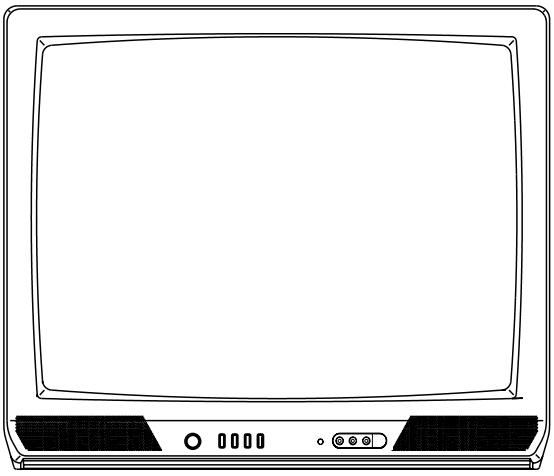
Memorex®

MT1125A

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION B

Design and specifications are subject to change without notice.

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SERVICE MANUAL

COLOR TELEVISION RECEIVER

REVISION 1
MFR'S VERSION G

MFR'S VERSION	IC101	CRT
F	OEC7044A	A63AHC26X
G	OEC7044B	A63AFW36X

Please file this revision with the original version.

NOTE FOR THE REPLACING OF MEMORY IC

ADDRESS	MFR'S VERSION F DATA	MFR'S VERSION G DATA
03	31	30
0A	F4	FF

DIFFERENCES

Alteration of IC.

REF.NO	MFR'S VERSION F		MFR'S VERSION G	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
IC101	I56F07044A	IC OEC7044A	I56F07044B	IC OEC7044B
PCB010	A3I055H01A	MAIN PCB ASS'Y TMX458A	A3I055F01A	MAIN PCB ASS'Y TMX458A

MAIN PCB's are interchangeable.

Alteration of CRT.

REF.NO	MFR'S VERSION F		MFR'S VERSION G	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
⚠ V801	0984250502	COLOR PICTURE TUBE A63AHC26X	092T250501	COLOR PICTURE TUBE A63AFW36X
⚠ R429	R6558A1R8J	R,FUSE 1.8 OHM 2W	R6558A4R7J	R,FUSE 4.7 OHM 2W
⚠ R406	R801R7332J	RC 3.3K OHM 1/10W	R801R7272J	RC 2.7K OHM 1/10W
PCB110	A3I055H11A	CRT PCB ASS'Y TCX318A	A3I055F11A	CRT PCB ASS'Y TCX318A

CRT PCB's are not interchangeable.

SPEC.NO.	M3I0-55F
O/R NO.	A083528

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SERVICE MANUAL

COLOR TELEVISION RECEIVER

REVISION 1
MFR'S VERSION D

MFR'S VERSION	IC101
B	OEC3041A
D	OEC3041B

Please file this revision with the original version.

DIFFERENCES

Alteration of IC.

REF.NO	MFR'S VERSION B		MFR'S VERSION D	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
IC101	I53F53041A	IC OEC3041A	I53F53041B	IC OEC3041B
PCB010	A3I011H01A	MAIN PCB ASS'Y TM9441A	A3I011H01B	MAIN PCB ASS'Y TM9441A

MAIN PCB's are interchangeable.

SPEC.NO.	M3I0-11H
O/R NO.	A9Y3521

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

25 inch(626 mmV):Measured diagonally

Color CRT 100 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: 110 W at AC 120 V 60 Hz

W at DC V

Stand by: 8 W at AC 120 V 60 Hz

Per Year: - kWh / Year

G-14.Dimensions(Approx.)

618 mm(W) 504 mm(D) 525 mm(H)

G-15.Weight(Approx.) Net : 27 kg (59.9 lbs)

Gross: 29 kg (64.3 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) x2	
☒Audio Input(Rear)	☒ Phono Jack (RCA ø8.3) x2	
☒Audio Output(Rear)	☒ Phono Jack (RCA ø8.3) x2	
☐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	☒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	

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

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

Position ☒Front ☐Side ☐Bottom

Size 1.5 x 2.7 inches

Imp. 8 ohm x 2 pcs

Power Max 2.5 + 2.5 W

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: 689 mm(W) 577 mm(D) 620 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: 204 Sets / 40' container

G-30.Accessories

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

☐AC Plug Adapter ☐Channel Film

☐Battery (UM-x) ☒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

☐21pin Cable ☐Car Cord

☐Rod Antenna

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

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

GENERAL SPECIFICATIONS

G-31.Other Features

☒Auto Degauss	☐Auto Search	☐Full OSD
☒Auto Shut Off	☐CH Allocation	☐Premiere
☐Canal+	☒SAP	☐Comb Filter
☒CATV(181CH)	☐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

G-32.Switch

Front

☒Power(Tact)	☒Channel Up/Reset	☒Volume Up/Set Up
☐System Select	☒Channel Down/Enter	☒Volume Down/Set Down
☐Main Power SW	☐Sub Power	☒Menu:Vol UP + Vol Down

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

GENERAL SPECIFICATIONS

G-34.Remote Control Unit: RC- 74

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

Total 28 Key

☒ Power	☒ Quick View	☒ TV/AV
☐ Stand By	☐ Status	☐ Bar Select
☒ 0	☐ Time Select	☐ PAL/SECAM
☒ 1	☐ Time Set	☒ Volume Up
☒ 2	☒ Muting	☒ 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.

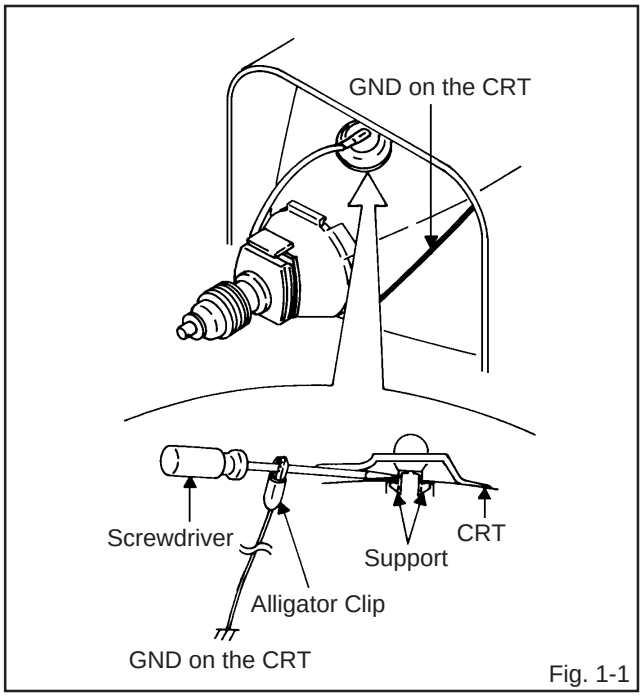


Fig. 1-1

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.)**

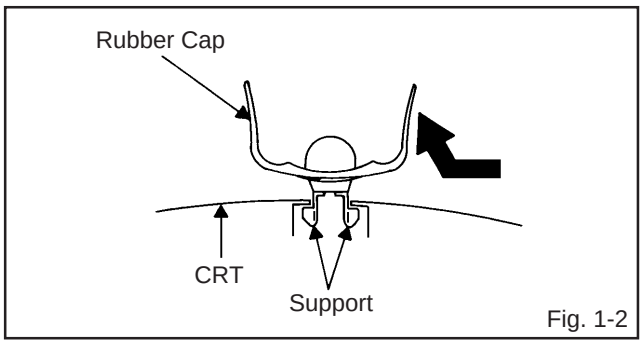


Fig. 1-2

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.)**

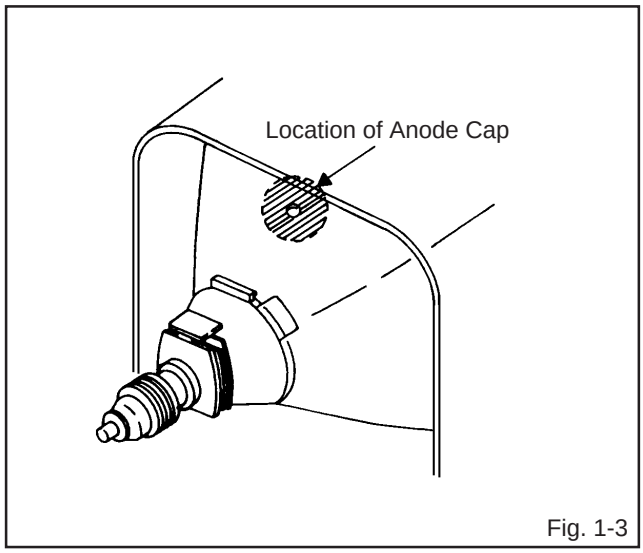


Fig. 1-3

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.)**

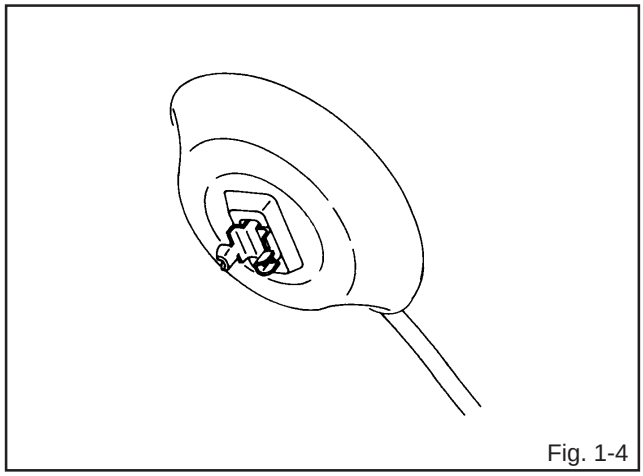


Fig. 1-4

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

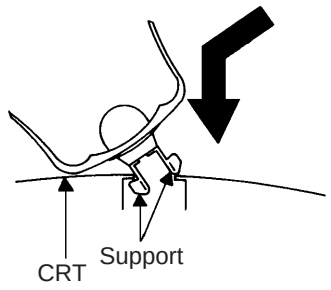


Fig. 1-5

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

2. REMOVAL OF DEFLECTION YOKE

(Refer to Fig. 2-1)

1. Loosen the screw ①.
2. Remove the Convergence • Purity Magnet in the direction of arrow (A).
3. Loosen the screw ②.
4. Remove the 3 Wedges.
5. Remove the Deflection Yoke in the direction of arrow (B).

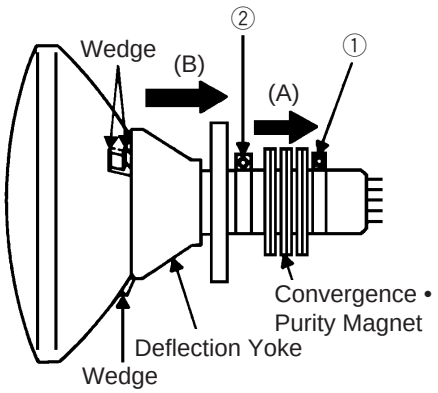


Fig. 2-1

INSTALLATION

Install new Deflection Yoke in reverse steps of REMOVAL.

NOTE

After adjusting the purity and the convergence, fix the screw ② and lock the wedges.

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.

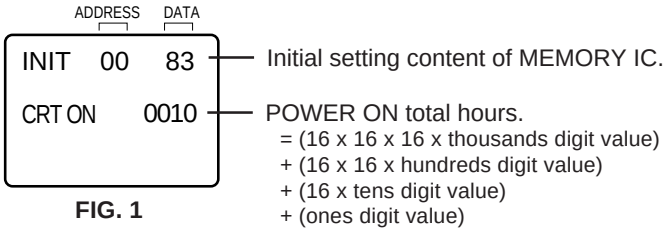


FIG. 1

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 09.

ADDRESS	INI 00	INI 01	INI 02	INI 03	INI 04	INI 05	INI 06	INI 07	INI 08	INI 09
DATA	88	2C	80	00	00	00	00	1B	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 for 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 2.25 ± 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 (TV)

1. Receive the monoscope pattern. (RF Input)
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 BRIGHTNESS (AV)

1. Receive the monoscope pattern. (Audio Video Input)
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.

2-6: SUB TINT/SUB COLOR (TV)

1. Receive the color bar pattern. (RF Input)
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. Press the CH DOWN button once to set to "COLOR" mode.
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.

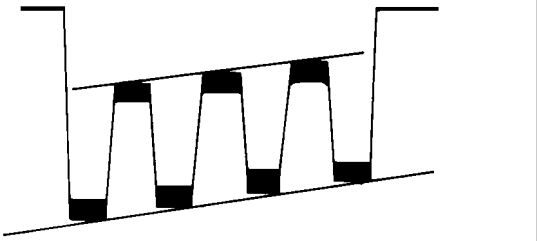


Fig. 2-5

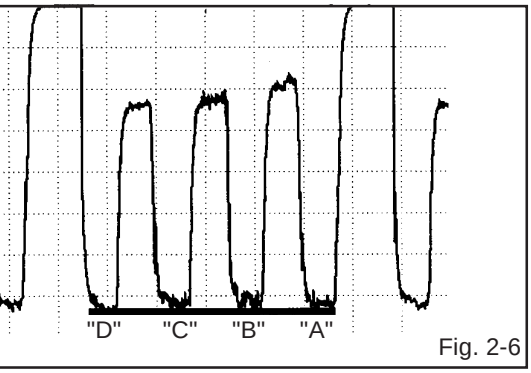


Fig. 2-6

2-7: SUB TINT/SUB COLOR (AV)

1. Receive the color bar pattern. (Audio Video Input)
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. Press the CH DOWN button once to set to "COLOR" mode.
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.

2-8: FOCUS

1. Receive an 80dB monoscope pattern.
2. Adjust the **Focus Volume** until picture is distinct.

2-9: VERTICAL POSITION

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

2-10: 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

ELECTRICAL ADJUSTMENTS

2-11: HORIZONTAL PHASE

1. Receive the color bar 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.

2-12: 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.

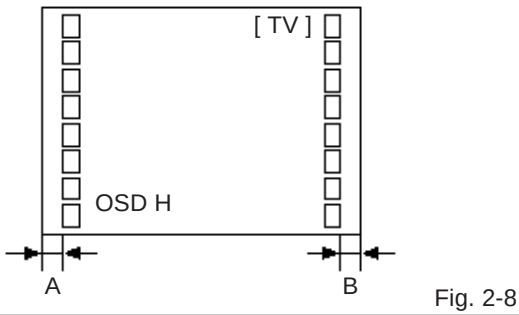


Fig. 2-8

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.

2-14: SEPARATION 1, 2

1. Receive the stereo broadcasting signal.
2. Connect the AC voltmeter to **AUDIO OUT JACK** through stereo filter (L=400Hz, R=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 output of L-CH and R-CH become minimum.
6. Press the CH UP button once to set to "SEPARATION 2" mode.
7. Press the VOL. UP/DOWN button on the remote control until the output of L-CH and R-CH become minimum.

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

Fig. 2-9

2-15: CONSTANT VOLTAGE

1. Using the remote control, set the brightness and contrast to normal position.
2. Connect the digital voltmeter to **TP401**.
3. Set condition is AV MODE without signal.
4. Adjust the **VR502** until the digital voltmeter is 131 ± 0.5V.

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 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.

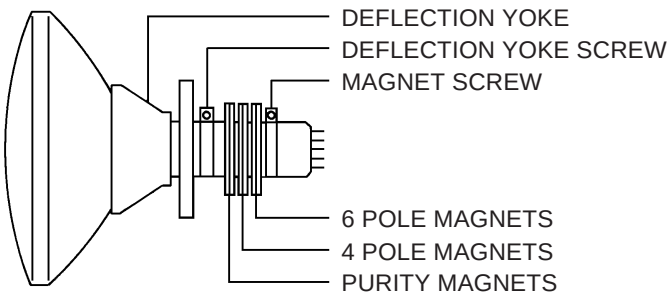


Fig. 3-1

3-3: STATIC CONVERGENCE

NOTE

Adjust after performing adjustments in section 3-2.

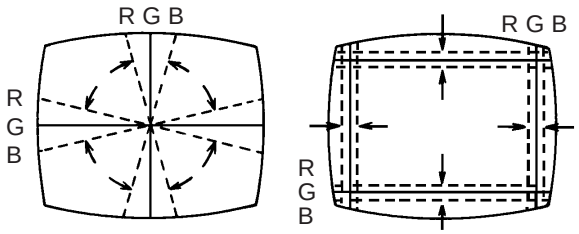
1. Receive the crosshatch pattern from the color bar generator.
2. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

3-4: DYNAMIC CONVERGENCE

NOTE

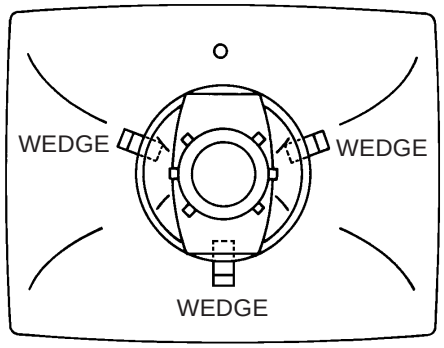
Adjust after performing adjustments in section 3-3.

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)**



UPWARD/DOWNWARD SLANT RIGHT/LEFT SLANT

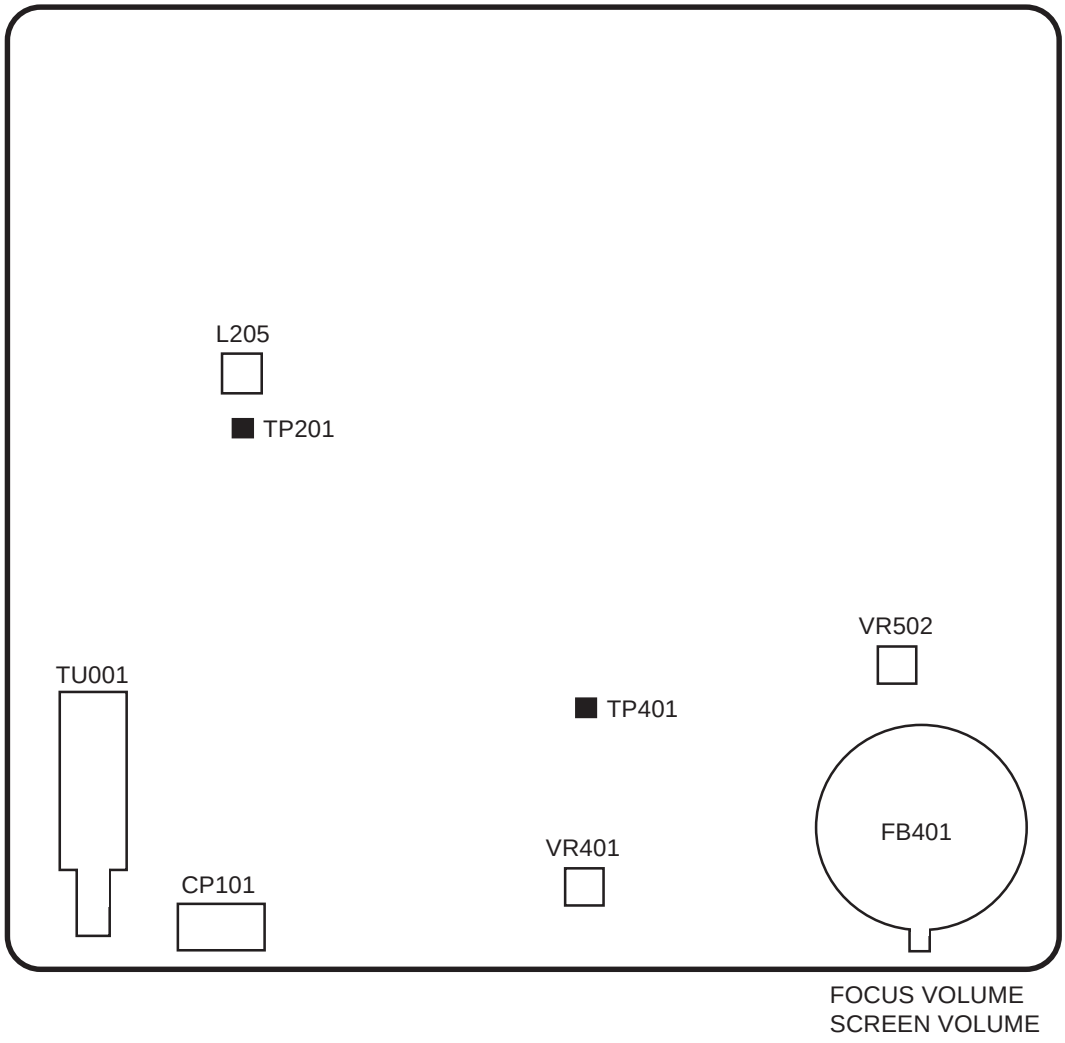
Fig. 3-2-a



WEDGE POSITION

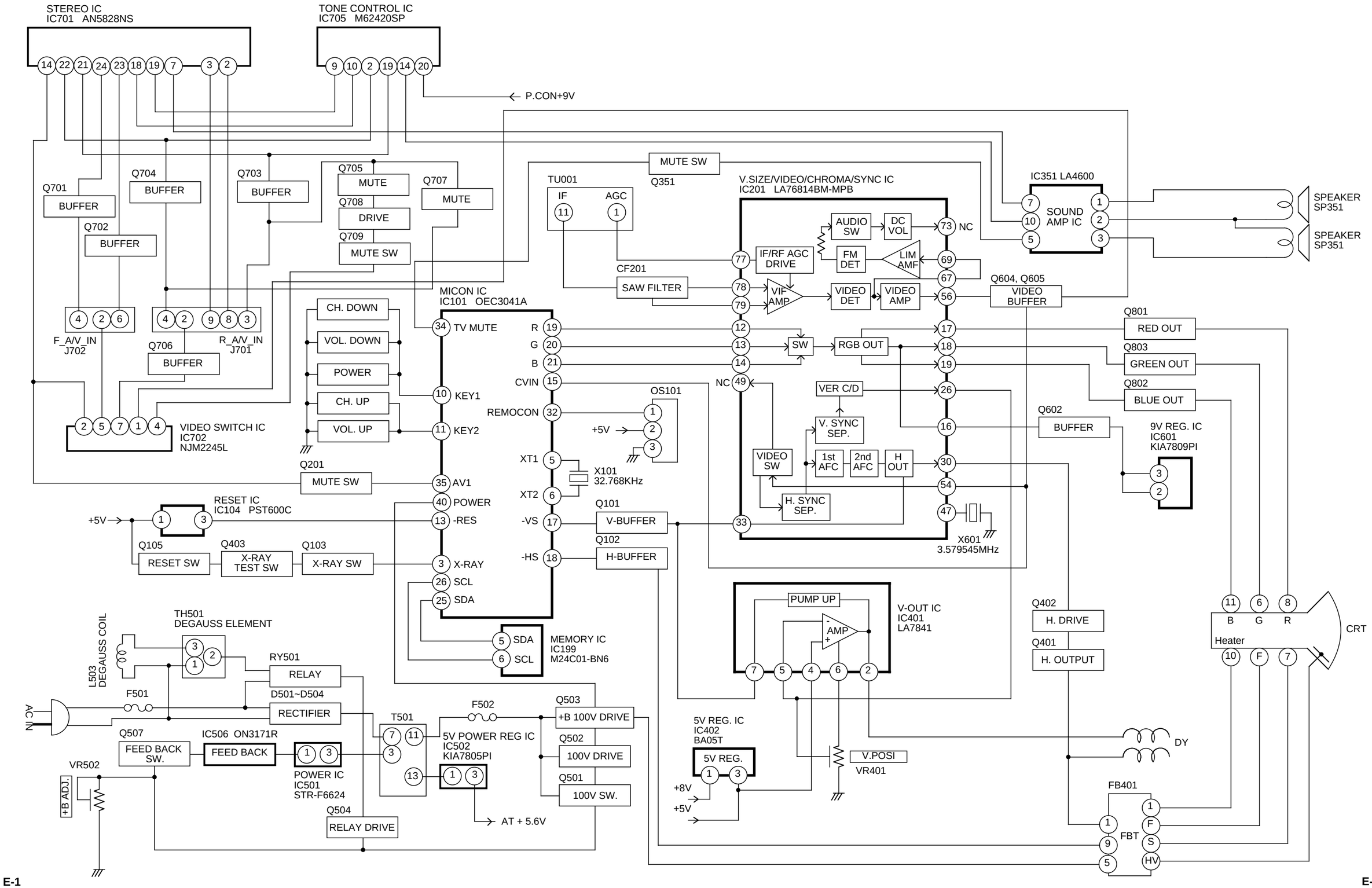
Fig. 3-2-b

MAJOR COMPONENTS LOCATION GUIDE



MAIN

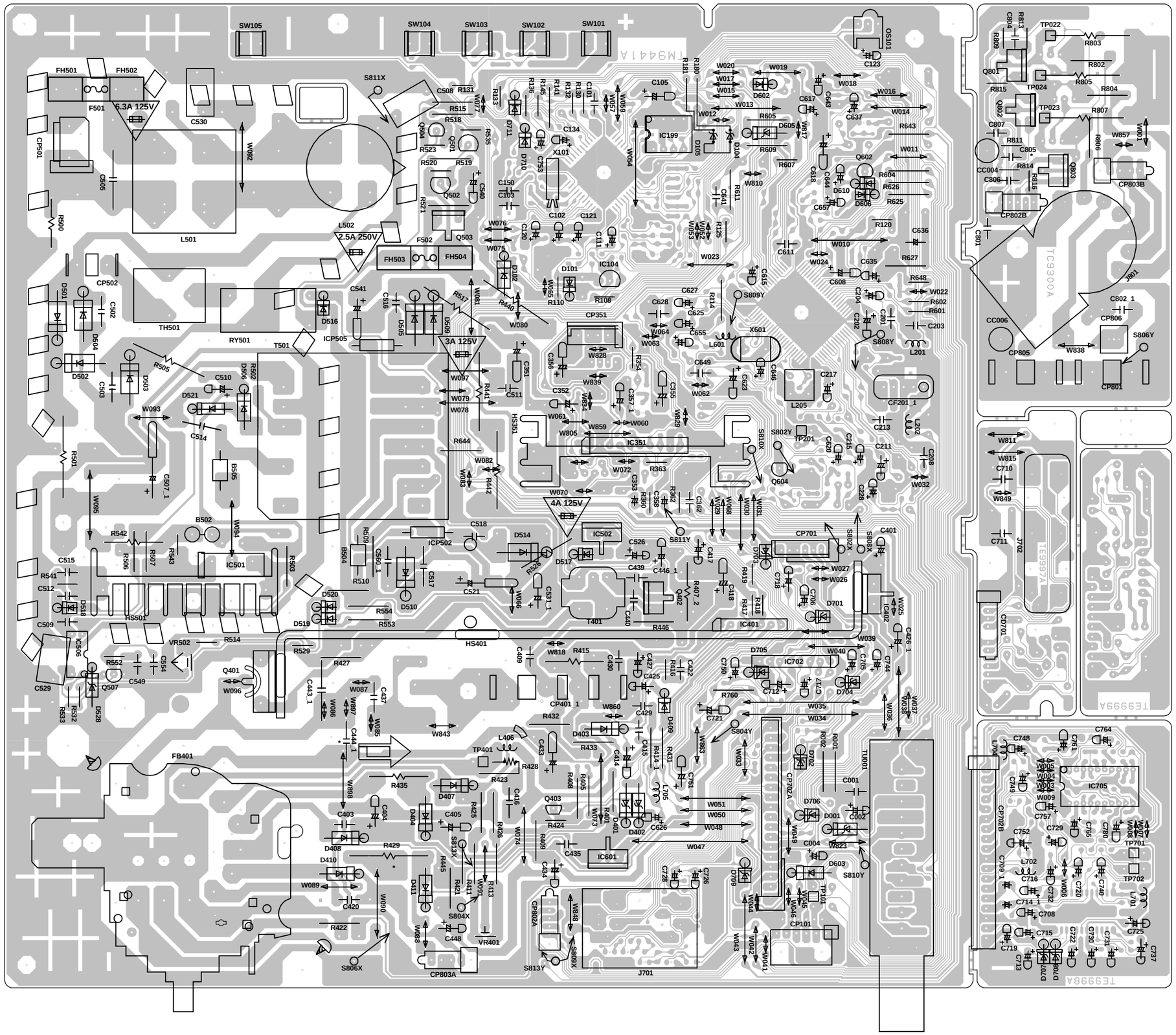
BLOCK DIAGRAM



E-1

E-2

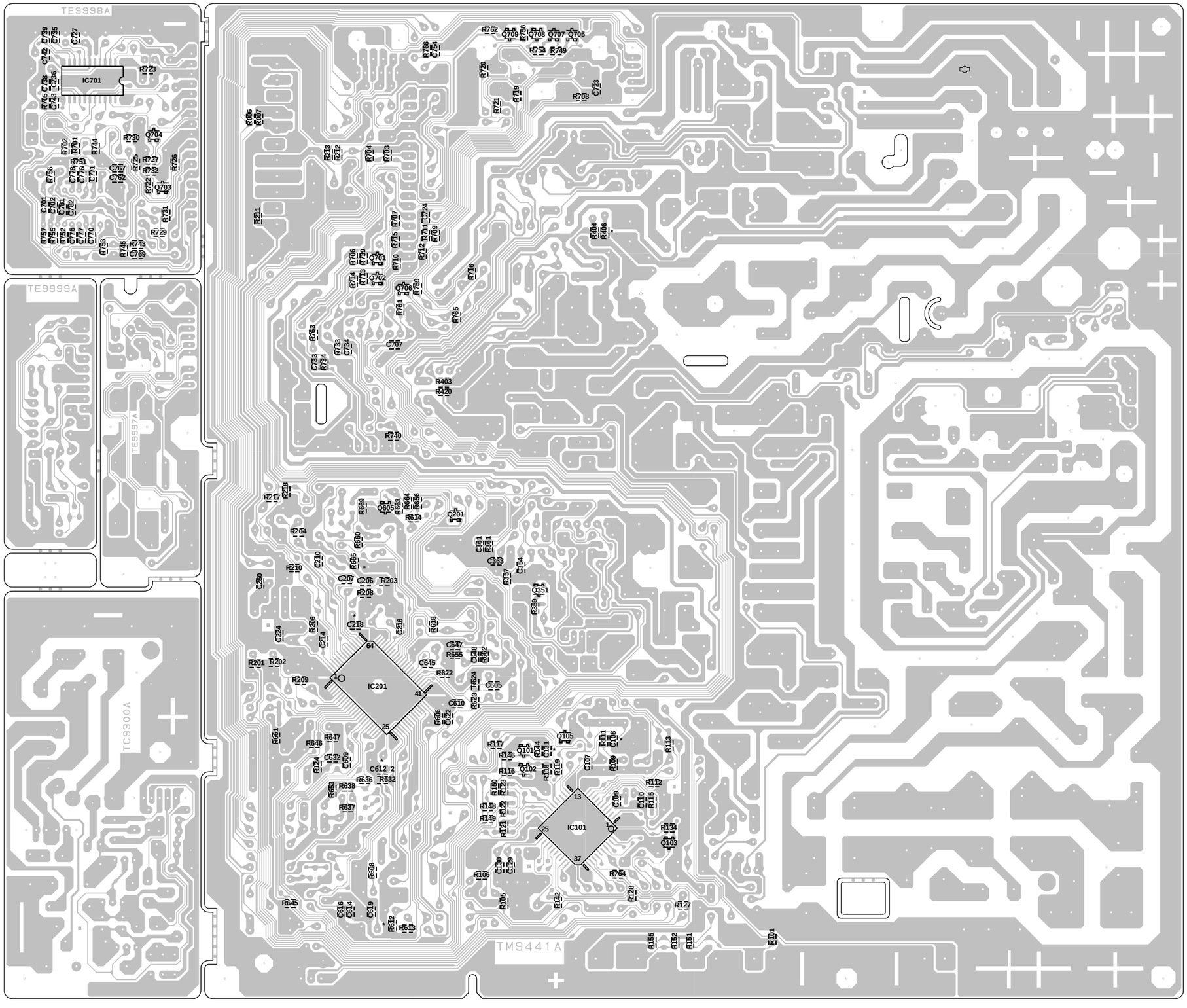
PRINTED CIRCUIT BOARDS
MAIN/CRT/AV/STEREO (INSERTED PARTS)
SOLDER SIDE



F-1

F-2

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



MICON/TUNER SCHEMATIC DIAGRAM

ACCESSORY
TM101
R25-1055

TU001 TECC1040PG31A
OS101 PIC-28143SY-2
MICON IC IC101 OEC3041A
RESET IC IC104 PST600C
MEMORY IC IC199 M24C01-BN6
X-RAY SW Q103 2SC2412K
V-BUFFER Q101 2SC2412K
H-BUFFER Q102 2SC2412K
RESET SW. Q105 2SC2412K
D101 1SS133
D102 11E1N
D001 HZ30-3L TD
D104 MTZJ6.2B
D105 MTZJ6.2B
X101 32.768KHz

CH UP SW101 SKHVBED010
CH DOWN SW102 SKHVBED010
VOL UP SW103 SKHVBED010
VOL DOWN SW104 SKHVBED010
POWER SW105 SKHVBED010

TO VIDEO SWITCH/IN/OUT
AV2
AV1
FROM/TO SOUND/AMP
AUDIO_MUTE
I2C_SCL
I2C_SDA
FROM/TO POWER
P.CON+125V
AT+5.6V
POWER
GND
FROM/TO DEFLECTION/CRT
P.CON+5V
X-RAY_TEST
V_SYNC
H_SYNC
X_RAY
FROM/TO CHROMA
AGC
IF
I2C_OFF
I2C_SCL
I2C_SDA
OSD_BLANKING
OSD_BLUE
OSD_GREEN
OSD_RED
VIDEO_IN
AFT_IN
AV1

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.

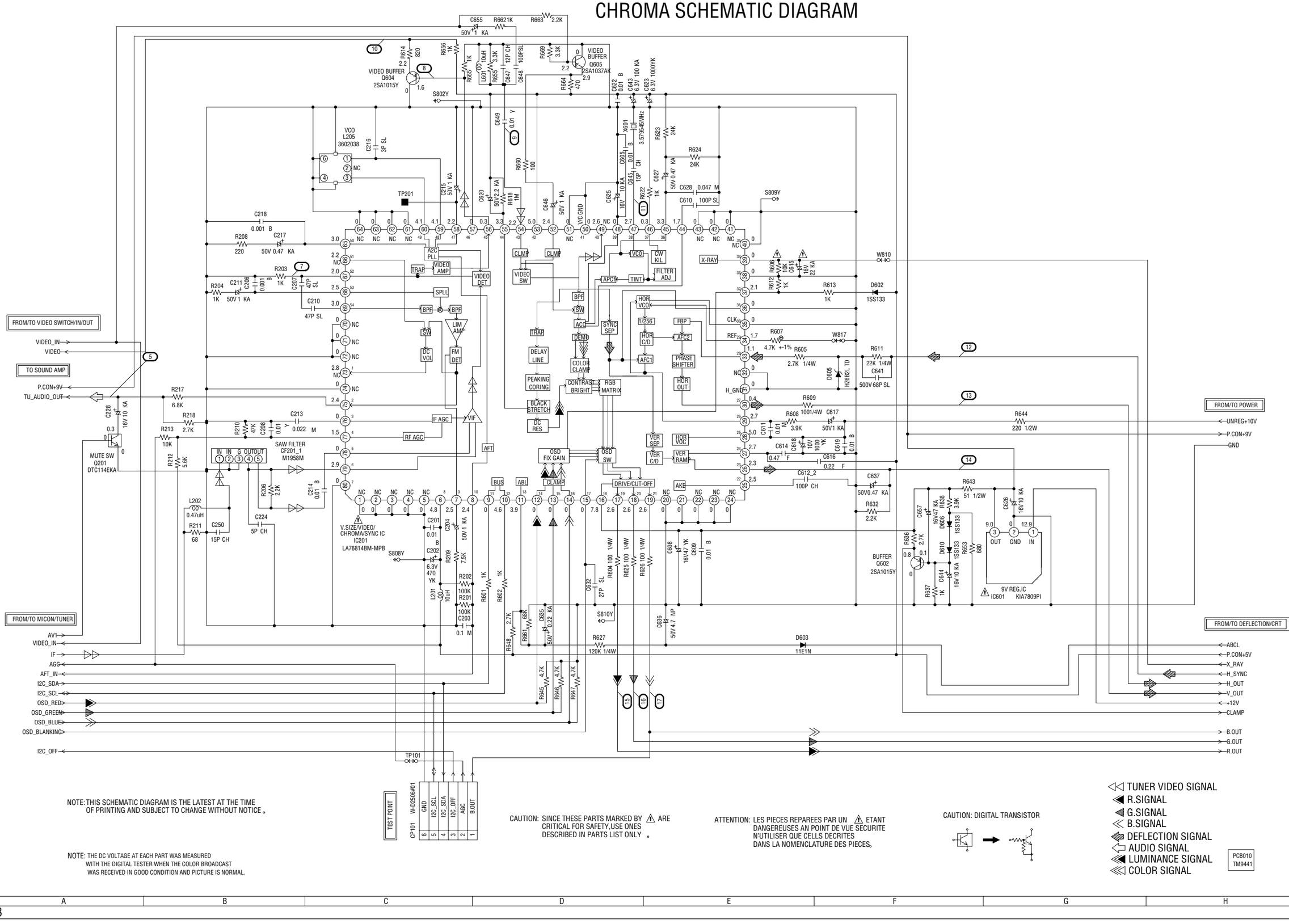
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

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

TUNER VIDEO SIGNAL
R.SIGNAL
G.SIGNAL
B.SIGNAL
DEFLECTION SIGNAL

PCB010
TM9441

CHROMA SCHEMATIC DIAGRAM



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

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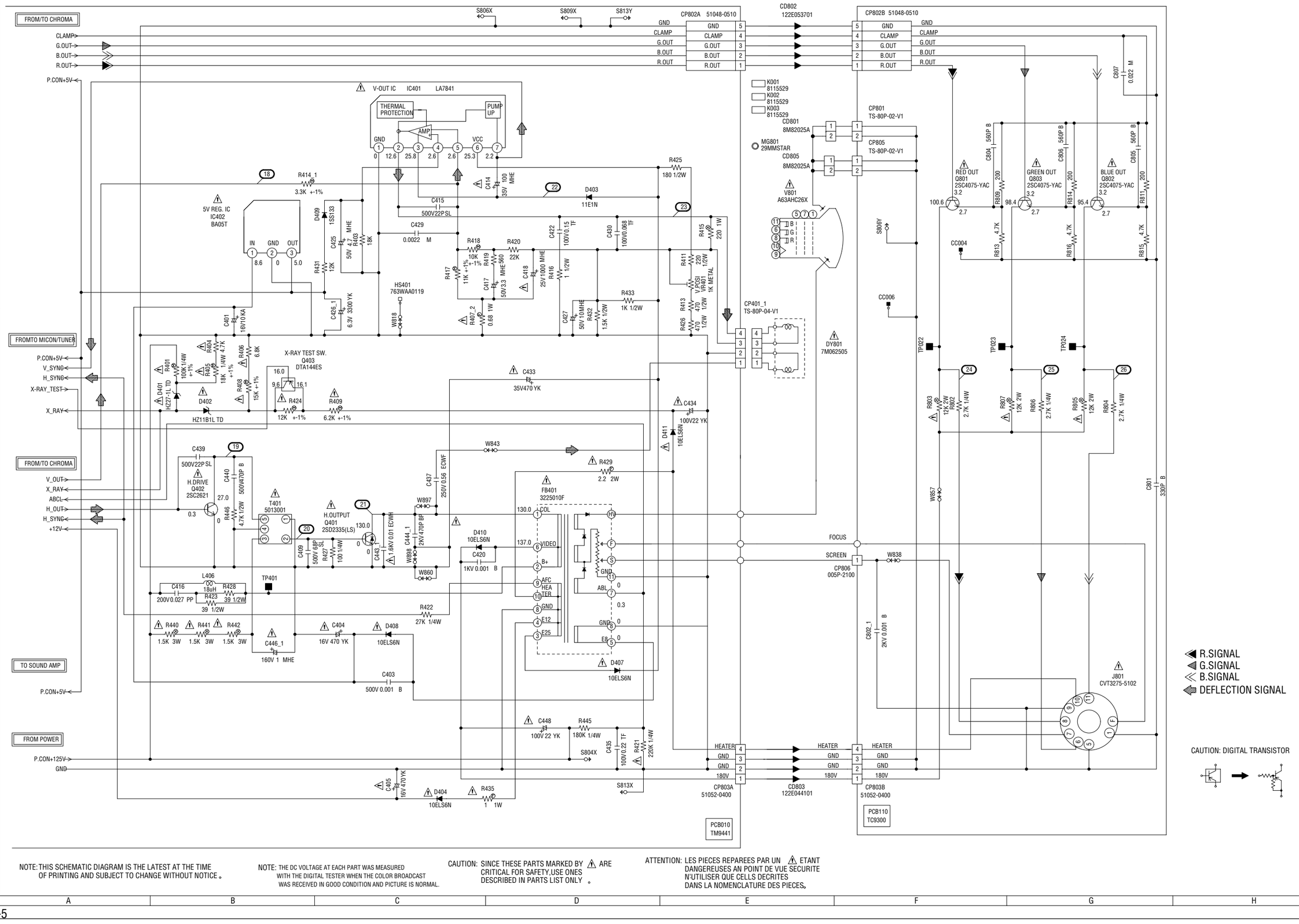
CAUTION: DIGITAL TRANSISTOR

DEFLECTION/CRT SCHEMTIC DIAGRAM



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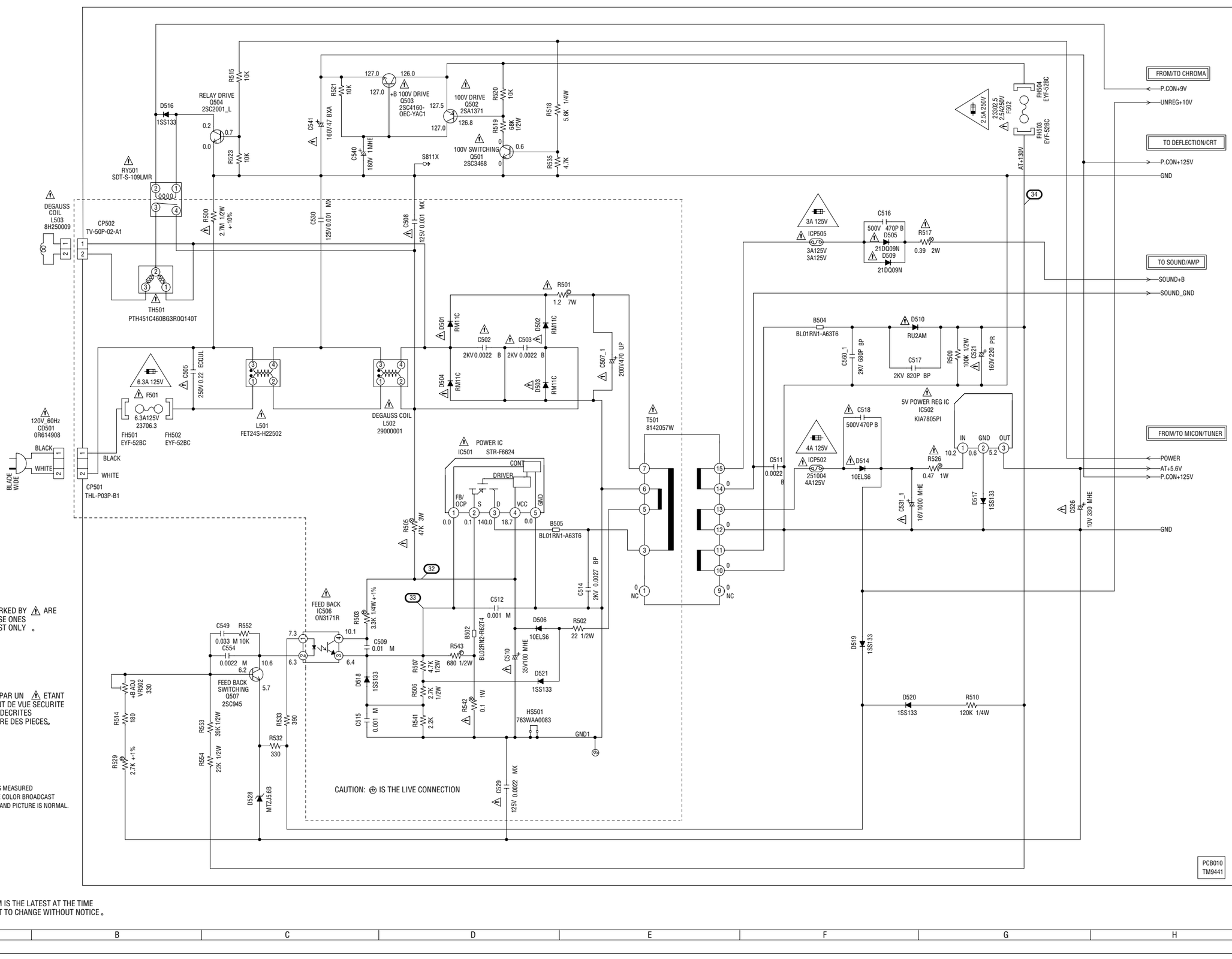
POWER SCHEMATIC DIAGRAM



SOUND AMP SCHEMATIC DIAGRAM

FROM/TO STEREO

CP702A
IMSA-9130B-18

1	I2C_SDA
2	I2C_SCL
3	GND
4	P.CON+9V
5	P.CON+5V
6	GND
7	SOUND_L
8	SOUND_R
9	TU_AUDIO_OUT
10	GND
11	AUDIO_OUT_L
12	AUDIO_OUT_R
13	P.CON+9V
14	FRONT_AUDIO_L
15	FRONT_AUDIO_R
16	GND
17	REAR_AUDIO_L
18	REAR_AUDIO_R

FROM/TO VIDEO SWITCH/IN/OUT

REAR_AUDIO_R
REAR_AUDIO_L
FRONT_AUDIO_R
FRONT_AUDIO_L
AUDIO_OUT_R
AUDIO_OUT_L

FROM CHROMA

TU_AUDIO_OUT
P.CON+9V

FROM MICON/TUNER

I2C_SCL
I2C_SDA
AUDIO_MUTE

FROM DEFLECTION/CRT

P.CON+5V

FROM POWER

SOUND_GND
SOUND+B

R703 1W 12K
R704 1W 12K

27

SOUND AMP IC
IC351 LA4600

OUTPUT GND 1 (8.1) | 2 (0) | 3 (8.1)
VCC 4 (12.1)
RIPPLE FILTER 5 (6.0)
P.P 6 (8.9)
STAND-BY 7 (0.9)
ATT. 8 (1.4)
INPUT GND 9 (0) | 10 (1.4)

C358 50V1 KANP
R360 1K
R363 1K
W805
W859
R357 10K
W834
28
W828
C355 16V 1000 ZL
C356 16V 1000 ZL
W839
CP351 TID-X04P-Z1BK

SP_OUT_L+	1	1
SP_OUT_L-	2	2
SP_OUT_R-	3	3
SP_OUT_R+	4	4

SPEAKER
SPEAKER
SP351_1
070C533014
2.5W 8OHM

C351 16V 1000 YK
C352 50V 4.7 MHE
C353 50V 1 KANP
C363 0.01 B
R362 82
C362 0.047 F
R361 82
C361 0.047 B
HS351 763WAE0099
C354 0.01 B
C357_1 25V 33 MHE
W829
S810X
R359 1W 330
R354 8.2K
MUTE SW.
Q351
2SC2412K
2.9
0
0

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.

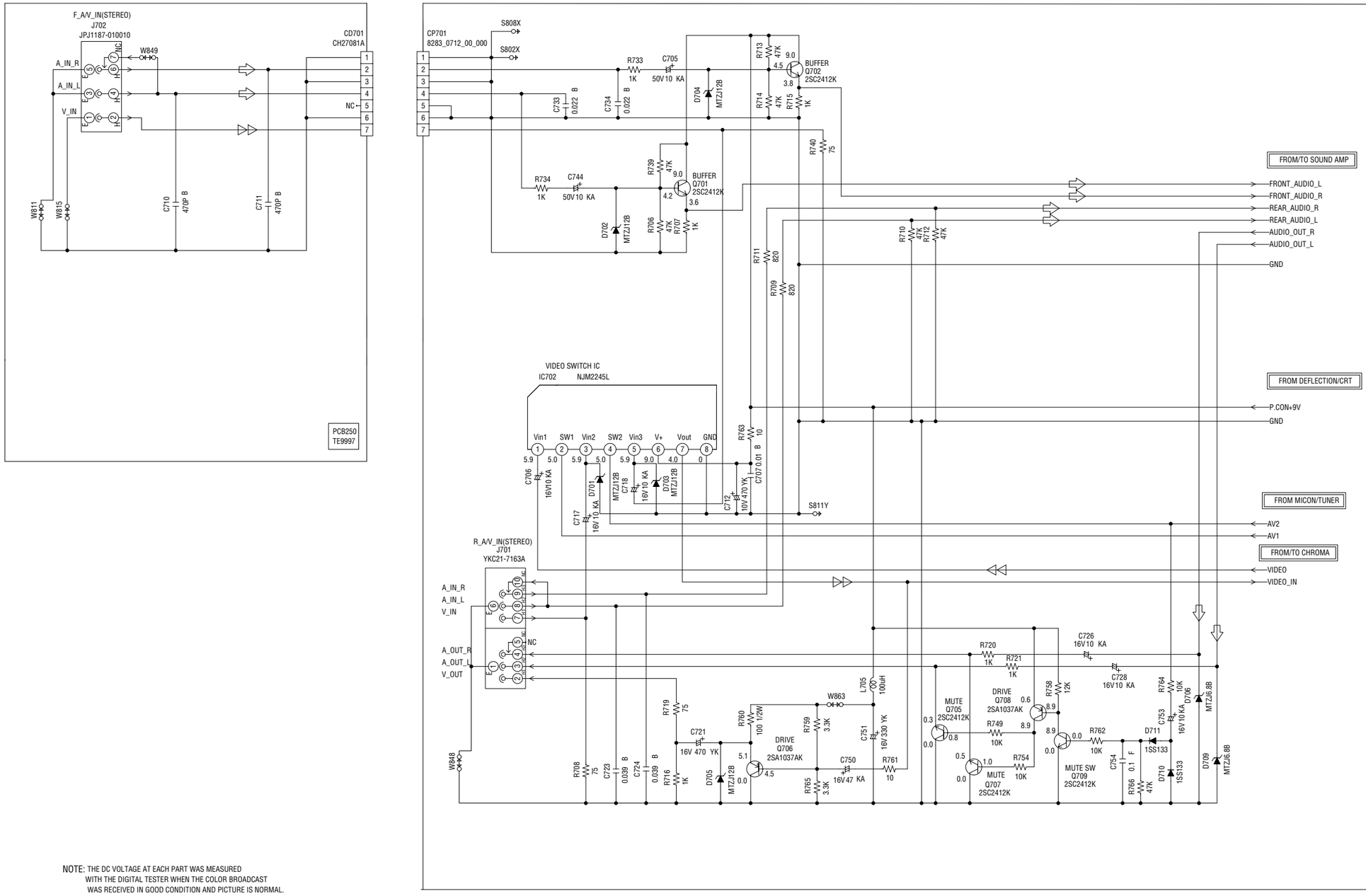
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

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

⇦ AUDIO SIGNAL

PCB010
TM9441

VIDEO SWITCH/IN/OUT SCHEMATIC DIAGRAM



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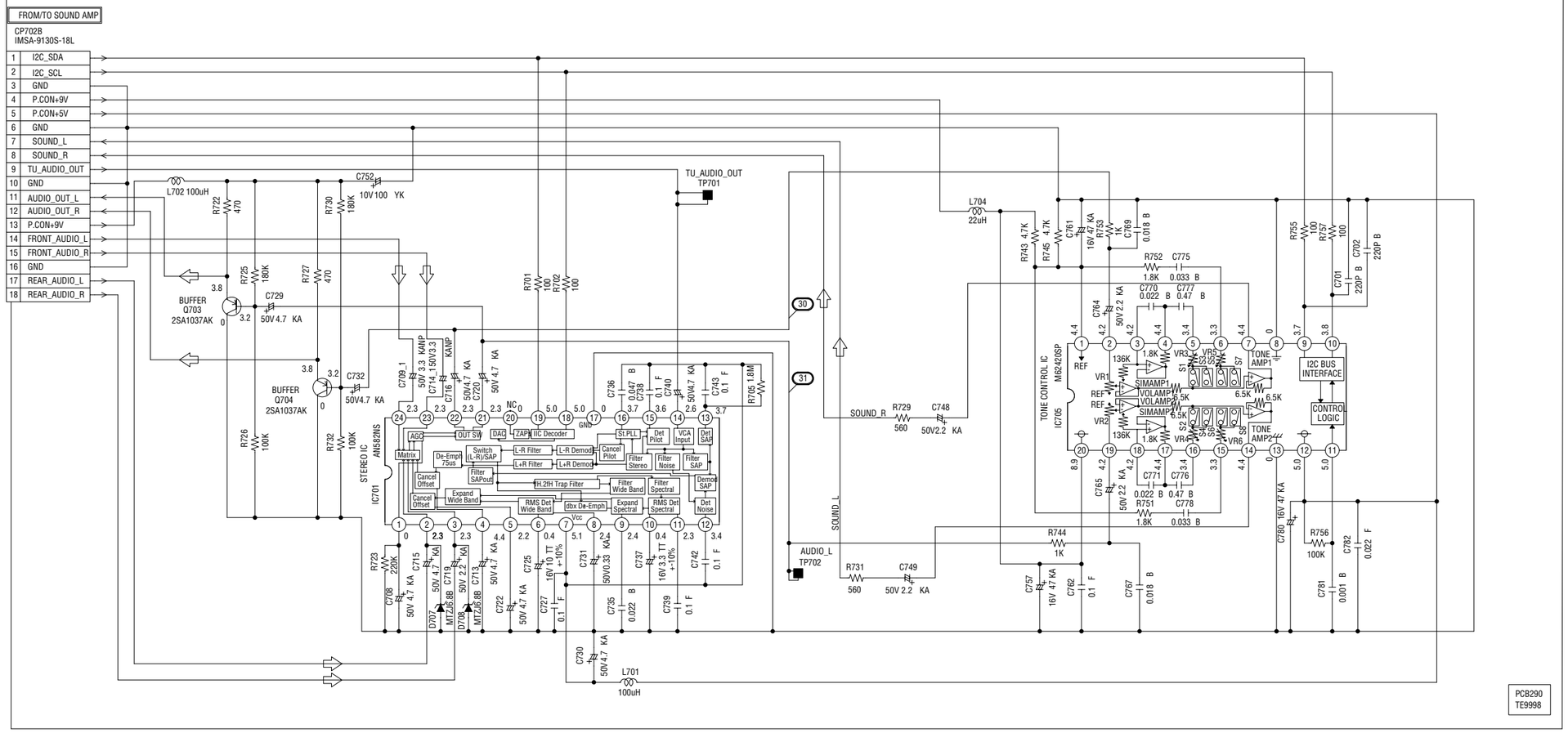
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

⇦ AUDIO SIGNAL

⇦⇦ TUNER VIDEO SIGNAL

STEREO SCHEMATIC DIAGRAM



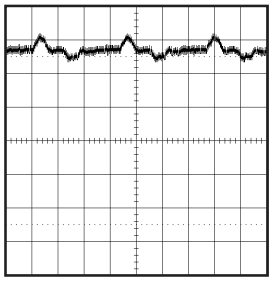
AUDIO SIGNAL

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.

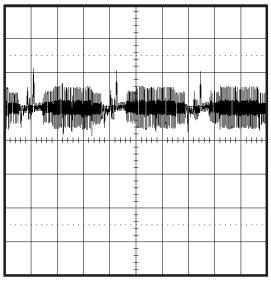
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

WAVEFORMS

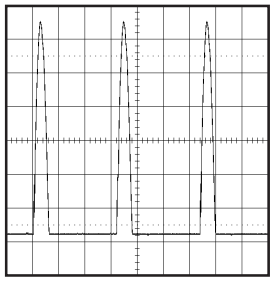
MICON/TUNER



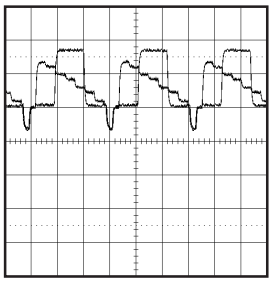
① 200mV 5ms/div



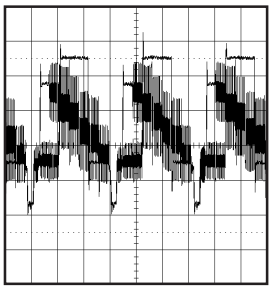
⑦ 0.5V 20µs/div



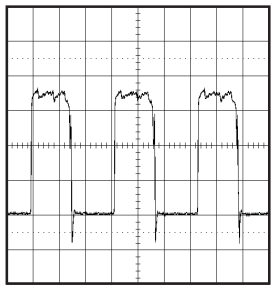
⑫ 20V 20µs/div



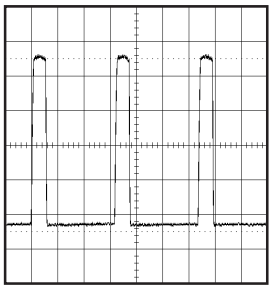
② 0.5V 20µs/div



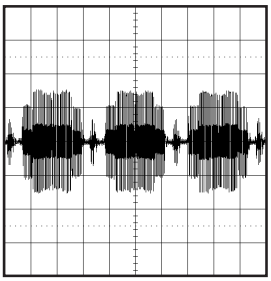
⑧ 0.5V 20µs/div



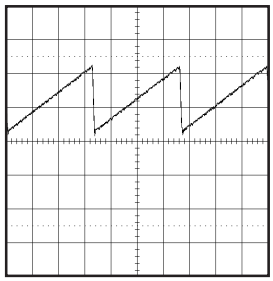
⑬ 200mV 20µs/div



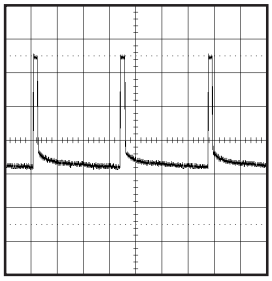
③ 200mV 20µs/div



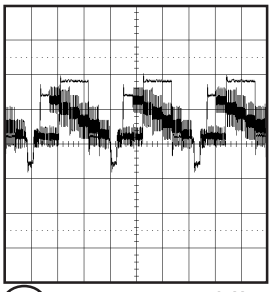
⑨ 200mV 20µs/div



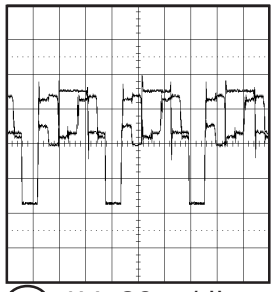
⑭ 0.5V 5ms/div



④ 200mV 5ms/div

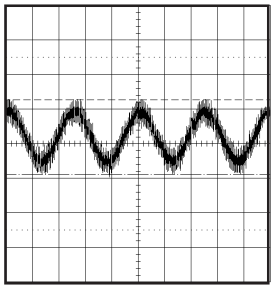


⑩ 0.5V 20µs/div

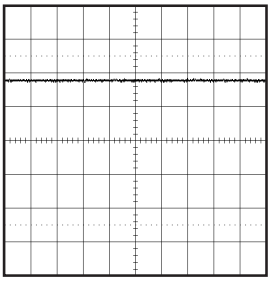


⑮ 1V 20µs/div

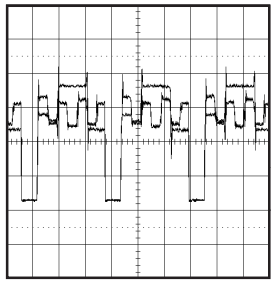
CHROMA



⑤ 0.5V 1ms/div



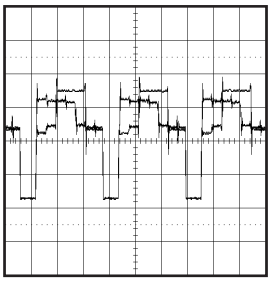
⑪ 1V 0.5ms/div



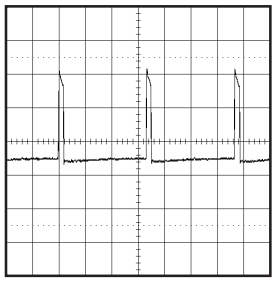
⑯ 1V 20µs/div

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

WAVEFORMS

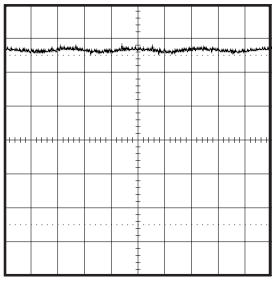


17 1V 20µs/div



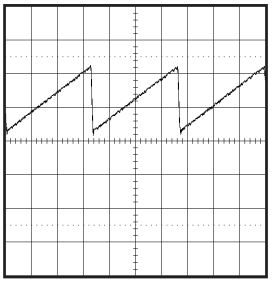
22 10V 5ms/div

SOUND AMP

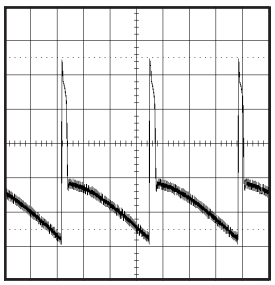


27 0.5V 1ms/div

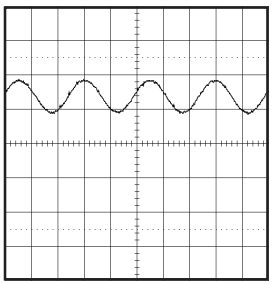
DEFLECTION/CRT



18 0.5V 5ms/div

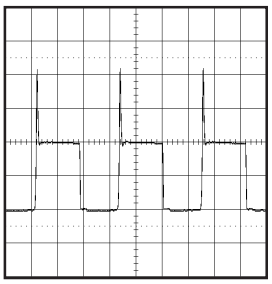


23 10V 5ms/div

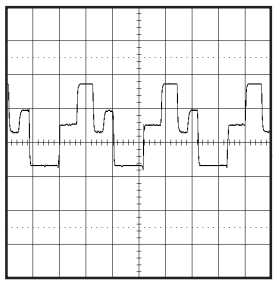


28 1V 1ms/div

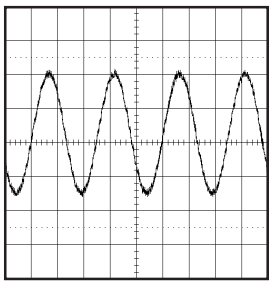
STEREO



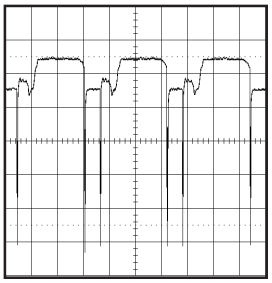
19 20V 20µs/div



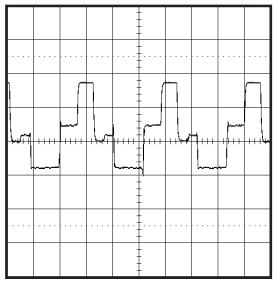
24 50V 20µs/div



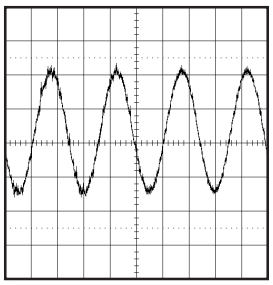
30 200mV 1ms/div



20 2V 20µs/div

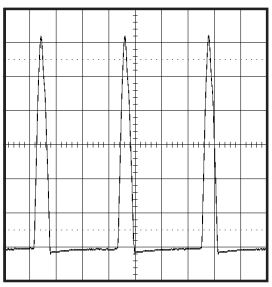


25 50V 20µs/div

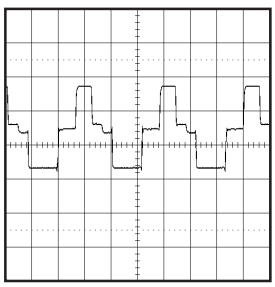


31 200mV 1ms/div

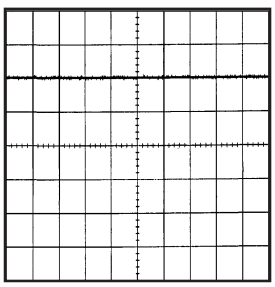
POWER



21 200V 20µs/div



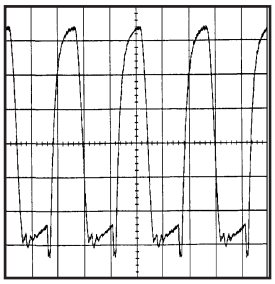
26 50V 20µs/div



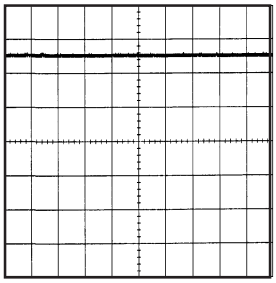
32 5.0V 20ms/div

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

WAVEFORMS



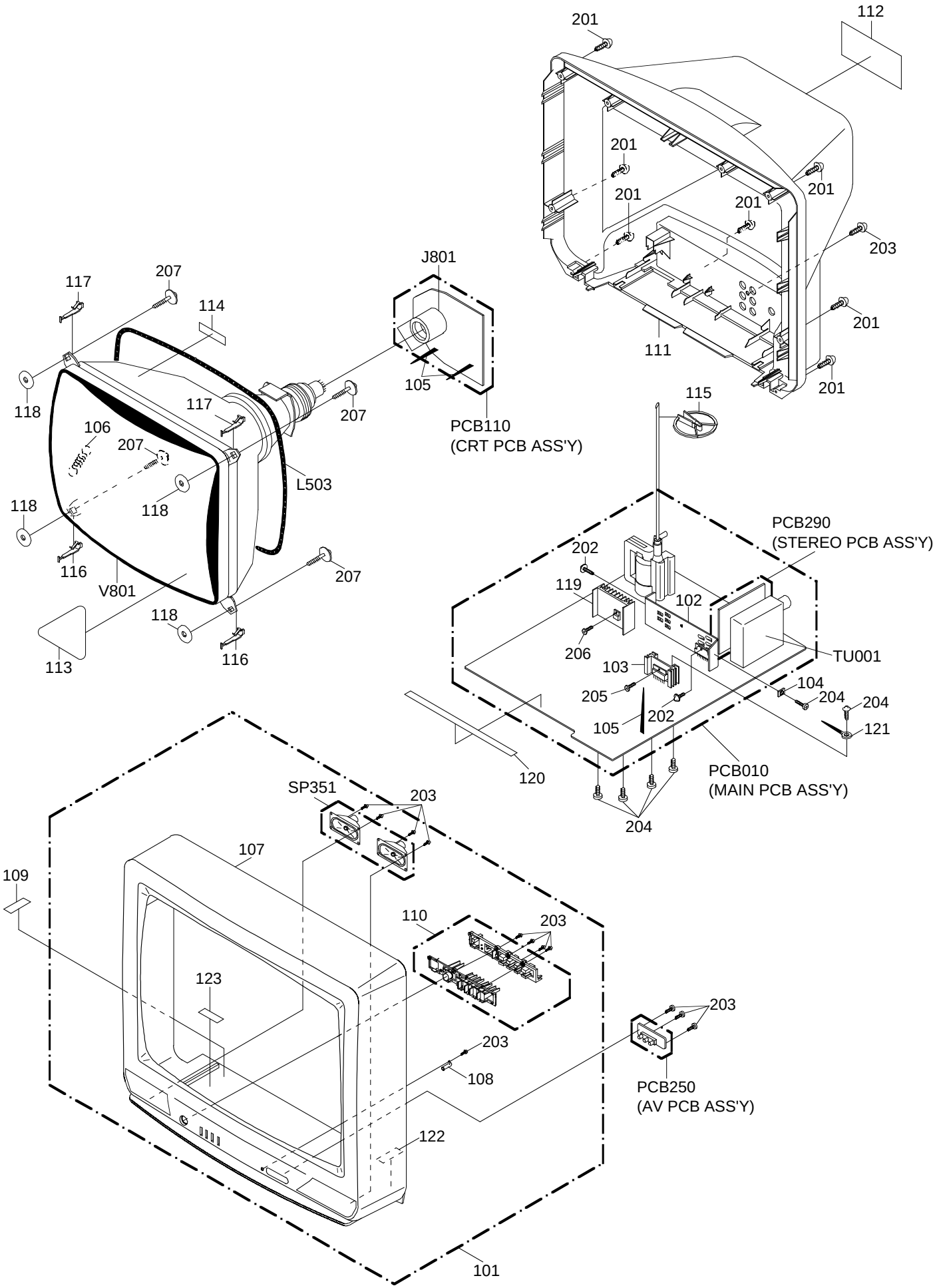
(33) 500mV 5µs/div



(34) 20.0V 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	A3I011H720	CABINET,FRONT ASS'Y		
102	---	HEAT SINK		
103	---	HEAT SINK		
104	---	METAL SPACER		
105	---	COATING CLIP		
106	741WUA0016	SPRING,EARTH		
107	701APJ0078	CABINET,FRONT		
108	713WPA0096	GUIDE,REMOCON		
109	7230006856	SHEET,CAUTION		
110	735WPA0426	BUTTON ASS'Y		
111	702APA0104	CABINET,BACK		
112	722A080005	SHEET,RATING		
113	7230006924	FILM,DECORATION		
114	7232020733	SHEET,BRAND		
115	759WPA0006	HOLDER,ANODE WIRE		
116	762WPA0009	HOLDER,CRT WIRE		
117	8994201000	HOLDER,CRT WIRE		
118	769WSA0009	WASHER,CRT T=1		
119	---	HEAT SINK		
120	800WQ00045	FELT SHEET		5x150xT0.5
121	8995034000	CORD CLIP UL CO.		
122	7240001041	SHEET,CSA WARNING		
123	7220001109	SHEET,HWC		
201	8117540B04	SCREW,TAPPING (B0)	TRUSS	4x20
202	8117D30A04	SCREW,TAPPING (B0)	WH8 BRAZIER	3x10
203	8110630A04	SCREW,TAP TITE (P)	BRAZIER	3x10
204	8109630802	SCREW,TAP TITE (B)	BRAZIER	3x8
205	810A130804	SCREW/WASHER (A)		M3x8
206	810B130A04	SCREW/WASHER (B)		M3x10
207	8111J50D04	SCREW,TAPPING (A)	GW22	5x40
---	JB5K0100	POLY BAG		
---	J3I01101	INSTRUCTION BOOK		
---	791AHA0014	LAMIFILM BAG		
---	792AHA0073	PACKAGE,TOP		
---	792AHA0074	PACKAGE,BOTTOM		
---	793ACD0475	GIFT BOX		

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
		RESISTORS	
⚠ R401	R4X5T4104F	R, METAL	100K OHM 1/4W
⚠ R404	R801R7472J	RC	4.7K OHM 1/10W
⚠ R405	R4X5T4183F	R, METAL	18K OHM 1/4W
⚠ R406	R801R7682J	RC	6.8K OHM 1/10W
⚠ R407	R65581R68J	R, FUSE	0.68 OHM 1W
⚠ R408	R4X5T6153F	R, METAL	15K OHM 1/6W
⚠ R409	R4X5T6622F	R, METAL	6.2K OHM 1/6W
R415	R3X181221J	R, METAL OXIDE	220 OHM 1W
R418	R425T6103F	R, METAL	10K OHM 1/6W
⚠ R421	R001T4224J	RC	220K OHM 1/4W
R423	R002T2390J	RC	39 OHM 1/2W
⚠ R424	R4X5T6123F	R, METAL	12K OHM 1/6W
⚠ R429	R6558A2R2J	R, FUSE	2.2 OHM 2W
⚠ R435	R63581010J	R, FUSE	1 OHM 1W
⚠ R440	R3X18B152J	R, METAL OXIDE	1.5K OHM 3W
⚠ R441	R3X18B152J	R, METAL OXIDE	1.5K OHM 3W
⚠ R442	R3X18B152J	R, METAL OXIDE	1.5K OHM 3W
⚠ R500	R21202275K	R, SOLID	2.7M OHM 1/2W
⚠ R501	R5Y2CE1R2J	R, CEMENT	1.2 OHM 7W
⚠ R505	R3X28B473J	R, METAL OXIDE	47K OHM 3W
⚠ R517	R3X28AR39J	R, METAL	0.39 OHM 2W
⚠ R526	R3X181R47J	R, METAL	0.47 OHM 1W
⚠ R542	R336810R1J	R, METAL	0.1 OHM 1W
R543	R635U2681J	R, FUSE	680 OHM 1/2W
⚠ R606	R801R7103J	RC	10K OHM 1/10W
⚠ R803	R3X18A123J	R, METAL OXIDE	12K OHM 2W
⚠ R805	R3X18A123J	R, METAL OXIDE	12K OHM 2W
⚠ R807	R3X18A123J	R, METAL OXIDE	12K OHM 2W
		CAPACITORS	
C351	E0ELF2102M	CE	1000 UF 16V
C355	E62FF2102M	CE	1000 UF 16V
C356	E62FF2102M	CE	1000 UF 16V
⚠ C404	E02LT2471M	CE	470 UF 16V
⚠ C405	E02LT2471M	CE	470 UF 16V
⚠ C414	E5EZT4101M	CE	100 UF 35V
C416	P3N1F2273J	CPP	0.027 UF 200V
⚠ C418	E5EZF3102M	CE	1000 UF 25V
C426	E02L00332M	CE	3300 UF 6.3V
⚠ C433	E02LF4471M	CE	470 UF 35V
⚠ C434	E02LT8220M	CE	22 UF 100V
C437	P411F3564J	CMPP	0.56 UF 250V ECWF
⚠ C443	P414F9103H	CMPP	0.01 UF 1.6KV ECWH
C444	C01BBP7Q2K	CC	470 PF 2KV BP
⚠ C446	E53ZTB010M	CE	1 UF 160V VZ
⚠ C448	E02LT8220M	CE	22 UF 100V
⚠ C502	C13HB07H3K	CC	0.0022UF 2KV B
⚠ C503	C13HB07H3K	CC	0.0022UF 2KV B
⚠ C505	P2122B224M	CMP	0.22 UF 250V ECQUL
⚠ C507	E52TFC471M	CE	470 UF 200V
⚠ C508	C034E0J13M	CC	0.001 UF 125V MX
⚠ C510	E5EZT4101M	CE	100 UF 35V
C514	C01BBP7K3K	CC	0.0027UF 2KV BP
C517	C01BBP7W2K	CC	820 PF 2KV BP
⚠ C518	C0JTB05Q2K	CC	470 PF 500V B
⚠ C521	E53VFB221M	CE	220 UF 160V
⚠ C526	E5EZT1331M	CE	330 UF 10V
⚠ C529	C034E0JH3M	CC	0.0022UF 125V MX
C530	C034E0J13M	CC	0.001 UF 125V MX
⚠ C531	E53ZT2102M	CE	1000 UF 16V
⚠ C541	E62DFB470M	CE	47 UF 160V
C560	C01BBP7U2K	CC	680 PF 2KV BP
⚠ C615	E50HU2220M	CE	22 UF 16 V
		DIODES	
D001	D94TA30013	DIODE, ZENER	HZ30-3L TD
D101	D1VT001330	DIODE, SILICON	1SS133T-77
D102	D28T11E1N1	DIODE, SILICON	11E1N-TA1B2
D104	D97U06R21B	DIODE, ZENER	MTZJ6.2B T-77 or
	D97U05R61C	DIODE, ZENER	MTZJ5.6C T-77
D105	D97U06R21B	DIODE, ZENER	MTZJ6.2B T-77 or
	D97U05R61C	DIODE, ZENER	MTZJ5.6C T-77
⚠ D401	D94TA27011	DIODE, ZENER	HZ27-1L TD
⚠ D402	D94TA11B11	DIODE, ZENER	HZ11B1L TD
D403	D28T11E1N1	DIODE, SILICON	11E1N-TA1B2
⚠ D404	D28TELS6N6	DIODE, RECTIFIER	10ELS6N-TA1B2
⚠ D407	D28TELS6N6	DIODE, RECTIFIER	10ELS6N-TA1B2
⚠ D408	D28TELS6N6	DIODE, RECTIFIER	10ELS6N-TA1B2
D409	D1VT001330	DIODE, SILICON	1SS133T-77

REF. NO.	PART NO.	DESCRIPTION	
		DIODES	
⚠ D410	D28TELS6N6	DIODE, RECTIFIER	10ELS6N-TA1B2
⚠ D411	D28TELS6N6	DIODE, RECTIFIER	10ELS6N-TA1B2
⚠ D501	D2BTRM11C0	DIODE, RECTIFIER	RM11C
⚠ D502	D2BTRM11C0	DIODE, RECTIFIER	RM11C
⚠ D503	D2BTRM11C0	DIODE, RECTIFIER	RM11C
⚠ D504	D2BTRM11C0	DIODE, RECTIFIER	RM11C
⚠ D505	D28T21DQN9	DIODE, SCHOTTKY	21DQ09N-TA2B1
D506	D28T10ELS6	DIODE, RECTIFIER	10ELS6TA1B2
⚠ D509	D28T21DQN9	DIODE, SCHOTTKY	21DQ09N-TA2B1
⚠ D510	D2BTRU2AM0	DIODE, SILICON	RU2AM V1
⚠ D514	D28X10ELS6	DIODE, RECTIFIER	10ELS6-TA2B5
D516	D1VT001330	DIODE, SILICON	1SS133T-77
D517	D1VT001330	DIODE, SILICON	1SS133T-77
D518	D1VT001330	DIODE, SILICON	1SS133T-77
D519	D1VT001330	DIODE, SILICON	1SS133T-77
D520	D1VT001330	DIODE, SILICON	1SS133T-77
D521	D1VT001330	DIODE, SILICON	1SS133T-77
D528	D97U05R61B	DIODE, ZENER	MTZJ5.6B T-77
D602	D1VT001330	DIODE, SILICON	1SS133T-77
D603	D28T11E1N1	DIODE, SILICON	11E1N-TA1B2
D605	D94TA6RB12	DIODE, ZENER	HZ6B2L TD
D606	D1VT001330	DIODE, SILICON	1SS133T-77
D610	D1VT001330	DIODE, SILICON	1SS133T-77
D701	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D702	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D703	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D704	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D705	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D706	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D707	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D708	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D709	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D710	D1VT001330	DIODE, SILICON	1SS133T-77
D711	D1VT001330	DIODE, SILICON	1SS133T-77
		ICS	
IC101	I53F53041A	IC	OEC3041A
IC104	I9UJ0T600C	IC	PST600C
IC199	A3I011H015	IC	M24C01-BN6
⚠ IC201	I03FE814B0	IC	LA76814BM-MPB
⚠ IC351	I03SP46000	IC	LA4600
⚠ IC401	I03SD78410	IC	LA7841
⚠ IC402	I07K9A05T0	IC	BA05T
⚠ IC501	I2BT066240	IC	STR-F6624
⚠ IC502	I1KA978050	IC	KIA7805PI
⚠ IC506	000210001R	PHOTO COUPLER	ON3171R
⚠ IC601	I1KA978090	IC	KIA7809PI
IC701	I01FF58280	IC	AN5828NS
IC702	I0QS02245L	IC	NJM2245L
IC705	I06DF62420	IC	M62420SP
		TRANSISTORS	
Q101	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q102	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q103	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q105	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q201	TNYJB05001	COMPOUND TRANSISTOR	DTC114EKAT146
Q351	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
⚠ Q401	TDKU023350	TRANSISTOR, SILICON	2SD2335(LS)
⚠ Q402	TC3Q026210	TRANSISTOR, SILICON	2SC2621(D,E)-RAC
Q403	TPYTD03001	COMPOUND TRANSISTOR	DTA144ESTP
⚠ Q501	TC3T034680	TRANSISTOR, SILICON	2SC3468(D,E)-AE
⚠ Q502	TA3T1371A0	TRANSISTOR, SILICON	2SA1371(D,E)-AE
⚠ Q503	TCWQ4160E0	TRANSISTOR, SILICON	2SC4160-OEC-YAC11
Q504	TCST02001L	TRANSISTOR, SILICON	2SC2001(C)-T_L
Q507	TCST009450	TRANSISTOR, SILICON	2SC945(C)-T(P,Q)
Q602	TA5T010154	TRANSISTOR, SILICON	2SA1015Y(TPE2)
Q604	TA5T010154	TRANSISTOR, SILICON	2SA1015Y(TPE2)
Q605	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q701	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q702	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q703	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q704	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q705	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q706	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q707	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q708	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q709	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
⚠ Q801	TC3Q040750	TRANSISTOR, SILICON	2SC4075-YAC

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
		TRANSISTORS	
⚠ Q802	TC3Q040750	TRANSISTOR, SILICON	2SC4075-YAC
⚠ Q803	TC3Q040750	TRANSISTOR, SILICON	2SC4075-YAC
		COILS &TRANSFORMERS	
L201	021LA6100K	COIL	10 UH
L202	021673R47M	COIL	0.47 UH
L205	0336020388	COIL, VIDEO IFT	3602038
L406	021U6D180K	COIL	18 UH
⚠ L501	029X000074	COIL, LINE FILTER	SS24H-20025
⚠ L502	029K000010	COIL, LINE FILTER	29000001
⚠ L503	028H250009	COIL, DEGAUSS	8H250009 or
	028R250009	COIL, DEGAUSS	8R250009
L601	021LA6100K	COIL	10 UH
L701	021673101K	COIL	100 UH
L702	021673101K	COIL	100 UH
L704	021LA6220K	COIL	22 UH
L705	021673101K	COIL	100 UH
⚠ T401	045013001J	TRANS, HORIZONTAL DRIVE	5013001
⚠ T501	048142057W	TRANSFORMER, SWITCHING	8142057W
		JACKS	
J701	060Q471003	RCA, JACK	YKC21-7163A
J702	0602431013	RCA, JACK	JPJ1187-010010
⚠ J801	066C130015	SOCKET, CRT	CVT3275-5102
		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 RESISTORS	
VR401	V126213BT2	VOLUME, SEMI FIXED	RH0684C13R
VR502	V1263L2BTC	VOLUME, SEMI FIXED	RH063MCN2R
		P.C.BOARD ASSEMBLIES	
PCB010	A3I011H01A	PCB ASS'Y	TM9441A
PCB110	A3I011H11A	PCB ASS'Y	TC9300A
PCB250	A3I008F25A	PCB ASS'Y	TE9997A
PCB290	A3I011H29A	PCB ASS'Y	TE9998A
		MISCELLANEOUS	
B502	024AT03482	CORE, BEADS	BL02RN2-R62T4
B504	024AT03655	CORE, BEADS	BL01RN1-A63T6
B505	024AT03655	CORE, BEADS	BL01RN1-A63T6
⚠ CD501	120R614908	CORD, AC	0R614908
CD701	06CH27081A	CORD, CONNECTOR	CH27081A
CD801	068M82025A	CORD, CONNECTOR	8M82025A
CD802	122E053701	CORD, JUMPER	122E053701
CD803	122E044101	CORD, JUMPER	122E044101
CD805	068M82025A	CORD, CONNECTOR	8M82025A
CF201	102E245R71	FILTER, SAW	M1958M
CP101	069Q160058	CONNECTOR PCB SIDE	W-D2506#01
CP351	069W14T290	CONNECTOR PCB SIDE	TID-X04P-Z1BK
CP401	069W340018	CONNECTOR PCB SIDE	TS-80P-04-V1
CP501	0697320039	CORD, UX CONNECTOR	THL-P03P-B1
CP502	069W420029	CONNECTOR PCB SIDE	TV-50P-02-A1
CP701	069E270129	CONNECTOR PCB SIDE	8283_0712_00_000
CP801	069W320018	CONNECTOR PCB SIDE	TS-80P-02-V1
CP805	069W320018	CONNECTOR PCB SIDE	TS-80P-02-V1
CP806	069W010010	CONNECTOR PCB SIDE	005P-2100
CP702A	069J1I0038	CONNECTOR PCB SIDE	IMSA-9130B-18
CP702B	069J1I0048	CONNECTOR PCB SIDE	IMSA-9130S-18L
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	
⚠ DY801	027M062505	DY	7M062505
⚠ F501	081PA6R302	FUSE	23706.3
⚠ F502	080PA2R501	FUSE	23302.5-MB000
⚠ FB401	043225010F	TRANSFORMER, FLYBACK	3225010F
FH501	06710T0006	HOLDER, FUSE	EYF-52BC
FH502	06710T0006	HOLDER, FUSE	EYF-52BC
FH503	06710T0006	HOLDER, FUSE	EYF-52BC
FH504	06710T0006	HOLDER, FUSE	EYF-52BC
⚠ ICP502	083PC04002	MICRO FUSE	251004
⚠ ICP505	083PC03002	MICRO FUSE	251003
K001	129A000010	WEDGE	8115529
K002	129A000010	WEDGE	8115529
K003	129A000010	WEDGE	8115529
MG801	026A062704	MAGNET CONVERGENCE	29MMSTAR

REF. NO.	PART NO.	DESCRIPTION	
		MISCELLANEOUS	
OS101	077Q014003	REMOTE RECEIVER	PIC-28143SY-2
⚠ RY501	0560Q10114	RELAY	SDT-SS-109DM
⚠ SP351	070C533014	SPEAKER	070C533014
⚠ TH501	DF20G3R0Q0	DEGAUSS ELEMENT	PTH451C460BG3R0Q140T
TM101	076R074160	TRANSMITTER	R25-1055
⚠ TU001	0145K00050	TUNER, UHF-VHF	TECC1040PG31A
⚠ V801	0984250502	COLOR PICTURE TUBE	A63AHC26X
X101	100C32R803	CRYSTAL DSVT-200	32.767KHz
X601	100CT3R505	CRYSTAL HC-49/C	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.	M3I0-11H
O/R NO.	A993514