REMOTE CONTROL UNIT(RM-C365)



① ECO SENSOR key
② SOUND SYSTEM key
③ COLOUR SYSTEM key
④ TV/VIDEO key
⑤ OFF TIMER key
⑥ CHANNEL SCAN key
⑦ RETURN^{+} key
⑧ DISPLAY key
⑨ CHANNEL−/+ key
⑩ POWER key
⑪ PICTURE MODE key
⑫ Number (CH.) key
⑬ −/−−key
⑭ MUTING key
⑮ MENU key MENU ▲/▼ key MENU −/+ key
⑯ VOLUME−/+ key
⑰ Ⅰ/Ⅱ key

REPLACEMENT OF MEMORY ICs

1. MEMORY ICs

This model uses memory ICs. This memory IC data are for proper operation of the video and deflection circuits.
When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. PROCEDURE FOR REPLACING MEMORY ICs

(1) Power off
Switch the power off and disconnect the power plug from the wall outlet.

(2) Replace ICs
Be sure to use memory ICs written with the initial data values.

(3) Power on
Connect the power plug into the wall outlet and switch the power on.

(4) Check and set SYSTEM CONSTANT SET

・It must not adjust without adjustment signals.

1) Press the **DISPLAY** key and the **PICTURE MODE** key of the REMOTE CONTROL UNIT simultaneously.
2) The SERVICE MENU screen of Fig. 1 will be displayed.
3) While the SERVICE MENU is displayed, again press the **DISPLAY** key and **PICTURE MODE** key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed.
4) Check the setting values of the SYSTEM CONSTANT SET of Table 1 If the value is different, select the setting item with the **MENU** ▼/▲key, and set the correct value with the **MENU** - / + key.
5) Press the **DISPLAY** key twice, and return to the normal screen.

(5) Receive channel of setting
Refer to the **OPERATING INSTRUCTIONS** and set the receive channels (channels preset) as described

(6) User Setting
Check the user setting value of Table 2, and if setting value is different, set the correct value.
For setting, refer to the **OPERATING INSTRUCTIONS**.

(7) Setting of SERVICE MENU
Verify the setting items of the SERVICE MENU of Table 3, and reset where necessary.
For setting, refer to the **SERVICE ADJUSTMENTS**.

NOTE

Both **MENU -/+ Key and MENU** ◀/▶key have the same functions.

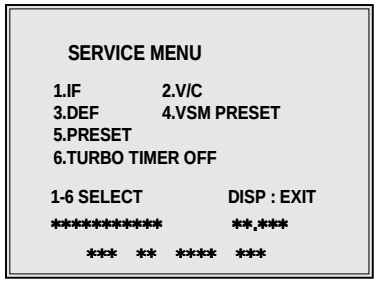


Fig.1

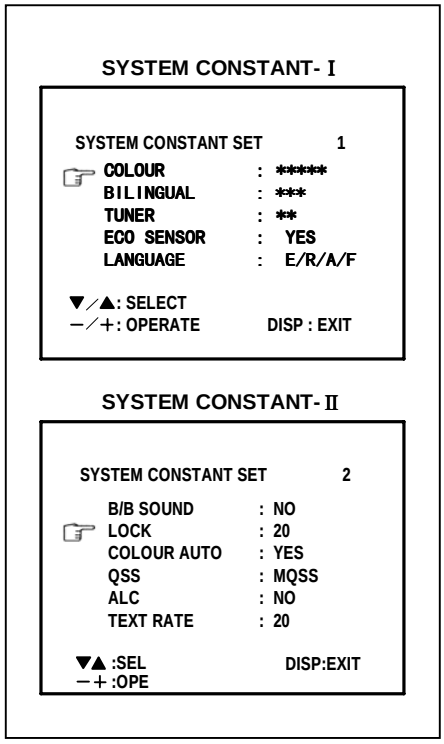
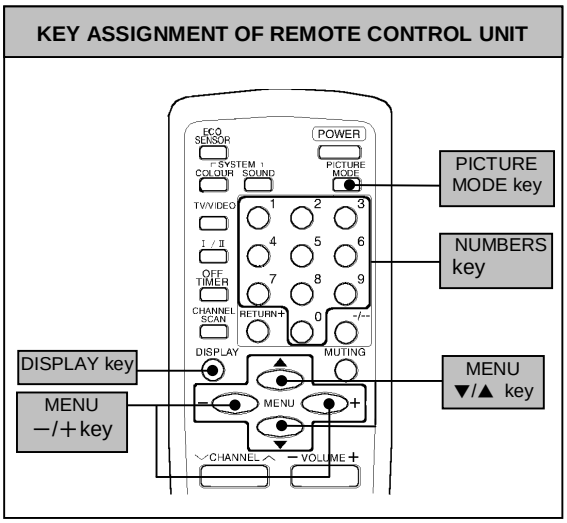


Fig.2



SETTING OF SYSTEM CONSTANT SET

Setting item	Setting contents	Setting value
COLOUR	MULTI → TRIPLE → PAL	TRIPLE
BILINGUAL	YES → NO	YES
TUNER	MU → MA	MU
ECO SENSOR	YES → NO	YES
LANGUAGE	E/T → E	E/T
B/B SOUND	ON → OFF	NO
LOCK	YES ↔ 10 ↔ 20 ↔ ～ ↔ 230 ↔ 240 ↔ 250	20
COLOUR AUTO	YES → NO	NO
QSS	MINT → MQSS	MINT
ALC	YES → NO	NO
TEXT RATE	10 ↔ 20 ↔ 40 ↔ 80	20

Table 1

USER SETTING VALUES

Setting item	Setting value	Setting item	Setting value
MAIN POWER SW	OFF	PICTURE MODE (VSM)	BRIGHT
SUB POWER	ON	LANGUAGE	THAI
CHANNEL POSITION	1 POSITION	CHANNEL PRESET	Refer to OPERATING INSTRUCTION
VOLUME	About 10	ECO SENSOR	OFF
TV/VIDEO	TV	VNR	OFF
ON SCREEN DISPLAY	POSITION INDICATION	AUTO SHUTOFF	OFF
COLOUR SYSTEM	PAL	ON TIMER	PR1 0:00
SOUND SYSTEM	B / G	BLUE BACK	OFF
OFF TIMER	OFF (shown : 00)	CHILD LOCK	OFF
BILINGUAL	Ⅰ (Ⅰ / Ⅱ)		

Table 2

INITIAL SETTING VALUE OF SERVICE MENU

1. **Adjustment of the SERVICE MENU is made on the basis of the initial setting values ; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.**
2. **Do not change the initial Setting Values of the Setting (Adjustment) items not listed In "ADJUSTMENT".**

2. V/C

Setting item \ Colour system		Variable range	Initial setting value			
			PAL	SECAM	NTSC 3.58	NTSC 4.43
1. CUT OFF	RED	-128～+127	-50	←	←	←
	GREEN					
	BLUE					
2. DRIVE	RED	-128～+127	+ 0	←	←	←
	BLUE					
3. BRIGHT		-127～+127	+ 0	←	←	←
4. CONT.		-63～+63	+ 0	←	←	←
5. COLOUR		-63～+63	+ 0	←	←	+ 0
6. TINT	TV	-63～+63	——	——	+ 0	+ 0
	VIDEO		——	——	MU / + 8	+ 0
7. SECAM BL ADJ.		-31～+31	+ 0	←	←	←
8. SHARP(Do Not Adj.)	TV	-32～+31	- 7(Fixed)	←	←	←
	VIDEO		+15(Fixed)			
9. AMP T.SHARP		——	-12	←	←	←

3. DEFLECTION

Setting item	Variable range	Initial setting value	
		fv : 50Hz MODE	fv : 60Hz MODE
1. VER. POSITION	-04 ～ +03	- 1	- 3
2. HOR. POSITION	-16 ～ +15	+ 3	+ 3
3. VER. HEIGHT	-64 ～ +63	-35	+ 1
4. VER. LINEARITY	-32 ～ +31	+15	- 1
5. VER. SCURVE	-32 ～ +31	-32	+ 0
6. HOR. VCO ADJUST	-63 ～ +62	+ 0	+ 0

4. VSM PRESET

VSM preset mode / VSM Setting item	BRIGHT	STANDARD	SOFT
TINT SETTING VALUE	+15	←	←
COLOUR SETTING VALUE	+15	←	←
BRIGHT SETTING VALUE	+15	←	←
CONT. SETTING VALUE	+30	+19	+14
SHARP SETTING VALUE	+20	←	+15

5. PRESET

The items in the following table, it is no requirement for adjustment.
If values had changed by the miss operation, set the initial setting values in the following table.

Colour System **(Do Not Adjust)**

Setting item		Initial setting value (Fixed value)			
		PAL	SECAM	NTSC 3.58	NTSC 4.43
1. C TRAP FIX		1	1	1	1
2. SHARP PEAK		0	0	0	0
3. ABL		1	1	1	1
4. GAMMA		0	0	0	0
5. Y. DELAY TIME	TV	0	2	2	3
	VIDEO	0	2	0	2
6. BLACK EXP START		+3	+3	+3	+3
7. C-BPF	TV	1	1	0	0
	VIDEO	1	1	1	1
8. CW / SCP		0	0	0	0
9. VIF DET LEVEL		0	0	0	0
11. IF AGC MIN		0	0	0	0
12. VIF AGC		0	0	0	0
13. VIF PMOD		0	0	0	0
19. VNR		15	15	15	15
20. RGB LIM		1	1	1	1
21. RGB LIMIT LEVEL		2	2	2	2
23. TEXT H. POSITION		-3	-3	-3	-3
24. READ DATA		————	————	————	————

Sound System **(Do Not Adjust)**

Setting item	B/G	I	D/K	M
10. SIF DET LEVEL	+0	+0	+0	+0
14. SIF BPF BW ADJUST	0 (-)	0 (-)	0 (-)	0 (-)
15. SIF TRAP FO ADJUST	0 (-)	0 (-)	0 (-)	0 (-)
16. SIF TRAP FO ADJUST 2	0 (-)	0 (-)	0 (-)	0 (-)
17. SIF -TRAP	0	0	0	0
18. SIF -BPF	0	0	0	1
22. SIF SW	1	1	1	0

REPLACEMENT OF IC301 (IF V/C DECODER)

- **For the IC301(IF V/C DECODER) of this model, all data are written in the micro-computer. So, write the data in the micro-computer in accordance with the following procedures before starting adjustment.**

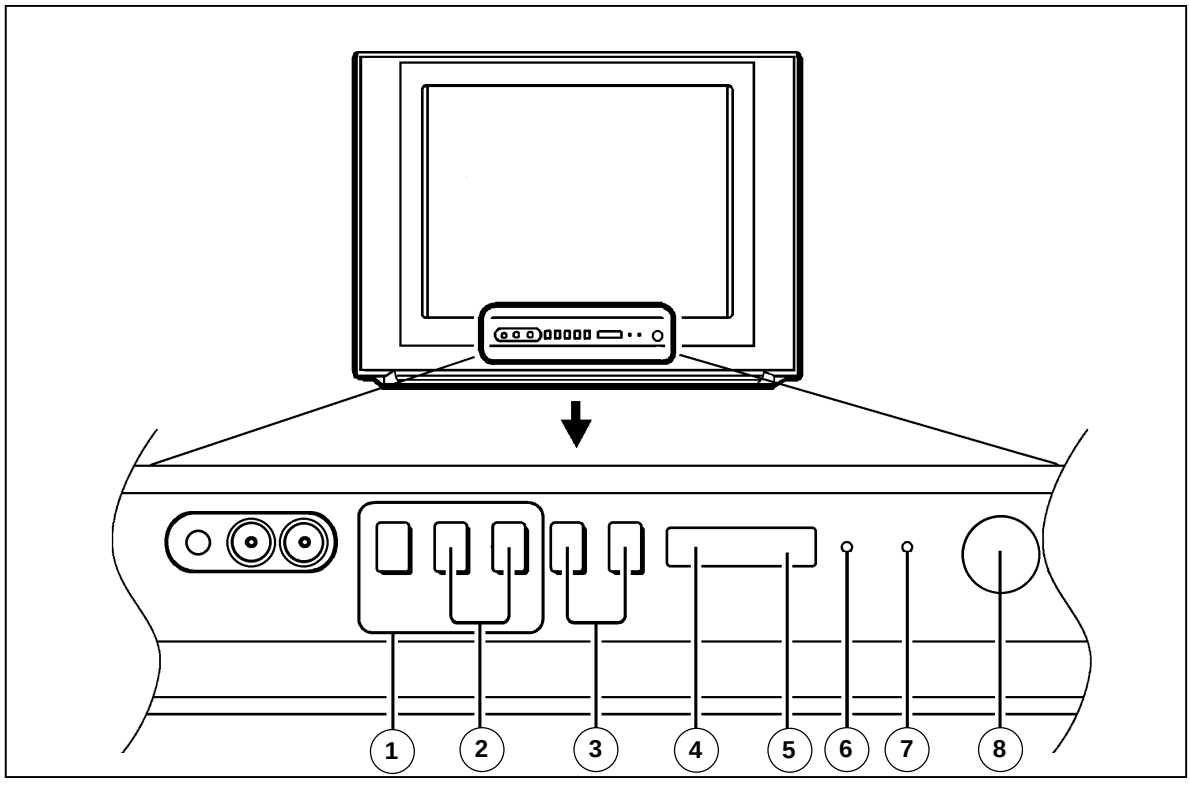
REPLACING PROCEDURES

(1) Turn the POWER OFF.

(2) Replace the IC301 with a new one.

(3) While pressing MENU button and VOL+ button ON the FRONT Panel simultaneously, turn the POWER ON. When the POWER is turned ON, the data is written in the micro-computer immediately.

LOCATIONS OF FRONT PANEL BUTTONS AND LAMPS



1	MENU buttons
2	CHANNEL ∨/∧ buttons (MENU ∨/∧ buttons)
3	VOLUME −/+ buttons (MENU −/+ buttons)
4	ECO sensor
5	REMOTE CONTROL sensor
6	ON TIMER lamp
7	POWER lamp
8	MAIN POWER button

SERVICE ADJUSTMENT

BEFORE STARTING SERVICE ADJUSTMENT

1. **There are 2 way of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
2. **The adjustment with the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to its optimum condition may differ from the initial setting values.**
3. Make sure that connection is correctly made to AC power source.
4. Turn on the power of the set and equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. **Never touch any adjustment parts, which are not specified in the list for this adjustment VRs, transforms, condensers, etc.**
7. Preparation for adjustment
   Unless otherwise specified in the adjustment instructions, preset the following functions with the REMOTE CONTROL UNIT.
   User mode position

PICTURE MODE (VSM)	BRIGHT
VNR	OFF
COLOUR / BRIGHT CONT. / SHARP	Refer to VSM PRESET
BLUE BACK	OFF
OFF TIMER	OFF
ECO SENSOR	OFF
AUTO SHUT OFF	OFF

MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

Adjustment item	Adjustment item
B1 POWER SUPPLY	DEF. circuit adjustment
FOCUS adjustment	VSM PRESET setting
IF circuit adjustment	PURITY / CONVERGENCE adjustment
V/C (Video / Chroma) circuit adjustment	

BASIC OPERATION OF SERVICE MENU

- **The adjustment using SERVICE MENU**

The following adjustment items use the SERVICE MENU in the series of the adjustment. The adjustments are made on the basis of the initial setting values. The adjustment values which adjust the screen to the optimum condition can be different from the initial setting values. With the SERVICE MENU, various settings can be made, and they are broadly classified in the following items of settings.

1.IF ····· Adjustment of the IF circuits.
2.V/C ····· Adjustment of the VIDEO/CHROMA circuit.
3.DEF ····· Adjustment of the DEFLECTION circuit.
4.VSM PRESET ····· Adjustment of the initial setting values of VSM condition as STANDARD, SOFT and BRIGHT. (VSM : Video Status Memory)
5.PRESET ····· Adjustment of the RF circuit **[Do not adjust]**.
6.TURBO TIMER ····· For quick setting the TIMER count value, adjustable not only by minuets but also by second. **[Should be OFF]**.

- **Key operation of the SERVICE MENU**

[Enter to SERVICE MENU]

Press the **DISPLAY** key and the **PICTURE MODE** key of the REMOTE CONTROL UNIT simultaneously. Then enter the SERVICE MENU mode as shown in Fig.1.

[Exit from SERVICE MENU]

When complete the adjustment work, press the **DISPLAY** key to return to the SERVICE MENU.
And then press the **DISPLAY** key again, return to the normal screen.

[Select from SERVICE MENU]

In SERVICE MENU, press the number (1～6) key of the remote control unit, to select any of the adjustment items.

SERVICE MENU

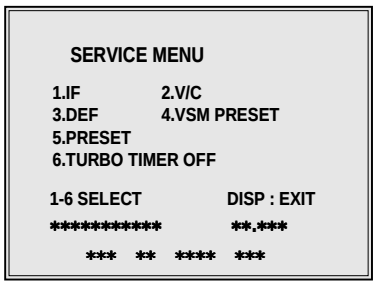
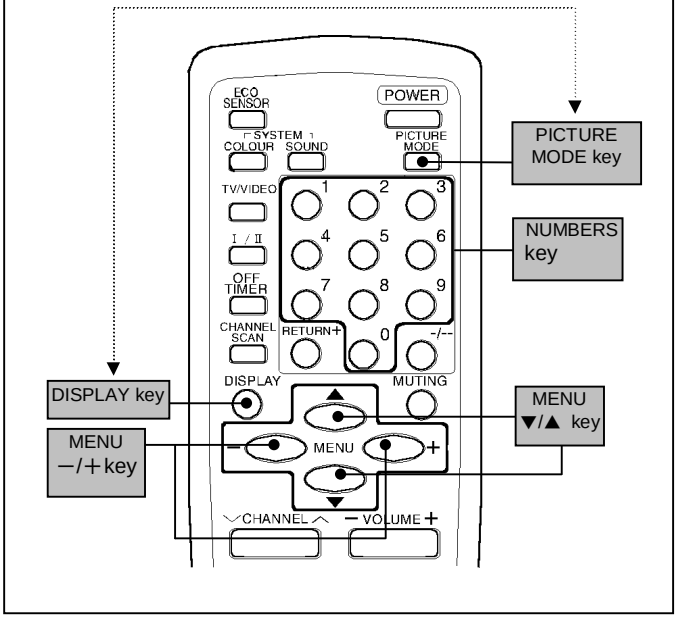


Fig.1

KEY ASSIGNMENT OF REMOTE CONTROL UNIT



[Method of setting]

1. IF

[1. VCO]

① 1 Key····· Select **1.IF**.

② 1 Key····· Select **1.VCO**

③ The VCO (CW) screen will be displayed a allow mark when the AFC voltage is at a certain level.

④ DISPLAY Key ····· When this is press twice, you will return to the **SERVICE MENU**.

[2. DELAY POINT]

① 1 Key····· Select **1.IF**.

② 2 Key····· Select **2.DELAY POINT**.

③ MENU -/+····· Set (adjust) the setting values of the setting items.

④ DISPLAY Key ····· When this is pressed, you will return to the **SERVICE MENU**.

2.V/C, 3.DEF and **4.VSM PRESET**

① 2~4Key ····· Select one from **2. V/C, 3. DEF** and **4. VSM PRESET**.

② MENU ▼/▲ Key ····· Select setting items.

③ MENU -/+ ····· Adjust the values of the items.

④ DISPLAY Key····· When this is pressed, return to the **SERVICE MENU**.

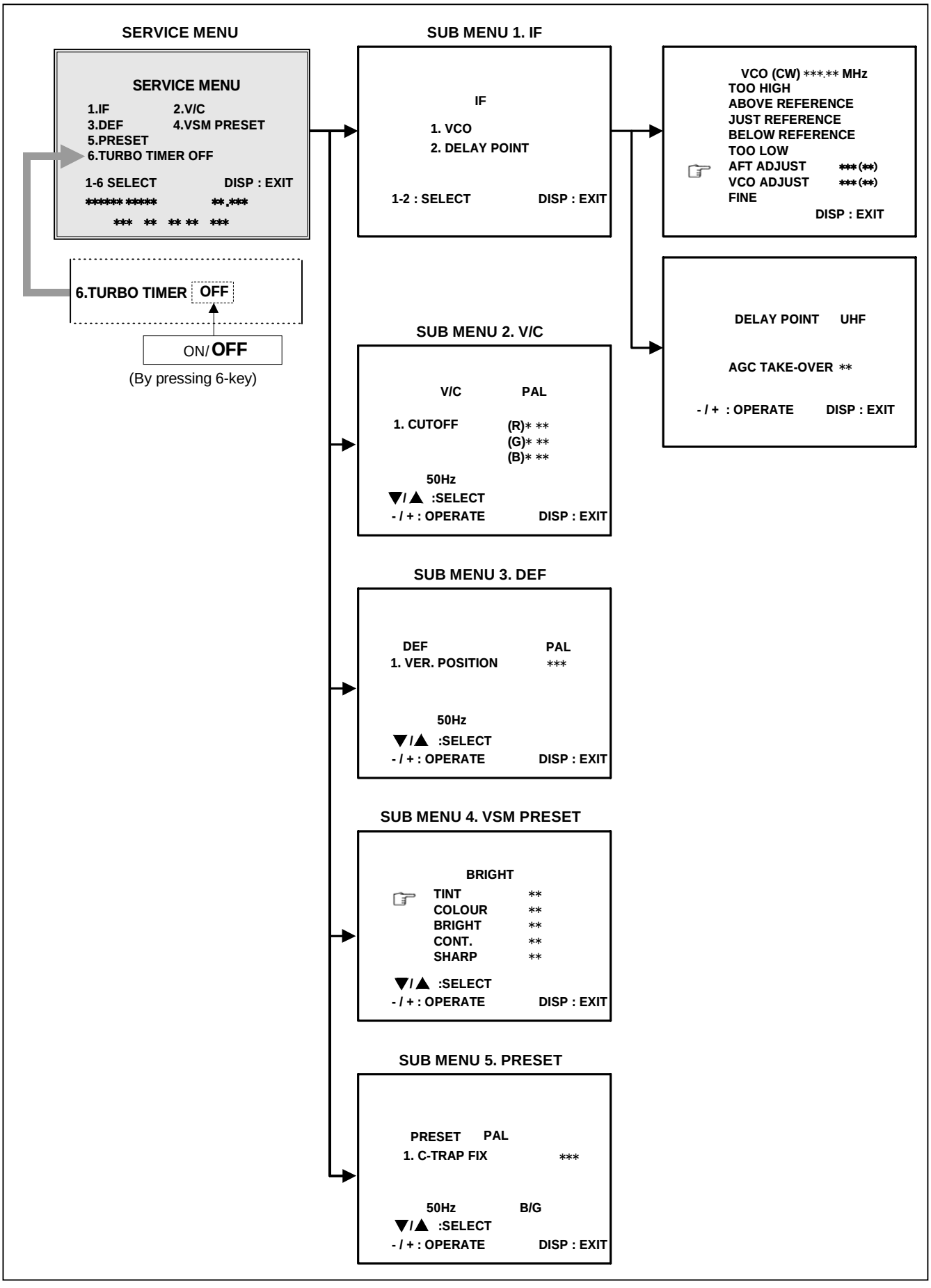
6.TURBO TIMER

① By pressing the 6 key, you can change the ON or OFF (**should be OFF**).

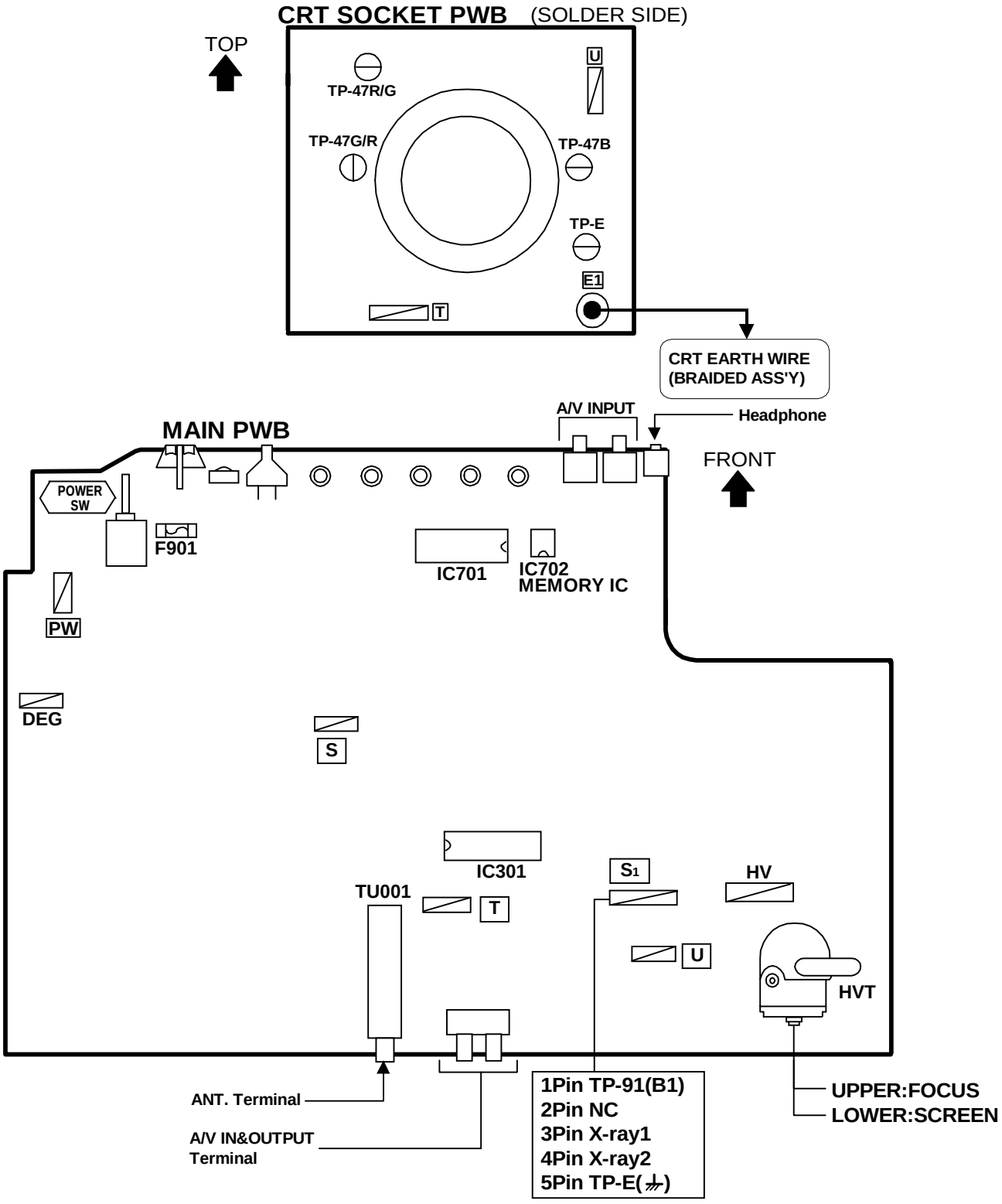
(Should be OFF)

* If it is ON, the timer in TIMER mode changes from 1 minute into 1 sec temporarily.
(It is easier to checks the Operation of TIMER)
If you turn the TV power off, this setting becomes OFF automatically.

SERVICE MENU FLOW CHART



ADJUSTMENT LOCATIONS



ADJUSTMENTS

B1 POWER SUPPLY

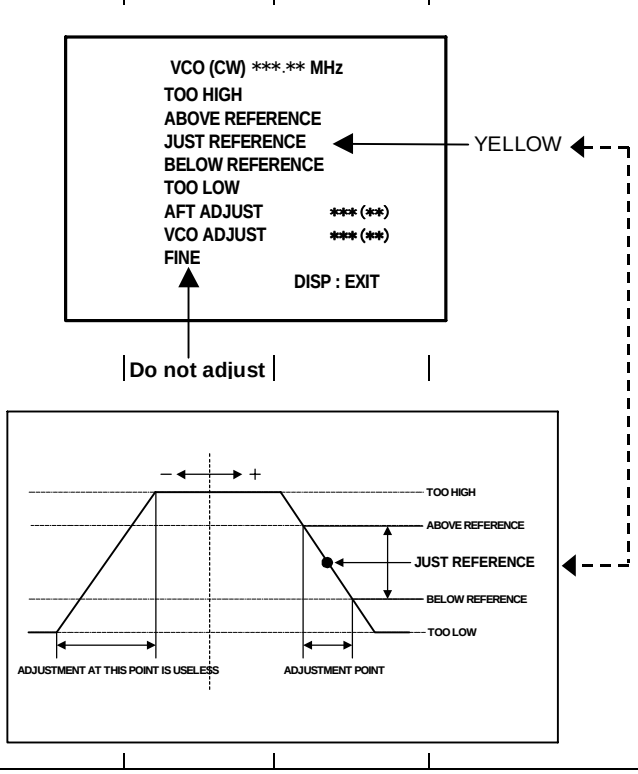
Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 Power Supply	**Signal generator** **DC Volt-meter**	**TP-91 (B1)** **TP-E (⏚)**		1. Input a whole black signal. 2. Connect a DC voltmeter to TP-91(B1) and TP-E (⏚). 3. Make sure that the voltage is DC114.5±1.5V.

FOCUS ADJUSTMENT

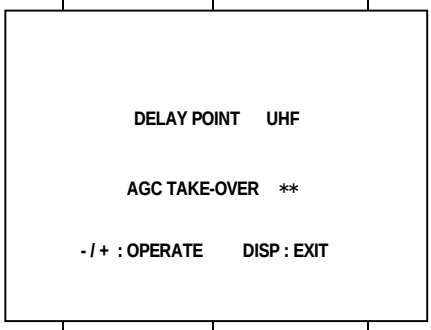
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	**Signal generator**		**FOCUS VR** **[In HVT]**	1. Input a cross-hatch signal. 2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible. 3. Make sure that when the screen is darkened, the lines remain in good focus.

IF CIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VCO(CW)	**Signal generator** **Remote control unit**		**1. VCO**	●Please use signal generator which is correct proof about the sending frequency. 1. Input the PAL full colour bar (210.25MHz) signal. 2. Select 1.IF from the **SERVICE MENU**. 3. Press 1 key and select **1.VCO**. 4. Select **VCO ADJUST** with **MENU** ▲/▼ key. 5. Press **MENU** -/+ key until the colour of the characters TOO HIGH changes blue to yellow. Then gradually press the **MENU** -/+ key until the TOO LOW changes yellow. At this time, confirm that the value of **VCO ADJUST** is near +00. 6. Select **AFT ADJUST** with **MENU** ▲/▼ key. 7. Press **MENU** -/+ key until the characters JUST REFERENCE changes blue to yellow. 8. Press the **DISPLAY** key three times to return to normal screen.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of DELAY POINT (AGC)	**Signal generator** **Remote control unit**		**DELAY POINT (AGC TAKE-OVER)**	1. Input a black and white signal (colour off). 2. Select **1. IF** from the SERVICE MENU. 3. Select **2. DELAY POINT** by pressing the **2** key on the remote control unit. 4. Set the setting values of the setting items as shown bellow tabbe. 5. Then adjust the MENU - or + key until video noise disappears. 6. Turn to other channels and make sure that there are no irregularities.

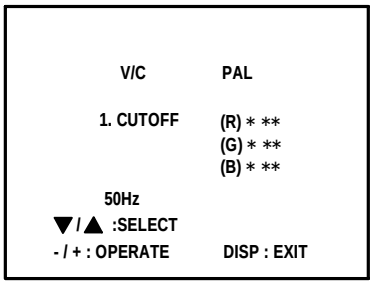


Setting Item		Variable range	Initial setting value
DELAY POINT (AGC TAKE OVER)	**NTSC 3.58**	0～127	MU 48
	OTHER		43

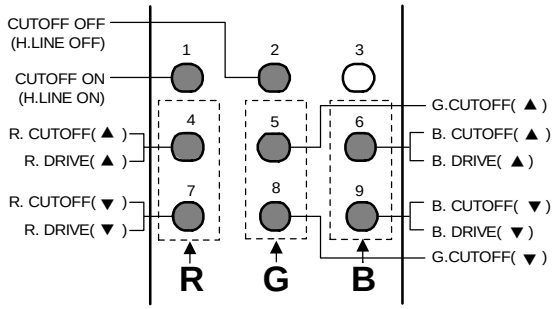
VIDEO / CHROMA CIRCUIT ADJUSTMENT

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
Do not change the initial setting values of the setting items not listed in "ADJUSTMENT".

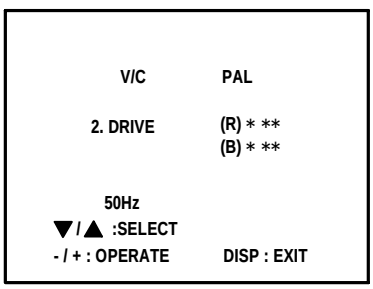
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (Low light)	**Signal generator** **Remote control unit**		**1. CUT OFF (R)** **CUT OFF (G)** **CUT OFF (B)** **SCREEN VR** **[IN HVT]**	1. Input a black and white signal (colour off). 2. Select **2. V/C** from the SERVICE MENU, then select **1. CUT OFF** (R), (G) and (B) . 3. Set each value to initial setting value with 4～9 keys of the remote control unit. 4. Press the **1** key of the remote control unit to show the single horizontal line on screen. 5. Turn the **SCREEN VR** fully counter-clockwise, then slowly turn it clockwise to where one of a red, blue or green colour is faintly visible. 6. Use keys **4～9** of the remote control unit and adjust the other 2 colours which except the appeared colour to where the single horizontal line appears white. 7. Turn the **SCREEN VR** to where the single horizontal line glows faintly. 8. Press the **2** key to turn off the single horizontal line. 9. Press the **DISPLAY** key twice to return to the normal screen.
Adjustment of WHITE BALANCE (High light)	**Signal generator** **Remote control unit**		**2. DRIVE (R)** **DRIVE (B)**	1. Input a black and white signal (colour off). 2. Select **2. V/C** from the SERVICE MENU. 3. Select **2. DRIVE (R) / (B)** with MENU ▼/▲ key, and set each value to initial setting value with 4 and 7 or 6 and 9 keys of the remote control unit. 4. Use the keys **4** and **7** or **6** and **9** to produce a white screen 5. Press the DISPLAY key twice to return to the nomal screen.



KEY ASSIGNMENT OF REMOTE CONTROL UNIT



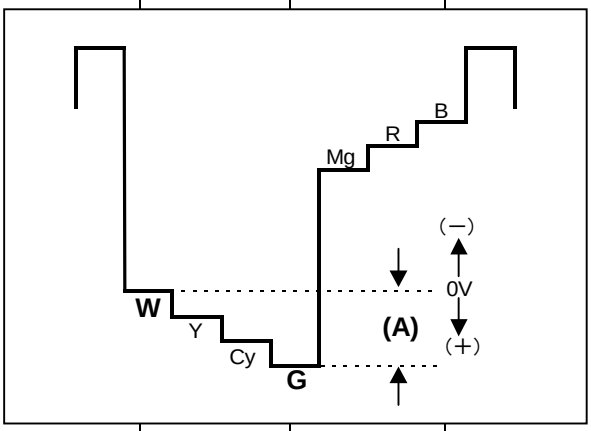
Adjustment item		Variable range	Initial setting value
1. CUT OFF	R	-128～+127	-50
	G	-128～+127	-50
	B	-128～+127	-50



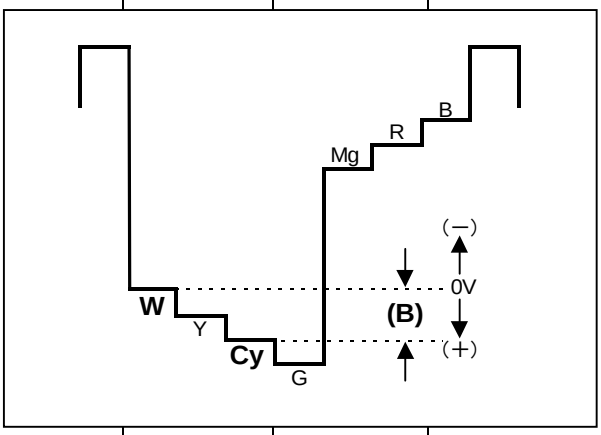
Adjustment item		Variable range	Initial setting value
2. DRIVE	R	-128～+127	+0
	B	-128～+127	+0

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB BRIGHT	**Remote control unit**		**3. BRIGHT**	1. Receive any broadcast. 2. Select **2. V/C** from SERVICE MENU. 3. Select **3. BRIGHT** with the MENU ▼/▲key. 4. Set the initial setting value with the MENU - or + key. 5. If the brightness is not the best with the initial set value, make fine adjustment until you get the best brightness.
Adjustment of SUB CONT.	**Remote control unit**		**4. CONT.**	1. Receive any broadcast. 2. Select **2. V/C** from SERVICE MENU. 3. Select **4. CONT**. with the MENU ▼/▲key. 4. Set the initial setting value with the MENU - or + key. 5. If the contrast is not the best with the initial set value, make fine adjustment until you get the best contrast.
Adjustment of SUB COLOUR	**Remote control unit**		**5. COLOUR**	**[Method of adjustment without measuring instrument]**
			PAL COLOUR	1. Receive a PAL broadcast. 2. Select **2. V/C** from the SERVICE MENU. 3. Select **5. COLOUR** with the MENU ▼/▲ key. 4. Set the initial setting value for PAL COLOUR with the MENU - or + key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.
			SECAM COLOUR	1. Receive a SECAM broadcast. 2. Make fine adjustment of SECAM COLOUR as previously.
			NTSC 3.58 COLOUR	1. Receive a NTSC 3.58MHz broadcast. 2. Make similar fine adjustment of NTSC 3.58 COLOUR as previously.
			NTSC 4.43 COLOUR	When NTSC 3.58 adjustment completed, NTSC 4.43 will be automatically set at the respective values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR Ⅱ	**Signal generator** **Oscillo-scope** **Remote control unit**	**TP-47G/R** **TP-E (⏚)** **[CRT SOCKET PWB]**	**5. COLOUR**	**[Method of adjustment using measuring instrument]**
			PAL COLOUR	1. Input a PAL full field colour bar signal (75% white). 2. Select **2. V/C** from SERVICE MENU. 3. Select **5. COLOUR** with the MENU ▼/▲ key. 4. Set the initial setting value of PAL COLOUR with the MENU - or + key. 5. Connect the oscilloscope between TP-47G/R and TP-E (⏚). 6. Adjust PAL COLOUR to bring the value of **(A)** in the illustration to +9V(W-G). (Voltage value between (**W**) and (**G**))
			SECAM COLOUR	1. Input a SECAM full field colour bar signal (75% white). 2. Set the initial setting value of SECAM COLOUR with the MENU - or + key. 3. Adjust SECAM COLOUR to bring the value of **(A)** in the illustration to +6V(W-G). (Voltage value between (**W**) and (**G**))
			NTSC 3.58 COLOUR	1. Input a NTSC 3.58 full field colour bar signal (75% white). 2. Set the initial setting value of NTSC 3.58 COLOUR with the MENU - or + key. 3. Adjust NTSC 3.58 COLOUR to bring the value of **(A)** in the illustration to +8V(W-G). (Voltage value between (**W**) and (**G**))
			NTSC 4.43 COLOUR	When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.

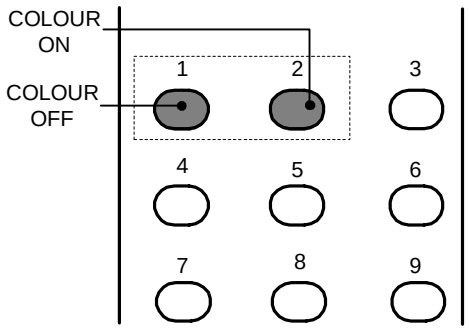


Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of TINT Ⅰ	**Signal generator** **Remote control unit**		**6. TINT**	**[Method of adjustment without measuring instrument]**
			NTSC 3.58 TINT	1. Input a NTSC 3.58 full field colour bar signal (75% white). 2. Select **2. V/C** from SERVICE MENU. 3. Select **6. TINT** with the MENU ▼/▲ key. 4. Set the initial setting value of NTSC 3.58 with the MENU - or + key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint.
			NTSC 4.43 TINT	When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.
Adjustment of TINT Ⅱ	**Signal generator** **Oscillo-scope** **Remote control unit**	**TP-47G/R** **TP-E (⏚)** **[CRT SOCKET PWB]**	**6. TINT**	**[Method of adjustment using measuring instrument]**
			NTSC 3.58 TINT	1. Input a NTSC 3.58 full field colour bar signal (75% white). 2. Select **2. V/C** from SERVICE MENU. 3. Select **6. TINT** with the MENU ▼/▲ key. 4. Set the initial setting value of NTSC 3.58 with the MENU - or + key. 5. Connect the oscilloscope between TP-47G/R and TP-E. (⏚). 6. Adjust NTSC 3.58 TINT to bring the value of **(B)** in the illustration +7V(W- **Cy**). (Voltage value between (**W**) and (**Cy**))
			NTSC 4.43 TINT	When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SECAM BLACK OFFSET	**Remote control unit** **Signal generator**		**7.SECAM BL ADJUST**	**[Method of adjustment using measuring instrument]** 1. Receive a SECAM full field colour bar signal. 2. Select **2. V/C** from SERVICE MENU. 3. Select **7. SECAM BL ADJUST** with ▼/▲MENU key. 4. Set the initial setting value with the – or + MENU key. 5. Switch the ①key (colour OFF) and ②key (colour ON) on the remote control and make sure that there is no colour on the black and white screen. 6. If the black and white screen is not best with the initial setting value, make fine adjustment until you get the best black and white screen. 7. While watching the screen, adjust the value to be the same colour between ON & OFF by ten key on the remote control unit. 8. Press the DISPLAY key twice to return to the normal screen.

KEY ASSIGNMENT OF REMOTE CONTROL UNIT



DEFLECTION CIRCUIT ADJUSTMENT

- There are 2 modes of adjustment (setting value) ------ ① 50Hz mode and ② 60Hz mode ----- depending upon the kind of signals (vertical frequency 50Hz / 60Hz).
- When adjusted in mode ① , mode ② will be automatically set.

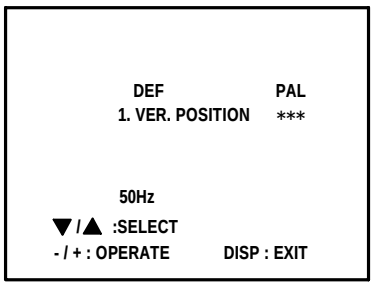
The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>Adjustment of V.HEIGHT & V.POSITION</td><td>Signal generator

Remote control unit</td><td></td><td>1. VER. POSITION
3. VER. HEIGHT</td><td>1. Input a circle pattern signal.
2. Select 3. DEF. from SERVICE MENU.
3. Select 1. VER. POSITION with the MENU ▼/▲ key.
4. Set the initial setting value with the MENU - / + key.
5. Adjust V and V' to be equal with the MENU - / + key as shown in Fig.2.
6. Input a cross-hatch signal.
7. Select 3. V. HEIGHT with the MENU ▼/▲ key.
8. Set the initial setting value with the MENU - / + key.
9. As shown in Fig.1, adjust VER. HEIGHT and make the vertical screen size 92% of the picture size with the MENU - / + keys of remote control unit.</td></tr>
<tr><td>Adjustment of HOR. POSITION</td><td>Signal generator

Remote control unit</td><td></td><td>2.HOR. POSITION</td><td>10. Input a circle pattern signal.
11. Select 2. HOR POSITION with the MENU ▼/▲ key.
12. Set the initial setting value of 2. HOR. POSITION with the MENU - / + key.
13. Adjust 2. HOR. POSITION to make H=H" as shown in Fig.2 with the MENU - / + key.</td></tr>
</table>

SUB MENU 3. DEF



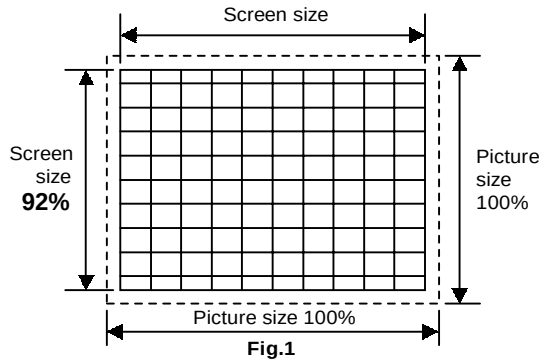


Fig.1

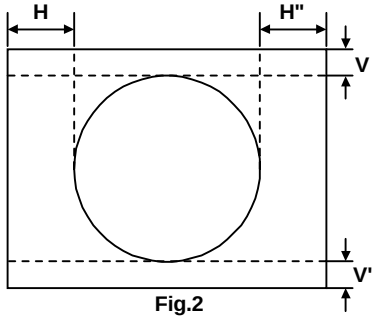


Fig.2

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VER. LIN. & VER. SCURVE	**Signal generator** **Remote control unit**		**4. VER. LIN.** **5. VER. SCURVE**	● **When the vertical linearity has been deteriorated remarkably, perform the following steps.** 14. Input a cross-hatch signal. 15. Select **4. VER. LIN.** with the MENU ▼/▲ key. 16. Set the initial setting value of **4. VER LIN.** with the MENU - / + key. 17. Select **5. VER. SCURVE** with the MENU ▼/▲ key. 18. Set the initial setting value of **5. VER. SCURVE** with the MENU - / + key. 19. Adjust **4. VER. LIN.** and **5. VER. SCURVE** so that the spaces of each line as shown in Fig.3 on **TOP**, **CENTER** and **BOTTOM** become uniform. Make sure that the adjustment is properly done on the screen of 60Hz mode. **[NOTE]** ● Adjust to make both 50Hz & 60Hz are the same v. size and fine straight line. ● When adjust again, adjust 50Hz mode first. ● When adjust in 60Hz mode, only 60Hz mode is adjust.

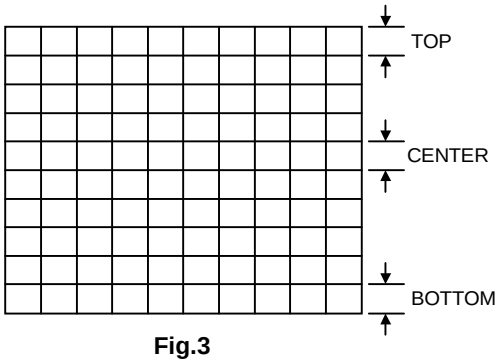
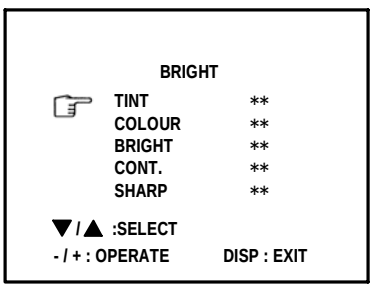


Fig.3

VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
Setting of VSM PRESET	**Remote control unit**		**TINT** **COLOUR** **BRIGHT** **CONT.** **SHARP**	1. Select **4. VSM PRESET** from the SERVICE MENU. 2. Select BRIGHT with the PICTURE MODE key. 3. Adjust the MENU ▼/▲ and MENU - or + key to bring the set values of **TINT ～ SHARP** to the values shown in the below table. 4. Respectively select the VSM PRESET mode for SOFT and STANDARD, and make similar adjustment as in 3 above.



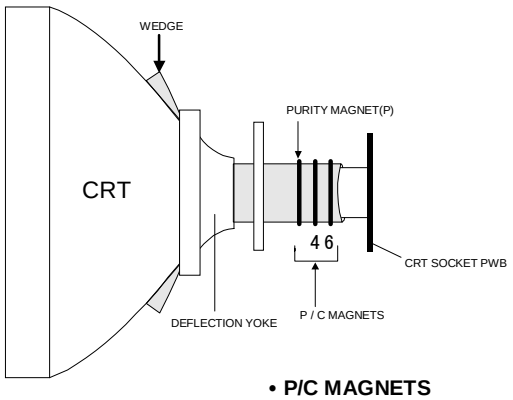
● VSM PRESET

VSM Setting Item	BRIGHT	STANDARD	SOFT
TINT	+15	←	←
COLOUR	+15	←	←
BRIGHT	+15	←	←
CONT	+30	+19	+14
SHARP	+20	←	+15

PURITY, CONVERGENCE

PURITY ADJUSTMENT

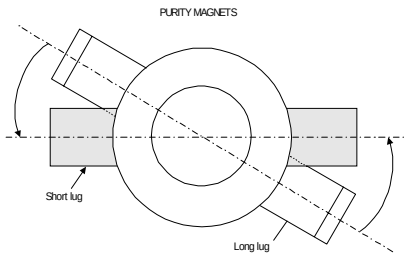
1. Demagnetize CRT with the demagnetizer.
2. Loosen the retainer screw of the deflection yoke.
3. Remove the wedges.
4. Input a green raster signal from the signal generator, and turn the screen to green raster.
5. Move the deflection yoke backward.
6. Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig.2)
7. Adjust the gap between two lugs so that the GREEN RASTER will come into the center of the screen. (Fig.3)
8. Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.
9. Insert the wedge to the top side of the deflection yoke so that it will not move.
10. Input a crosshatch signal.
11. Verify that the screen is horizontal.
12. Input red and blue raster signals, and make sure that purity is properly adjusted.



• P/C MAGNETS

P : PURITY MAGNET
4 : 4 POLES (convergence magnets)
6 : 6 POLES (convergence magnets)

Fig.1



Bring the long lug over the short lug and position them horizontally.

Fig.2

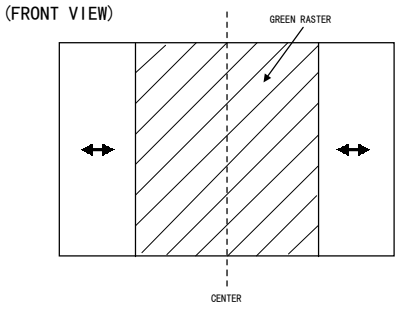


Fig.3

STATIC CONVERGENCE ADJUSTMENT

1. Input a crosshatch signal.

2. Using 4-pole convergence magnets, overlap the red and blue lines in the center of the screen (Fig.1) and turn them to magenta (red/blue).

3. Using 6-pole convergence magnets, overlap the magenta (red/blue) and green lines in the center of the screen and turn them to white.

4. Repeat 2 and 3 above, and make best convergence.

After adjustment, fix the wedge at the original position.
Fasten the retainer screw of the deflection yoke.
Fix the 6 magnets with glue.

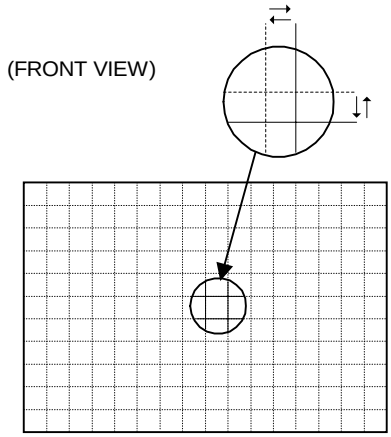


Fig.1

DYNAMIC (periphery) CONVERGENCE ADJUSTMENT

* **After adjusting purity & static convergence.**

1. Move the deflection yoke up and down and overlap the lines in the periphery. (Fig.2)

2. Move the deflection yoke left to right and overlap the lines in the periphery. (Fig.3)

3. Repeat the steps 1 and 2 and obtain an optimum convergence.

After adjustment, fix the wedge at the original position.
Fasten the retainer screw of the deflection yoke.
Fix the 6 magnets with glue.

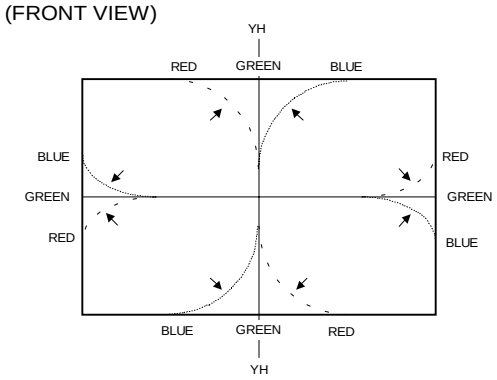


Fig.2

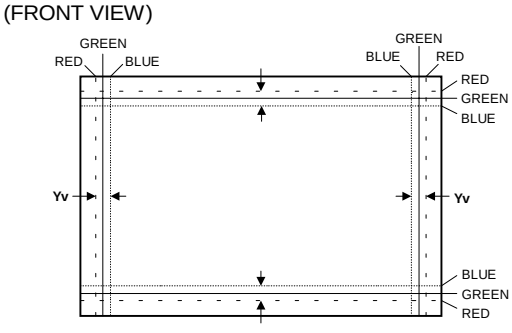
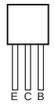
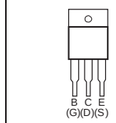
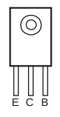
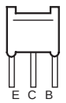


Fig.3

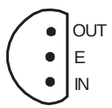
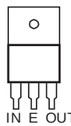
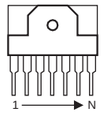
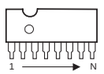
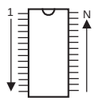
CONTENTS

SEMICONDUCTOR SHAPES

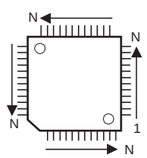
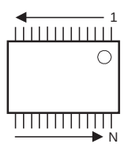
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal : Color bar signal

(2)Setting positions of each knob/button and variable resistor : Original setting position when shipped

(3)Internal resistance of tester :DC 20kΩ/V

(4)Oscilloscope sweeping time :H ⇒ 20μS/div
:V ⇒ 5mS/div
:Others ⇒ Sweeping time is specified

(5)Voltage values :All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board :R1209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	:[Ω]
K	:[K Ω]
M	:[M Ω]

● Rated allowable power

No indication	:1/ 16 [W]
Others	:As specified

● Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	:[pF]
less than 1	:[μF]

● Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage [V]
AC indicated	:AC withstand voltage [V]

∗ Electrolytic Capacitors
47/50[Example]:Capacitance value [μF]/withstand voltage[V]

●Type

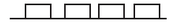
No indication	:Ceramic capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

(3)Coils

No unit	:[μH]
Others	:As specified

(4)Power Supply

 :B1  :B2 (12V)

 :9V  :5V

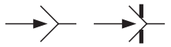
∗Respective voltage values are indicated

(5)Test point

 :Test point  :Only test point display

(6)Connecting method

 :Connector  :Wrapping or soldering

 :Receptacle

(7)Ground symbol

⊥ :LIVE side ground

⏚ :ISOLATED(NEUTRAL) side ground

⏚ :EARTH ground

▽ :DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND.Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

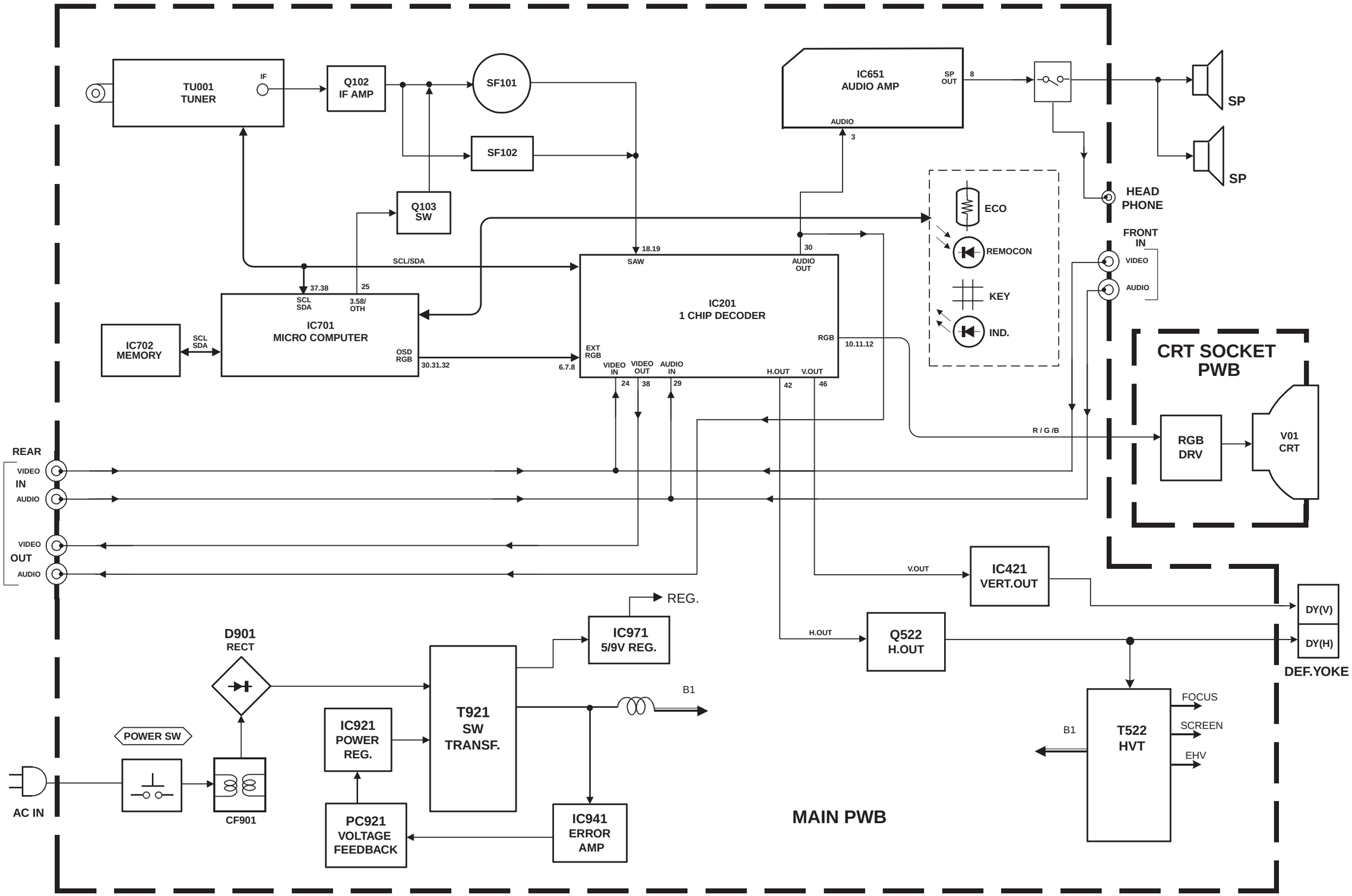
(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

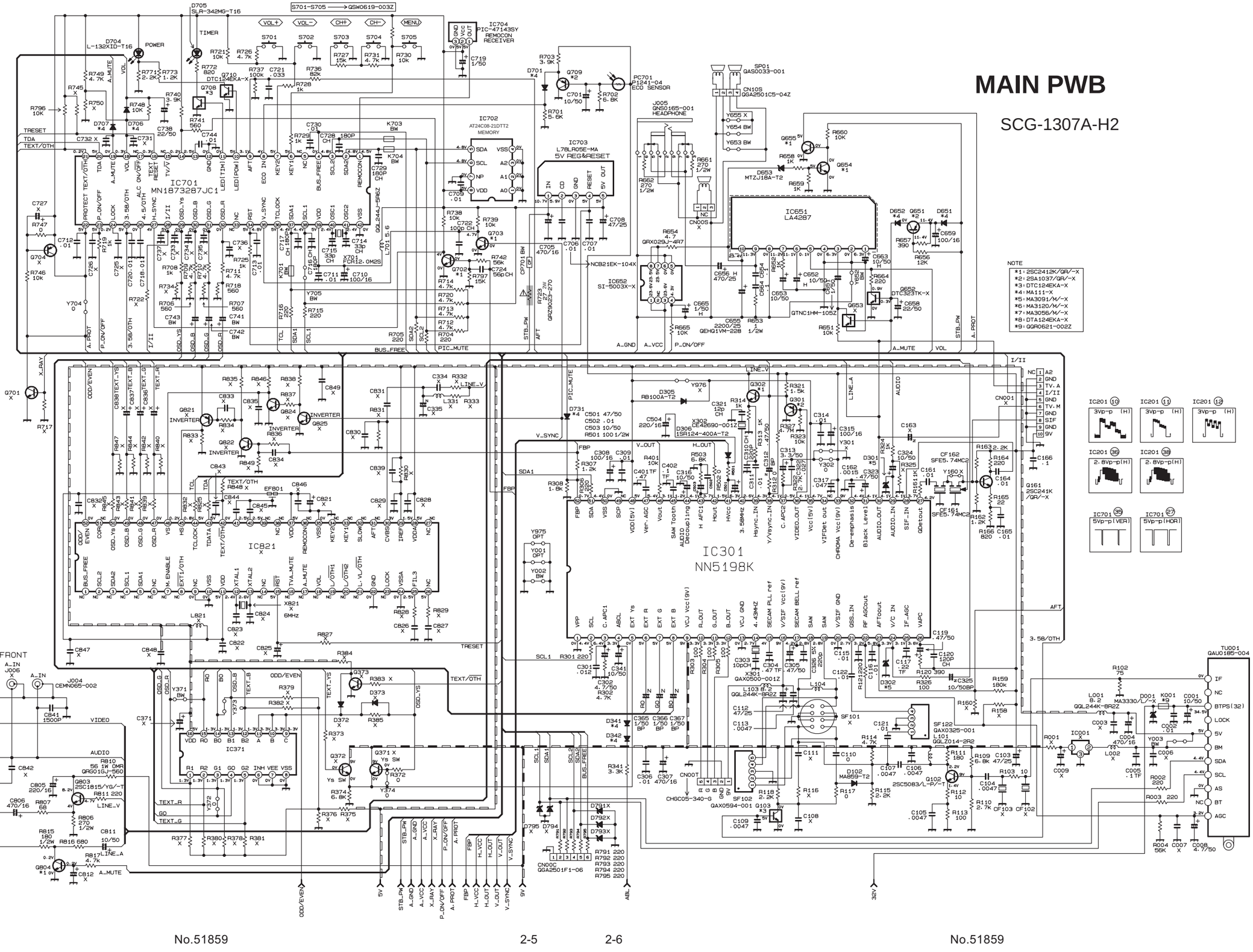
NOTE

◇ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

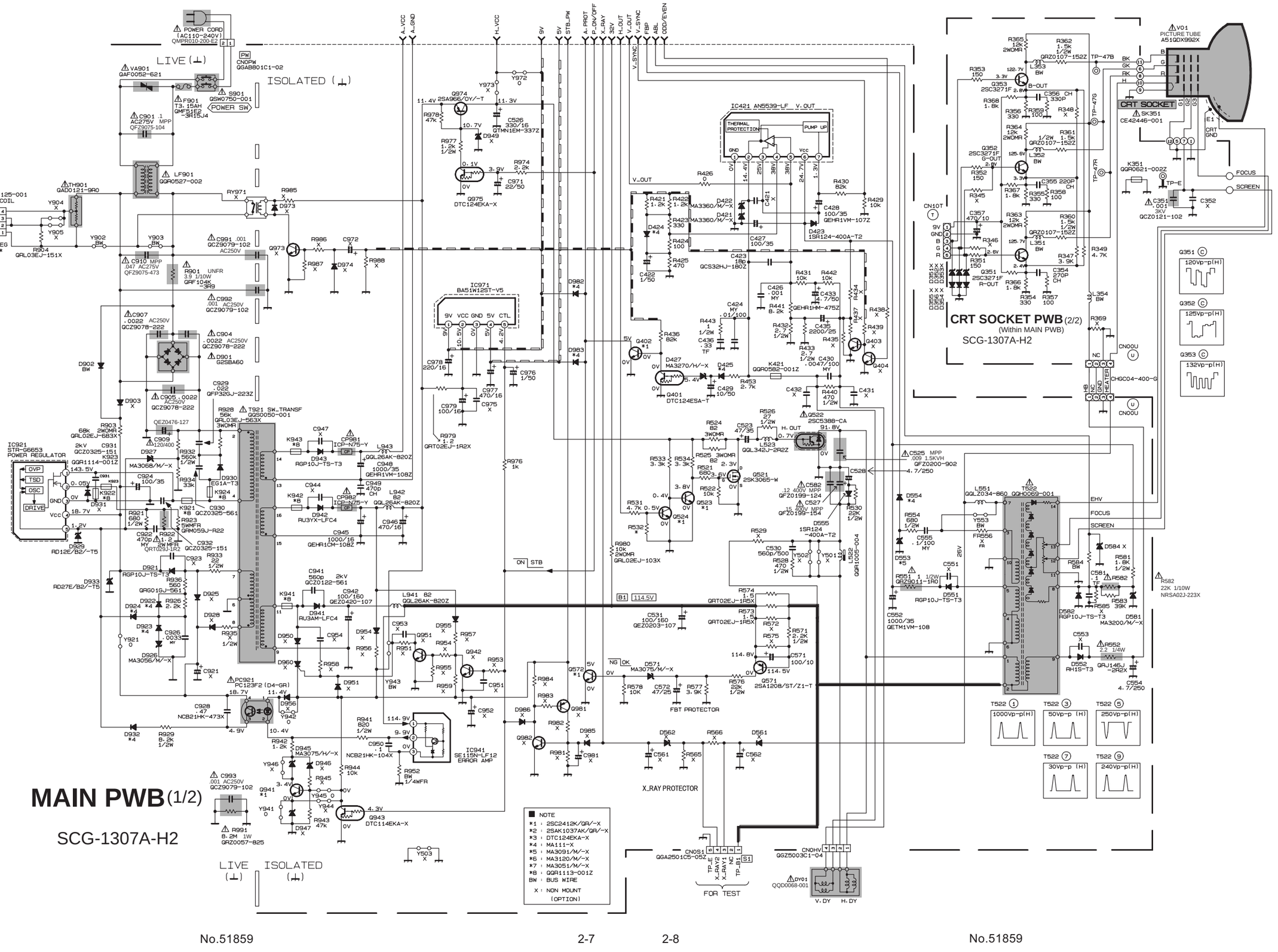
BLOCK DIAGRAM



CIRCUIT DIAGRAMS *MAIN PWB CIRCUIT DIAGRAMS* [1/2]



MAIN PWB CIRCUIT DIAGRAM [2/2]



PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

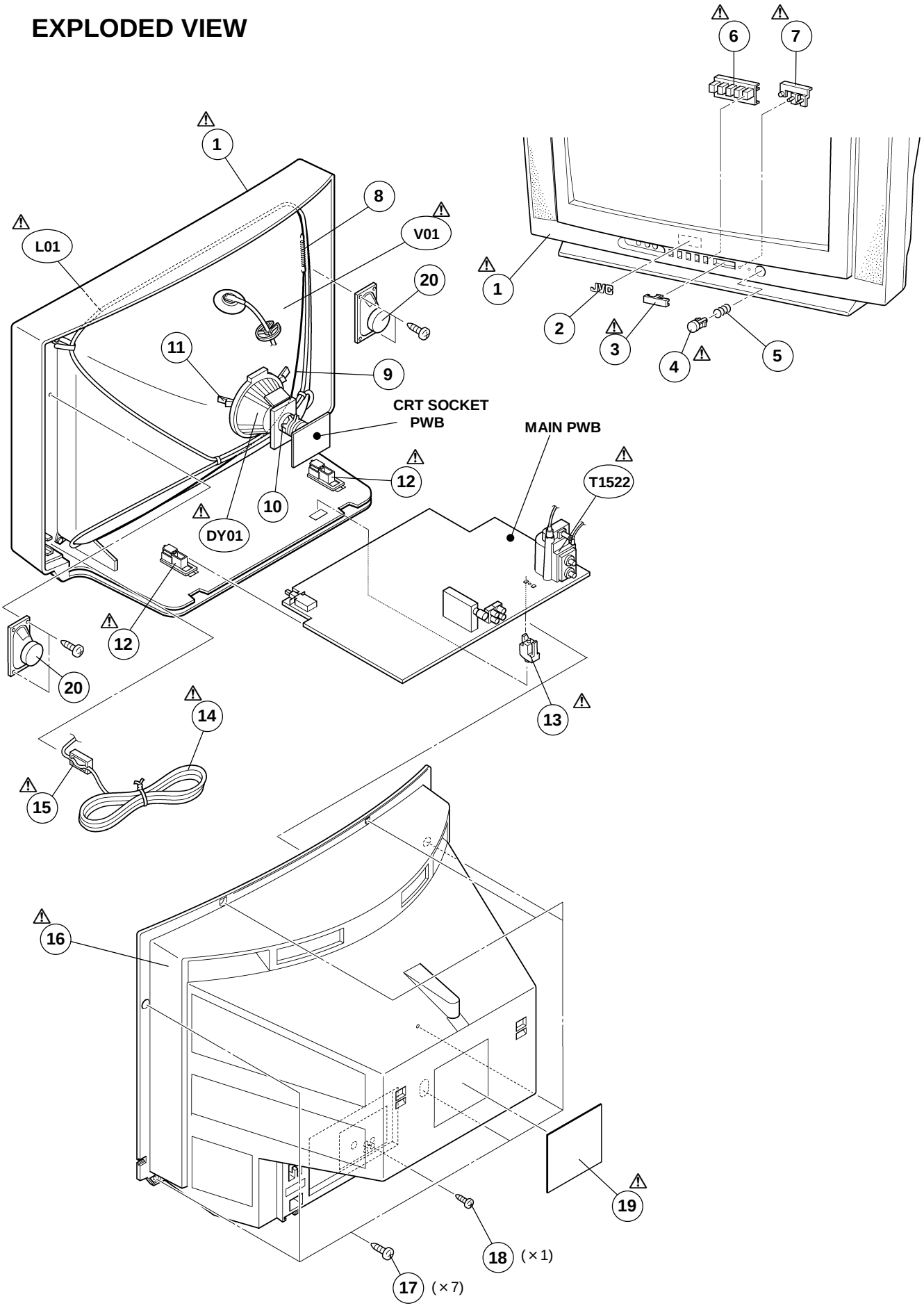
USING PW BOARD & REMOTE CONTROL UNIT

Model / PWB ASS'Y	AV-21L41
MAIN PWB	SCG-1307A-BK
REMOTE CONTROL UNIT	RM-C365GY-1H

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description
⚠	V01	A51QDX992X	PICTURE TUBE(C)	
⚠	L01	QQW0125-001	DEG COIL	
⚠	DY01	QQD0068-001	DEF YOKE	
⚠	T1522	QQH0069-001	H.V.TRANSF.	
⚠	1	GG10129-013A-H	FRONT CABINET	
	2	CM48125-009	JVC MARK	
⚠	3	GG30020-001A-H	E.E.WINDOW	
⚠	4	GG30019-001B-H	POWER KNOB	
	5	CM35235-003-H	SPRING	
⚠	6	GG20006-001A-H	CONTROL KNOB	
⚠	7	GG30021-002A-H	LED LENS	
	8	A48457-3-H	SPRING	
	9	CHGB0016-0B-FH	BRAIDED WIRE	
	10	A75034-B	P.C.MAGNET	
	11	CE40764-00A	WEDGE ASSY	(×3)
⚠	12	CM36623-B01-H	CHASSIS RAIL	(×2)
⚠	13	CM48144-002-H	PWB STOPPER	
⚠	14	QMPR010-200-E2	POWER CORD	or QMPR010-200-K2
⚠	15	CM47005-A01-H	POWER CORD CLAMP	
⚠	16	GG10130-005A-H	REAR COVER	
	17	QYSBSFG4016Z	TAPPING SCREW	(×7) For REAR COVER
	18	QYSBSF3010Z	TAPPING SCREW	(×1) For REAR COVER
⚠	19	CM22960-085-H	RATING LABEL	
	20	QAS0033-001	SPEAKER	(×2)SP01

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN P.W. BOARD ASS'Y (SCG-1307A-BK)

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	R1002-03	NRSA02J-221X	MG R	220Ω 1/10W J
	R1004	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1102	NRSA02J-750X	MG R	75Ω 1/10W J
	R1103	NRSA02J-100X	MG R	10Ω 1/10W J
	R1109	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1110	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1111	NRSA02J-181X	MG R	180Ω 1/10W J
	R1112	NRSA02J-100X	MG R	10Ω 1/10W J
	R1113	NRSA02J-101X	MG R	100Ω 1/10W J
	R1114	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1115	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1117	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1118	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1120	NRSA02J-391X	MG R	390Ω 1/10W J
	R1121	NRSA02J-221X	MG R	220Ω 1/10W J
	R1159	NRSA02J-184X	MG R	180kΩ 1/10W J
	R1161	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1162	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1163	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1164	NRSA02J-221X	MG R	220Ω 1/10W J
	R1165	NRSA02J-220X	MG R	22Ω 1/10W J
	R1166	NRSA02J-821X	MG R	820Ω 1/10W J
	R1301	NRSA02J-221X	MG R	220Ω 1/10W J
	R1302	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1303-05	NRSA02J-101X	MG R	100Ω 1/10W J
	R1306	NRSA02J-221X	MG R	220Ω 1/10W J
	R1307	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1308	NRSA02J-182X	MG R	1.8kΩ 1/10W J
	R1312	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1313	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1314	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1321	NRSA02J-152X	MG R	1.5kΩ 1/10W J
	R1322	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1323	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1324	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1326	NRSA02J-101X	MG R	100Ω 1/10W J
	R1327	NRSA02J-475X	MG R	4.7MΩ 1/10W J
	R1341	NRSA02J-332X	MG R	3.3kΩ 1/10W J
	R1347	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1349	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1351-53	NRSA02J-151X	MG R	150Ω 1/10W J
	R1354-56	NRSA02J-331X	MG R	330Ω 1/10W J
	R1357-59	NRSA02J-101X	MG R	100Ω 1/10W J
	R1360-62	QRZ0107-152Z	C R	1.5kΩ 1/2W K
	R1363-65	QRL029J-123	OM R	12kΩ 2W J
	R1366	NRSA02J-182X	MG R	1.8kΩ 1/10W J
	R1367	NRSA02J-182X	MG R	1.8kΩ 1/10W J
	R1368	NRSA02J-182X	MG R	1.8kΩ 1/10W J
	R1372	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1374	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1401	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1421-22	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1423	NRSA02J-331X	MG R	330Ω 1/10W J
	R1424	NRSA02J-101X	MG R	100Ω 1/10W J
	R1425	NRSA02J-471X	MG R	470Ω 1/10W J
	R1426	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1429	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1430	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1431	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1432-33	QRE121J-2R7Y	C R	2.7Ω 1/2W J
	R1436	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1440	QRE121J-471Y	C R	470Ω 1/2W J
	R1441	NRSA02J-822X	MG R	8.2kΩ 1/10W J
	R1442	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1443	QRE121J-1R0Y	C R	1.0Ω 1/2W J
	R1453	NRSA02J-272X	MG R	2.7kΩ 1/10W J
	R1501	QRE121J-101Y	C R	100Ω 1/2W J
	R1502	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1503	NRSA02J-682X	MG R	6.8kΩ 1/10W J

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	R1521	NRSA02J-681X	MG R	680Ω 1/10W J
	R1522	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1524-25	QRL02EJ-820X	OM R	82Ω 2W J
	R1526	QRE121J-270Y	C R	27Ω 1/2W J
	R1528	QRE121J-471Y	C R	470Ω 1/2W J
	R1530	QRE121J-223Y	C R	22kΩ 1/2W J
	R1531	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1532	NCB31HK-103X	C CAP.	0.01μF 50V K
	R1533-34	NRSA02J-332X	MG R	3.3kΩ 1/10W J
⚠	R1551	QRZ9011-1R0	F R	1.0 Ω 1/2W J
⚠	R1552	QRJ146J-2R2X	C R	2.2Ω 1/4W J
	R1554	QRE121J-821Y	C R	820Ω 1/2W J
	R1571	QRE121J-222Y	C R	2.2kΩ 1/2W J
	R1573-74	QRT02EJ-1R5X	MF R	1.5Ω 2W J
	R1576	QRE121J-223Y	C R	22kΩ 1/2W J
	R1577	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1578	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1581	QRE121J-182Y	C R	1.8kΩ 1/2W J
⚠	R1582	NRSA02J-223X	MG R	22kΩ 1/10W J
	R1583	NRSA02J-393X	MG R	39kΩ 1/10W J
	R1651	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1652	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1653	QRE121J-1R0Y	C R	1.0Ω 1/2W J
	R1654	QRX029J-4R7	MF R	4.7Ω 2W J
	R1656	NRSA02J-123X	MG R	12kΩ 1/10W J
	R1657	NRSA02J-391X	MG R	390Ω 1/10W J
	R1658	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1659	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1660	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1661-62	QRE121J-271Y	C R	270Ω 1/2W J
	R1664	NRSA02J-221X	MG R	220Ω 1/10W J
	R1665	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1701	NRSA02J-562X	MG R	5.6kΩ 1/10W J
	R1702	NRSA02J-682X	MG R	6.8kΩ 1/10W J
	R1703	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1704-05	NRSA02J-221X	MG R	220Ω 1/10W J
	R1706-07	NRSA02J-561X	MG R	560Ω 1/10W J
	R1708	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1709-14	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1715-16	NRSA02J-221X	MG R	220Ω 1/10W J
	R1718	NRSA02J-561X	MG R	560Ω 1/10W J
	R1719	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1720	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1721	NRSA02J-103X	MG R	10kΩ 1/10W J
⚠	R1723	QRZ9023-270	F R	27Ω 2W J
	R1725	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1726	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1727	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1728	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1729	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1730	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1731	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1736	NRSA02J-823X	MG R	82kΩ 1/10W J
	R1737	NRSA02J-104X	MG R	100kΩ 1/10W J
	R1738-39	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1740	NRSA02J-392X	MG R	3.9kΩ 1/10W J
	R1741	NRSA02J-561X	MG R	560Ω 1/10W J
	R1742	NRSA02J-563X	MG R	56kΩ 1/10W J
	R1746	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1747	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	R1748	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1749	NRSA02J-472X	MG R	4.7kΩ 1/10W J
	R1771	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1772	NRSA02J-821X	MG R	820Ω 1/10W J
	R1773	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1791-95	NRSA02J-221X	MG R	220Ω 1/10W J
	R1796	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1797	NRSA02J-153X	MG R	15kΩ 1/10W J
	R1802	NRSA02J-750X	MG R	75Ω 1/10W J

RESISTOR

⚠	Symbol No.	Part No.	Part Name	Description
	R1806	QRE121J-271Y	C R	270Ω 1/2W J
	R1807	NRSA02J-680X	MG R	68Ω 1/10W J
	R1810	QRG01GJ-560	OM R	56Ω 1W J
	R1811	NRSA02J-221X	MG R	220Ω 1/10W J
	R1815	QRE121J-181Y	C R	180Ω 1/2W J
	R1816	NRSA02J-681X	MG R	680Ω 1/10W J
	R1817	NRSA02J-472X	MG R	4.7kΩ 1/10W J
⚠	R1901	QRF104K-3R9	UNF R	3.9Ω 10W K
	R1903	QRL02EJ-683X	OM R	68kΩ 2W J
	R1904	QRL03EJ-151X	OM R	150Ω 3W J
	R1921	QRE121J-681Y	C R	680Ω 1/2W J
⚠	R1922	QRT029J-1R2	MF R	1.2Ω 2W J
	R1923	QRM059J-R22	MP R	0.22Ω 5W J
	R1926	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1928	QRL03EJ-563X	OMF R	56kΩ 3W J
	R1929	QRE121J-822Y	C R	8.2kΩ 1/2W J
	R1932	QRE121J-564Y	C R	560kΩ 1/2W J
	R1933	QRE121J-220Y	C R	22Ω 1/2W J
	R1934	NRSA02J-333X	MG R	33kΩ 1/10W J
	R1936	QRG01GJ-561	OM R	560Ω 1W J
	R1941	QRE121J-821Y	C R	820Ω 1/2W J
	R1942	NRSA02J-122X	MG R	1.2kΩ 1/10W J
	R1943	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1944	NRSA02J-103X	MG R	10kΩ 1/10W J
	R1974	NRSA02J-222X	MG R	2.2kΩ 1/10W J
	R1976	NRSA02J-102X	MG R	1kΩ 1/10W J
	R1977	QRE121J-122Y	C R	1.2kΩ 1/2W J
	R1978	NRSA02J-473X	MG R	47kΩ 1/10W J
	R1979	QRT02EJ-1R2X	MF R	1.2Ω 2W J
	R1980	QRL02EJ-103X	OMF R	10kΩ 2W J
⚠	R1991	QRZ0057-825	C R	8.2MΩ 1W J

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C1001	QETN1HM-106Z	E CAP.	10µF 50V M
	C1002	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1004	QETN1CM-477Z	E CAP.	470µF 16V M
	C1005	QFV71HJ-104Z	MF CAP.	0.1µF 50V J
	C1008	QETN1HM-475Z	E CAP.	4.7µF 50V M
	C1103	QETN1EM-476Z	E CAP.	47µF 25V M
	C1104-07	NCB31HK-472X	C CAP.	4700pF 50V K
	C1109	NCB31HK-472X	C CAP.	4700pF 50V K
	C1110	NRSA02J-0R0X	MG R	0.0Ω 1/10W J
	C1112	QETN1EM-476Z	E CAP.	47µF 25V M
	C1113	NCB31HK-472X	C CAP.	4700pF 50V K
	C1115-16	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1117	QFV71HJ-224Z	MF CAP.	0.22µF 50V J
	C1119	QETN1HM-474Z	E CAP.	0.47µF 50V M
	C1120	NDC31HJ-121X	C CAP.	120pF 50V J
	C1121-22	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1161	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1162	NCB31HK-152X	CHIP CAP.	1500pF 50V K
	C1164-65	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1166	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1301	NCB21HK-123X	C CAP.	0.012µF 50V K
	C1302	QETN1HM-475Z	E CAP.	4.7µF 50V M
	C1303	NDC31HJ-100X	C CAP.	10pF 50V J
	C1304	QFV71HJ-474Z	MF CAP.	0.47µF 50V J
	C1305	QETN1HM-474Z	E CAP.	0.47µF 50V M
	C1306	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1307	QETN1CM-477Z	E CAP.	470µF 16V M
	C1308	QETN1CM-107Z	E CAP.	100µF 16V M
	C1309	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1310	NDC31HJ-221X	C CAP.	220pF 50V J
	C1311	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1312	QENC1HM-474Z	BP E CAP.	0.47µF 50V M
	C1313	QETN1HM-335Z	E CAP.	3.3µF 50V M
	C1314	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1315	QETN1CM-107Z	E CAP.	100µF 16V M
	C1316	QETN1HM-106Z	E CAP.	10µF 50V M
	C1317	NCB31EK-473X	CHIP CAP.	0.047µF 25V K
	C1321	NDC31HJ-120X	C CAP.	12pF 50V J

CAPACITOR

⚠	Symbol No.	Part No.	Part Name	Description
	C1322	NCB21HK-273X	C CAP.	0.027µF 50V K
	C1323	QETN1HM-474Z	E CAP.	0.47µF 50V M
	C1324	QETN1HM-106Z	E CAP.	10µF 50V M
	C1325	QENC1HM-106Z	BP E CAP.	10µF 50V M
	C1326	NCS21HJ-221X	C CAP.	220pF 50V J
	C1341	QETN1HM-106Z	E CAP.	10µF 50V M
⚠	C1351	QCZ0121-102	C CAP.	1000pF 3kV Z
	C1354	NDC31HJ-271X	C CAP.	270pF 50V J
	C1355	NDC31HJ-221X	C CAP.	220pF 50V J
	C1356	NDC31HJ-331X	C CAP.	330pF 50V J
	C1357	QETN1AM-477Z	E CAP.	470µF 10V M
	C1365-67	QENC1HM-105Z	BP E CAP.	1µF 50V M
	C1401	QFV71HJ-474Z	MF CAP.	0.47µF 50V J
	C1402	QFV71HJ-104Z	MF CAP.	0.1µF 50V J
	C1422	QETN1HM-105Z	E CAP.	1µF 50V M
	C1423	QCS32HJ-180Z	C CAP.	18pF 500V J
	C1424	QFLC2AJ-103Z	M CAP.	0.01µF 100V J
	C1426	QFLC1HJ-102Z	M CAP.	1000pF 50V J
	C1427	QETN1VM-107Z	E CAP.	100µF 35V M
	C1428	QEHR1VM-107Z	E CAP.	100µF 35V M
	C1429	QETN1HM-106Z	E CAP.	10µF 50V M
	C1430	QFN32AJ-472Z	M CAP.	4700pF 100V J
	C1433	QEHR1HM-475Z	E CAP.	4.7µF 50V M
	C1435	QETM1EM-228	E CAP.	2200µF 25V M
	C1436	QFV71HJ-334Z	MF CAP.	0.33µF 50V J
	C1501	QETN1HM-476Z	E CAP.	47µF 50V M
	C1502	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1503	QETN1HM-106Z	E CAP.	10µF 50V M
	C1504	QETN1CM-227Z	E CAP.	220µF 16V M
	C1523	QTMN1VM-476Z	E CAP.	47µF 35V M
⚠	C1525	QFZ0200-902	MPP CAP.	9000pF1.5kVH ±3%
	C1526	QTMN1EM-337Z	E CAP.	330µF 25V M
⚠	C1527	QFZ0199-154	MPP CAP.	0.15µF 400V M
	C1528	QETN2EM-475Z	E CAP.	4.7µF 250V M
	C1530	QCB32HK-561Z	C CAP.	560pF 500V K
	C1531	QEZ0203-107	E CAP.	100µF 160V M
	C1552	QETM1VM-108	E CAP.	1000µF 35V M
	C1554	QETN2EM-475Z	E CAP.	4.7µF 250V M
	C1555	QFLC2AJ-104Z	M CAP.	0.1µF 100V J
	C1571	QETN1AM-107Z	E CAP.	100µF 10V M
	C1572	QETN1EM-476Z	E CAP.	47µF 25V M
	C1581	QFV71HJ-104Z	MF CAP.	0.1µF 50V J
⚠	C1582	QFZ0199-124	MPP CAP.	0.12µF 400V M
	C1651	QTNC1HM-105Z	E CAP.	1.0µF 50V M
	C1652-53	QEHR1HM-106Z	E CAP.	10µF 50V M
	C1654	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1655	QEHQ1VM-228	E CAP.	2200µF 35V M
	C1656	QEHR1EM-477Z	E CAP.	470µF 25V M
	C1658	QETN1HM-226Z	E CAP.	22µF 50V M
	C1659	QETN1CM-107Z	E CAP.	100µF 16V M
	C1663	QEHR1HM-106Z	E CAP.	10µF 50V M
	C1664	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1665	QEHR1HM-105Z	E CAP.	1µF 50V M
	C1701	QETN1HM-106Z	E CAP.	10µF 50V M
	C1705	QETN1CM-477Z	E CAP.	470µF 16V M
	C1706	NCB21EK-104X	C CAP.	0.1µF 25V K
	C1707	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1708	QETN1EM-476Z	E CAP.	47µF 25V M
	C1709	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1710	QETN1CM-107Z	E CAP.	100µF 16V M
	C1711-13	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1714-15	NDC31HJ-330X	C CAP.	33pF 50V J
	C1716-17	NDC31HJ-181X	C CAP.	180pF 50V J
	C1718	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1719	QETN1HM-105Z	E CAP.	1µF 50V M
	C1720	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1721	NCB21HK-333X	C CAP.	0.033µF 50V K
	C1722	NDC31HJ-101X	C CAP.	100pF 50V J
	C1724	NDC31HJ-560X	C CAP.	56pF 50V J
	C1728-29	NDC31HJ-181X	C CAP.	180pF 50V J
	C1730	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1738	QETN1HM-226Z	E CAP.	22µF 50V M

⚠	Symbol No.	Part No.	Part Name	Description
	CAPACITOR			
	C1744	NCB31HK-103X	C CAP.	0.01µF 50V K
	C1805	QETN1CM-227Z	E CAP.	220µF 16V M
	C1806	QETN1CM-477Z	E CAP.	470µF 16V M
	C1811	QETN1HM-106Z	E CAP.	10µF 50V M
	C1841	NCB31HK-152X	CHIP CAP.	1500pF 50V K
⚠	C1901	QFZ9075-104	MPP CAP.	0.1µFAC275V M
⚠	C1904	QCZ9078-222	C CAP.	2200pFAC250V M
⚠	C1905	QCZ9078-222	C CAP.	2200pFAC250V M
⚠	C1907	QCZ9078-222	C CAP.	2200pFAC250V M
⚠	C1909	QEZ0476-127	E CAP.	120µF 400V M
⚠	C1910	QFZ9075-473	MPP CAP.	0.047µFAC275V M
	C1922	QFLC1HJ-471Z	M CAP.	470pF 50V J
	C1924	QETN1VM-107Z	E CAP.	100µF 35V M
	C1926	QFLC1HJ-332Z	M CAP.	3300pF 50V J
	C1928	NCB21HK-473X	C CAP.	0.047µF 50V K
	C1929	QFP32GJ-223Z	PP CAP.	0.022µF 400V J
	C1930	QCZ0325-561	C CAP.	560pF 2kV K
	C1931-32	QCZ0325-151	C CAP.	150pF 2kV K
	C1941	QCZ0122-561	C CAP.	560pF 2kV K
	C1942	QEZ0420-107	E CAP.	100µF 160V M
	C1945	QEHR1CM-108Z	E CAP.	1000µF 16V M
	C1946	QEHR1CM-477Z	E CAP.	470µF 16V M
	C1948	QEHR1VM-108Z	E CAP.	1000µF 35V M
	C1949	NDC31HJ-471X	C CAP.	470pF 50V J
	C1950	NCB21HK-104X	CHIP CAP.	0.1µF 50V K
	C1971	QETN1HM-226Z	E CAP.	22µF 50V M
	C1976	QETN1HM-105Z	E CAP.	1µF 50V M
	C1977	QETN1CM-477Z	E CAP.	470µF 16V M
	C1978	QETN1CM-227Z	E CAP.	220µF 16V M
	C1979	QETN1CM-107Z	E CAP.	100µF 16V M
⚠	C1991	QCZ9079-102	C CAP.	1000pFAC250V M
⚠	C1992	QCZ9079-102	C CAP.	1000pFAC250V M
⚠	C1993	QCZ9079-102	C CAP.	1000pFAC250V M
	TRANSFORMER			
⚠	T1522	QQH0069-001	H.V.TRANSF.	
⚠	T1921	QQS0050-001	SWITCH.TRANSF.	
	COIL			
	L1001	QQL244K-8R2Z	COIL	8.2µH K
	L1101	QQLZ014-2R2	PEAKING COIL	
	L1103	QQL244K-8R2Z	COIL	8.2µH K
	L1522	QQR1005-004	LINEARITY COIL	
	L1523	QQL342J-2R2Z	INDUCTOR	
	L1551	QQLZ034-860	HEATER CHOKE	
	L1701	QQL244J-5R6Z	COIL	5.6µH J
	L1941-43	QQL26AK-820Z	COIL	82µH K
	DIODE			
	D1001	MA3330/L/-X	ZENER DIODE	
	D1102	MA859-T2	SI.DIODE	
	D1301-02	MA3091/M/-X	ZENER DIODE	
	D1305	RB100A-T2	SI.DIODE	
	D1306	1SR124-400A-T2	SI.DIODE	
	D1341-42	MA111-X	SI.DIODE	
	D1421-22	MA3360/M/-X	ZENER DIODE	
	D1423	1SR124-400A-T2	SI.DIODE	
	D1424-25	MA111-X	SI.DIODE	
	D1427	MA3270/H/-X	ZENER DIODE	
	D1551	RGP10J-TS-T3	SI.DIODE	
	D1552	RH1S-T3	SI.DIODE	
	D1553	MA3091/M/-X	ZENER DIODE	
	D1554	MA111-X	SI.DIODE	
	D1555	1SR124-400A-T2	SI.DIODE	
	D1571	MA3075/M/-X	ZENER DIODE	
	D1581	MA3200/M/-X	ZENER DIODE	
	D1582	RGP10J-TS-T3	SI.DIODE	
	D1651-52	MA111-X	SI.DIODE	
	D1653	MTZJ18A-T2	ZENER DIODE	
	D1701	MA111-X	SI.DIODE	
	D1704	L-132XID-T16	L.E.D.(RED)	
	D1705	SLR-342MG-T16	L.E.D.(GRN)	

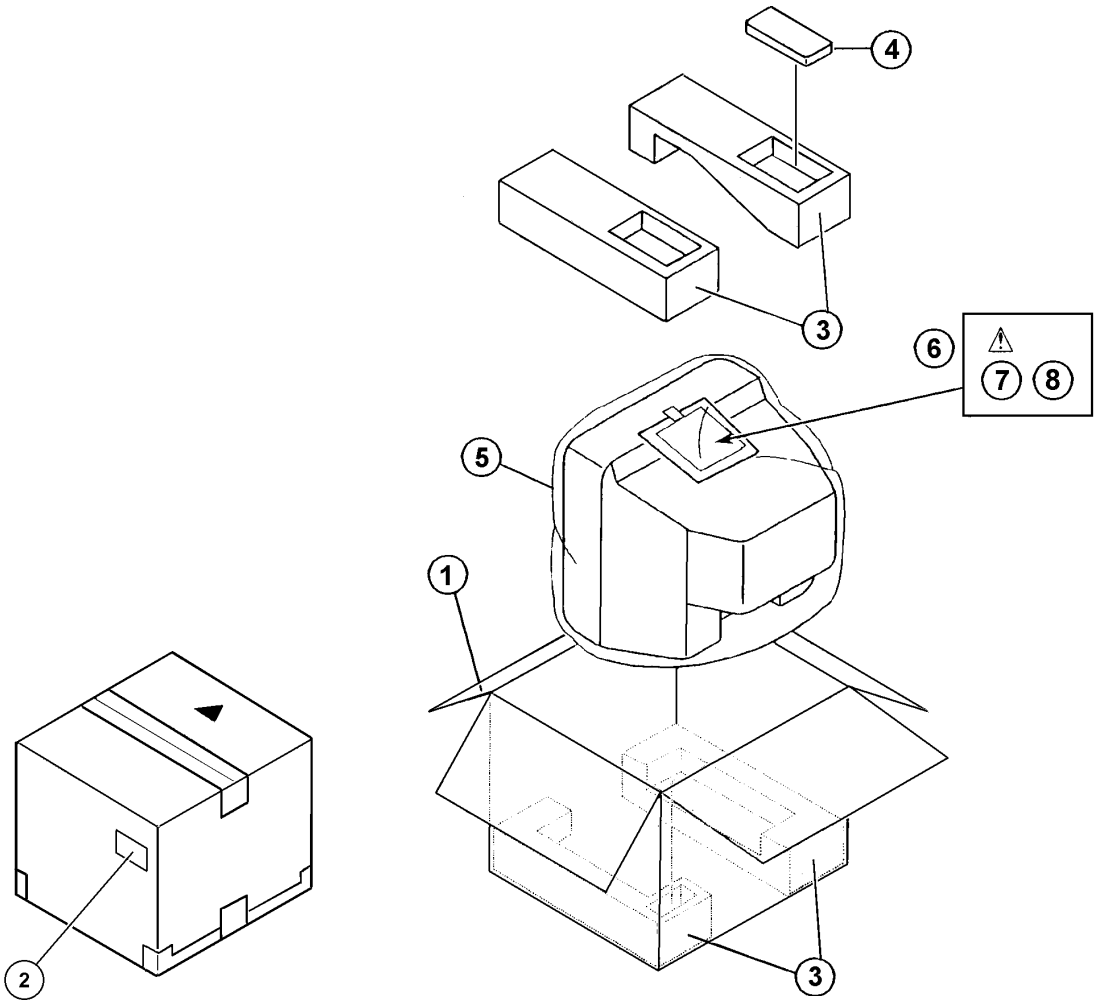
⚠	Symbol No.	Part No.	Part Name	Description
	DIODE			
	D1706-07	MA111-X	SI.DIODE	
	D1731	MA111-X	SI.DIODE	
⚠	D1901	G2SBA60	BRIDGE DIODE	
	D1921	RGP10J-TS-T3	SI.DIODE	
	D1922-24	MA111-X	SI.DIODE	
	D1926	MA3056/M/-X	ZENER DIODE	
	D1927	MA3068/M/-X	ZENER DIODE	
	D1929	RD12E/B2/-T5	ZENER DIODE	
	D1930	EG1A-T3	SI.DIODE	
	D1932	MA111-X	SI.DIODE	
	D1933	RD27E/B2/-T5	ZENER DIODE	
	D1941	RU3AM-LFC4	SI.DIODE	
	D1942	RU3YX-LFC4	SI.DIODE	
	D1943	RGP10J-TS-T3	SI.DIODE	
	D1945	MA3075/H/-X	ZENER DIODE	
	D1982-83	MA111-X	SI.DIODE	
	TRANSISTOR			
	Q1102	2SC5083/L-P/-T	SI.TRANSISTOR	
	Q1103	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1161	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1301	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1302	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1351-53	2SC3271F	SI.TRANSISTOR	
	Q1401	DTC124ESA-T	DIGI.TRANSISTOR	
	Q1402	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1521	2SK3065-W	F.E.T.	
⚠	Q1522	2SC5388-CA	SI.TRANSISTOR	H.OUT
	Q1523-24	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1571	2SA1208/ST/Z1-T	SI.TRANSISTOR	
	Q1572	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1651	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1652	DTC323TK-X	DIGI.TRANSISTOR	
	Q1654-55	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1702-03	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1708	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1709	2SA1037AK/QR/-X	SI.TRANSISTOR	
	Q1710	DTC124EKA-X	DIGI.TRANSISTOR	
	Q1803	2SC1815/YG/-T	SI.TRANSISTOR	
	Q1804	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1941	2SC2412K/QR/-X	SI.TRANSISTOR	
	Q1943	DTC114EKA-X	DIGI.TRANSISTOR	
	Q1974	2SA966/OY/-T	SI.TRANSISTOR	
	Q1975	DTC124EKA-X	DIGI.TRANSISTOR	
	IC			
	IC1301	NN5198K	I.C.(M)	
	IC1421	AN5539-LF	I.C.(MONO-ANA)	
	IC1651	LA4287	I.C.(MONO-ANA)	
	IC1652	SI-5003X-X	I.C.(HYBRID)	
	IC1701	MN1873287JC1	I.C.(MICRO-COMP)	
	IC1702	AT24C08-21DTT2	I.C.	(SERVICE)
	IC1703	L78LR05E-MA	I.C.(MONO-ANA)	
	IC1704	PIC-28143SY	IFR DETECT UNIT	
	IC1921	STR-G6653	I.C.(HYBRID)	
	IC1941	SE115N-LF12	I.C.(HYBRID)	
	IC1971	BA51W12ST-V5	I.C.(MONO-ANA)	
	OTHERS			
		LC30114-001C-H	L.E.D.HOLDER	
		CM35921-005-H	CDS HOLDER	
	CF1161-62	SFE5.74MC2	CERAMIC TRAP	
⚠	CP1981	ICP-N75-Y	I.C.PROTECT	
⚠	CP1982	ICP-N75-Y	I.C.PROTECT	
⚠	F1901	QMF51E2-3R15J4	FUSE	3.15A
⚠	FC1901	CEMG002-001Z	FUSE CLIP	
	J1002	QNN0384-001	PIN JACK	
	J1003	CEMN065-001	PIN JACK	
	J1004	CEMN065-002	PIN JACK	
	J1005	QNS0165-001	PIN JACK	
	K1001	QQR0621-002Z	BEADS CORE	
	K1351	QQR0621-002Z	BEADS CORE	
	K1421	QQR0582-001Z	BEADS CORE	
	K1921-22	QQR1113-001Z	FERRITE BEADS	

⚠	Symbol No.	Part No.	Part Name	Description
	OTHERS			
	K1923	QQR1114-001Z	FERRITE BEADS	
	K1924	QQR1113-001Z	FERRITE BEADS	
	K1941-43	QQR1113-001Z	FERRITE BEADS	
⚠	LF1901	QQR0527-002	LINE FILTER	
	PC1701	P1241-04	C.D.S.	
⚠	PC1921	PC123F2	I.C.(PH.COUPLER)	
	S1701	QSW0619-003Z	PUSH SWITCH	VOL+
	S1702	QSW0619-003Z	PUSH SWITCH	VOL-
	S1703	QSW0619-003Z	PUSH SWITCH	CH+
	S1704	QSW0619-003Z	PUSH SWITCH	CH-
	S1705	QSW0619-003Z	PUSH SWITCH	MENU
⚠	S1901	QSW0750-001	PUSH SWITCH	POWER SW
	SF1102	QAX0594-001	SAW FILTER	
	SF1122	QAX0325-001	SAW FILTER	
⚠	SK1351	CE42446-001	C.R.T.SOCKET	
⚠	TH1901	QAD0119-9R0	P.THERMISTOR	
	TU1001	QAU0185-004	TUNER	
⚠	VA1901	QAF0052-621	VARISTOR	
	X1301	QAX0500-001Z	CRYSTAL	
	X1302	CE42690-001Z	CRYSTAL	
	X1701	FCR12.0M2S	CER.RESONATOR	

REMOTE CONTROL UNIT PARTS LIST

⚠	Ref.No.	Part No.	Part Name.	Description
		25-1168F	BATTERY COVER	

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description
	1	GG10045-014A-H	PACKING CASE	
	2	CM47385-00B-H	POS/SERIAL LABEL	
	3	GG10131-001B-H	CUSHION ASSY	
	4	RM-C365GY-1H	REMOCON UNIT	
	5	CP30697-005-H	POLY BAG	
	6	QPA02503505	POLY BAG	
⚠	7	LCT1031-001A-H	INST BOOK	
	8	ATEAB001-00A	MATCHING BOX	

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AV21L41BK-BK #999
VP 0110
DP1059