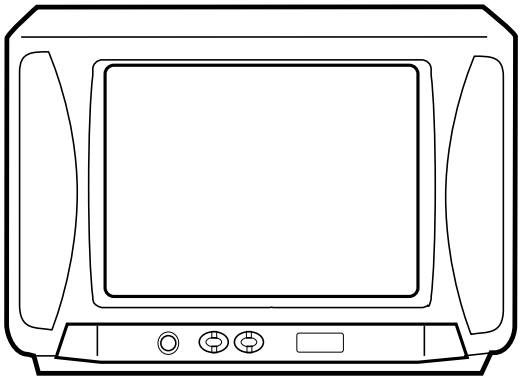
Memorex

MT2205

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION A

Memorex

MT2205

SERVICE MANUAL

COLOR TELEVISION RECEIVER

REVISION 1
MFR'S VERSION C

The ORIGINAL SERVICE MANUAL of MFR'S VERSION A is mistaken for MFR'S VERSION B.

MFR'S VERSION	IC101
B	OEC3041A
C	OEC3041B

Please file this revision with the original version.

Change of IC101

DIFFERENCES

REF.NO	MFR'S VERSION B		MFR'S VERSION C	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
IC101	I53F53041A	IC OEC3041A	I53F53041B	IC OEC3041B
PCB010	A3G813C01A	MAIN PCB ASS'Y TM9436A	A3G813C01B	MAIN PCB ASS'Y TM9436A

SPEC.NO.	M3G8-13C
O/R NO.	W043007

SERVICING NOTICES ON CHECKING

1. KEEP THE NOTICES

As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.
Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a ⚠ mark, the designated parts must be used.

4. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

5. TAKE CARE TO DEAL WITH THE CATHODE-RAY TUBE

In the condition that an explosion-proof cathode-ray tube is set in this equipment, safety is secured against implosion. However, when removing it or serving from backward, it is dangerous to give a shock. Take enough care to deal with it.

6. AVOID AN X-RAY

Safety is secured against an X-ray by considering about the cathode-ray tube and the high voltage peripheral circuit, etc.
Therefore, when repairing the high voltage peripheral circuit, use the designated parts and make sure not modify the circuit.
Repairing except indicates causes rising of high voltage, and it emits an X-ray from the cathode-ray tube.

7. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

(INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the eternal exposure metal **[Note 2]** should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

[Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

[Note 2]

External exposure metal: Antenna terminal

HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER
   The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.
2. PART NO. and DESCRIPTION
   You can find it in your SERVICE MANUAL.

IMPORTANT

Inferior silicon grease can damage IC's and transistors.
When replacing an IC's or transistors, use only specified silicon grease (YG6260M).
Remove all old silicon before applying new silicon.

CONTENTS

GENERAL SPECIFICATIONS

G-1.Outline of the Product

20 inch(544.5mmV):Measured diagonally

Color CRT 90 degree deflection

G-2.Broadcasting System

US System M

G-3.Color System ☒NTSC ☐PAL ☐SECAM or Monochrome signal

G-4.NTSC Playback(PAL 60Hz) ☐Yes ☒No

G-5.NTSC 3.58+4.43/PAL60Hz ☐Yes ☒No

G-6.Antenna Input Impedance

VHF/UHF 75 ohm unbalanced

G-7.Tuner and Receiving Contactless Electric tuner ☒1Tuner System ☐2Tuner System

channel Tuner ☐Oscar(W/O HYPER) ☐Oscar(W/ HYPER) ☐France CATV) ☒Others

Receiving channel

VHF	(LOW)	2 ch ~ 6 ch		
	(HIGH)	7 ch ~ 13 ch		
	(CATV)	A5 ch ~ I ch	J ch~W+29 ch	GGG ch~W+84 ch
UHF		14 ch ~ 69 ch		

Tuning System

☒Frequency syn. ☐Voltage syn. ☐Others

G-8Preset Channel

-- channels

G-9.Intermediate Frequency

Picture(fP)	45.75 MHz	MHz	MHz
Sound (fS)	41.25 MHz	MHz	MHz
fP-fS	4.50 MHz	MHz	MHz

G-10.Stereo/Dual TV Sound

☒ Yes(☐NICAM ☐GERMAN ☒USA ☐JAPAN) ☐No

G-11.Tuner Sound Muting ☒Yes ☐No

G-12Power Source 120 V ☐AC 50Hz ☒AC 60Hz

G-13Power Consumption:

95 W at AC 120 V 60 Hz

-- W at DC --- V

Stand by: 8 W at AC V Hz

Per Year: -- kWh / Year

G-14.Dimensions(Approx.)

600 mm(W) 479 mm(D) 446 mm(H)

G-15.Weight(Approx.) Net : 21.0 kg (46.3 lbs)

Gross: 23.8 kg (52.5 lbs)

G-16.Cabinet Material

Cabinet Front:	☒PS	☐94HB	☒DECABROM
	☐ABS	☐94V2	☐NON-DECA
		☒94V0	
Back Panel:	☒PS	☐94HB	☒DECABROM
	☐ABS	☐94V2	☐NON-DECA
		☒94V0	

GENERAL SPECIFICATIONS

G-17.Protector: ☒Power Fuse

G-18.Regulation

Safety

☒UL	☐CSA	☐SAA	☐SI	☐CE	☐SEV
☐BS	☐NF	☐NEMKO	☐FEMKO	☐DEMKO	☐IEC65
☐SEMKO	☐NZ	☐HOMOLO	☐SABS	☐CNS	☐SISIR
☐NOM	☐AS3159	☐DENTORI	☐UNE	☐GOST	☐NONE

Radiation

☒FCC	☐DOC	☐FTZ	☐PTT	☐CE	☐SEV
☐SABA	☐SI	☐NF	☐NZ	☐HOMOLO	☐UNE
☐CNS	☐CISPR13	☐DENTORI	☐AS/NZS	☐NONE	

X-Radiation

☐PTB	☒DHHS	☐HWC	☐DENTORI	☐NONE

G-19.Temperature

Operation 5 ºC~ 40 ºC

Storage -20 ºC~ 60 ºC

G-20.Operating Humidity Less than 80 %RH

G-21.Clock and Timer

Sleep Timer	☒Yes Max 120 Min.(10 Min. Step)	☐No
On/Off Timer	☐Yes _____ Programs	☒No
Wake Up Timer	☐Yes _____ Programs	☒No

G-22.Timer back up Time More than -- Minutes (at Power Off Mode)

G-23.Terminals

☒VHF/UHF Antenna	☐ Din Type ☒ F-Type	☐ France Type
☐Video Input(Front)	☐ Phono Jack (RCA ø8.3)	☐ BNC
☐Video Input(Rear)	☐ Phono Jack (RCA ø8.3)	☐ BNC
☐Video Output(Rear)	☐ Phono Jack (RCA ø8.3)	☐ BNC
☐Audio Input(Front)	☐ Phono Jack (RCA ø8.3)	
☐Audio Input(Rear)	☐ Phono Jack (RCA ø8.3)	
☐Audio Output(Rear)	☐ Phono Jack (RCA ø8.3)	
☐21 Pin	☐DC Jack(Center +)	☐Ear Phone Jack(ø3.5)
☐Head Phone Jack(ø3.5)	☐AC Outlet	☐Ext Speaker
☐Diversity	☐S Input(Front)	☐S Input(Rear)

G-24.Indicator

☐Power (____) ☐Stand By (____) ☐On Timer (____) ☒NONE

G-25.Display

On Screen Display

☒Menu	☐Clock Set(☐12H ☐24H)	☐System Selec	☐On/Off Timer
	☐Hotel Lock	☐Area Code	☒CH Tuning
	☐Sound 1/2	☐NICAM Auto Off	☒Picture
	☐Guide CH Set	☒Audio	☒Language
	☐CATV	☐Pin Code Registration	☒Sap On/Off
	☒V-Chip		
☒Control Level	☒Sound	☒Brightness	☒Contrast
	☒Color	☒Tint(NTSC Only)	☒Sharpness
	☐Tuning	☒Bass	☒Treble
	☒Balance	☐Back Light	
☐Stereo,Audio Output,Bilingual		☐Picture Menu	
☒Stereo,Audio Output,SAP		☐Mid Night Theater	
☐Stereo,Audio Output		☐GAME	

☐CH/AV	☐Clock	☐Pin Code	☐Hotel Lock
☒Sleep Timer	☒Sound Mute	☒Channel	

GENERAL SPECIFICATIONS

G-26.OSD Language

☒Eng ☐Ger ☒Fre ☒Spa ☐Ita ☐Por ☐Jpn

OSD Language Setting

☒Eng ☐Ger ☐Fre ☐Spa ☐Ita ☐Por ☐Jpn

☐Not Applicable

G-27.Speaker

6 1/3 x 2 1/4 inches Imp. 32 ohm x 2 pcs

Max 2.5 + 2.5 W (Typical)

10% 2.0 + 2.0 W (Typical)

G-28.EXT Speaker

☐Yes -- W Imp -- ohm

G-29.Carton

Master Carton: ☐Need ☒No Need

Content: ---- Set

Material: ---- / ---- Corrugated Carton

Dimensions: ---- mm(W) ---- mm(D) ---- mm(H)

Description of Origin ☐Yes ☐No

Gift Box

Material ☐AB Double/Brown Corrugated Carton (☐with Photo Label)

☒AB Double/White Corrugated Carton (☐with Photo Label)

☐AB Double Full Color Carton W/Photo

Dimensions: 660 mm(W) 540 mm(D) 541 mm(H)

Design: As Per BUYER 's

Description of Origin: ☒Yes ☐No

Drop Test Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces

Height ☐25cm ☐31cm ☒46cm ☐62cm ☐80cm

Container Stuffing: 304 Sets / 40' container

G-30.Accessories

☒Owner's Manual (☐W/Guarantee Card) [English/Spanish]

☐AC Plug Adapter ☐Channel Film

☐Battery (UM- 4 x 2) ☒Remote Control Unit

☐Safety Tip ☐Toll Free Insert Sheet

☒Guarantee Card ☐Audio-Video Cord (RCA)

☐Registration Card ☐Warning Sheet

☐Quick Set-Up Sheet ☐Schematic Diagram

☐Information Sheet ☐U/V Mixer

☐75 ohm Coaxial Cable (☐Single Shield ☐Double Shield)

☐300 ohm to 75 ohm VHF Antenna Adaptor ☐Service Facility List

☐21pin Cable ☐Car Cord

☐Rod Antenna

☐One Pole ☐Two Pole (☐F-Type ☐Din Type ☐France Type)

☐Loop Antenna (☐F-Type ☐Din Type ☐France Type)

G-31.Other Features

☒Auto Degauss	☐Auto Search	☐Full OSD
☒Auto Shut Off	☐CH Allocation	☐Premiere
☐Canal+	☒SAP	☐Comb Filter
☒CATV	☐Channel Lock	☒Auto CH Memory
☐Anti-Theft	☐Just Clock Function	☐Hotel Lock
☐Rental	☐Game Position	☐Fastext
☐Unitext	☐TopText	☒Closed Caption
☐Picture Menu	☐Mid Night Theater	☒V-Chip

GENERAL SPECIFICATIONS

G-32.Switch

Front

☐Power(Tact)	☒Channel Up	☒Volume Up
☐System Select	☒Channel Down	☒Volume Down
☐Main Power SW	☒Sub Power	

Rear

☐AC/DC	☐TV/CATV Selector
☐Degauss	☐Main Power SW

G-33.Magnetic Field

☒BV : +0.45G BH : 0.18G	☐BV : +0.35G BH : 0.30G	☐BV : +0.25G BH : 0.30G
☐BV : -0.15G BH : 0.15G	☐BV : -0.25G BH : 0.15G	☐BV : -0.50G BH : 0.30G

G-34.Remote Control Unit: RC-74

Power Source: D.C 3 V Battery UM - 4 x 2

☒ Power	☒Quick View	☐TV/AV
☐ Stand By	☐Status	☐Bar Select
☒ 0	☐Time Select	☐PAL/SECAM
☒ 1	☐Time Set	☒Volume Up
☒ 2	☒Mute	☒Volume Down
☒ 3	☐CH Skip	☐CH Call
☒ 4	☒CH1/CH2	☒CH Down
☒ 5	☐Channel	☒CH Up
☒ 6	☐Text/Mix/TV	☐CH Down/Page Down
☒ 7	☐Display Cancel	☐CH Up/Page Up
☒ 8	☐Initial	☐Page +/-
☒ 9	☐Store	☐Program
☐10	☐Reveal	☐F/T/B
☐11	☒Sleep	☐Hold
☐12	☐Aft/Skip	☐List
☐1 *	☐Preset	☐Rotate
☐2 *	☐5.5/6.5MHz	☐Browse
☐0/10	☐Auto Memory	☐Std/Auto
☐Tone 1/2	☐Auto	☐Memory
☐Info	☒Call	☐Band Select
☐Mono/Auto	☒Reset	☐Search
☒TV/Caption/Text	☒Menu	☐Clock/Program
☐Expand	☒Enter	☐Clock/Set
☐Red	☐Add	☐Ch Set
☐Cyan	☐Delete	☒Set +
☐Normal	☐Yellow	☒Set -
☐Color System	☐Random	☐Green
☐Wide Selecy	☐Tuning Up/Time Text	☐Nicam/Mono
☐Auto Wide On/Off	☐Tuning Down/Reset	☐Tone A/B
☐Picture Position	☐Navi	☐FM Transmitter
☐Direct Change/Auto Search	☐Back Light	
☐Picture Menu	☐Mid Night Theater	☒Audio Select

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.

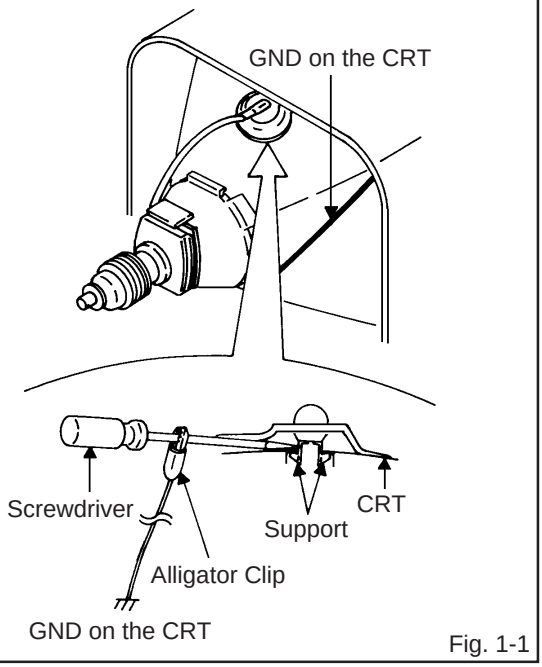


Fig. 1-1

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)**

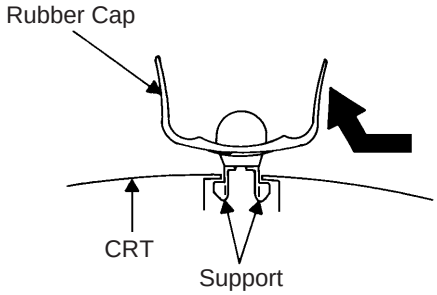


Fig. 1-2

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)**

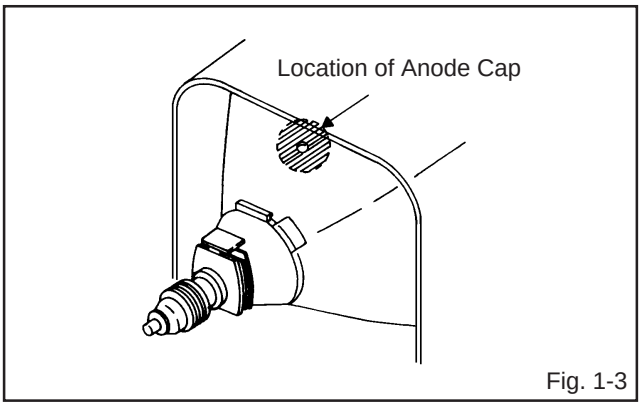


Fig. 1-3

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)**

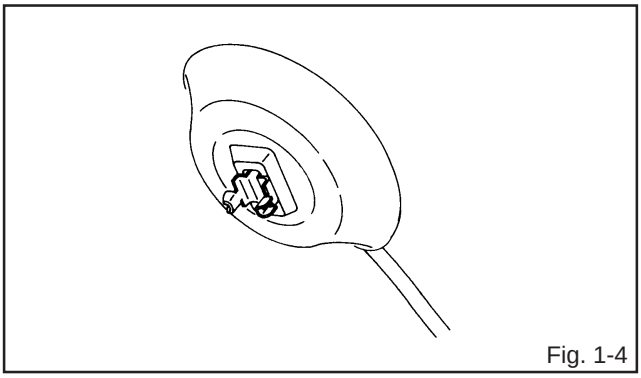


Fig. 1-4

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

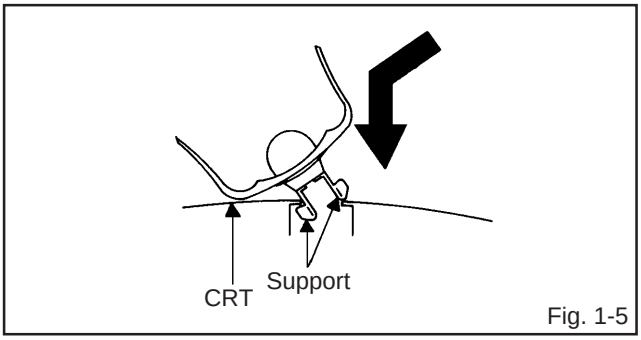


Fig. 1-5

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

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 2 seconds.

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 2 seconds.
3. After the confirmation of using hours, turn off the power.

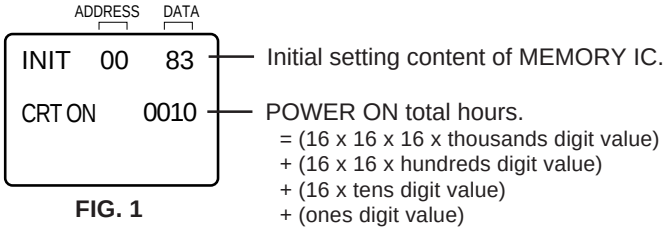


FIG. 1

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.

NOTE: No need the setting for after INI 9.

ADDRESS	INI 00	INI 01	INI 02	INI 03	INI 04	INI 05	INI 06	INI 07	INI 08	INI 09
DATA	88	6C	80	00	00	00	00	98	07	04

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 2 seconds.
3. ADDRESS and DATA should appear as FIG 1.
4. ADDRESS is now selected and should "blink". Using the SET + or - keys on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press ENTER to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using SET + or - until required DATA value has been selected.
7. Pressing ENTER will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 7 until all data has been checked.
9. 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.

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 (YG6260M).
  Remove all old silicon before applying new silicon.

1-1: Prepare the following measurement tools for electrical adjustments.

1. Synchro Scope
2. Digital Voltmeter

2. BASIC ADJUSTMENTS

On-Screen Display Adjustment

In the condition of NO indication on the screen. Press both VOL. DOWN button on the set and the Channel button **(9)** on the remote control more than 2 seconds to appear the adjustment mode on the screen as shown in **Fig. 2-1**.

NOTE

Use the channel buttons **(1-8)** on the remote control to select the options shown in **Fig. 2-1**.
Press the channel button **(0)** on the remote control to end the adjustments.

1. H/V
2. AKB
3. COLOR TEMP
4. PICTURE
5. OTHERS
6. TEST PATTERN
7. STEREO/SAP
8. (VOL TEST) 0. END

Fig. 2-1

2-1: RF AGC DELAY

1. Receive an 80dB monoscope pattern.
2. Connect the digital voltmeter between the **pin 2 of CP101** and the **pin 6 (GND) of CP101**.
3. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(5)** on the remote control. The **Fig. 2-2** appears on the display.
4. Press the channel button **(1)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 1.95 ± 0.05V.

1. RF AGC DELAY
2. VIDEO LEVEL
3. FM LEVEL
4. OSD H
5. CUT OFF
6. X-RAY
7.
8. 0. RETURN

Fig. 2-2

2-2: CUT OFF

1. Using the remote control, set the brightness and contrast to normal position.
2. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(5)** on the remote control. The **Fig. 2-2** appears on the display.
3. Press the channel button **(5)** on the remote control.
4. Adjust the **Screen Volume** until a dim raster is obtained.

2-3: WHITE BALANCE

NOTE:

Adjust after performing adjustments in section 2-2.

1. Receive the color bar pattern.
2. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(2)** on the remote control. The **Fig. 2-3** appears on the display.
3. Adjust the adjustment mode display of **Fig. 2-3** until the white color is looked like a white.

1. AKB AUTO
2. R. BIAS
3. G. BIAS
4. B. BIAS
5. R. DRIVE
6. G. DRIVE
7. B. DRIVE
8. AGC AUTO 0. RETURN

Fig. 2-3

2-4: SUB BRIGHTNESS

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. 2-1** and press the channel button **(4)** on the remote control. The **Fig. 2-4** appears on the display.
4. Press the channel button **(1)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the white 10% is starting to be visible.

1. BRIGHT
2. CONTRAST
3. COLOR
4. TINT
5. SHARPNESS
6. OSD CONT
7.
8. 0. RETURN

Fig. 2-4

ELECTRICAL ADJUSTMENTS

2-5: SUB TINT/SUB COLOR

1. Receive the color bar pattern.
2. Connect the synchro scope to **pin 1 of CP101** and the **pin 6 (GND) of CP101**.
3. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(4)** on the remote control. The **Fig. 2-4** appears on the display.
4. Press the channel button **(4)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the waveform becomes as shown in **Fig. 2-5**.
6. Activate the adjustment mode display of **Fig. 2-4** and press the channel button **(3)** on the remote control.
7. Adjust the LEVEL "A" section of Blue to the LEVEL "D" section of White by pressing the VOL. UP/DOWN button on the remote control. **(Refer to Fig. 2-6)**
8. If the LEVEL "A" section through "C" section are not the same compared with "D" section, adjust the LEVEL again.

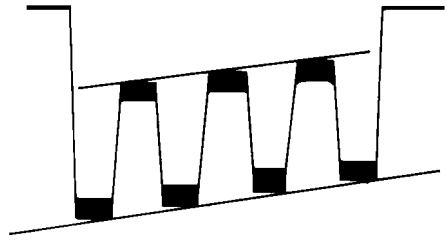


Fig. 2-5

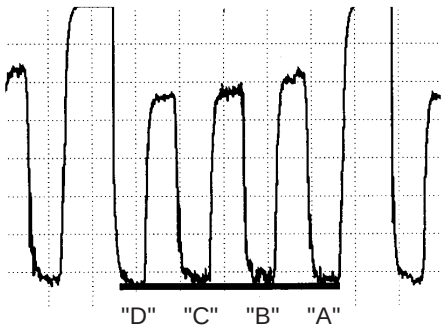


Fig. 2-6

2-6: FOCUS

1. Receive an 70dB monoscope pattern.
2. Adjust the **Focus Volume** until picture is distinct.

2-7: VERTICAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Adjust the VR401 until the horizontal line of the monoscope comes to approximate center of the CRT.

2-8: VERTICAL SIZE

1. Receive the crosshatch pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(1)** on the remote control. The **Fig. 2-7** appears on the display.
4. Press the channel button **(3)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the center of crosshatch is square.

1. H. PHASE
2. H. BLK
3. V. SIZE
4. V. POSI
5. V. LIN
6. V. SC
7. V. COMP
8. (H FREQ) 0. RETURN

Fig. 2-7

2-9: VERTICAL LINEA

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. 2-1** and press the channel button **(1)** on the remote control. The **Fig. 2-7** appears on the display.
4. Press the channel button **(5)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the VERTICAL LINEA is 11 steps.

2-10: HORIZONTAL PHASE

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. 2-1** and press the channel button **(1)** on the remote control. The **Fig. 2-7** appears on the display.
4. Press the channel button **(1)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.

2-11: OSD HORIZONTAL

1. Using the remote control, set the brightness and contrast to normal position.
2. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(5)** on the remote control. The **Fig. 2-2** appears on the display.
3. Press the channel button **(4)** on the remote control.
4. Press the VOL. UP/DOWN button on the remote control until the difference of A and B becomes minimum. **(Refer to Fig. 2-8)**

ELECTRICAL ADJUSTMENTS

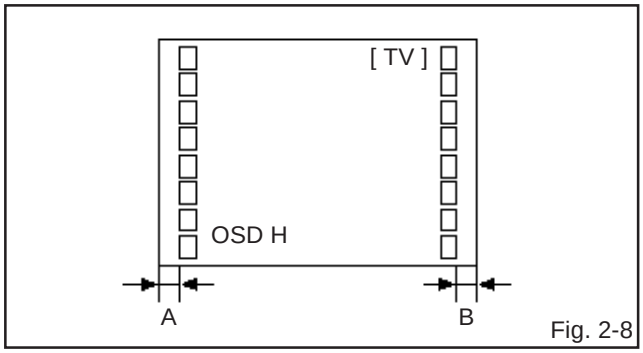


Fig. 2-8

2-12: SEPARATION 1, 2

1. Receive the stereo signal.
2. Connect the AC voltmeter to **CP351** through stereo filter (400Hz, 2KHz).
3. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(7)** on the remote control. The **Fig. 2-9** appears on the display.
4. Press the channel button **(2)** on the remote control.
5. Press the VOL. UP/DOWN button on the remote control until the L/R output is minimum.
6. Press the channel button **(3)** on the remote control.
7. Press the VOL. UP/DOWN button on the remote control until the L/R output is minimum.

1. LEVEL ADJ
2. SEPARASTION 1
3. SEPARASTION 2
4.
5.
6.
7.
8. 0. RETURN

Fig. 2-9

2-13: VCO FREERUN

1. Receive an 80dB monoscope pattern.
2. Connect the digital voltmeter between the **TP201** and the **Ground**.
3. Adjust the **L205** until the digital voltmeter is 3.1 ± 0.05V.

ELECTRICAL ADJUSTMENTS

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 the 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.

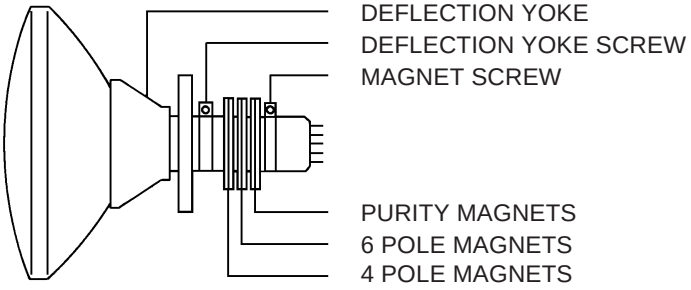


Fig. 3-1

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)**

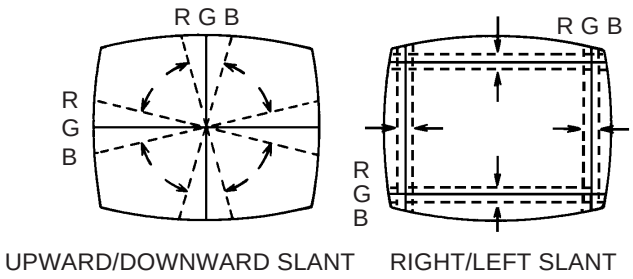


Fig. 3-2-a

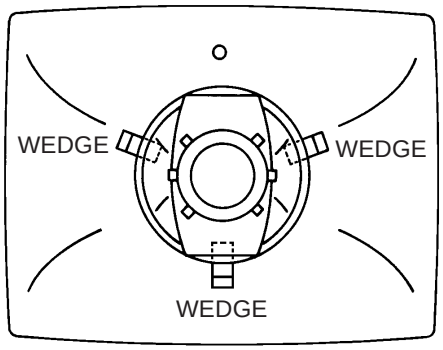
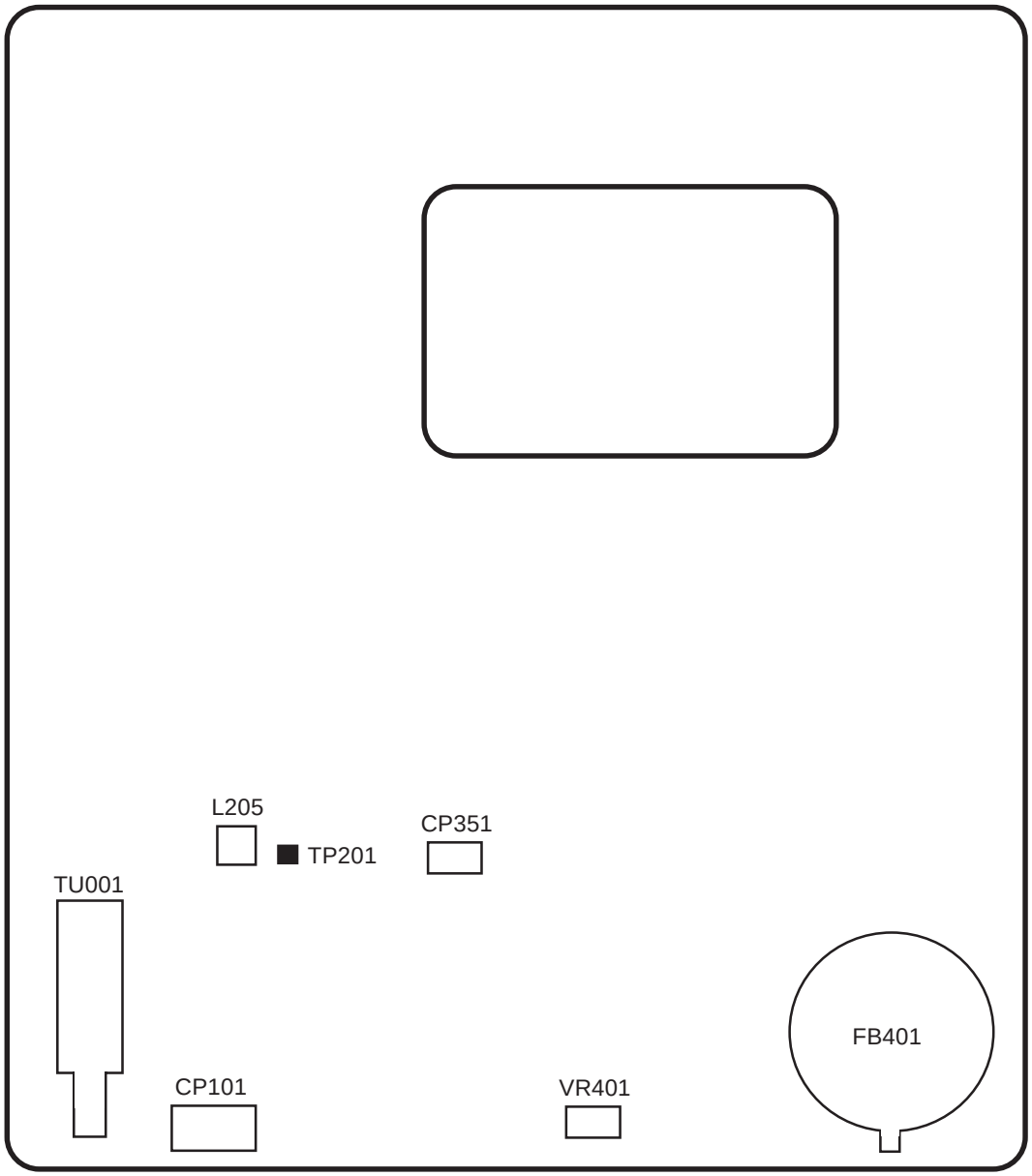


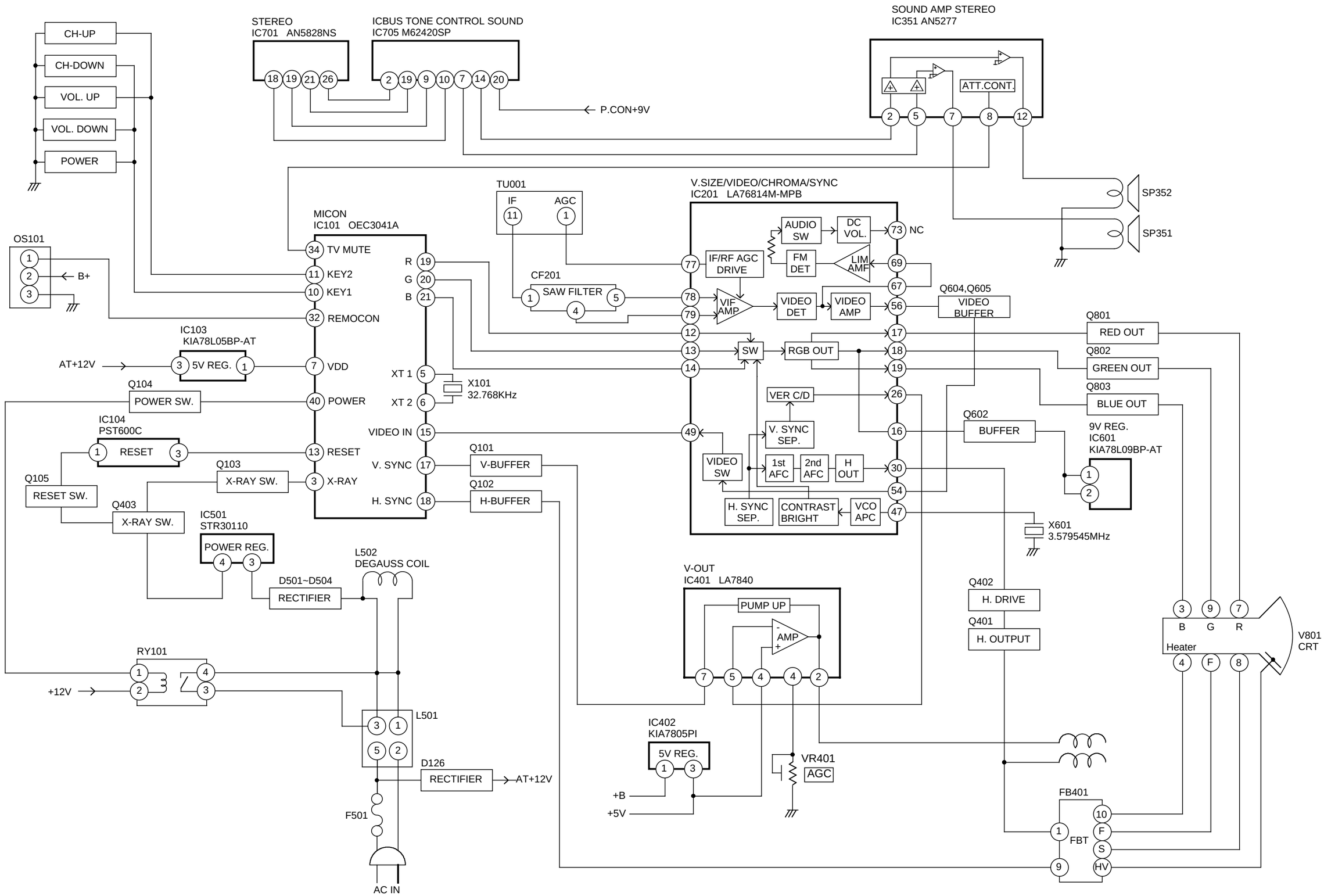
Fig. 3-2-b

MAJOR COMPONENTS LOCATION GUIDE



MAIN

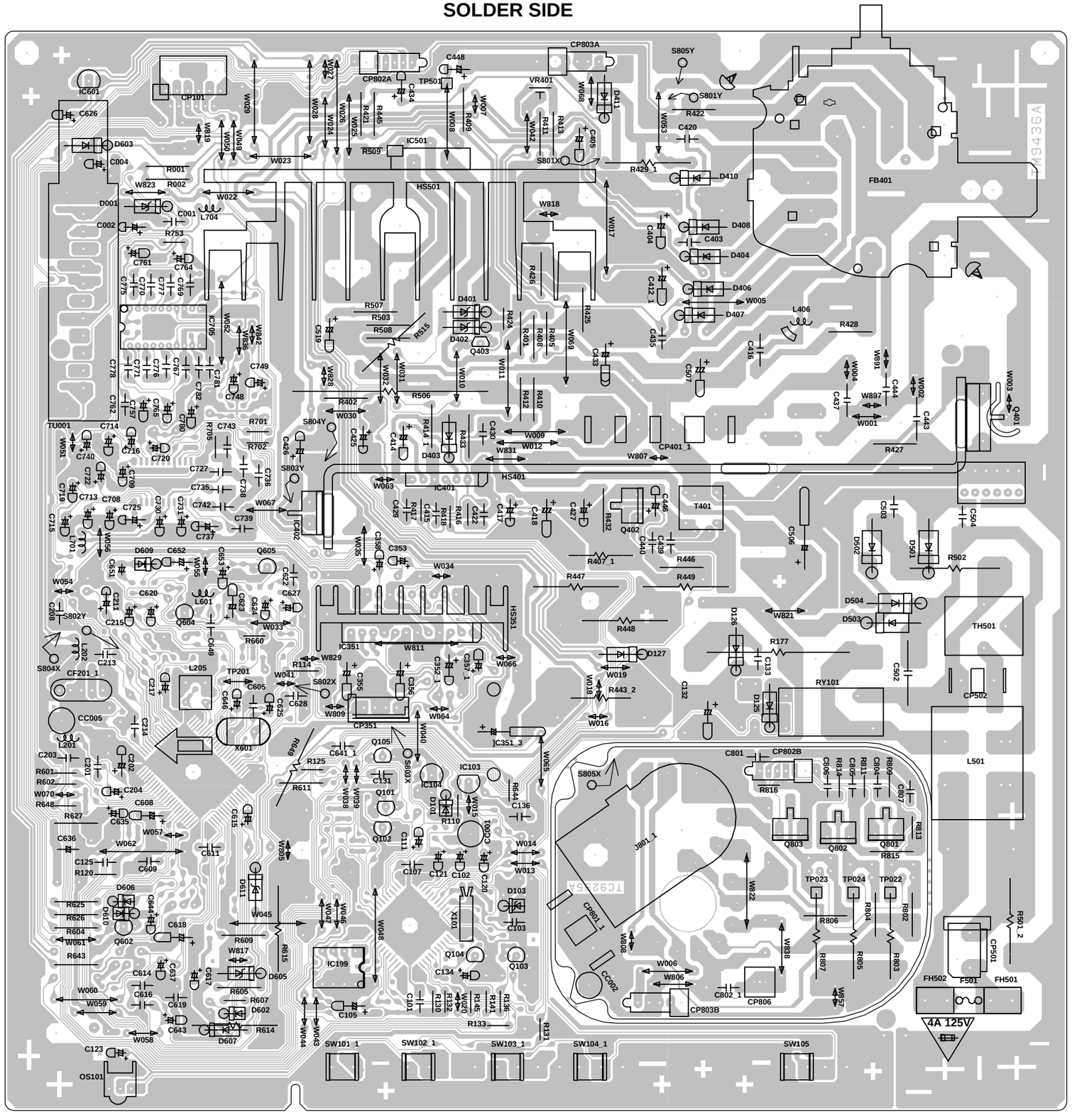
BLOCK DIAGRAM



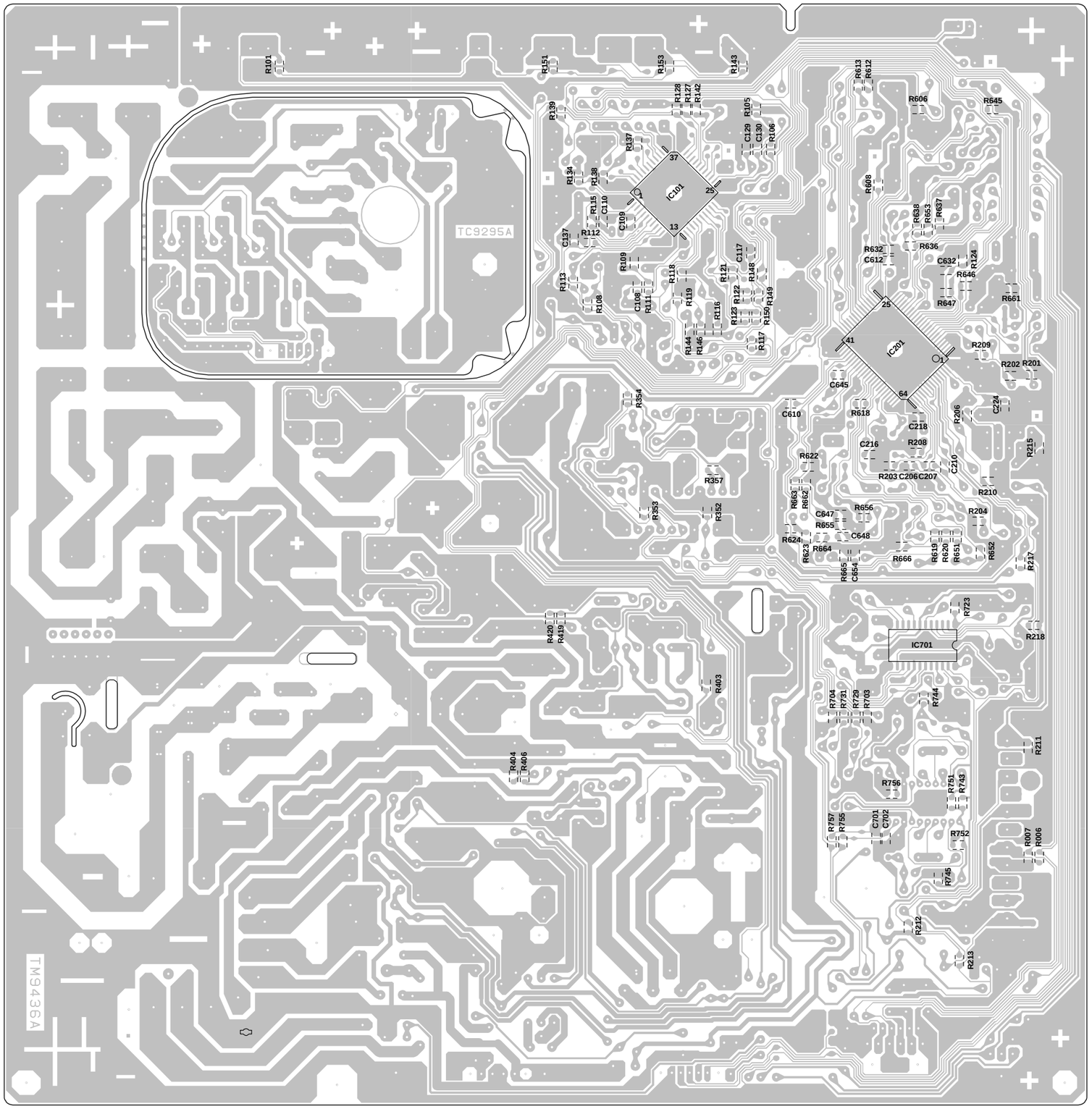
E-1

E-2

PRINTED CIRCUIT BOARDS
MAIN/CRT (INSERTED PARTS)
SOLDER SIDE



PRINTED CIRCUIT BOARDS
MAIN/CRT (CHIP MOUNTED PARTS)
SOLDER SIDE



MICON/TUNER SCHEMATIC DIAGRAM

TM101 R25-0924

ATC001 NXC0032-010010

TU001 ENV56D67G3

OS101 PIC-28143SY-2

20" CH UP SW101_1 SKHVBED010

20" CH DOWN SW102_1 SKHVBED010

20" VOL UP SW103_1 SKHVBED010

VOL DOWN 20" SW104_1 SKHVBED010

25" SW105 POWER SKHVBED010

CC001

MICON IC101 OEC3041A

RESET IC104 PST600C

RESET SW. Q105 2SC1815Y

X-RAY SW Q103 2SC1815Y

POWER SW Q104 2SC2001_L

V-BUFFER Q101 2SC1815Y

H-BUFFER Q102 2SC1815Y

5V REG. IC103 KIA78L05BP-AT

EEP ROM M24C01-BN6 IC199

X101 32.768KHz

D101 1SS133

D103 MTZJ5.6B

D001 HZ20-3L TD

FROM/TO STEREO/SOUND AMP
- AUDIO_MUTE
- I2C_SCL
- I2C_SDA

FROM/TO POWER
- AT+12V
- +B
- POWER
- GND

FROM/TO DEFLECTION/CRT
- P.CON+5V
- V_SYNC
- H_SYNC
- X-RAY_TEST
- X_RAY

FROM/TO IF/CHROMA
- AGC
- IF
- I2C_OFF

- I2C_SCL
- I2C_SDA
- OSD_BLANKING
- OSD_BLUE
- OSD_GREEN
- OSD_RED
- VIDEO
- AFT_IN

PCB010
TM9436

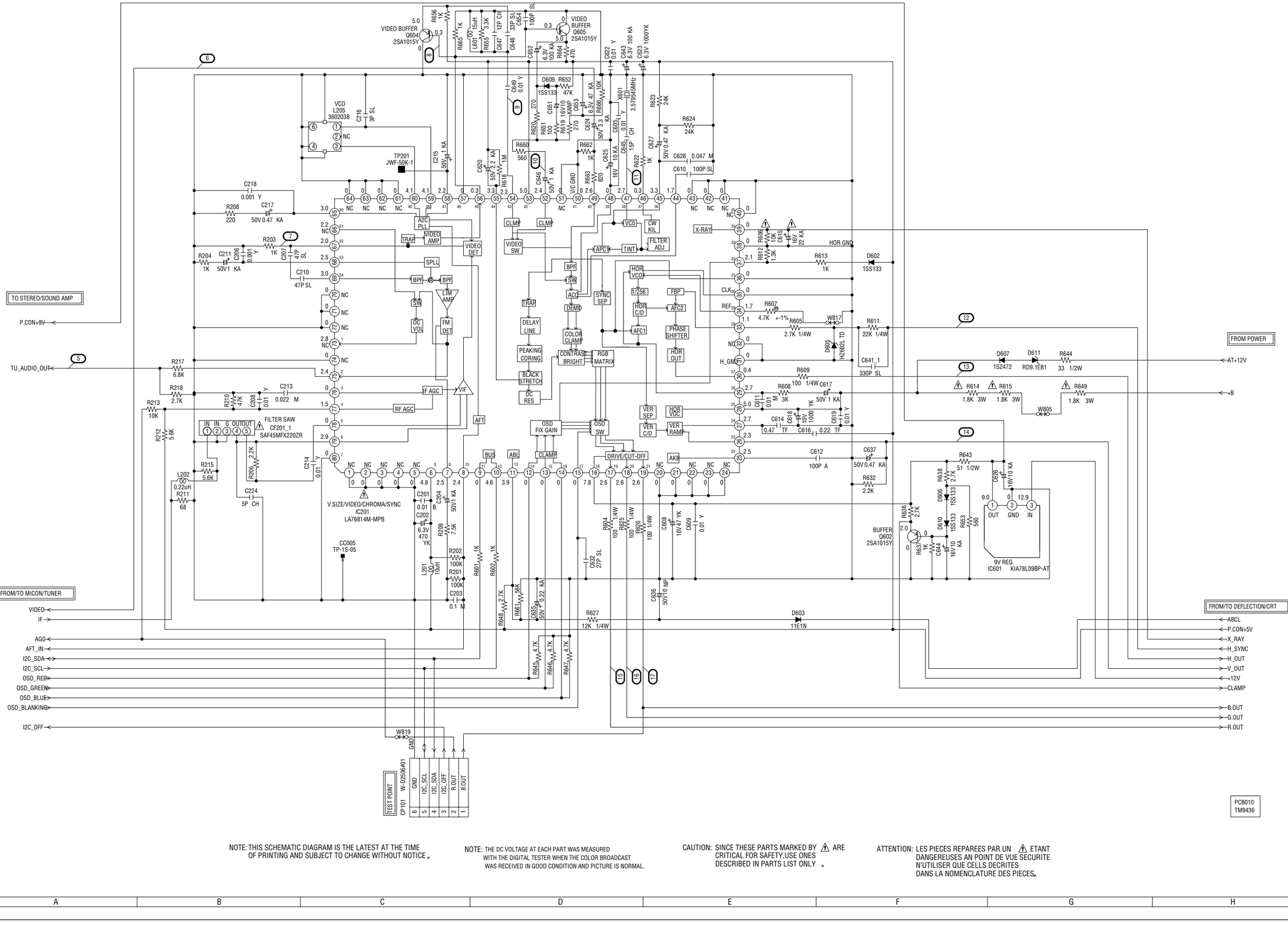
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

IF/CHROMA SCHEMATIC DIAGRAM



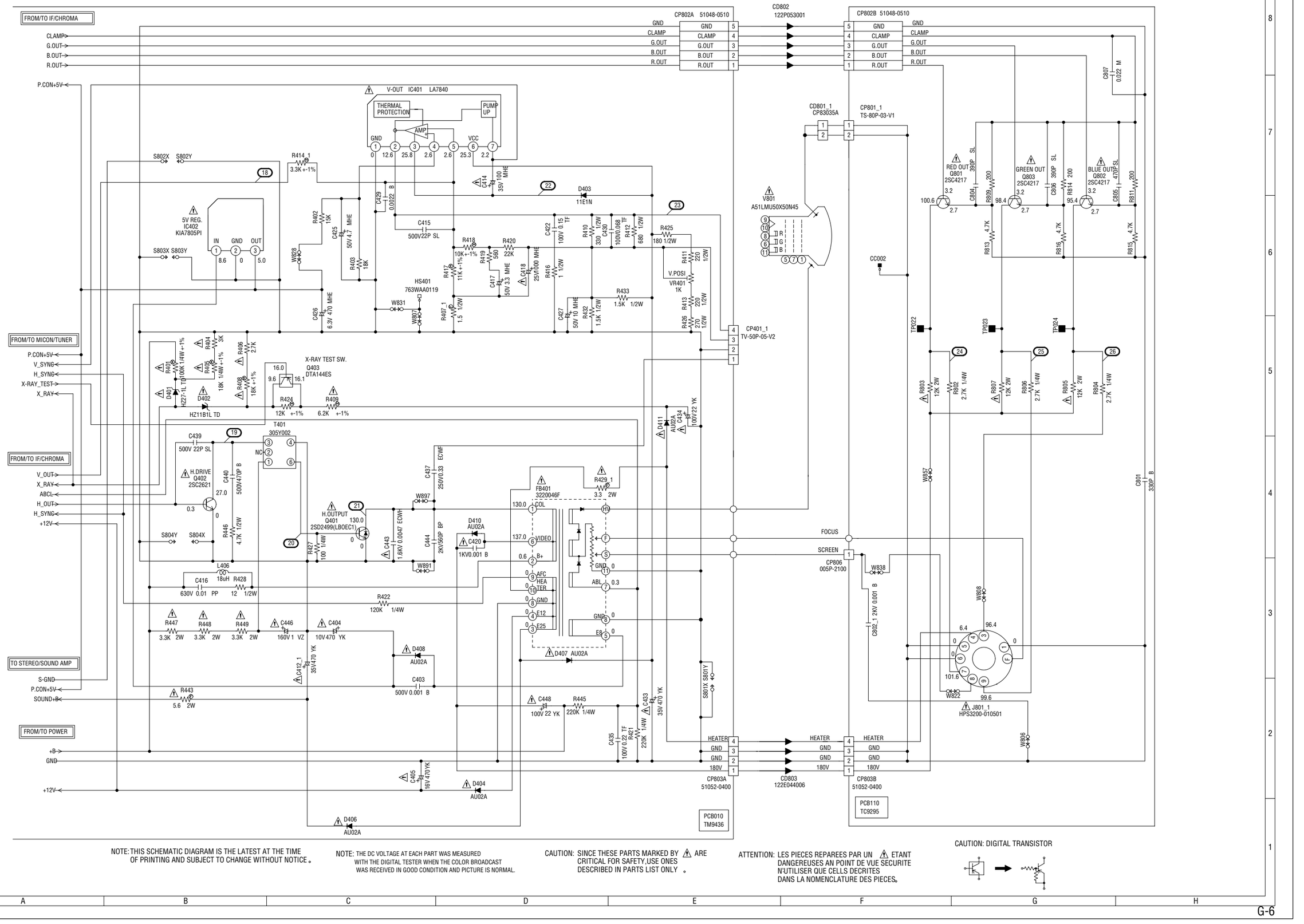
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

DEFLECTION/CRT SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

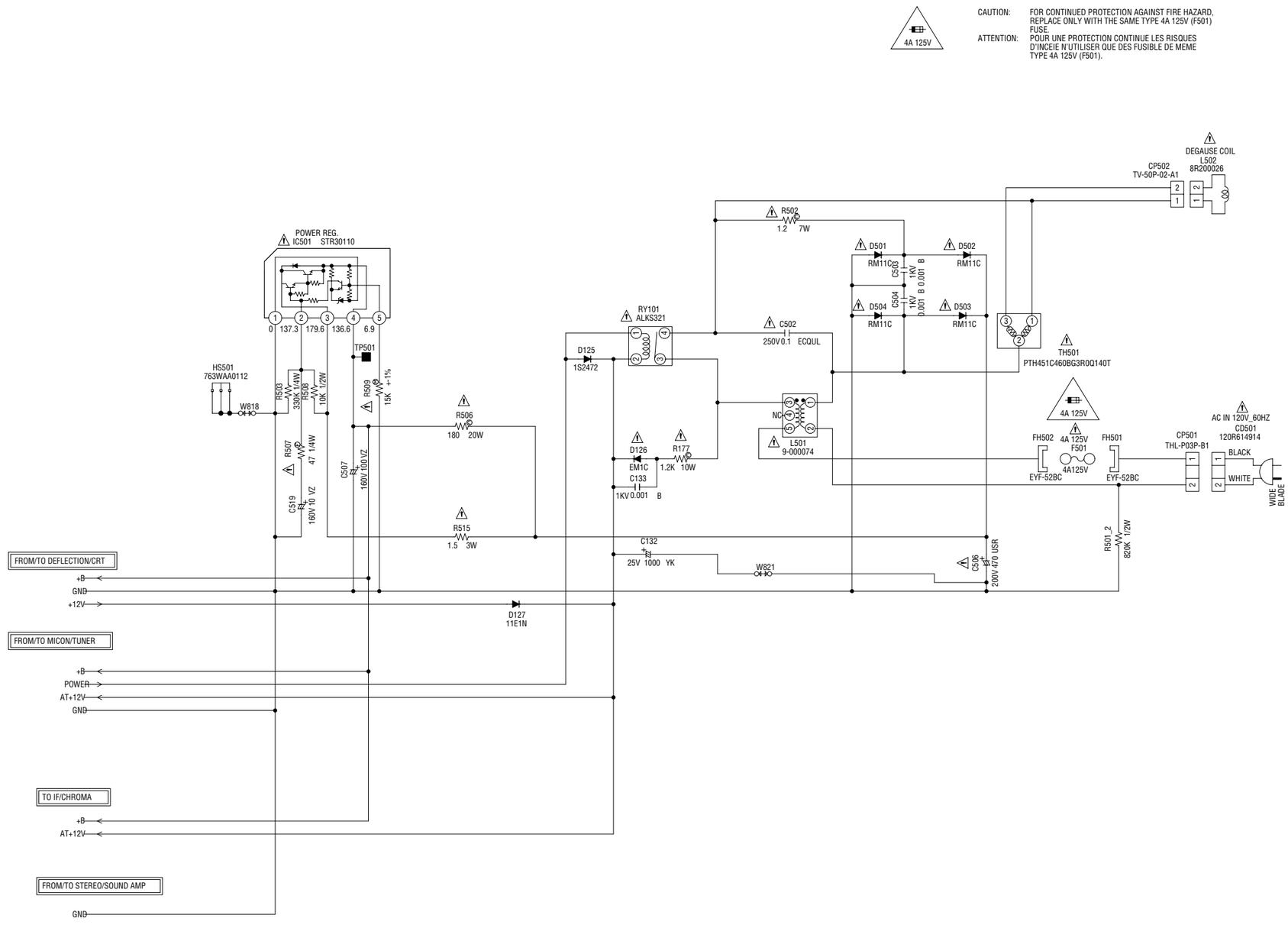
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR

POWER SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY USE ONES DESCRIBED IN PARTS LIST ONLY 。

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

STEREO/SOUND AMP SCHEMATIC DIAGRAM

FROM/TO MICON/TUNER
I2C_SDA
I2C_SCL
AUDIO_MUTE
FROM IF/CHROMA
P.CON+9V
TU_AUDIO_OUT
FROM/TO POWER
GND
FROM/TO DEFLECTION/CRT
P.CON+5V
SOUND+B
S-GND

STEREO AN5828NS IC701

IC BUS TONE CONTROL SOUND M62420SP IC705

SOUND AMP STEREO IC351 AN5277

L704 22uH
L701 100uH
W836
W842
W829
W809
W811
HS351 763WAE0099

CP351 TID-X04P-Z1BK
SP OUT L+ 1
SP OUT L- 2
SP OUT R- 3
SP OUT R+ 4

CD351 CH24058A
SPEAKER SP352 808-616-154
SPEAKER SP351 808-616-154

PCB010
TM9436

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

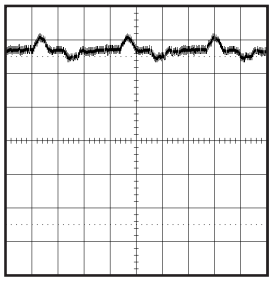
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

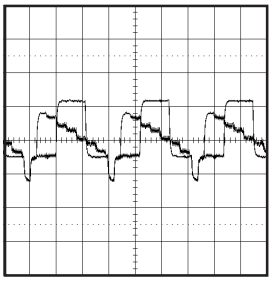
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

WAVEFORMS

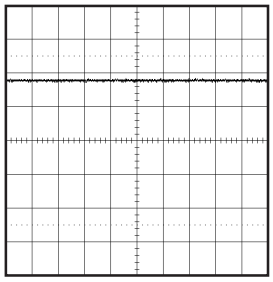
MICON/TUNER



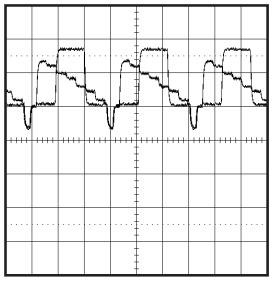
① 200mV. 5ms/div



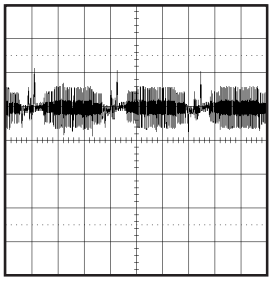
⑥ 0.5V. 20µs/div



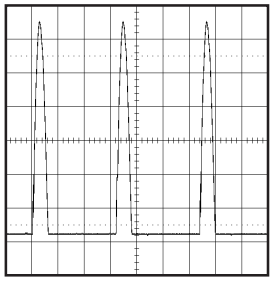
⑪ 1V. 0.5ms/div



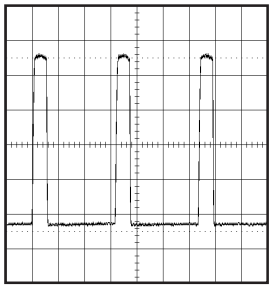
② 0.5V. 20µs/div



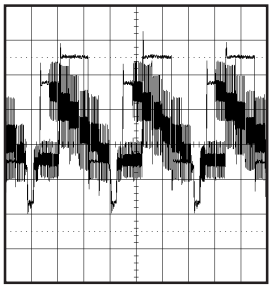
⑦ 0.5V. 20µs/div



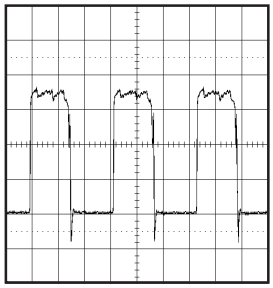
⑫ 20V. 20µs/div



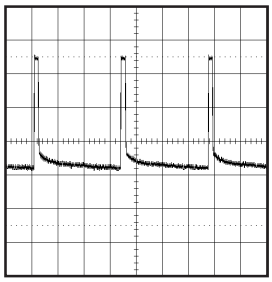
③ 200mV. 20µs/div



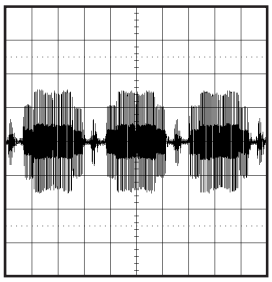
⑧ 0.5V. 20µs/div



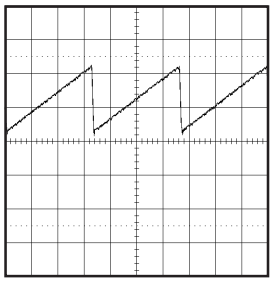
⑬ 200mV. 20µs/div



④ 200mV. 5ms/div

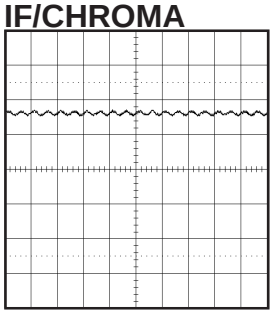


⑨ 200mV. 20µs/div

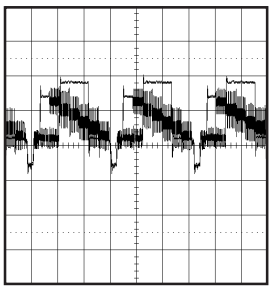


⑭ 0.5V. 5ms/div

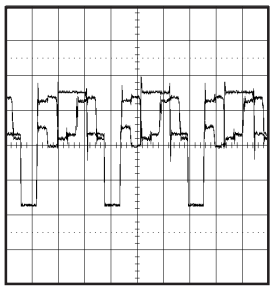
IF/CHROMA



⑤ 0.5V. 2ms/div



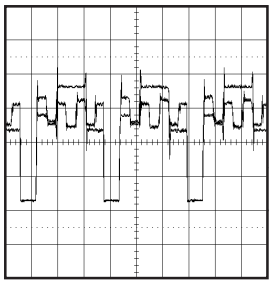
⑩ 0.5V. 20µs/div



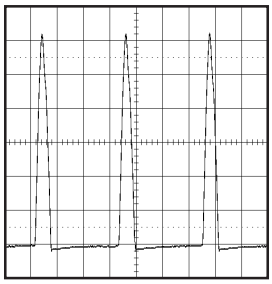
⑮ 1V. 20µs/div

NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

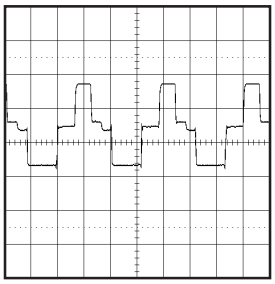
WAVEFORMS



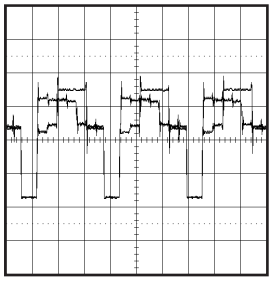
⑯ 1V. 20µs/div



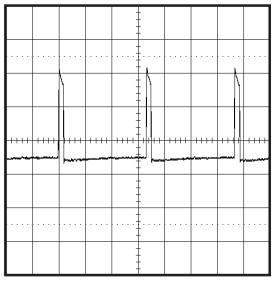
㉑ 200V. 20µs/div



㉖ 50V. 20µs/div

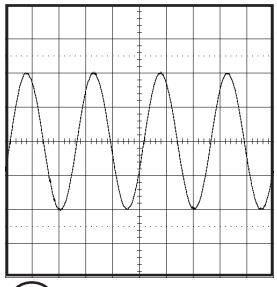


⑰ 1V. 20µs/div



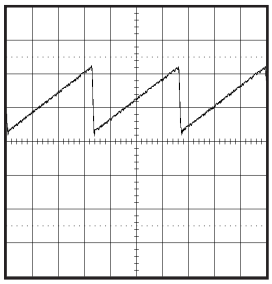
㉒ 10V. 5ms/div

STEREO/SOUND AMP

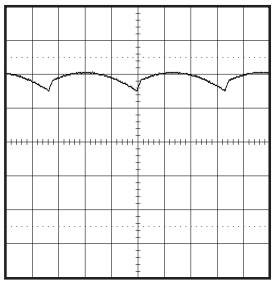


㉗ 200mV 1ms/div

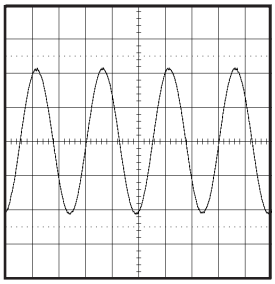
DEFLECTION/CRT



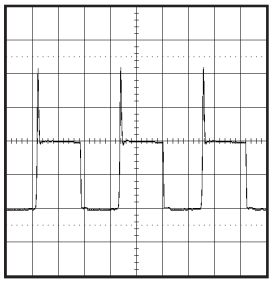
⑱ 0.5V. 5ms/div



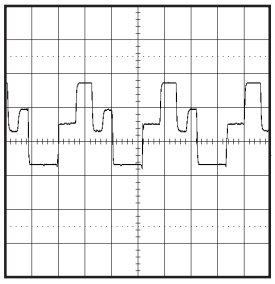
㉓ 5V. 5ms/div



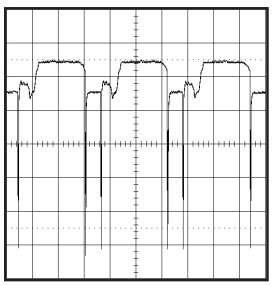
㉘ 200mV 1ms/div



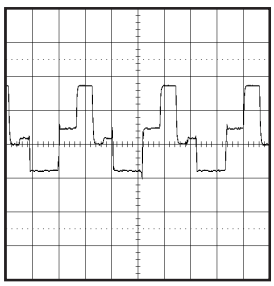
⑲ 20V. 20µs/div



㉔ 50V. 20µs/div



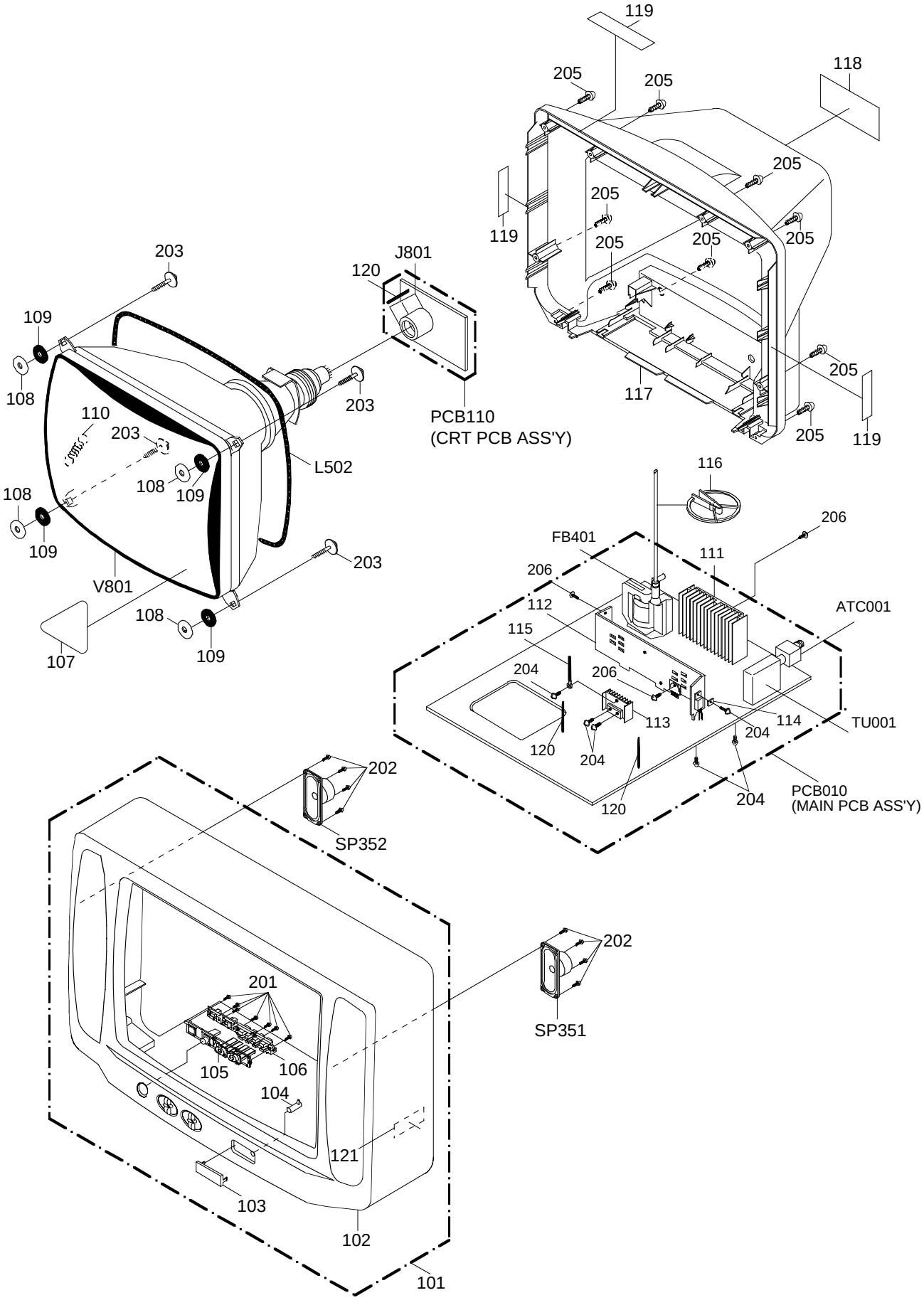
⑳ 2V. 20µs/div



㉕ 50V. 20µs/div

NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		
101	A3G813C720	CABINET,FRONT ASS'Y		
102	701WPJA614	CABINET,FRONT		
103	711WPAA065	PLATE,DISPLAY		
104	713WPAA010	GUIDE,REMOCON		
105	735WPBA039	BUTTON,CHANNEL		
106	735WPAA153	BUTTON,BASE		
107	723000A807	FILM,DECORATION		
108	769WSAA003	WASHER		9.5x22xT2
109	800WR0A003	SHEET,CRT SUPPORT		
110	741WUA0001	SPRING,EARTH		
111	---	HEAT SINK		
112	---	HEAT SINK		
113	---	HEAT SINK		
114	---	METAL SPACER		
115	8995034000	CORD CLIP UL CO.		
116	759WPA0005	HOLDER,ANODE WIRE		
117	702WPAA083	CABINET,BACK		
118	722A08A027	SHEET,RATING		
119	800WQ00023	FELT SHEET		15x100xT0.5
120	---	COATING CLIP TP1S-05		
121	726000A014	SHEET,CRT SERVICEMAN		
201	8110630A04	SCREW,TAP TITE(P)	BRAZIER	3x10
202	8117330A04	SCREW,TAPPING(B0)	FLAT	3x10
203	8111J50D04	SCREW,TAPPING(A)	GW22	5x40
204	8109630802	SCREW,TAP TITE(B)	BRAZIER	3x8
205	8117540A64	SCREW,TAPPING(B0)	TRUSS	4x16
206	8117D30A04	SCREW,TAPPING(B0)	WH8 BRAZIER	3x10
---	JB5K0200	POLYBAG		
---	J3G81301	INSTRUCTION BOOK		
---	J5126217	REGISTRATION CARD		
---	793WCDA513	GIFT BOX		
---	791WHA0025	LAMIFILM BAG		
---	792WHA0199	PACKAGE,TOP		
---	792WHA0200	PACKAGE,BOTTOM		

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		
RESISTORS				
⚠ R177	R5Y2CF122J	R, CEMENT	1.2K OHM 10W	
⚠ R401	R4X5T4104F	R, METAL	100K OHM 1/4W	
⚠ R404	R903N8302J	RC	3K OHM 1/8W	
⚠ R405	R4X5T4183F	R, METAL	18K OHM 1/4W	
⚠ R406	R903N8272J	RC	2.7K OHM 1/8W	
R407	R002T21R5J	RC	1.5 OHM 1/2W	
⚠ R408	R4X5T6183F	R, METAL	18K OHM 1/6W	
⚠ R409	R4X5T6622F	R, METAL	6.2K OHM 1/6W	
R416	R0L2U2010J	RC	1 OHM 1/2W	
R417	R425T6113F	R, METAL	11K OHM 1/6W	
R418	R425T6103F	R, METAL	10K OHM 1/6W	
⚠ R429	R6558A3R3J	R, FUSE	3.3 OHM 2W	
⚠ R443	R6550A5R6J	R, FUSE	5.6 OHM 2W	
⚠ R447	R3X18A332J	R, METAL OXIDE	3.3K OHM 2W	
⚠ R448	R3X18A332J	R, METAL OXIDE	3.3K OHM 2W	
⚠ R449	R3X18A332J	R, METAL OXIDE	3.3K OHM 2W	
⚠ R502	R5Y2CE1R2J	R, CEMENT	1.2 OHM 7W	
⚠ R506	R5Y2CH181J	R, CEMENT	180 OHM 20W	
⚠ R507	R65584470J	R, FUSE	47 OHM 1/4W	
⚠ R509	R4X5T6153F	R, METAL	15K OHM 1/6W	
⚠ R515	R3X28B1R5J	R, METAL OXIDE	1.5 OHM 3W	
⚠ R606	R903N8103J	RC	10K OHM 1/8W	
⚠ R614	R3X28B182J	R, METAL OXIDE	1.8K OHM 3W	
⚠ R615	R3X28B182J	R, METAL OXIDE	1.8K OHM 3W	
⚠ R649	R3X28B182J	R, METAL OXIDE	1.8K OHM 3W	
⚠ R803	R3X18A123J	R, METAL OXIDE	12K OHM 2W	or
	R3U18A123J	R, METAL OXIDE	12K OHM 2W	
⚠ R805	R3X18A123J	R, METAL OXIDE	12K OHM 2W	or
	R3U18A123J	R, METAL OXIDE	12K OHM 2W	
⚠ R807	R3X18A123J	R, METAL OXIDE	12K OHM 2W	or
	R3U18A123J	R, METAL OXIDE	12K OHM 2W	
CAPACITORS				
C351	E53Z04332M	CE	3300 UF 35V VZ	
⚠ C404	E02LT1471M	CE	470 UF 10V	
⚠ C405	E02LT2471M	CE	470 UF 16V	
⚠ C412	E02LT4471M	CE	470 UF 35V	
⚠ C414	E5EZT4101M	CE	100 UF 35V	
C416	P3N1F5103J	CPP	0.01 UF 630V	
⚠ C418	E5EZF3102M	CE	1000 UF 25V	
⚠ C420	C0JTB0613K	CC	0.001 UF 1KV B	
⚠ C433	E02LT4471M	CE	470 UF 35V	
⚠ C434	E02LT8220M	CE	22 UF 100V	
C437	P411F3334J	CMPP	0.33 UF 250V	
⚠ C443	P414F9472H	CMPP	0.0047UF 1.6KV	
C444	C01BBP7S2K	CC	560 PF 2KV BP	
⚠ C446	E53ZTB010M	CE	1 UF 160V VZ	
⚠ C448	E02LT8220M	CE	22 UF 100V	
⚠ C502	P2122B104M	CMP	0.1 UF 250V	
⚠ C506	E52DGC471M	CE	470 UF 200V	
C507	E53ZFB101M	CE	100 UF 160V	
⚠ C615	E50HU2220M	CE	22 UF 16 V	
DIODES				
D001	D94TA30013	DIODE, ZENER	HZ30-3L TD	
D101	D1VT001330	DIODE, SILICON	1SS133T-77	
D103	D97U05R61B	DIODE, ZENER	MTZJ5.6B T-77	
D125	D1VT024720	DIODE, SILICON	1S2472T-77	
⚠ D126	D2BT0EM1C0	DIODE, SILICON	EM1C V1	
D127	D28T11E1N1	DIODE, SILICON	11E1N-TA1B2	
⚠ D401	D94TA27011	DIODE, ZENER	HZ27-1L TD	
⚠ D402	D94TA11B11	DIODE, ZENER	HZ11B1L TD	
D403	D28T11E1N1	DIODE, SILICON	11E1N-TA1B2	
⚠ D404	D2BTAU02A0	DIODE, SILICON	AU02A V0	
⚠ D406	D2BTAU02A0	DIODE, SILICON	AU02A V0	
⚠ D407	D2BTAU02A0	DIODE, SILICON	AU02A V0	
⚠ D408	D2BTAU02A0	DIODE, SILICON	AU02A V0	
D410	D2BTAU02A0	DIODE, SILICON	AU02A V0	
⚠ D411	D2BTAU02A0	DIODE, SILICON	AU02A V0	
⚠ D501	D2BTRM11C0	DIODE, RECTIFIER	RM11C	
⚠ D502	D2BTRM11C0	DIODE, RECTIFIER	RM11C	
⚠ D503	D2BTRM11C0	DIODE, RECTIFIER	RM11C	
⚠ D504	D2BTRM11C0	DIODE, RECTIFIER	RM11C	
D602	D1VT001330	DIODE, SILICON	1SS133T-77	
D603	D28T11E1N1	DIODE, SILICON	11E1N-TA1B2	

REF. NO.	PART NO.	DESCRIPTION	
DIODES			
D605	D94TA6RB12	DIODE, ZENER	HZ6B2L TD
D606	D1VT001330	DIODE, SILICON	1SS133T-77
D607	D1VT024720	DIODE, SILICON	1S2472T-77
D609	D1VT001330	DIODE, SILICON	1SS133T-77
D610	D1VT001330	DIODE, SILICON	1SS133T-77
D611	D92T09R1B1	DIODE, ZENER	RD9.1EB1 TA11R
ICS			
IC101	I53F53041A	IC	OEC3041A
⚠ IC103	I1K998L050	IC	KIA78L05BP-AT
IC104	I9UJ0T600C	IC	PST600C
IC199	A3G812C015	IC	M24C01-BN6
⚠ IC201	I03FE76814	IC	LA76814M-MPB
⚠ IC351	I0FSP52770	IC	AN5277
⚠ IC401	I03SD78400	IC	LA7840
⚠ IC402	I1KA978050	IC	KIA7805PI
⚠ IC501	I2B4901100	IC	STR30110
IC601	I1KJ98L090	IC	KIA78L09BP-AT
IC701	I01FF58280	IC	AN5828NS
IC705	I06DF62420	IC	M62420SP
TRANSISTORS			
Q101	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2)
Q102	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2)
Q103	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2)
Q104	TCST02001L	TRANSISTOR, SILICON	2SC2001(C)-T_L
Q105	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2)
⚠ Q401	TDUU024990	TRANSISTOR, SILICON	2SD2499(LBOEC1)
⚠ Q402	TC3Q026210	TRANSISTOR, SILICON	2SC2621(D,E)-RAC
Q403	TPYTD03001	COMPOUND TRANSISTOR	DTA144ESTP
Q602	TA5T010154	TRANSISTOR, SILICON	2SA1015Y(TPE2)
Q604	TA5T010154	TRANSISTOR, SILICON	2SA1015Y(TPE2)
Q605	TA5T010154	TRANSISTOR, SILICON	2SA1015Y(TPE2)
⚠ Q801	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q802	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q803	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
COILS &TRANSFORMER			
L201	021LA6100K	COIL	10 UH
L202	021673R22M	COIL	0.22 UH
L205	0336020388	COIL, VIDEO IFT	3602038
L406	02186G180M	COIL	18 UH
⚠ L501	029K000074	COIL, LINE FILTER	9-000074
⚠ L502	028R200026	COIL, DEGAUSS	8R200026
L601	021LA6150K	COIL	15 UH
L701	021LA6101K	COIL	100 UH
L704	021LA6220K	COIL	22 UH
T401	03305Y002S	TRANS, HORIZONTAL DRIVE	305Y002
JACK			
⚠ J801	066X120014	SOCKET, CRT	HPS3200-010501
SWITCHES			
SW101	0504201T31	SWITCH, TACT	SKHVBED010
SW102	0504201T31	SWITCH, TACT	SKHVBED010
SW103	0504201T31	SWITCH, TACT	SKHVBED010
SW104	0504201T31	SWITCH, TACT	SKHVBED010
SW105	0504201T31	SWITCH, TACT	SKHVBED010
VARIABLE RESISTOR			
VR401	V116213BT1	VOLUME, SEMI FIXED	EVN-DCAA03B13
P.C.BOARD ASSEMBLIES			
PCB010	A3G813C01A	PCB ASS'Y	TM9436A
PCB110	A3G813C11A	PCB ASS'Y	TC9295A
MISCELLANEOUS			
⚠ ATC001	0632400008	ANT, UNIT	NXC0032-010010
CD351	06CH24058A	CORD, CONNECTOR	CH24058A
⚠ CD501	120R614914	CORD, AC BUSH	120R614914
CD801	06CP83035A	CORD, CONNECTOR	CP83035A
CD802	122P053001	CORD, JUMPER	122P053001
CD803	122E044006	CORD, JUMPER	122E044006
⚠ CF201	1022T45R71	FILTER, SAW	SAF45MFX220ZR
CP101	069Q160058	CONNECTOR PCB SIDE	W-D2506#01
CP351	069W14T290	CONNECTOR PCB SIDE	TID-X04P-Z1BK
CP401	069W450039	CONNECTOR PCB SIDE	TV-50P-05-V2
CP501	0697320039	CORD, UX CONNECTOR	THL-P03P-B1
CP502	069W420029	CONNECTOR PCB SIDE	TV-50P-02-A1
CP801	069W330018	CONNECTOR PCB SIDE	TS-80P-03-V1
CP806	069W010010	CONNECTOR PCB SIDE	005P-2100

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
		MISCELLANEOUS	
CP802A	067R005019	WIRE HOLDER	51048-0510
CP802B	067R005019	WIRE HOLDER	51048-0510
CP803A	067R104019	WIRE HOLDER	51052-0400
CP803B	067R104019	WIRE HOLDER	51052-0400
CUS001	800WF00004	CUSHION-A	
⚠ F501	081PA04002	FUSE	237004
⚠ FB401	043220046F	TRANSFORMER, FLYBACK	3220046F
FH501	06710T0006	HOLDER, FUSE	EYF-52BC
FH502	06710T0006	HOLDER, FUSE	EYF-52BC
MS501	128B000018	SHEET	23MICA
OS101	077Q014003	REMOTE RECEIVER	PIC-28143SY-2
⚠ RY101	0560V20115	RELAY	ALKS321
SP351	070C463005	SPEAKER	808-616-154
SP352	070C463005	SPEAKER	808-616-154
⚠ TH501	DF20G3R0Q0	DEGAUSS ELEMENT	PTH451C460BG3R0Q140T
TM101	076R074140	TRANSMITTER	R25-0924
⚠ TU001	0145S00049	TUNER, UHF-VHF	ENV56D67G3
⚠ V801	098Y210412	CRT W/DY	A51LMU50X50N45
X101	100C32R803	CRYSTAL DSVT-200	32.768KHz
X601	100W3R5702	CRYSTAL HC-49/U	3.579545MHz

RESISTOR

RC..... CARBON RESISTOR

CAPACITORS

CC..... CERAMIC CAPACITOR
CE..... ALUMI ELECTROLYTIC CAPACITOR
CP..... POLYESTER CAPACITOR
CPP..... POLYPROPYLENE CAPACITOR
CPL..... PLASTIC CAPACITOR
CMP..... METAL POLYESTER CAPACITOR
CMPL..... METAL PLASTIC CAPACITOR
CMPP..... METAL POLYPROPYLENE CAPACITOR

SPEC.NO.	M3G8-13C
O/R NO.	W953004