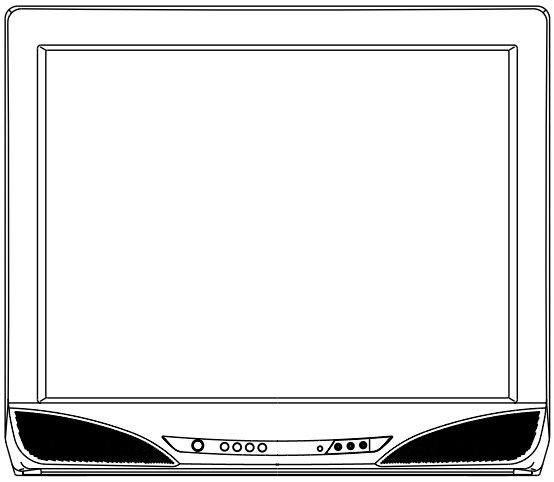
Memorex®

MT2271 (SERIES A)

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION B

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	TV System	CRT		CRT Size / Visual Size	27 inch / 675.1mmV
				CRT Type	Normal
				Deflection	111 degree
				Magnetic Field BV/BH	+0.45G/0.18G
		Color System			NTSC
		Speaker			2Speaker
				Position	Front
				Size	1.5 x 2.7 Inch
				Impedance	8 ohm
		Sound Output		MAX	2.5 + 2.5 W
				10%(Typical)	2.0 + 2.0 W
		NTSC3.58+4.43 /PAL60Hz			No
G-2	Tuning System	Broadcasting System			US System M
		Tuner and Receive CH		System	1Tuner
				Destination	Ohers
				Tuning System	F-Synth
				Input Impedance	VHF/UHF 75 ohm
				CH Coverage	2 - 69, 4A, A-5 - A-1, A - I, J - W, W+1 - W+84
		Intermediate Frequency		Picture(FP)	45.75MHz
				Sound(FS)	41.25MHz
				FP-FS	4.50MHz
		Preset CH			No
		Stereo/Dual TV Sound			Yes
		Tuner Sound Muting			Yes
G-3	Power	Power Source		AC	120V AC 60Hz
				DC	
		Power Consumption		at AC	
					115 W at AC 120 V 60 Hz
				Stand by (at AC)	8 W at AC 120 V 60 Hz
				Per Year	-- kWh/Year
		Protector		Power Fuse	Yes
G-4	Regulation			Safety	UL /CSA
				Radiation	FCC /DOC
				X-Radiation	DHHS/HWC
G-5	Temperature			Operation	+5oC ~ +40oC
				Storage	-20oC ~ +60oC
G-6	Operating Humidity				Less then 80% RH
G-7	On Screen Display	Menu			Yes
			Menu Type		Character
			Picture		Yes
				Contrast	Yes
				Brightness	Yes
				Color	Yes
				Tint	Yes
				Sharpness	Yes
			Audio		Yes
				Bass	Yes
				Treble	Yes
				Balance	Yes
				BBE On/Off	No
				Stable Sound On/Off	No
			CH Set Up		Yes
				TV/CATV	Yes
				CH Program	Yes
				Add/Erase	Yes
			Language		Yes
			V-chip		Yes
				CH Label	No
				Favorite CH	No
				Color Stream DVD/DTV	No
			Control Level		Yes
				Volume	Yes
				Brightness	Yes
				Contrast	Yes
				Color	Yes
				Tint (NTSC Only)	Yes
				Sharpness	Yes
				Tuning	No
				Bass	Yes
				Treble	Yes
				Balance	Yes
				Back Light	No
			Stereo,Audio Output,SAP		Yes
			Video		Yes
			Color Stream		No
			Channel(TV/Cable)		Yes

GENERAL SPECIFICATIONS

		CH Label		No
		Sleep Timer		Yes
		Sound Mute		Yes
		V-chip Rating		Yes
G-8	OSD Language			English French Spanish
		OSD Language Setting		English
G-9	Clock and Timer	Sleep Timer	Max Time	120 Min
			Step	10 Min
		On/Off Timer	Program(On Tim / Off Tim)	No
		Wake Up Timer		No
		Timer Back-up (at Power Off Mode)	more than	-- Min Sec
G-10	Remote Control	Unit		RC-DW
		Glow in Dark Remocon		No
		Format		NEC
		Custom Code		86-05 h
		Power Source	Voltage(D.C)	3V
			UM size x pcs	UM-4 x 2 pcs
		Total Keys		28 Keys
		Keys	Power	Yes
			1	Yes
			2	Yes
			3	Yes
			4	Yes
			5	Yes
			6	Yes
			7	Yes
			8	Yes
			9	Yes
			0	Yes
			100	No
			CH Up	Yes
			CH Down	Yes
			Volume Up	Yes
			Volume Down	Yes
			TV/Caption/Text	Yes
			CH1/CH2	Yes
			TV/Video(TV/AV)	Yes
			CH RTN/CH ENT(Quick View)	Yes
			Sleep	Yes
			RE Call(Call)	Yes
			Reset	Yes
			Menu	Yes
			Enter	Yes
			Mute	Yes
			Exit	No
			MTS(Audio Select)	Yes
			Set +	Yes
			Set -	Yes
		Multi Brand Keys	CH Up(VCR)	No
			CH Down(VCR)	No
			Pause/Still	No
			TV/VCR(VCR)	No
			Code	No
			CH Enter	No
			MBR Set	No
			FF	No
			Rew	No
			Rec	No
			Play	No
			Stop	No
			TV	No
			VCR	No
			Cable	No
G-11	Features	Auto Degauss		Yes
		Auto Shut Off		Yes
		Canal+		No
		CATV		Yes
		Anti-theft		No
		Rental		No
		Memory(Last CH)		Yes
		Memory(Last Volume)		Yes
		V-Chip		Yes
			Type	USA,ORION Type
		BBE		No
		Auto Search		No
		CH Allocation		No
		SAP		Yes

GENERAL SPECIFICATIONS

		Channel Lock			No
		Just Clock Function			No
		Game Position			No
		CH Label			No
		VM Circuit			No
		Full OSD			No
		Premiere			No
		Comb Filter			No Lines
		Auto CH Memory			Yes
		Hotel Lock			No
		Closed Caption			Yes
		Stable Sound			No
		Favorite CH			No
G-12	Accessories	Owner's Manual		Language	English/FRENCH
				w/Guarantee Card	Yes
		Remote Control Unit			Yes
		Rod Antenna			No
				Poles	
				Terminal	
		Loop Antenna			No
				Terminal	
		U/V Mixer			No
		DC Car Cord (Center+)			No
		Guarantee Card			No
		Warning Sheet			No
		Circuit Diagram			No
		Antenna Change Plug			No
		Service Facility List			No
		Important Safeguard			No
		Dew/AHC Caution Sheet			No
		AC Plug Adapter			No
		Quick Set-up Sheet			No
		Battery			No
				UM size x pcs	
				OEM Brand	No
		AC Cord			No
		AV Cord (2Pin-1Pin)			No
		Registration Card			No
		PTB Sheet			No
		300 ohm to 75 ohm Antenna Adapter			No
G-13	Interface	Switch	Front	Power	Yes
				System Select	No
				Main Power SW	No
				Sub Power	No
				Channel Up/Reset	Yes
				Channel Down/Enter	Yes
				Volume Up/Set Up	Yes
				Volume Down/Set Down	Yes
				Menu: Vol Up + Vol Down	Yes
			Rear	AC/DC	No
				TV/CATV Selector	No
				Degauss	No
				Main Power SW	No
		Indicator		Power	No
				Stand-by	No
				On Timer	No
		Terminals	Front	Video Input	RCA
				Audio Input	RCA x 2
				Other Terminal	No
			Rear	Video Input(Rear1)	RCA
				Video Input(Rear2)	No
				Audio Input(Rear1)	RCA x 2
				Audio Input(Rear2)	No
				Video Output	RCA
				Audio Output	RCA x 2
				Euro Scart	No
				Color Stream	No
				Diversity	No
				Ext Speaker	No
				DC Jack 12V(Center +)	No
				VHF/UHF Antenna Input	F Type
				AC Outlet	No
G-14	Set Size			Approx. W x D x H (mm)	650 x 478 x 560
G-15	Weight			Net (Approx.)	35kg (77.6 lbs)
				Gross (Approx.)	38Kg (84.3 lbs)
G-16	Carton		Master Carton		No

GENERAL SPECIFICATIONS

			Content	---- Sets
			Material	-- /--
			Dimensions W x D x H(mm)	-- x -- x --
			Description of Origin	No
		Gift Box		Yes
			Material	Double/WHITE CORRUGATED CARTON
			Dimensions W x D x H(mm)	718 x 558 x 655
			Design	As per Buyer's
			Description of Origin	Yes
		Drop Test		Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces
			Height (cm)	31
		Container Stuffing		198 Sets/40' container
G-17	**Cabinet Material**		Cabinet Front	PS 94V0 DECABROM
			Cabinet Rear	PS 94V0

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.

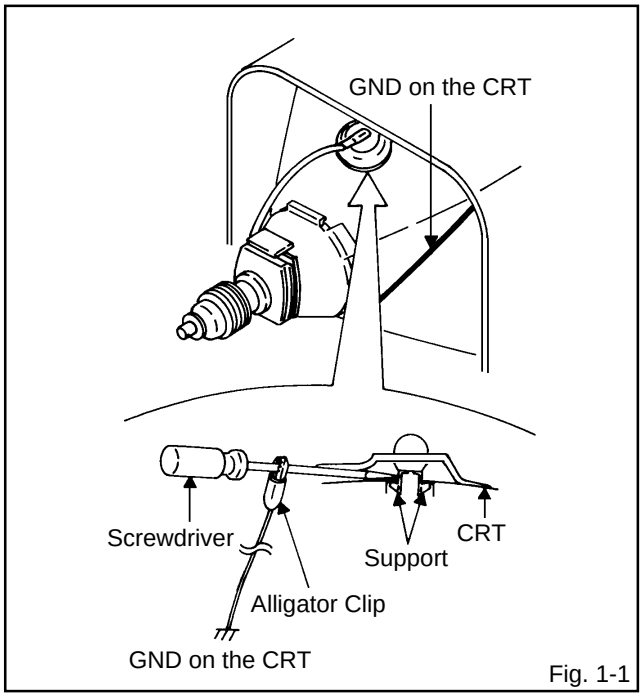


Fig. 1-1

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.)**

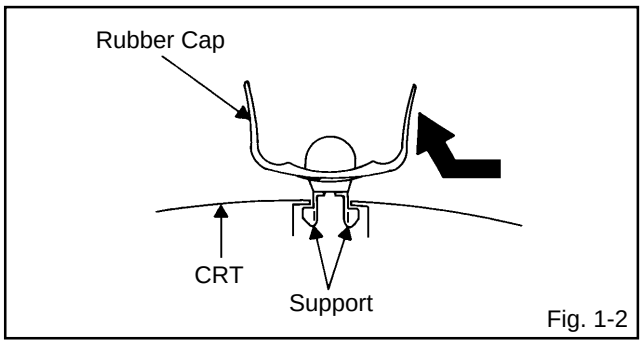


Fig. 1-2

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.)**

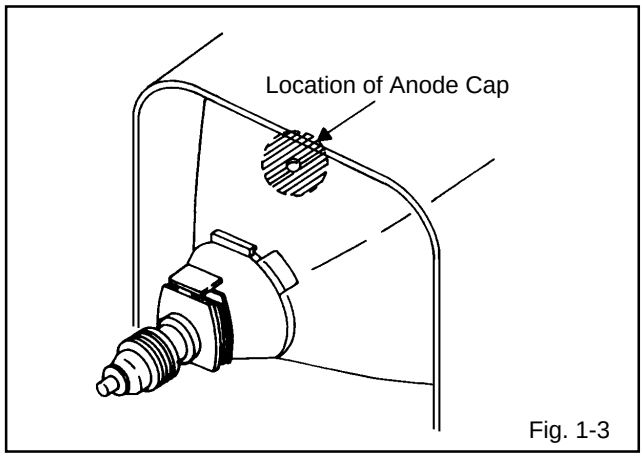


Fig. 1-3

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.)**

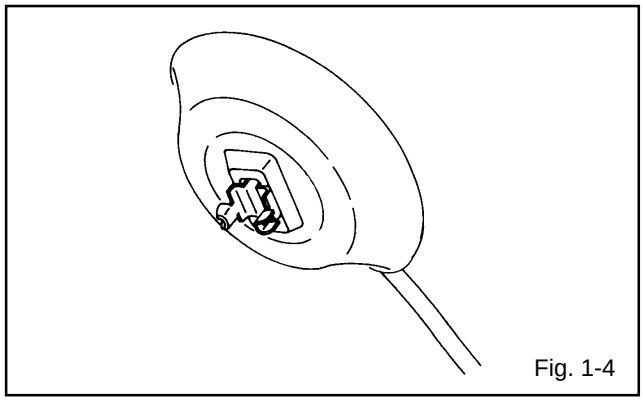


Fig. 1-4

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

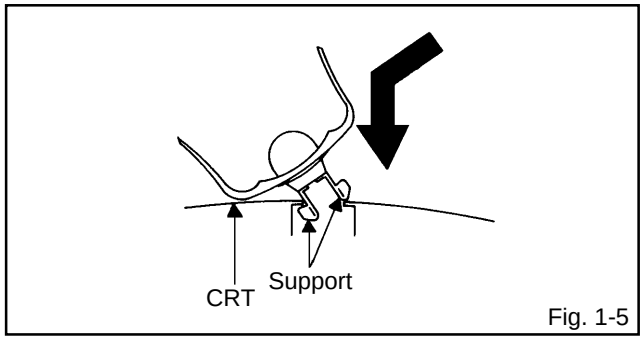


Fig. 1-5

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

DISASSEMBLY INSTRUCTIONS

2. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put the Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. **(Refer to Fig. 2-1.)**

   NOTE

   Masking is carried out on all the parts located within 10 mm distance from IC leads.

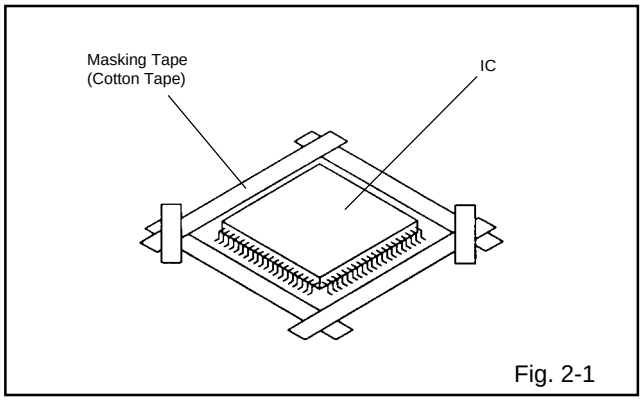


Fig. 2-1

2. Heat the IC leads using a blower type IC desoldering machine. **(Refer to Fig. 2-2.)**

   NOTE

   Do not add the rotating and the back and forth directions force on the IC, until IC can move back and forth easily after desoldering the IC leads completely.

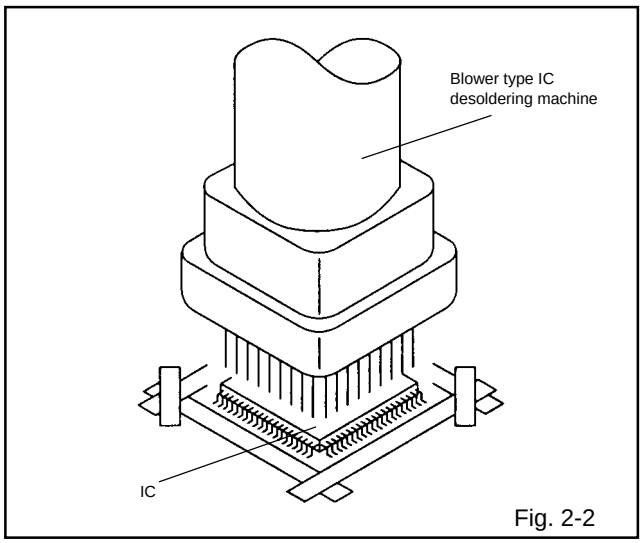


Fig. 2-2

3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a tweezers and remove the IC by moving with the IC desoldering machine. **(Refer to Fig. 2-3.)**

   NOTE

   Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.

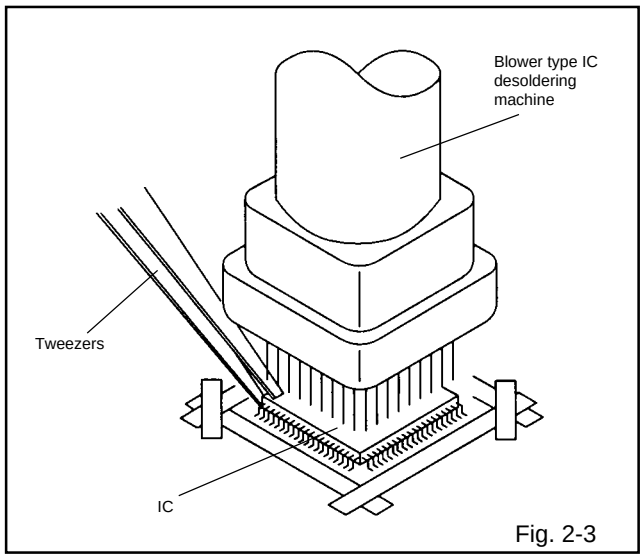


Fig. 2-3

4. Peel off the Masking Tape.

5. Absorb the solder left on the pattern using the Braided Shield Wire. **(Refer to Fig. 2-4.)**

   NOTE

   Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.

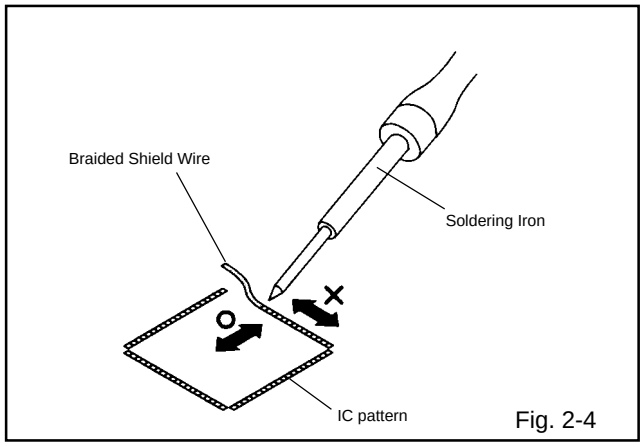


Fig. 2-4

DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. **(Refer to Fig. 2-5.)**

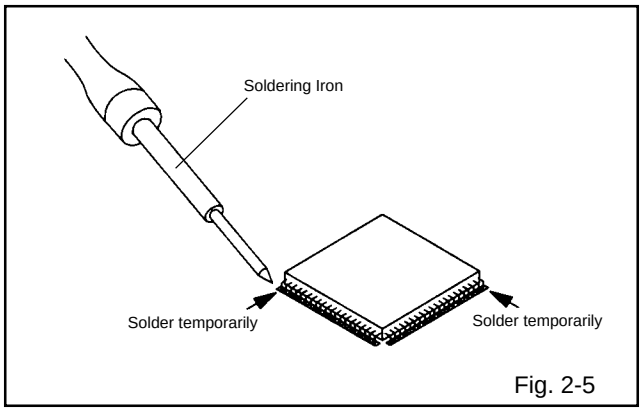


Fig. 2-5

2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. **(Refer to Fig. 2-6.)**

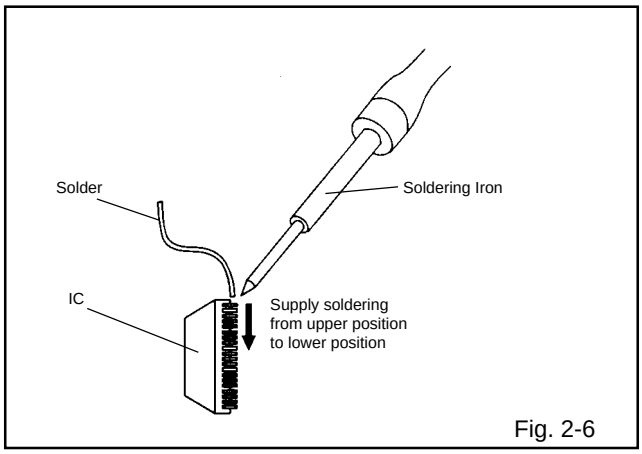


Fig. 2-6

3. Absorb the solder left on the lead using the Braided Shield Wire. **(Refer to Fig. 2-7.)**

   NOTE

   Do not absorb the solder to excess.

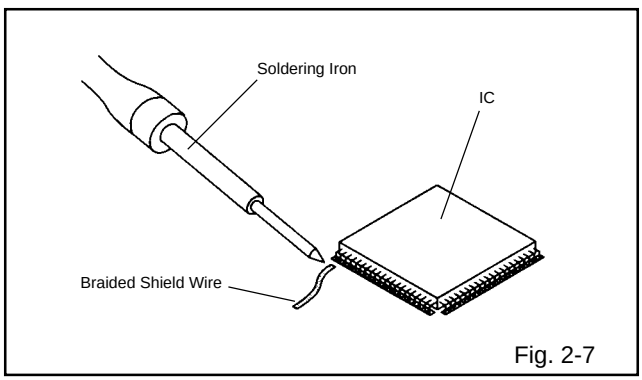


Fig. 2-7

4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. **(Refer to Fig. 2-8.)**

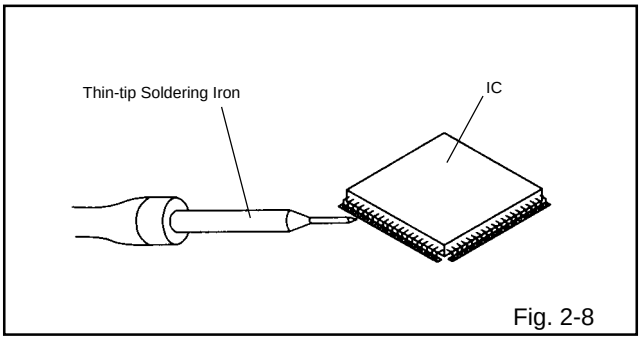


Fig. 2-8

5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass.
   Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

   NOTE

   When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, be always sure to replace the IC in this case.

SERVICE MODE LIST

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

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

CONFIRMATION OF USING HOURS

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

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

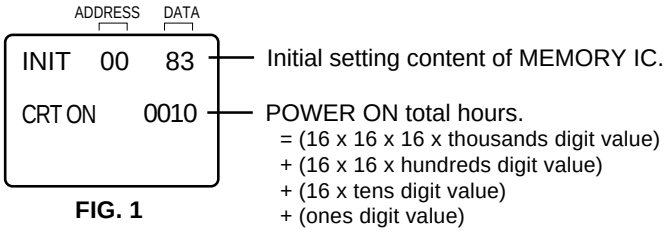


FIG. 1

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.

INI	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A
70	88	5A	A2	39	02	63	24	3B	A3	20	FF

Table 1

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

The unit will now have the correct DATA for the new MEMORY IC.

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.

Prepare the following measurement tools for electrical adjustments.

1. Synchro Scope
2. Digital Voltmeter

On-Screen Display Adjustment

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

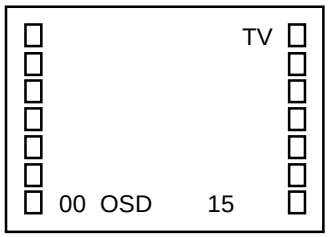


Fig. 1-1

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

NO.	FUNCTION	NO.	FUNCTION
00	OSD H	13	BRIGHTNESS
01	CUT OFF	14	CONTRAST
02	RF AGC DELAY	15	COLOR
03	VIF VCO	16	TINT
04	H VCO	17	SHARPNESS
05	H PHASE	18	FM LEVEL
06	V SIZE	19	LEVEL
07	V SHIFT	20	SEPARATION 1
08	R DRIVE	21	SEPARATION 2
09	B DRIVE	22	TEST MONO
10	R BIAS	23	TEST STEREO
11	G BIAS	24	X-RAY TEST
12	B BIAS		

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: RF AGC DELAY

1. Receive an 60dB monoscope pattern.
2. Connect the digital voltmeter to **TP001 (R606)**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(02)** on the remote control to select "RF AGC DELAY".
4. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 2.65 ± 0.05V.

2-2: CUT OFF

1. Adjust the unit to the following settings.
   R.DRIVE=73, B.DRIVE=61, R.BIAS=88, G.BIAS=74, B.BIAS=73, BRIGHTNESS=124, CONTRAST=100
2. Place the set with Aging Test for more than 15 minutes.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(01)** on the remote control to select "CUT OFF".
4. Adjust the **Screen Volume** until a dim raster is obtained.

2-3: FOCUS

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

2-4: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustment.

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

2-5: SUB TINT/SUB COLOR

1. Receive the color bar pattern. (RF Input)
2. Connect the oscilloscope to **TP023**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(16)** on the remote control to select "TINT".
4. Press the VOL. UP/DOWN button on the remote control until the section "A" becomes as straight line. **(Refer to Fig. 2-1)**
5. Connect the oscilloscope to **TP022**.
6. Press the CH DOWN button once to set to "COLOR" mode. Press the VOL. UP/DOWN button on the remote control
7. until the red color level is adjusted to 110% of the white level. **(Refer to Fig. 2-2)**
   Receive the color bar pattern. (Audio Video Input)
8. Press the TV/AV button on the remote control to set to
9. the AV mode. Then perform the above adjustments 2~7.

ELECTRICAL ADJUSTMENTS

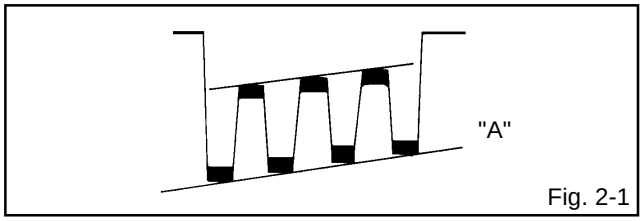


Fig. 2-1

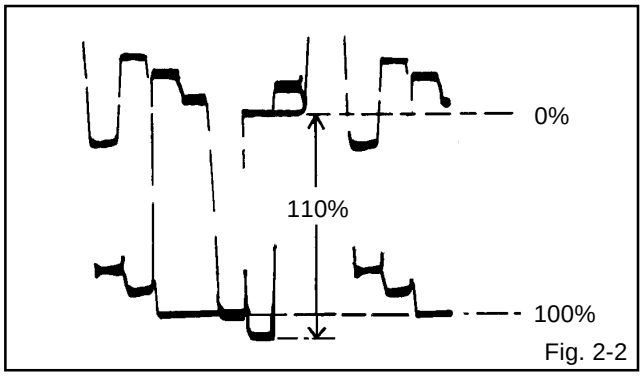


Fig. 2-2

2-6: HORIZONTAL PHASE

1. Receive the center cross signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(05)** on the remote control to select "H.PHASE".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.

2-7: VERTICAL SIZE

NOTE: Adjust after performing adjustments in section 2-6

1. Receive the center cross signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(06)** on the remote control to select "V.SIZE".
4. Press the VOL. UP/DOWN button on the remote control until the rectangle on the center of the screen becomes square.
5. Receive a broadcast and check if the picture is normal.

2-8: VERTICAL SHIFT

NOTE: Adjust after performing adjustments in section 2-7

1. Receive the center cross signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(07)** on the remote control to select "V.SHIFT".
4. Press the VOL. UP/DOWN button on the remote control until the horizontal line becomes fit to the notch of the shabow mask.

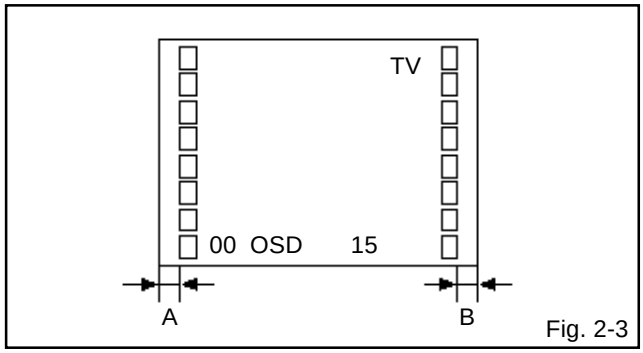


Fig. 2-3

2-9: OSD HORIZONTAL

1. Activate the adjustment mode display of **Fig. 1-1.**
2. Press the VOL. UP/DOWN button on the remote control until the difference of A and B becomes minimum. **(Refer to Fig. 2-3)**

2-10: VERTICAL VCO

1. Place the set with Aging Test for more than 15 minutes.
2. Receive an 80dB monoscope pattern.
3. Connect the digital voltmeter to **pin 5 of CP601.**
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(03)** on the remote control to select "VIF VCO".
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 2.5V.

2-11: CONTAST VOLTAGE

1. Using the remote control, set the brightness and contrast to normal position.
2. Connect the digital voltmeter to **TP402**.
3. Set condition is AV MODE without signal.
4. Adjust the **VR502** until the digital voltmeter is 130 ± 1V.

2-12: SEPARATION 1, 2

1. Receive the stereo broadcasting signal.
2. Connect the AC voltmeter to **CP351** through stereo filter (L=400Hz, R=2KHz).
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(20)** on the remote control to select "SEPARATION 1".
4. Press the VOL. UP/DOWN button on the remote control unit the output of L-CH and R-CH becomes minimum.
5. Press the CH UP button once to set to "SEPARATION 2" mode.
6. Press the VOL. UP/DOWN button on the remote control unit the output of L-CH and R-CH becomes minimum.

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.

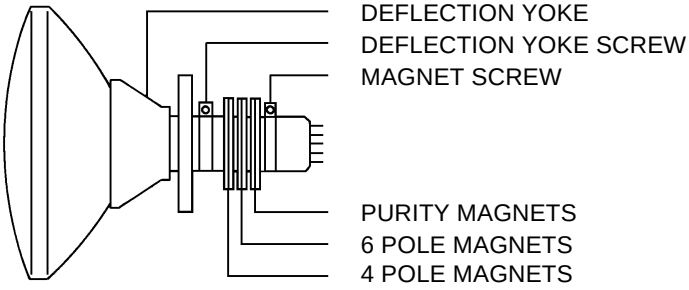


Fig. 3-1

3-3: STATIC CONVERGENCE

NOTE

Adjust after performing adjustments in section 3-2.

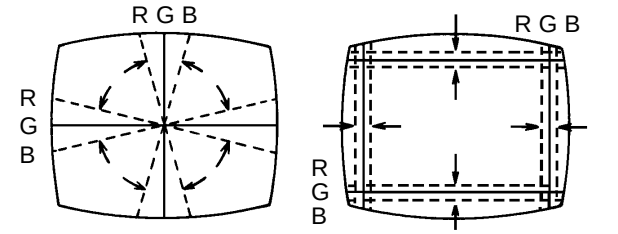
1. Receive the crosshatch pattern from the color bar generator.
2. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

3-4: DYNAMIC CONVERGENCE

NOTE

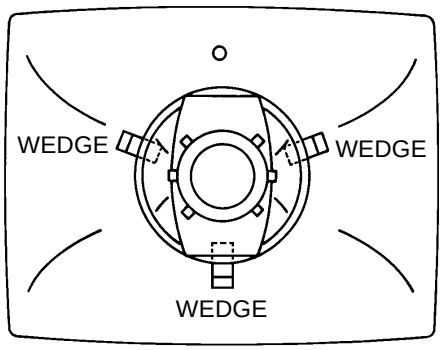
Adjust after performing adjustments in section 3-3.

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

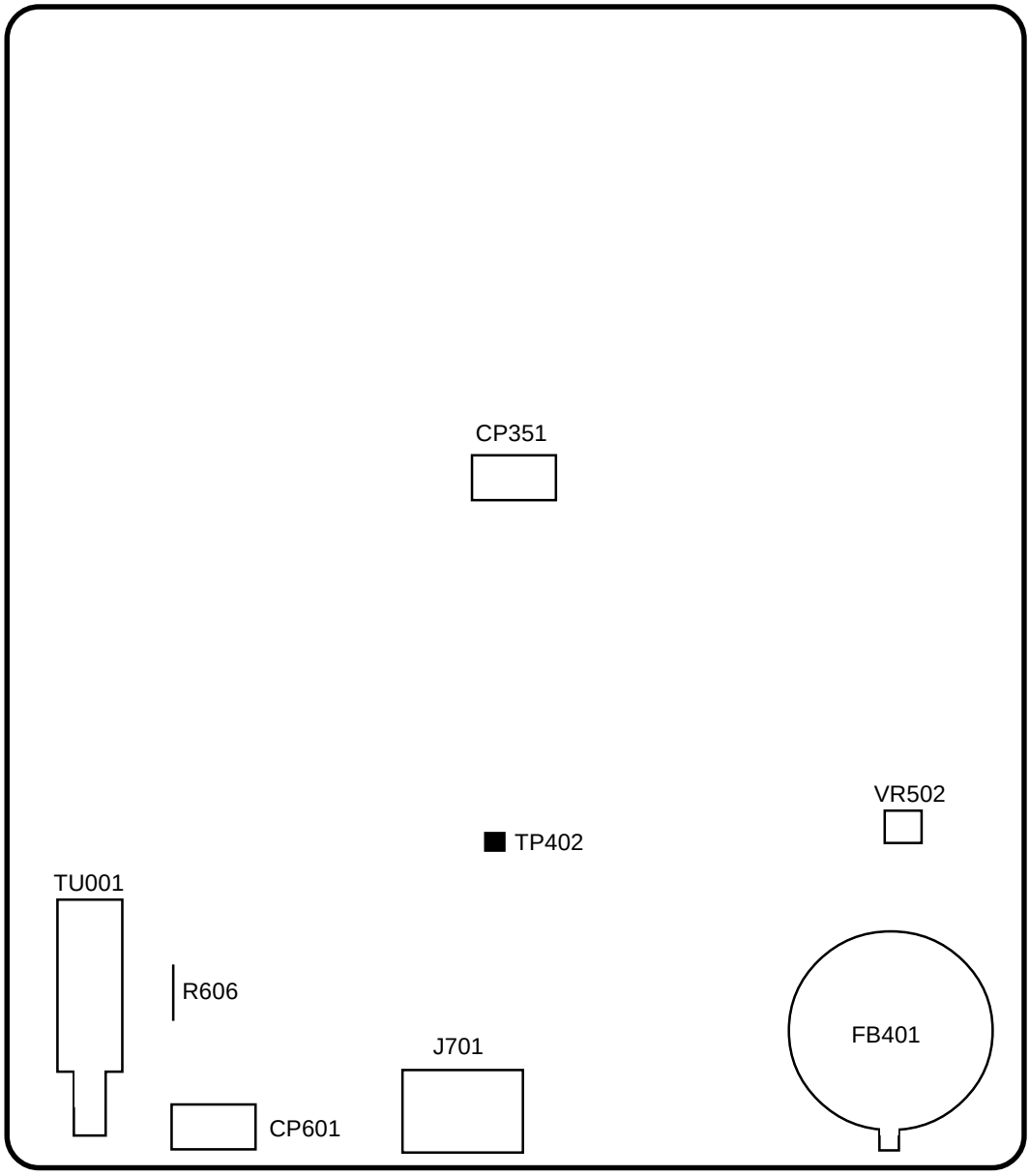
Fig. 3-2-a



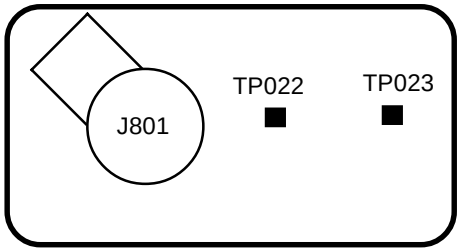
WEDGE POSITION

Fig. 3-2-b

MAJOR COMPONENTS LOCATION GUIDE

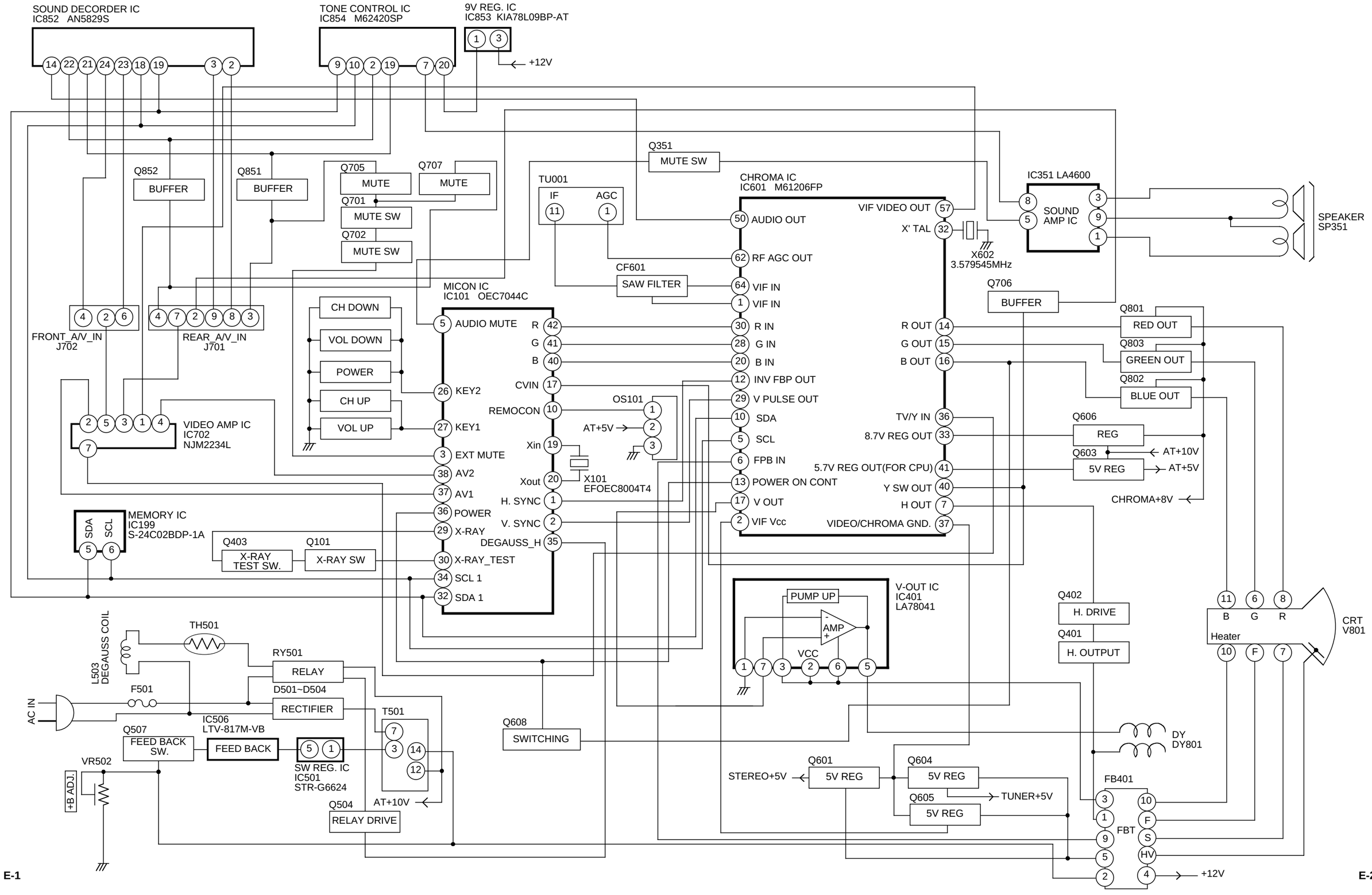


MAIN PCB



CRT PCB

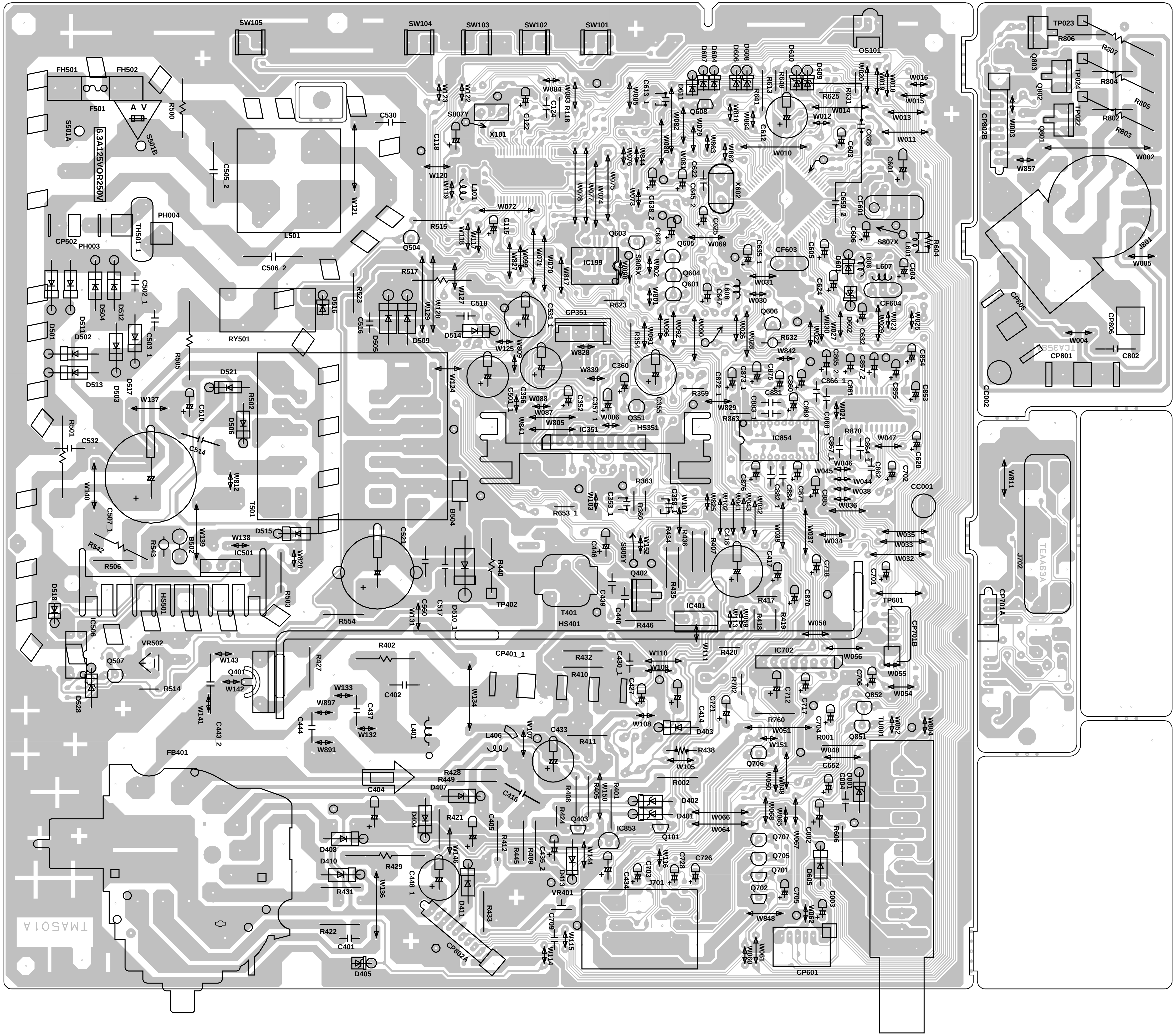
BLOCK DIAGRAM



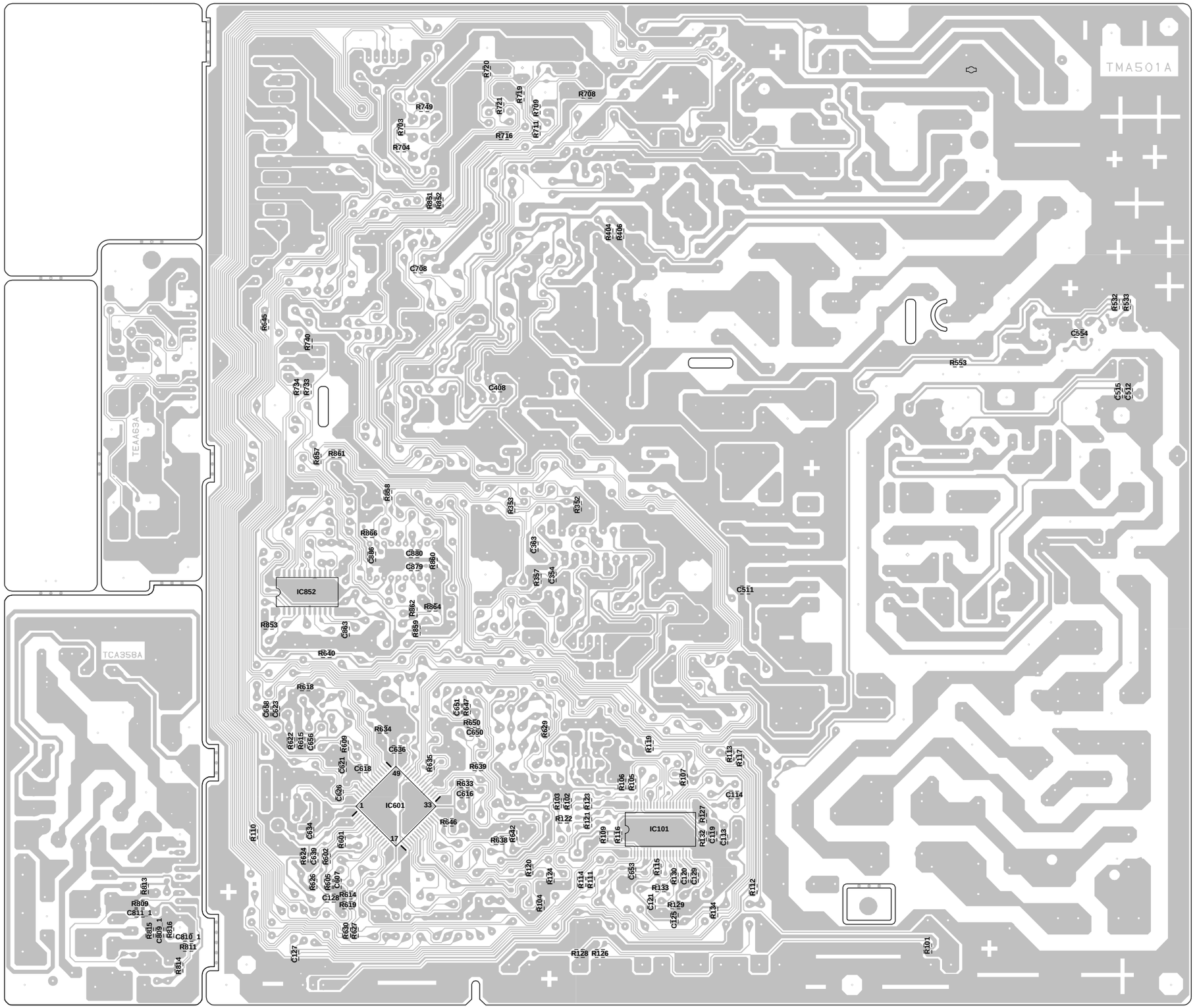
E-1

E-2

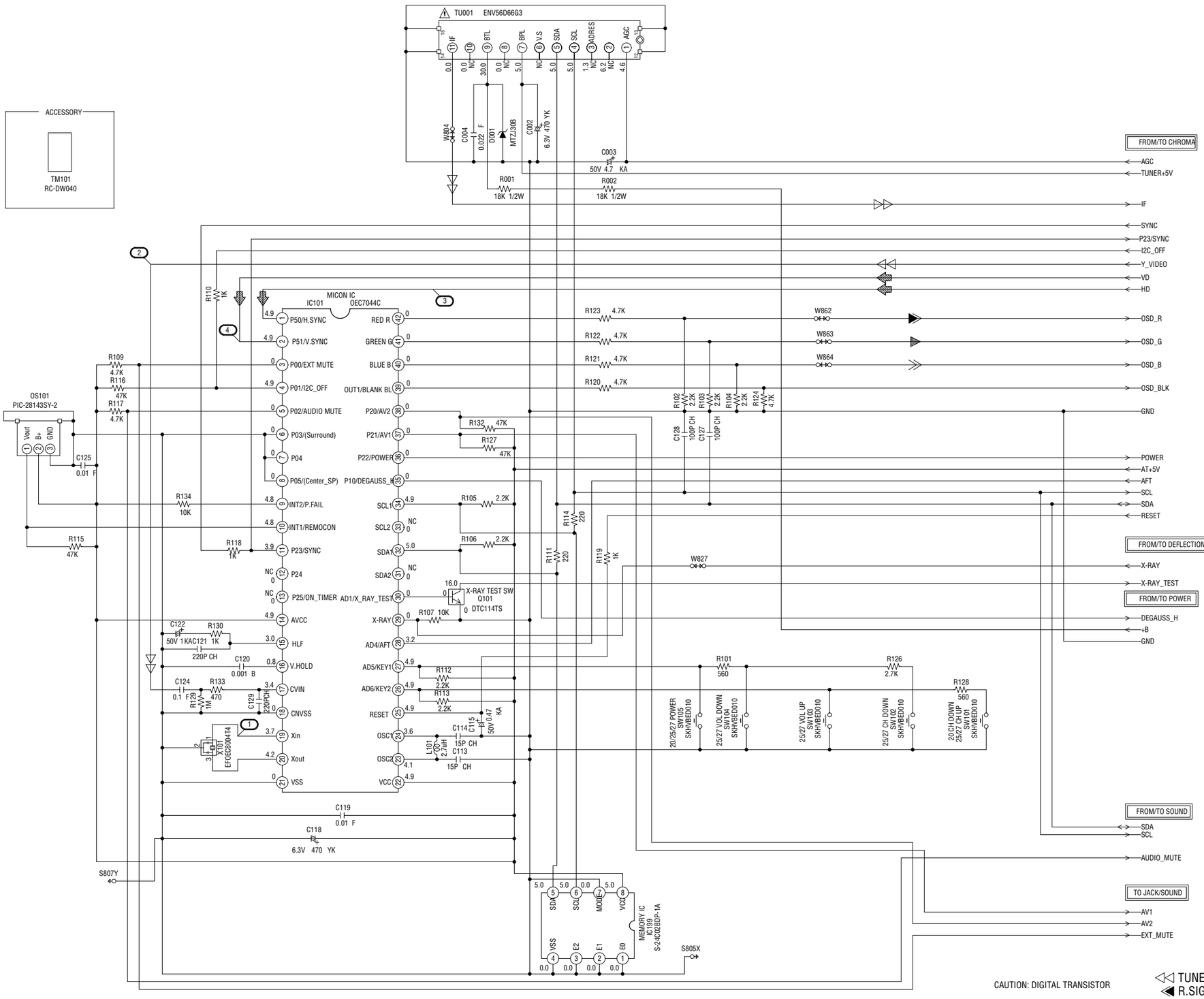
PRINTED CIRCUIT BOARDS
MAIN/CRT/AV (INSERTED PARTS)
SOLDER SIDE



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



MICON/TUNER SCHEMATIC DIAGRAM (MAIN PCB)



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

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

CHROMA SCHEMATIC DIAGRAM (MAIN PCB)

FROM POWER
AT+10V
GND
TO JACK/SOUND
AT+10V
TO SOUND
STEREO+5V
TU_AUDIO_OUT
FROM/TO MICON/TUNER
P23/SYNC
IF
Y_VIDEO
AT+5V
SYNC
TUNER+5V
RESET
AFT
AGC
GND
HD
POWER
OSD_B
OSD_BLK
OSD_G
VD
OSD_R
I2C_OFF
SDA
SCL
FROM/TO JACK/SOUND
Y_VIDEO
VIDEO_IN
VIDEO
FROM/TO DEFLECTION/CRT
FBT+8V
V_OUT
ABCL
V_FEEDBACK
GND
H_OUT
H_SYNC
B.OUT
G.OUT
R.OUT
CLAMP
TEST POINT
CP601
TKC-M06X-A1
VIDEO 6
INT.MONI 5
IIC_OFF 4
SDA 3
SCL 2
GND 1
5V REG Q601 KTC3203_Y
5V REG Q604 2SD734
5V REG Q605 KTC3203_Y
REG Q606 KTC3203_Y
5V REG Q603 KTC3203_Y
CF604 TPSRA4M50C00-A0
CF603 SFSH4.5MCB
SAW FILTER CF601 SAFGP45M7VHCZR
CHROMA IC IC601 M61206FP
SWITCHING Q608 DTC114ES
W801
W802
W817
W830
W844
S807X
X602 100CT3R505
L601 1.2uH
L606 2.2uH
L607 15uH
L608 6.8uH
D601 1SS133
D602 MTZJ8.2B
D604 1SS133
D605 11E1-EIC
D606 MTZJ9.1B
D607 1SS133
D608 MTZJ9.1B
D609 MTZJ9.1B
D610 MTZJ6.8B
D611 1SS133
R601 2.2K
R602 1K
R604 2.2K
R605 5.6K
R606 10K
R609 330
R610 100 1/4W
R612 10
R613 100
R614 2.2K
R615 470
R618 10M
R619 2.2K
R622 68
R623 120 1/4W
R624 2K
R625 2.2K 1/4W
R626 10K
R627 100
R629 27
R630 100
R631 100 1/4W
R632 100 1/2W
R633 8.2K
R634 10K
R635 100
R638 12K
R639 100
R641 22K 1/4W
R642 8.2K
R645 10
R646 39K
R647 220
R648 100 1/4W
R650 270
R653_1 560 1/4W
C604
C606 50V 0.22 KA
C612 10V 1000 YK
C613_1 1 TF
C616 15P CH
C618 22P CH
C620 50V 4.7 KA
C621 0.01 F
C622 0.015 M
C623 100P CH
C624 16V 47 YK
C625 50V 1 KA
C626 0.001 B
C627 50V 0.47 KA
C628 0.001 B
C632 50V 2.2 KA
C634 0.01F
C635_116V47 YK
C636 0.01 B
C638_2 16V 33 KA
C639 0.01 B
C640_1 16V 47 YK
C645_2 16V 47 KA
C647 50V 1 KA
C650 220P CH
C651 47P CH
C652 50V 1 KA
C653 100P CH
C656 100P CH
C658 0.001 CH 50V 1 KA
C659_2 470P B
C601 6.3V 1000 YK
C603 50V 1 KA
C607 0.01 F
C640 16V 47 YK
W810
64 VIF IN (1)
1 VIF IN (2)
17 V OUT
16 B OUT
46 SW REG CONT
47 LIMITER IN
48 IF AGC
49 QIF OUT
34 EXT C in
33 8.7V REG OUT
32 X'TAL
1 AUDIO OUT
2 AUDIO BYPASS
3 EXT AUDIO IN
4 FM DIRECT OUT
5 VIF VCO F/B
6 VREG Vcc
7 VIF APC FILTER
8 VIF VIDEO OUT
9 VIF GND
10 AFT OUT
11 QIF IN
12 RF AGC OUT
13 RF AGC FILTER
14 VIF Vcc
15 H VCO F/B
16 SCL
17 FBP IN
18 H OUT
19 DEF
20 SDA
21 AFC FILTER
22 INV FBP OUT
23 POWER ON CONT
24 R OUT
25 G OUT
26 B OUT
27 Hi Vcc
28 INTELLIGENT MONI
29 MCU RESET
30 5.7V REG OUT(FOR CPU)
31 Y SW OUT
32 5v REG
33 VIDEO/CHROMA GND
34 TV/Y IN
35 CHROMA APC FILTER
36 ACL/ABCL
37 R IN
38 V PULSE OUT
39 G IN
40 FAST BLK
41 SPOT KILLER
42 fsc OUT
43 VIDEO CHROMA Vcc
44 V RAMP CAP
45 V RAMP FEEDBACK
46 B IN
47 STRAT UP Vcc
48 NC

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 。

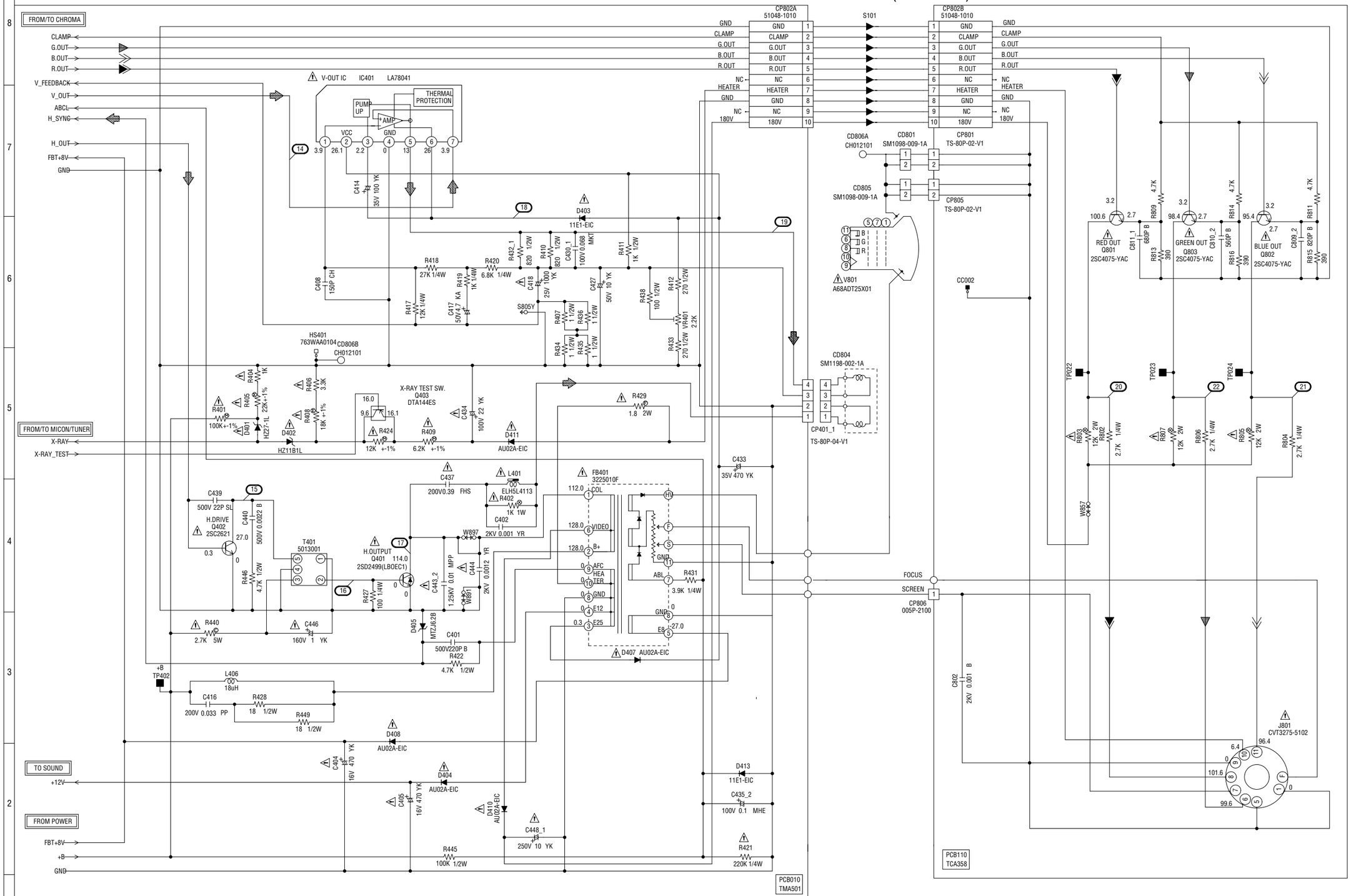
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: DIGITAL TRANSISTOR

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

PCB010
TMA501

DEFLECTION/CRT SCHEMATIC DIAGRAM (MAIN PCB)



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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: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

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

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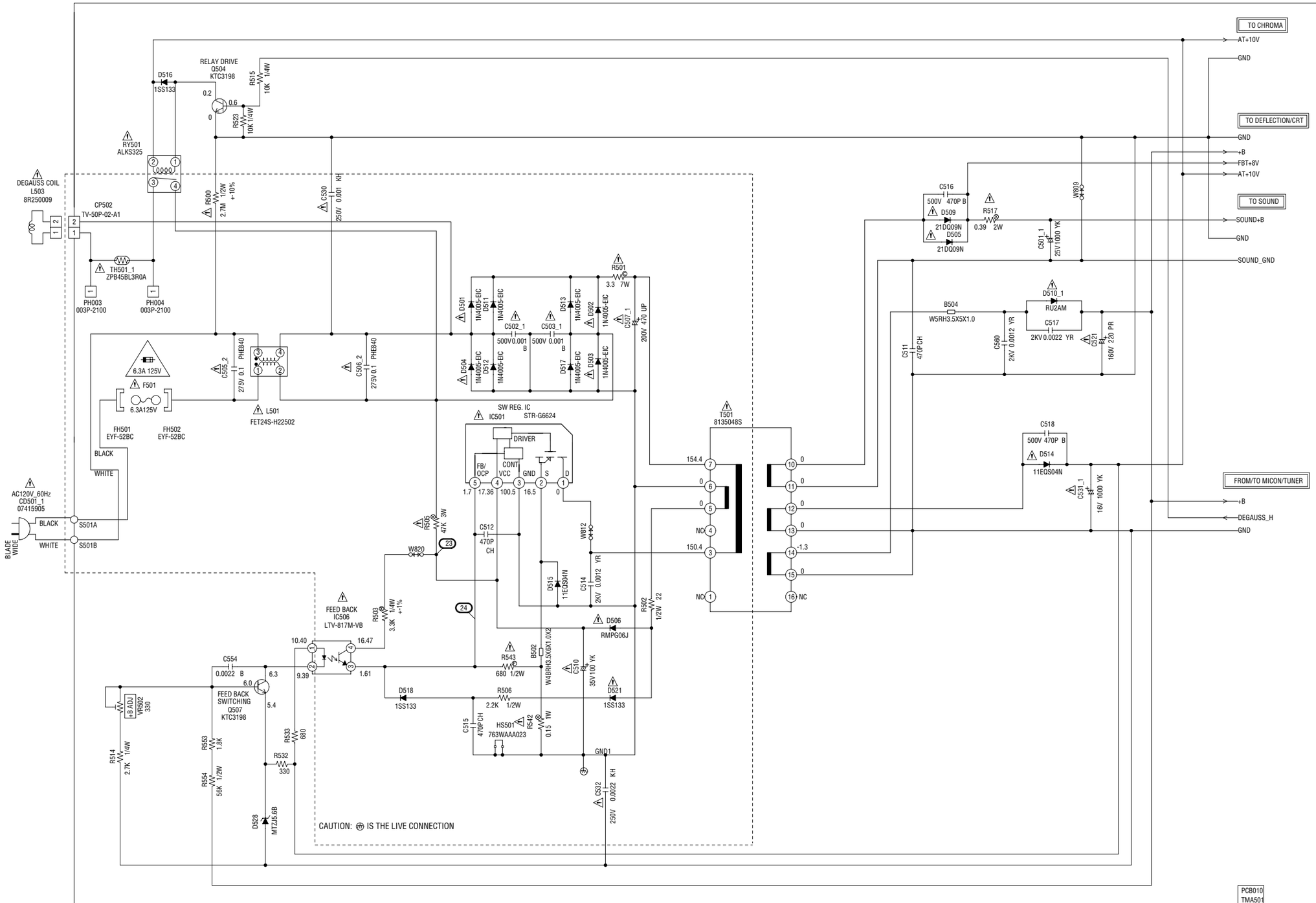
CAUTION: DIGITAL TRANSISTOR

◀ R.SIGNAL
◀ G.SIGNAL
≪ B.SIGNAL
◀▨ DEFLECTION SIGNAL

POWER SCHEMATIC DIAGRAM
(MAIN PCB)



6.3A 125V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 6.3A 125V(F501)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 6.3A 125V(F501)

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

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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.

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

SOUND SCHEMATIC DIAGRAM
(MAIN PCB)

FROM/TO MICON/TUNER
SCL
SDA
AUDIO_MUTE
FROM/TO JACK/SOUND
REAR_AUDIO_R
REAR_AUDIO_L
FRONT_AUDIO_R
FRONT_AUDIO_L
AUDIO_OUT_R
AUDIO_OUT_L
P.CON+5V
GND
FROM POWER
SOUND+B
GND
SOUND_GND
FROM CHROMA
TU_AUDIO_OUT
STEREO+5V
FROM DEFLECTION/CRT
+12V
AUDIO TP601
BUFFER Q851 2SA1015Y
BUFFER Q852 2SA1015Y
SOUND DECORDER IC IC852 AN5829S
9V REG IC IC853 KIA78L09BP-AT
TONE CONTROL IC IC854 M62420SP
SOUND AMP IC IC351 LA4600
MUTE SW. Q351 KTC3198
CP351 TID-X04P-Z1
SPEAKER SP351 SO509F12 8OHM 2.5Wx2
SOUND_R
SOUND_L
I2C BUS INTERFACE
CONTROL LOGIC
TONE AMP1
TONE AMP2
SIMAMP1
SIMAMP2
VOLAMP
PCB010
TMA501

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

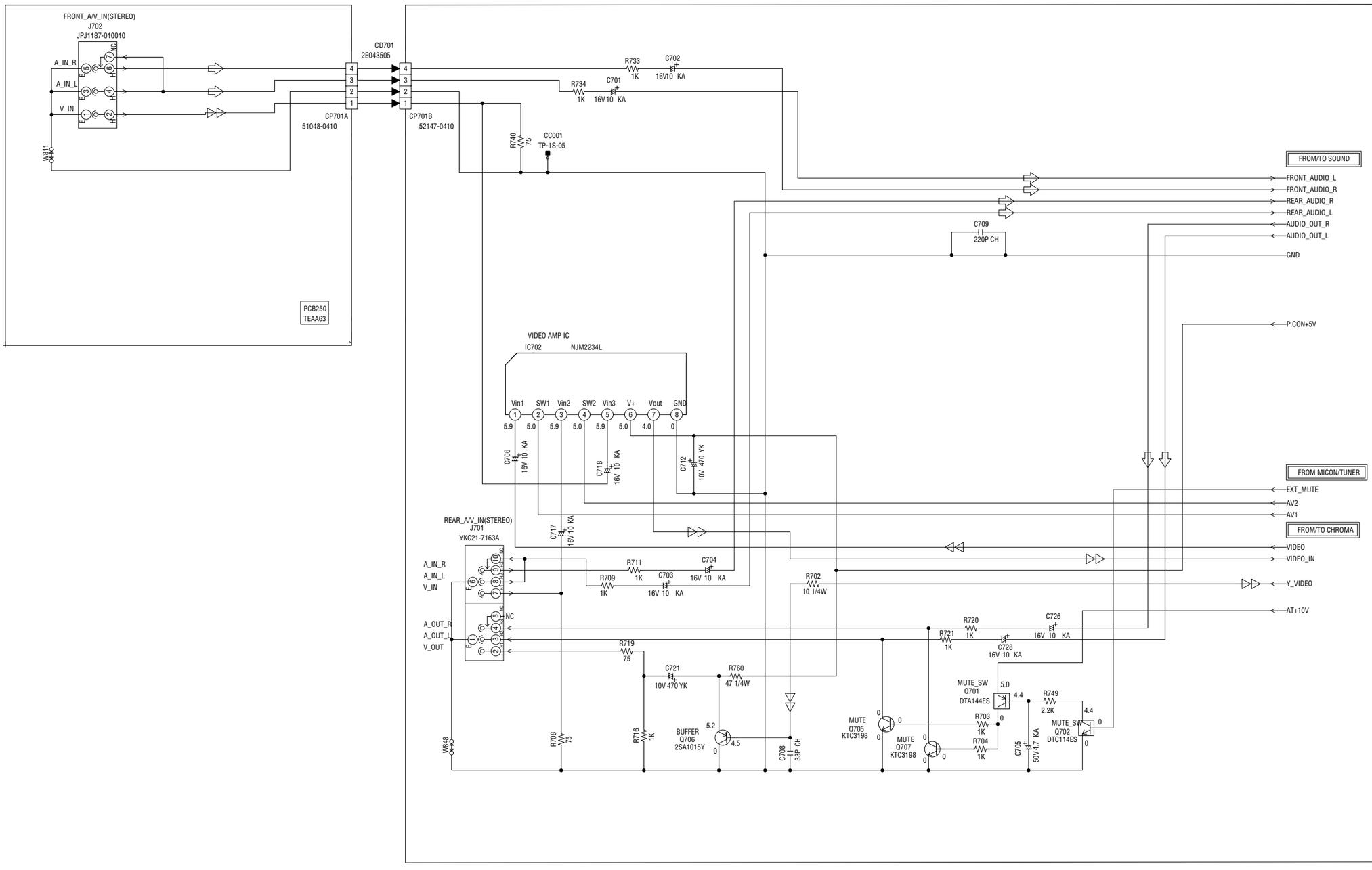
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

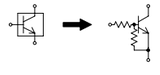
JACK/SOUND SCHEMATIC DIAGRAM
(MAIN PCB)



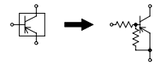
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

CAUTION: DIGITAL TRANSISTOR



CAUTION: DIGITAL TRANSISTOR

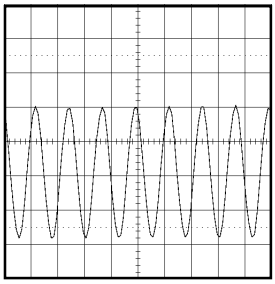


⇦ AUDIO SIGNAL

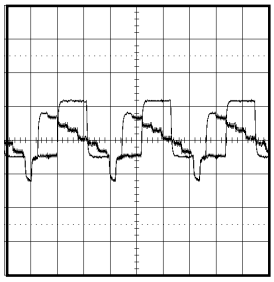
◁◁ TUNER VIDEO SIGNAL

WAVEFORMS

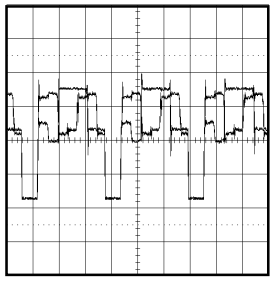
MICON/TUNER



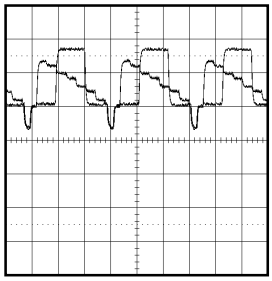
① 1V 0.1µs/div



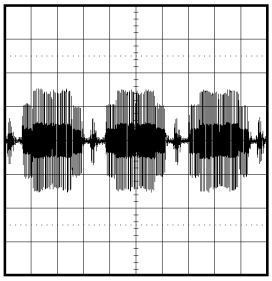
⑥ 0.5V 20µs/div



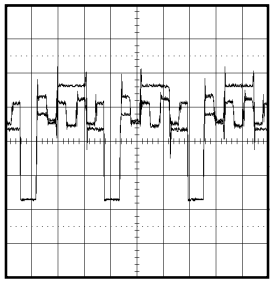
⑪ 1V 20µs/div



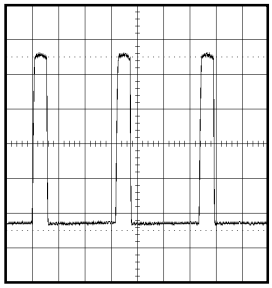
② 0.5V 20µs/div



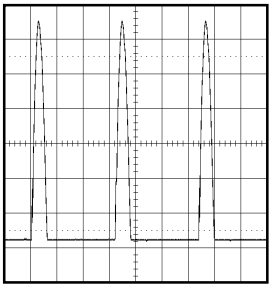
⑦ 200mV 20µs/div



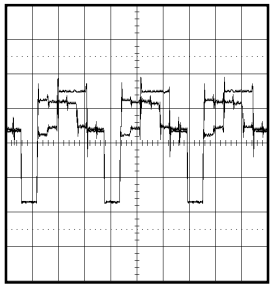
⑫ 1V 20µs/div



③ 200mV 20µs/div

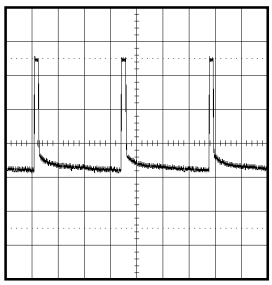


⑧ 20V 20µs/div

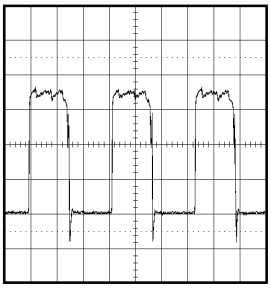


⑬ 1V 20µs/div

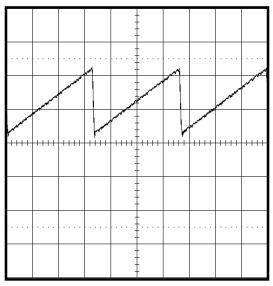
DEFLECTION/CRT



④ 200mV 5ms/div

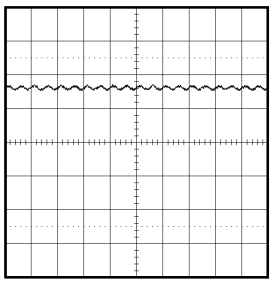


⑨ 200mV 20µs/div

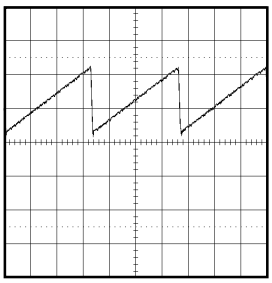


⑭ 0.5V 5ms/div

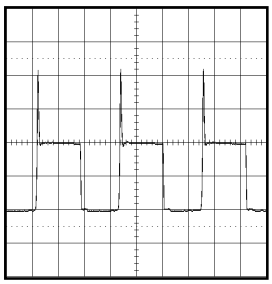
CHROMA



⑤ 0.5V 2ms/div



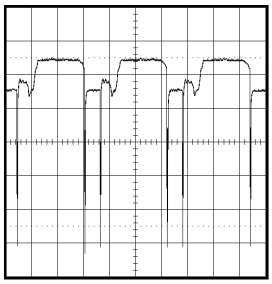
⑩ 0.5V 5ms/div



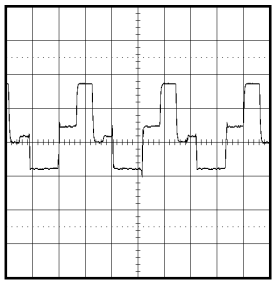
⑮ 20V 20µs/div

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

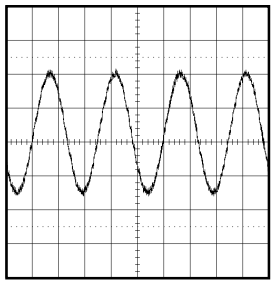
WAVEFORMS



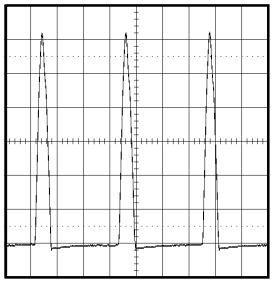
⑯ 2V 20µs/div



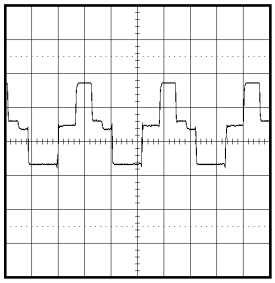
㉑ 50V 20µs/div



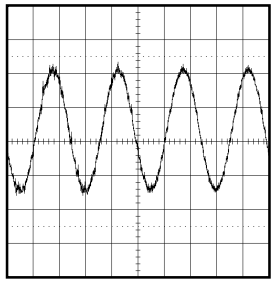
㉖ 200mV 1ms/div



⑰ 200V 20µs/div

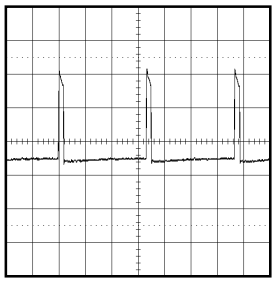


㉒ 50V 20µs/div

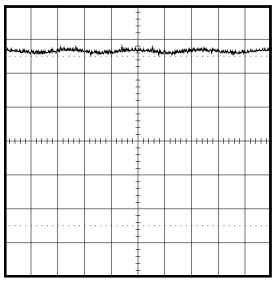


㉗ 200mV 1ms/div

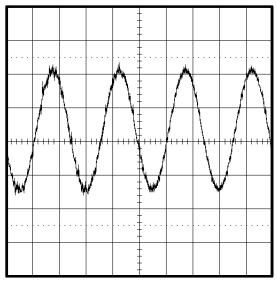
POWER



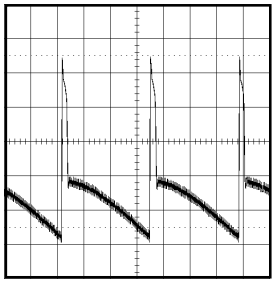
⑱ 10V 5ms/div



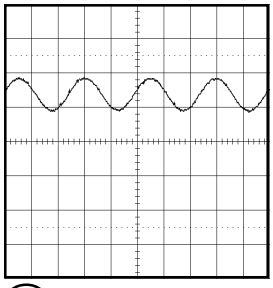
㉓ 0.5V 1ms/div



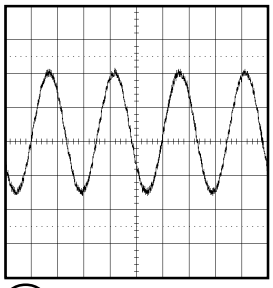
㉘ 200mV 1ms/div



⑲ 10V 5ms/div

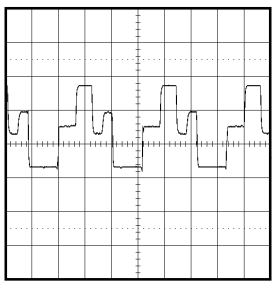


㉔ 1V 1ms/div

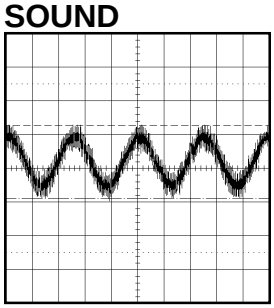


㉙ 200mV 1ms/div

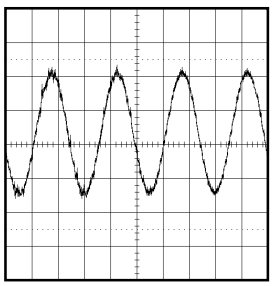
SOUND



⑳ 50V 20µs/div



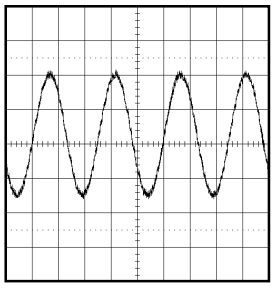
㉕ 0.5V 1ms/div



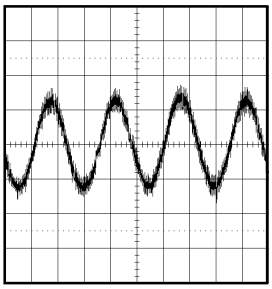
㉚ 200mV 1ms/div

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

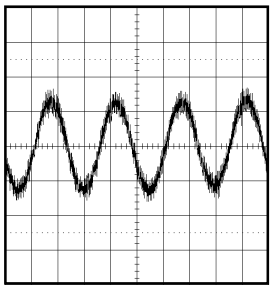
WAVEFORMS



(31) 200mV 1ms/div



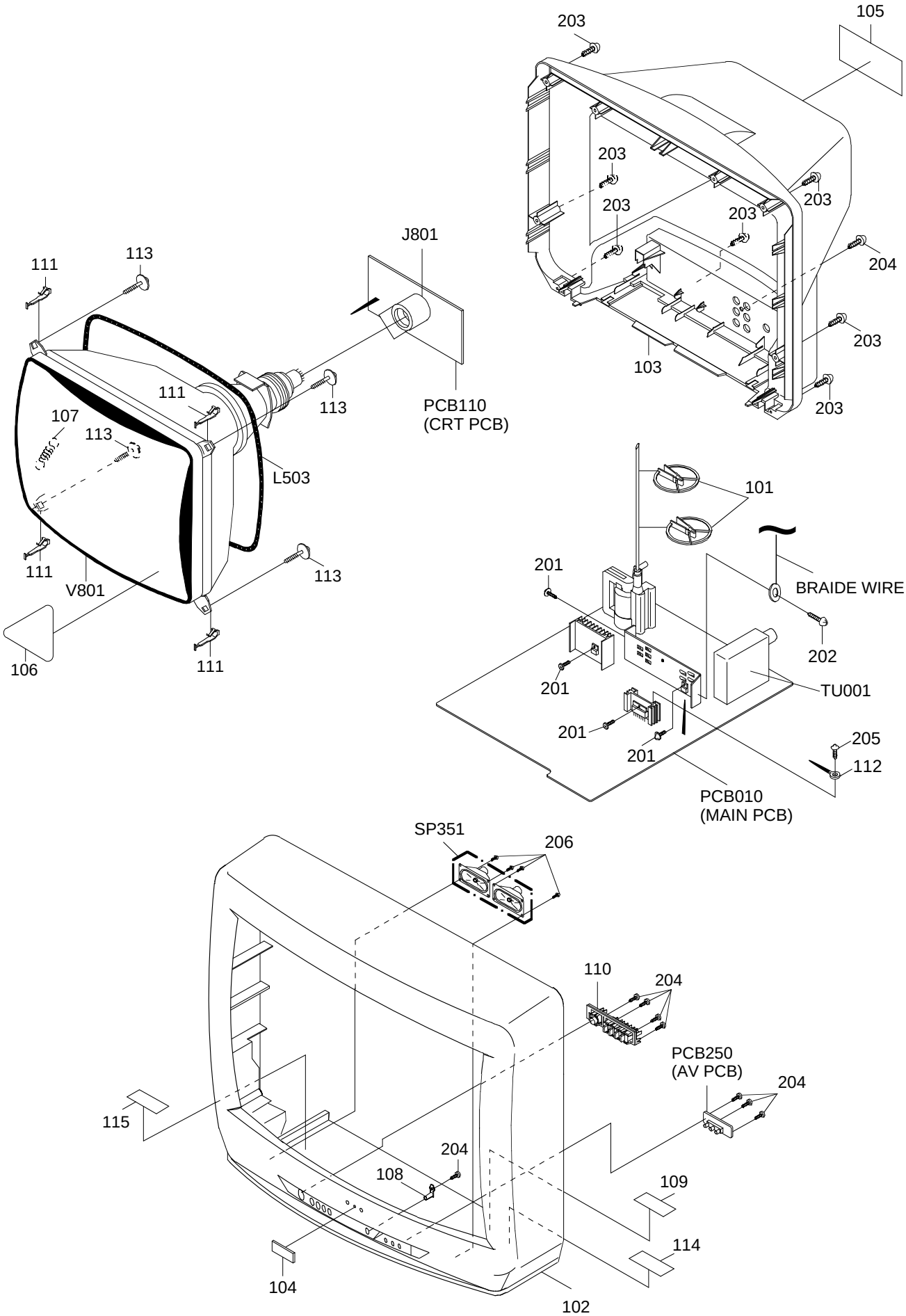
(32) 0.5V 1ms/div



(33) 0.5V 1ms/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	899HV3T000	HOLDER,ANODE WIRE		
102	701APJA061	CABINET,FRONT		
103	702APAA002	CABINET,BACK		
104	711WPCA021	BADGE BRAND		
105	722A08A084	SHEET,RATING		
106	723000B007	FILM,DECORATION		
107	741WUA0021	SPRING,EARTH		
108	713WPA0098	GUIDE,REMOCON		
109	7230006856	SHEET,CAUTION		
110	735WPA0565	BUTTON,ASS'Y		
111	762WPA0009	HOLDER,CRT WIRE		
112	8995034000	CORD CLIP UL CO.		
113	8111J50D05	SCREW,TAPPING(A)	GW22	5x35
114	7220001109	SHEET,HWC		
115	7240001041	SHEET,CSA WARNING		
201	8109I30A04	SCREW,TAP TITE(B)	WH7	3x10
202	8107630604	SCREW,TAP TITE(S)	BRAZIER	3x6
203	8117540B04	SCREW,TAPPING(B0)	TRUSS	4x20
204	8110630A04	SCREW,TAP TITE(P)	BRAZIER	3x10
205	8109630802	SCREW,TAP TITE(B)	BRAZIER	3x8
206	8117330A04	SCREW,TAPPING(B0)	FLAT	3x10
---	791AHA0021	FILM,BAG		
---	792AHA0077	PACKAGE,TOP		
---	792AHA0078	PACKAGE,BOTTOM		
---	A3K111H975	INSTRUCTION BOOK KIT		
---	793ACDA121	GIFT BOX		
---	JB5L0100	POLY BAG		
---	J3K11101	INSTRUCTION BOOK		

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
		RESISTORS	
⚠ R401	R4X5T6104F	R,METAL	100K OHM 1/6W
⚠ R402	R3X181102J	R,METAL OXIDE	1K OHM 1W
⚠ R404	R801R7102J	RC	1K OHM 1/10W
⚠ R405	R4X5T6223F	R,METAL	22K OHM 1/6W
⚠ R406	R801R7332J	RC	3.3K OHM 1/10W
⚠ R407	R002T2010J	RC	1 OHM 1/2W
⚠ R408	R4X5T6183F	R,METAL	18K OHM 1/6W
⚠ R409	R4X5T6622F	R,METAL	6.2K OHM 1/6W
⚠ R421	R001T4224J	RC	220K OHM 1/4W
⚠ R424	R4X5T6123F	R,METAL	12K OHM 1/6W
⚠ R429	R6558A1R8J	R,FUSE	1.8 OHM 2W
⚠ R434	R002T2010J	RC	1 OHM 1/2W
R438	R00202101J	RC	100 OHM 1/2W
R440	R5X2CD272J	R,CEMENT	2.7K OHM 5W
⚠ R500	R0G3K2275K	RC	2.7M OHM 1/2W
⚠ R501	R5Y2CE3R3J	R,CEMENT	3.3 OHM 7W
⚠ R503	R4X5T4332F	R,METAL	3.3K OHM 1/4W
⚠ R505	R3X28B473J	R,METAL OXIDE	47K OHM 3W
⚠ R506	R002T2222J	RC	2.2K OHM 1/2W
⚠ R514	R002T4272J	RC	2.7K OHM 1/4W
⚠ R517	R3X28AR39J	R.METAL	0.39 OHM 2W
⚠ R542	R33681R15J	R,METAL	0.15OHM 1W
⚠ R543	R635U2681J	R,FUSE	680 OHM 1/2W
R604	R001T6222J	RC	2.2K OHM 1/6W
⚠ 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	
C353	CQGTB04L4K	CC	0.033 UF 50V B
C358	CQGTB04L4K	CC	0.033 UF 50V B
C402	C0JLYR713K	CC	0.001 UF 2KV YR
⚠ C404	E02LT2471M	CE	470 UF 16V
⚠ C405	E02LT2471M	CE	470 UF 16V
⚠ C414	E02LT4101M	CE	100 UF 35V
C416	P3N1F2333J	CPP	0.033 UF 200V
⚠ C418	E02LT3102M	CE	1000 UF 25V
⚠ C433	E02LF4471M	CE	470 UF 35V
⚠ C434	E02LT8220M	CE	22 UF 100V
⚠ C437	P447F2394J	CMPP	0.39 UF 200V FHS
⚠ C443	P4N8FJ103H	CMPP	0.01 UF 1.25KV
⚠ C444	C0JLYR7B3K	CC	0.0012UF 2KV YR
⚠ C446	E02LTB010M	CE	1 UF 160V
⚠ C448	E02LTD100M	CE	10 UF 250V
⚠ C501	E02LT3102M	CE	1000 UF 25V
⚠ C502	C0JTB0513K	CC	0.001 UF 500V B
⚠ C503	C0JTB0513K	CC	0.001 UF 500V B
⚠ C505	P2472B104M	CMP	0.1 UF 275V PHE840
⚠ C506	P2472B104M	CMP	0.1 UF 275V PHE840
⚠ C507	E51CGC471M	CE	470 UF 200V
⚠ C510	E02LT4101M	CE	100 UF 35V
C514	C0JLYR7B3K	CC	0.0012UF 2KV YR
C517	C0JLYR7H3K	CC	0.0022UF 2KV YR
⚠ C521	E53VFB221M	CE	220 UF 160V
⚠ C530	CB3LE0M13M	CC	0.001 UF 250V or
	CBLLYEM13M	CC	0.001 UF 250V
⚠ C531	E02LT2102M	CE	1000 UF 16V
⚠ C532	CB3LE0MH3M	CC	0.0022UF 250V or
	CBLLYEMH3M	CC	0.0022UF 250V
C560	C0JLYR7B3K	CC	0.0012UF 2KV YR
C613	P6M9T0105J	CMPL	1 UF 50V TF
C628	CHG0B0413K	CC	0.001 UF 50V B
C802	C0JBB0713K	CC	0.001 UF 2KV B
		DIODES	
D001	D97U03001B	DIODE,ZENER	MTZJ30B T-77
⚠ D401	D94TA27011	DIODE ZENER	HZ27-1L TD
⚠ D402	D94TA11B11	DIODE ZENER	HZ11B1L TD
⚠ D403	D2WT011E10	DIODE SILICON	11E1-EIC
⚠ D404	D2WTAU02A0	DIODE SILICON	AU02A-EIC
⚠ D405	D97U06R21B	DIODE,ZENER	MTZJ6.2B T-77
⚠ D407	D2WTAU02A0	DIODE SILICON	AU02A-EIC
⚠ D408	D2WTAU02A0	DIODE SILICON	AU02A-EIC
⚠ D410	D2WTAU02A0	DIODE SILICON	AU02A-EIC
⚠ D411	D2WTAU02A0	DIODE SILICON	AU02A-EIC
D413	D2WT011E10	DIODE SILICON	11E1-EIC
⚠ D501	D2WXN40050	DIODE SILICON	1N4005-EIC
⚠ D502	D2WXN40050	DIODE SILICON	1N4005-EIC
⚠ D503	D2WXN40050	DIODE SILICON	1N4005-EIC

REF. NO.	PART NO.	DESCRIPTION	
		DIODES	
⚠ D504	D2WXN40050	DIODE SILICON	1N4005-EIC
⚠ D505	D28T21DQN9	DIODE SCHOTTKY	21DQ09N-TA2B1
⚠ D506	D2LTPG06J0	DIODE SILICON	RMPG06J-G3
⚠ D509	D28T21DQN9	DIODE SCHOTTKY	21DQ09N-TA2B1
⚠ D510	D2BTRU2AM0	DIODE SILICON	RU2AM V1
⚠ D511	D2WXN40050	DIODE SILICON	1N4005-EIC
⚠ D512	D2WXN40050	DIODE SILICON	1N4005-EIC
⚠ D513	D2WXN40050	DIODE SILICON	1N4005-EIC
⚠ D514	D28TQS04N0	DIODE SCHOTTKY	11EQS04N-TA1B2
⚠ D515	D28TQS04N0	DIODE SCHOTTKY	11EQS04N-TA1B2
D516	D1VT001330	DIODE,SILICON	1SS133T-77
⚠ D517	D2WXN40050	DIODE SILICON	1N4005-EIC
D518	D1VT001330	DIODE,SILICON	1SS133T-77
D521	D1VT001330	DIODE,SILICON	1SS133T-77
D528	D97U05R61B	DIODE,ZENER	MTZJ5.6B T-77
D601	D1VT001330	DIODE,SILICON	1SS133T-77
D602	D97U08R21B	DIODE,ZENER	MTZJ8.2B T-77
D604	D1VT001330	DIODE,SILICON	1SS133T-77
D605	D2WT011E10	DIODE SILICON	11E1-EIC
D606	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D607	D1VT001330	DIODE,SILICON	1SS133T-77
D608	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D609	D97U09R11B	DIODE,ZENER	MTZJ9.1B T-77
D610	D97U06R81B	DIODE,ZENER	MTZJ6.8B T-77
D611	D1VT001330	DIODE,SILICON	1SS133T-77
		ICS	
IC101	I56F07044C	IC	OEC7044C
IC199	A3K104H015	IC	S-24C02BDP-1A
⚠ IC351	I03SP46000	IC	LA4600
⚠ IC401	I03TD80410	IC	LA78041
⚠ IC501	I2BT06624G	IC	STR-G6624
⚠ IC506	0002E00610	PHOTO COUPLER	LTV-817M-VB
⚠ IC601	I06FC61206	IC	M61206FP
IC702	I0QS02234L	IC	NJM2234L
⚠ IC852	I01FF58290	IC	AN5829S
IC853	I1KJ98L090	IC	KIA78L09BP-AT
IC854	I06DF62420	IC	M62420SP
		TRANSISTORS	
Q101	TNYTJ03001	COMPOUND TRANSISTOR	DTC114TSTP
Q351	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠ Q401	TDUU024990	TRANSISTOR SILICON	2SD2499(LB0EC1)
⚠ Q402	TC3Q026210	TRANSISTOR,SILICON	2SC2621(D,E)-RAC
Q403	TPYTD03001	COMPOUND TRANSISTOR	DTA144ESTP
Q504	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q507	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q601	TCAT032034	TRANSISTOR, SILICON	KTC3203_Y-AT or
	TC5T021204	TRANSISTOR,SILICON	2SC2120Y(TPE2)
Q603	TCAT032034	TRANSISTOR, SILICON	KTC3203_Y-AT or
	TC5T021204	TRANSISTOR,SILICON	2SC2120Y(TPE2)
Q604	TD3T007340	TRANSISTOR,SILICON	2SD734(E,F)-AA
Q605	TCAT032034	TRANSISTOR, SILICON	KTC3203_Y-AT or
	TC5T021204	TRANSISTOR,SILICON	2SC2120Y(TPE2)
Q606	TCAT032034	TRANSISTOR, SILICON	KTC3203_Y-AT or
	TC5T021204	TRANSISTOR,SILICON	2SC2120Y(TPE2)
Q608	TNYTB03001	COMPOUND TRANSISTOR	DTC114ESTP or
	TNATB03005	COMPOUND TRANSISTOR	KRC102MAT
⚠ Q701	TPYTD03001	COMPOUND TRANSISTOR	DTA144ESTP
Q702	TNYTB03001	COMPOUND TRANSISTOR	DTC114ESTP or
	TNATB03005	COMPOUND TRANSISTOR	KRC102MAT
Q705	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
Q706	TA5T010154	TRANSISTOR,SILICON	2SA1015Y(TPE2)
Q707	TCATC31980	TRANSISTOR,SILICON	KTC3198-AT(Y,GR)
⚠ Q801	TC3Q040750	TRANSISTOR,SILICON	2SC4075-YAC
⚠ Q802	TC3Q040750	TRANSISTOR,SILICON	2SC4075-YAC
⚠ Q803	TC3Q040750	TRANSISTOR,SILICON	2SC4075-YAC
Q851	TA5T010154	TRANSISTOR,SILICON	2SA1015Y(TPE2)
Q852	TA5T010154	TRANSISTOR,SILICON	2SA1015Y(TPE2)
		COILS &TRANSFORMERS	
L101	021LA62R7K	COIL	2.7 UH
⚠ L401	022100027A	COIL,LINEARITY	ELH5L4113
L406	021U6D180K	COIL	18 UH
⚠ L501	029F000074	COIL,LINE FILTER	FET24S-H22502 or
	029T000100	COIL,LINE FILTER	2R0A502F24Y
⚠ L503	028R250009	COIL,DEGAUSS	8R250009
L601	021LA61R2K	COIL	1.2 UH
L606	021LA62R2K	COIL	2.2 UH
L607	021LA6150K	COIL	15 UH

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
		COILS &TRANSFORMERS	
	L608	021LA66R8K	COIL	6.8 UH
	T401	045013001J	TRANS,HORIZONTAL DRIVE	5013001
⚠	T501	048135048S	TRANSFORMER,SWITCHING	8135048S
		JACKS	
	J701	060Q471003	RCA JACK	YKC21-7163A
	J702	0602431013	RCA JACK	JPJ1187-010010
⚠	J801	066C130015	SOCKET,CATHODE RAY TUBE	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	V1262H3BT2	VOLUME,SEMI FIXED	RH0684CJ3R
	VR502	V1163L2BTC	VOLUME,SEMI FIXED	EVNCYAA03BY2
		P.C.BOARD ASSEMBLIES	
	PCB010	A3K111H010K	PCB ASS'Y	TMA501A
	PCB110	A3K111H110K	PCB ASS'Y	TCA358A
	PCB250	A3K111H250K	PCB ASS'Y	TEAA63A
		MISCELLANEOUS	
	B502	024HT03563	CORE,BEADS	W4BRH3.5X6X1.0X2
	B504	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
⚠	CD501	1207415905	CORD AC BUSH	7415905
	CD701	122E043505	CORD JUMPER	2E043505
	CD801	06CU82039A	CORD CONNECTOR	SM1098-009-1A
⚠	CD804	06CU34002A	CORD CONNECTOR	SM1198-002-1A
	CD805	06CU82039A	CORD CONNECTOR	SM1098-009-1A
	CD806	06CH012101	CORD CONNECTOR	CH012101
	CF601	1022T45R73	FILTER,SAW	SAFGP45M7VHCZR
	CF603	1012T4R509	FILTER CERAMIC	SFSH4.5MCB-TF21
	CF604	1012T4R519	FILTER,CERAMIC TRAP	TPSRA4M50C00-A0
	CP351	069W14T299	CONNECTOR PCB SIDE	TID-X04P-Z1
⚠	CP401	069W340018	CONNECTOR PCB SIDE	TS-80P-04-V1
⚠	CP502	069W420029	CONNECTOR PCB SIDE	TV-50P-02-A1
	CP601	0697260650	CONNECTOR PCB SIDE	TKC-M06X-A1
	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
	CP701A	067R004019	WIRE HOLDER	51048-0410
	CP701B	069R240589	CONNECTOR PCB SIDE	52147-0410
	CP802A	067R010019	WIRE HOLDER	51048-1010
	CP802B	067R010019	WIRE HOLDER	51048-1010
⚠	F501	081PC6R304	FUSE	51MS063LCC
⚠	FB401	043225010F	TRANSFORMER,FLYBACK	3225010F
	FH501	06710T0006	HOLDER,FUSE	EYF-52BC
	FH502	06710T0006	HOLDER,FUSE	EYF-52BC
	OS101	077Q014003	REMOTE RECEIVER	PIC-28143SY-2
	PH003	069W01001A	CONNECTOR PCB SIDE	003P-2100
	PH004	069W01001A	CONNECTOR PCB SIDE	003P-2100
⚠	RY501	0560V10118	RELAY	ALKS325
	S101	WHL6042038	FLAT CABLE	AWM2468
⚠	SP351	070Y435001	SPEAKER	SO509F12
⚠	TH501	DF5EL3R0A0	DEGAUSS ELEMENT	ZPB45BL3R0A
	TM101	076N0DW040	TRANSMITTER	RC-DW040
⚠	TU001	0145S00052	TUNER,VHF-UHF	ENV56D66G3
⚠	V801	0984270706	CRT W/DY	A68ADT25X01
	X101	1001T8R004	CERAMIC,OSCILLATOR	EFOEC8004T4
	X602	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.	M3K1-11H
O/R NO.	A163507

Memorex®

MT2271

SERVICE MANUAL

COLOR TELEVISION RECEIVER

REVISION 1
MFR'S VERSION F

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

MFR'S VERSION	IC601	IC101
C	M61203BFP	OEC7044A
F	M61203CFP	OEC7044B

Please file this revision with the original version.

CORRECTION NOTICE

NOTE FOR THE REPLACING OF MEMORY IC
(MFR'S VERSION C)

	INCORRECT	CORRECT
ADDRESS	DATA	DATA
00	28	08

Change of IC101

DIFFERENCES

	MFR'S VERSION C			MFR'S VERSION F		
REF. NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION	
IC101	I56F07044A	IC	OEC7044A	I56F07044B	IC	OEC7044B
PCB010	A3I257H01A	MAIN PCB ASS'Y	TMX457A	A3I257H01B	MAIN PCB ASS'Y	TMX457A

NOTE FOR THE REPLACING OF MEMORY IC

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

Change of IC601

DIFFERENCES

	MFR'S VERSION C			MFR'S VERSION F		
REF. NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION	
IC601	I06FC12030	IC	M61203BFP	I06FC1203C	IC	M61203CFP
PCB010	A3I257H01A	MAIN PCB ASS'Y	TMX457A	A3I257H01B	MAIN PCB ASS'Y	TMX457A

NOTE FOR THE REPLACING OF MEMORY IC

	MFR'S VERSION C	MFR'S VERSION F
ADDRESS	DATA	DATA
00	08	88
03	30	38

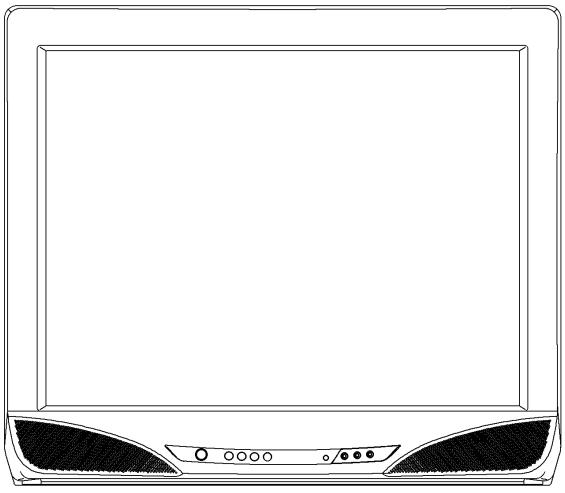
SPEC.NO.	M3I2-57H
O/R NO.	A083529

Memorex®

MT2271

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION B

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
27 inch(675.1 mmV):Measured diagonally
Color CRT 111 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
(USA) 2-69 , 4A , A-5~A-1 , A~I , J~W , W+1~W+84

☒Frequency syn. ☐Voltage syn. ☐Others

G-8.Preset 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-12.Power Source 120 V ☐AC 50Hz ☒AC 60Hz

G-13.Power Consumption:
115 W at AC 120 V 60 Hz
(Approx) _____W at DC _____V
Stand by(Approx): 8 W at AC 120 V 60 Hz
Per Year: _____kWh / Year

G-14.Dimensions(Approx.)
650 mm(W) 478 mm(D) 560 mm(H)

G-15.Weight(Approx.) Net : 35 kg (77.6 lbs)
Gross: 38 kg (84.3 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 ˚C~ 40 ˚C

Storage -20 ˚C~ 60 ˚C

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 Input ☐ Din Type ☒ F-Type ☐ France Type

☒Front Video Input (RCA ø8.3)

☒Rear Video Input (RCA ø8.3)

☒Rear Video Output (RCA ø8.3)

☒Front Audio Input (RCA ø8.3)x2

☒Rear Audio Input (RCA ø8.3)x2

☒Rear Audio Output (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 Select	☐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	☒Volume	☒Brightness	☒Contrast
	☒Color	☒Tint	☒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 ☐ Double/Brown Corrugated Carton (☐with Photo Label)

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

☐ Double Full Color Carton W/Photo

Dimensions: 718 mm(W) 558 mm(D) 655 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: 198 Sets / 40' container

G-30.Accessories

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

☐AC Plug Adapter

☐Battery (UM- 4 x 2)

☐Safety Tip

☐Guarantee Card

☐Registration Card

☐Quick Set-Up Sheet

☐Information Sheet

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

☐300 ohm to 75 ohm VHF Antenna Adaptor

☐21pin Cable

☐Rod Antenna

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

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

☐Channel Film

☒Remote Control Unit

☐Toll Free Insert Sheet

☐Audio-Video Cord (RCA)

☐Warning Sheet

☐Schematic Diagram

☐U/V Mixer

☐Car Cord

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

GENERAL SPECIFICATIONS

G-34.Remote Control Unit: RC-74

Glow in Dark Remocon ☐Yes ☒No

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.

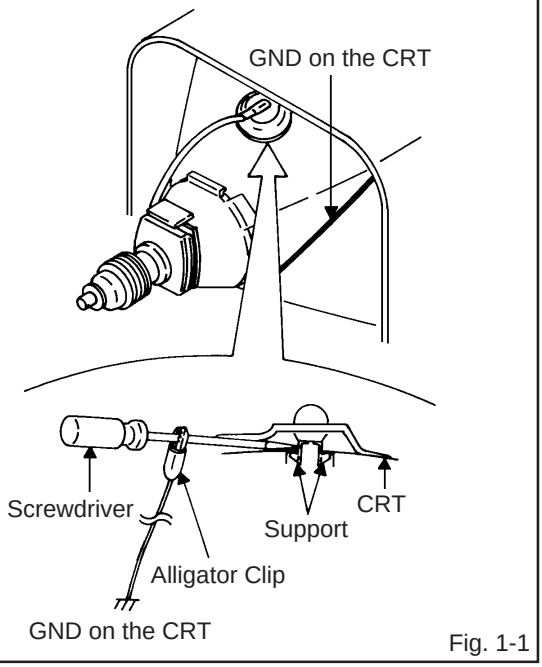


Fig. 1-1

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.)**

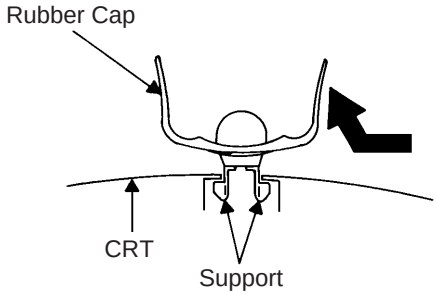


Fig. 1-2

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.)**

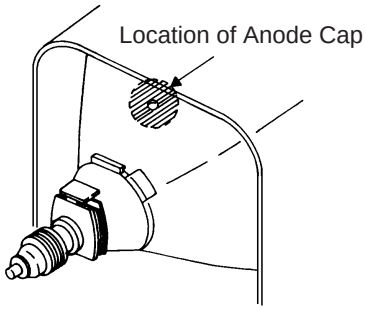


Fig. 1-3

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.)**

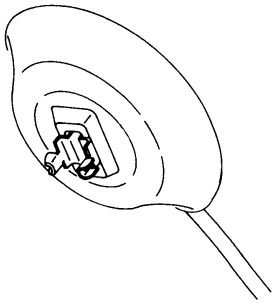


Fig. 1-4

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

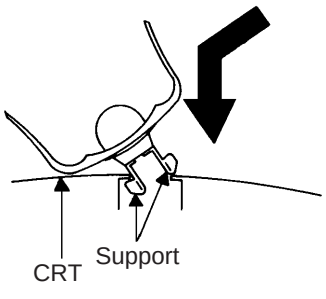


Fig. 1-5

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

SERVICE MODE LIST

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

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

CONFIRMATION OF USING HOURS

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

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

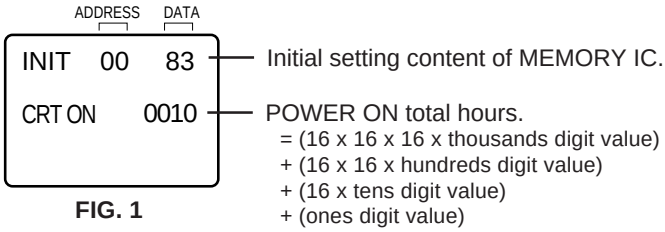


FIG. 1

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.

ADDRESS	INI 00	INI 01	INI 02	INI 03	INI 04	INI 05	INI 06	INI 07	INI 08	INI 09	INI 0A
DATA	28	5A	A2	31	02	B3	24	3B	A3	2C	F4

Table 1

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

The unit will now have the correct DATA for the new MEMORY IC.

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.

Prepare the following measurement tools for electrical adjustments.

1. Synchro Scope
2. Digital Voltmeter

On-Screen Display Adjustment

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

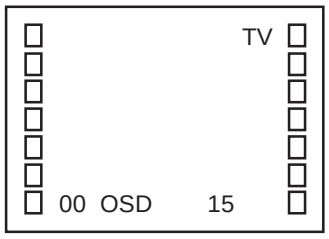


Fig. 1-1

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

NO.	FUNCTION	NO.	FUNCTION
00	OSD H	13	BRIGHTNESS
01	CUT OFF	14	CONTRAST
02	RF AGC	15	COLOR
03	VIF VCO	16	TINT
04	H VCO	17	SHARPNESS
05	H PHASE	18	FM LEVEL
06	V SIZE	19	LEVEL
07	V SHIFT	20	SEPARATION 1
08	R DRIVE	21	SEPARATION 2
09	B DRIVE	22	TEST MONO
10	R BIAS	23	TEST STEREO
11	G BIAS	24	X-RAY TEST
12	B BIAS		

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: RF AGC DELAY

1. Place the set with Aging Test for more than 15 minutes.
2. Receive the VHF HIGH (70dB).
3. Connect the digital voltmeter between the **TP001** and the **GND**.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(02)** on the remote control to select "RF DELAY".
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 2.4 ± 0.05V.

2-2: CUT OFF

1. Adjust the unit to the following settings.
   R DRIVE=10, B DRIVE=10, R BIAS=64, G BIAS=64, B BIAS=64, BRIGHTNESS=150, CONTRAST=64
2. Place the set with Aging Test for more than 15 minutes.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(01)** on the remote control to select "CUT OFF".
4. Adjust the **Screen Volume** until a dim raster is obtained.

2-3: FOCUS

1. Receive the broadcast.
2. Turn the Focus Volume fully counterclockwise once.
3. Adjust the **Focus Volume** until picture is distinct.

2-4: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustment.

1. Place the set with Aging Test for more than 15 minutes.
2. Receive the white 100% signal from the Pattern Generator.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(10)** on the remote control to select "R.BIAS".
5. Using the VOL. UP/DOWN button on the remote control, adjust the R.BIAS.
6. Press the CH. UP/DOWN button on the remote control to select the "R.DRIVE", "B.DRIVE", "G.BIAS" or "B.BIAS".
7. Using the VOL. UP/DOWN button on the remote control, adjust the R.DRIVE, B.DRIVE, G.BIAS or B.BIAS.
8. Perform the above adjustments 6 and 7 until the white color is looked like a white.

2-5: SUB TINT/SUB COLOR

1. Receive the color bar pattern. (RF Input)
2. Connect the synchro scope to **TP023**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(16)** on the remote control to select "TINT".
4. Press the VOL. UP/DOWN button on the remote control until the waveform becomes as shown in **Fig. 2-1**.
5. Connect the synchro scope to **TP022**.
6. Press the CH DOWN button once to set to "COLOR" mode.
7. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to 110% of the white level. **(Refer to Fig. 2-2)**
8. Receive the color bar pattern. (Audio Video Input)
9. Press the TV/AV button on the remote control to set to the AV mode. Then perform the above adjustments 2~7.

ELECTRICAL ADJUSTMENTS

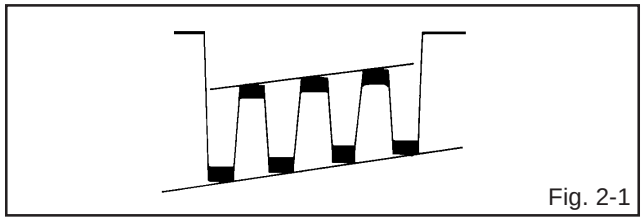


Fig. 2-1

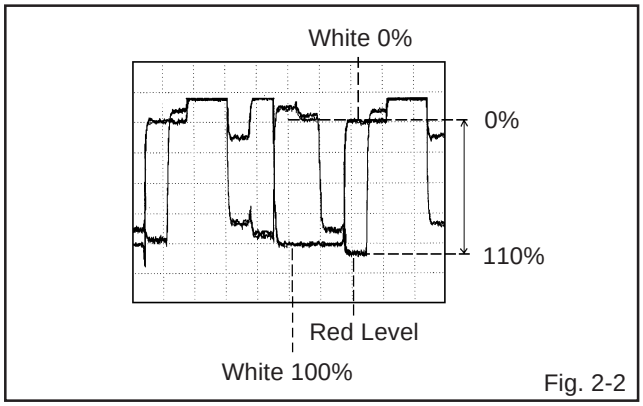


Fig. 2-2

2-6: HORIZONTAL PHASE

1. Receive the center cross signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(05)** on the remote control to select "H PHASE"
4. Press the VOL. UP/DOWN button on the remote control until the vertical line becomes fit to the notch of the shadow mask.

2-7: VERTICAL SIZE

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

1. Receive the cross hatch signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(06)** on the remote control to select "V SIZE".
4. Press the VOL. UP/DOWN button on the remote control until the rectangle on the center of the screen becomes square.
5. Receive a broadcast and check if the picture is normal.

2-8: VERTICAL SHIFT

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

1. Receive the center cross signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(07)** on the remote control to select "V SHIFT".
4. Press the VOL. UP/DOWN button on the remote control until the horizontal line becomes fit to the notch of the shadow mask.

2-9: OSD HORIZONTAL

1. Activate the adjustment mode display of **Fig. 1-1**.
2. Press the VOL. UP/DOWN button on the remote control until the difference of A and B becomes minimum. **(Refer to Fig. 2-3)**

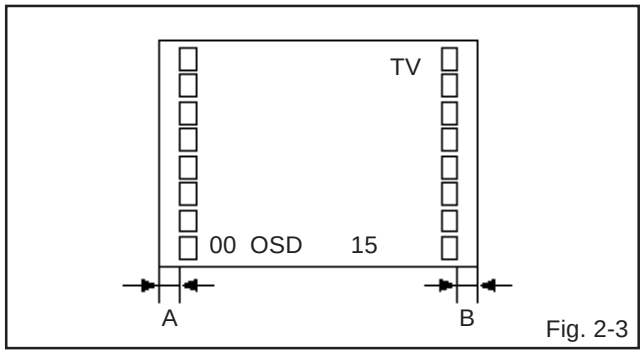


Fig. 2-3

2-10: VIF VCO

1. Place the set with Aging Test for more than 15 minutes.
2. Receive the VHF HIGH (80dB).
3. Connect the digital voltmeter between the **pin 5 of CP601** and the **GND**.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(03)** on the remote control to select "VIF VCO".
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 2.5V.

2-11: 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. 1-1** and press the channel button **(20)** on the remote control to select "SEPARATION 1".
4. Press the VOL. UP/DOWN button on the remote control until the output of L-CH and R-CH become minimum.
5. Press the CH UP button once to set to "SEPARATION 2" mode.
6. Press the VOL. UP/DOWN button on the remote control until the output of L-CH and R-CH become minimum.

2-12: CONSTANT VOLTAGE

1. Place the set with Aging Test for more than 15 minutes.
2. Using the remote control, set the brightness and contrast to normal position.
3. Connect the digital voltmeter to **TP401**.
4. Set condition is AV MODE without signal.
5. Adjust the **VR502** until the digital voltmeter is 132 ± 1V.

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.

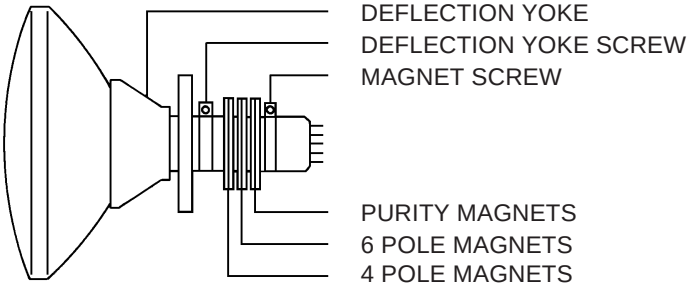


Fig. 3-1

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)**

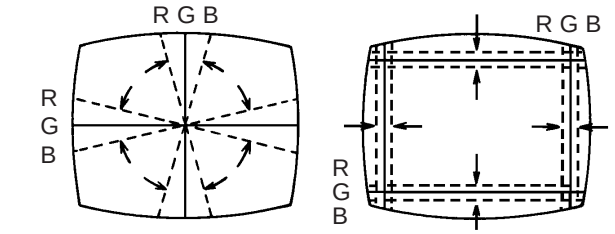


Fig. 3-2-a

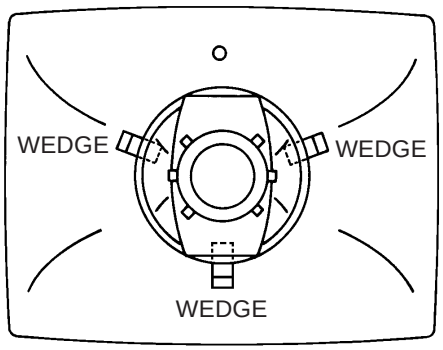
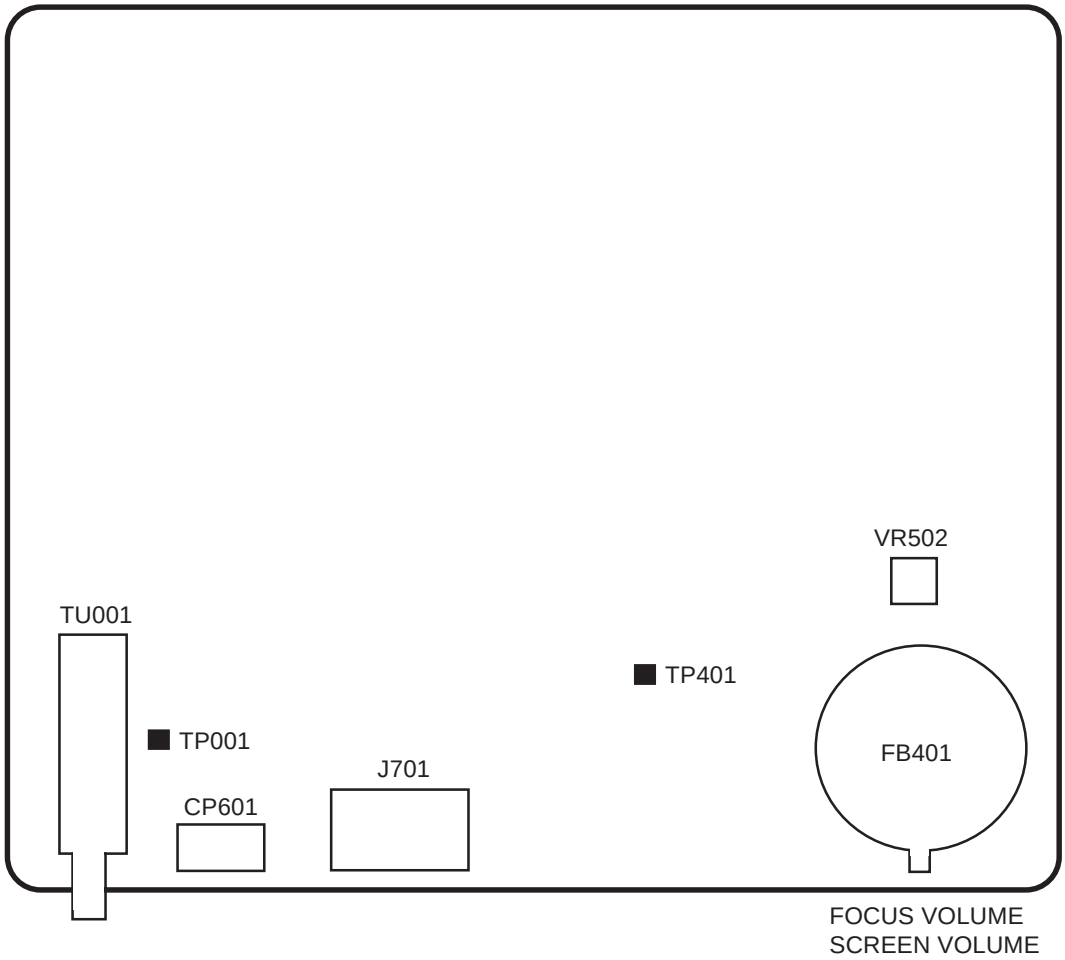
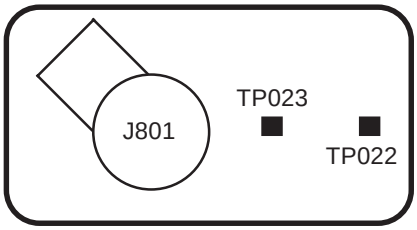


Fig. 3-2-b

MAJOR COMPONENTS LOCATION GUIDE

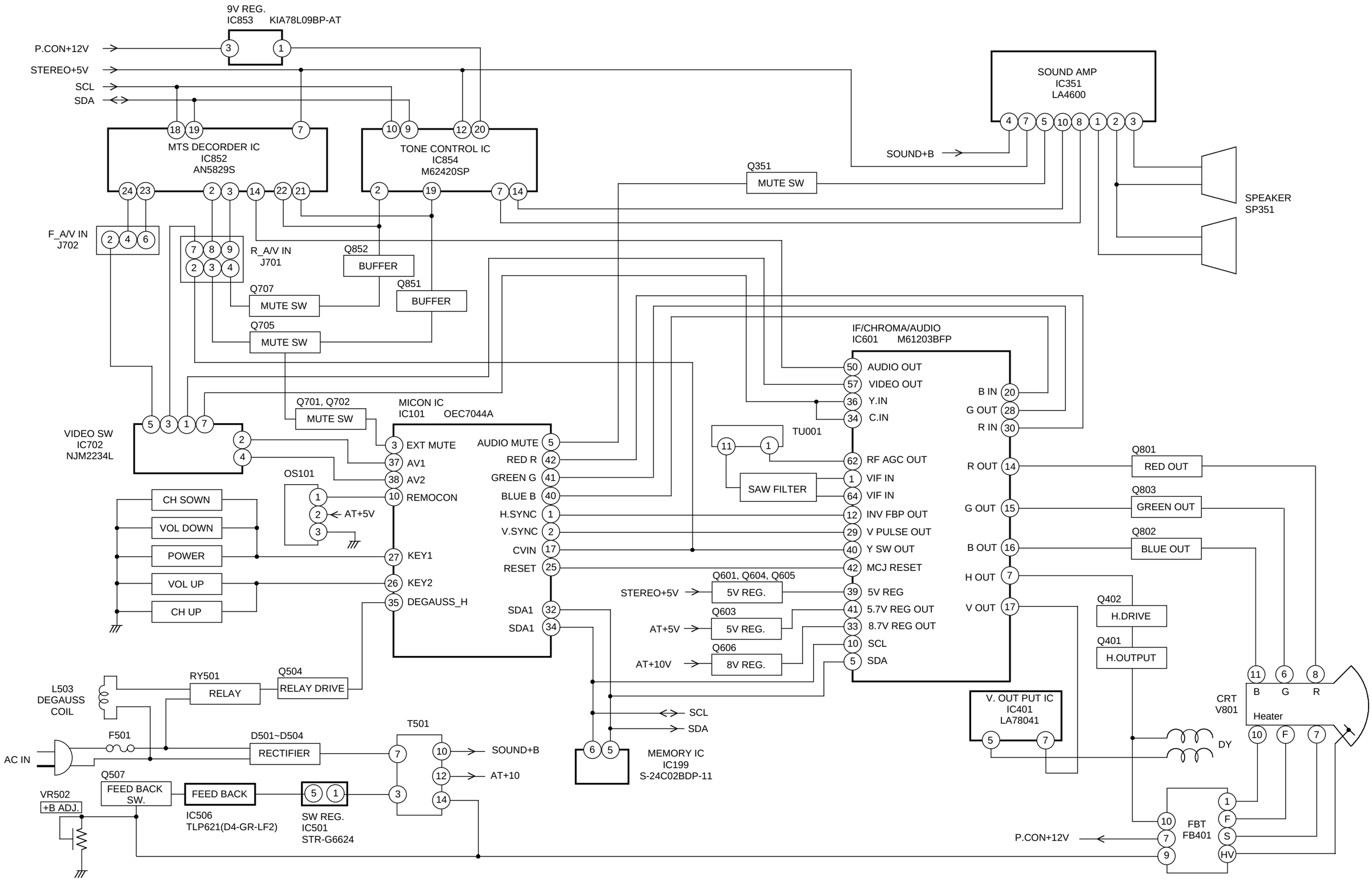


MAIN

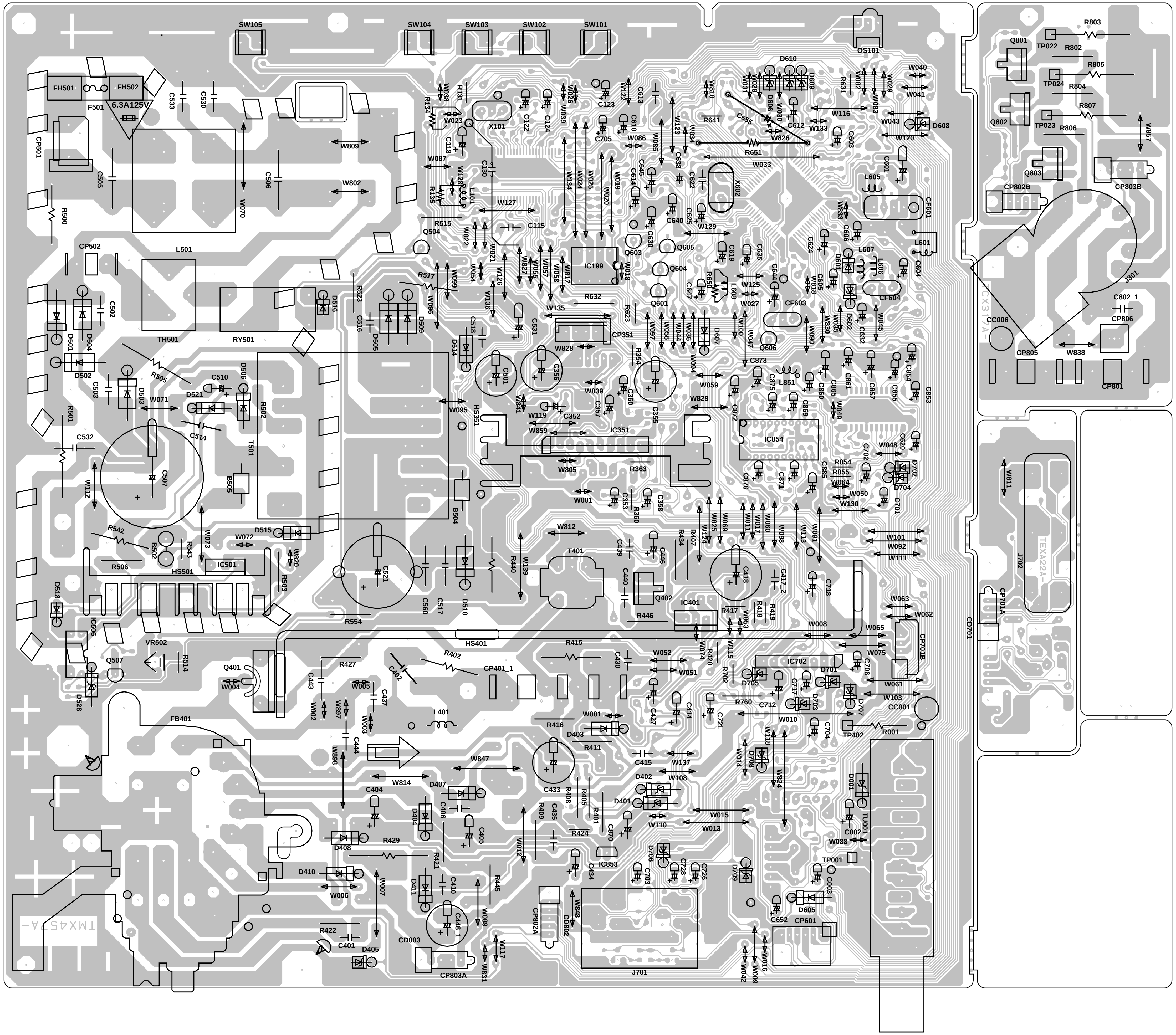


CRT

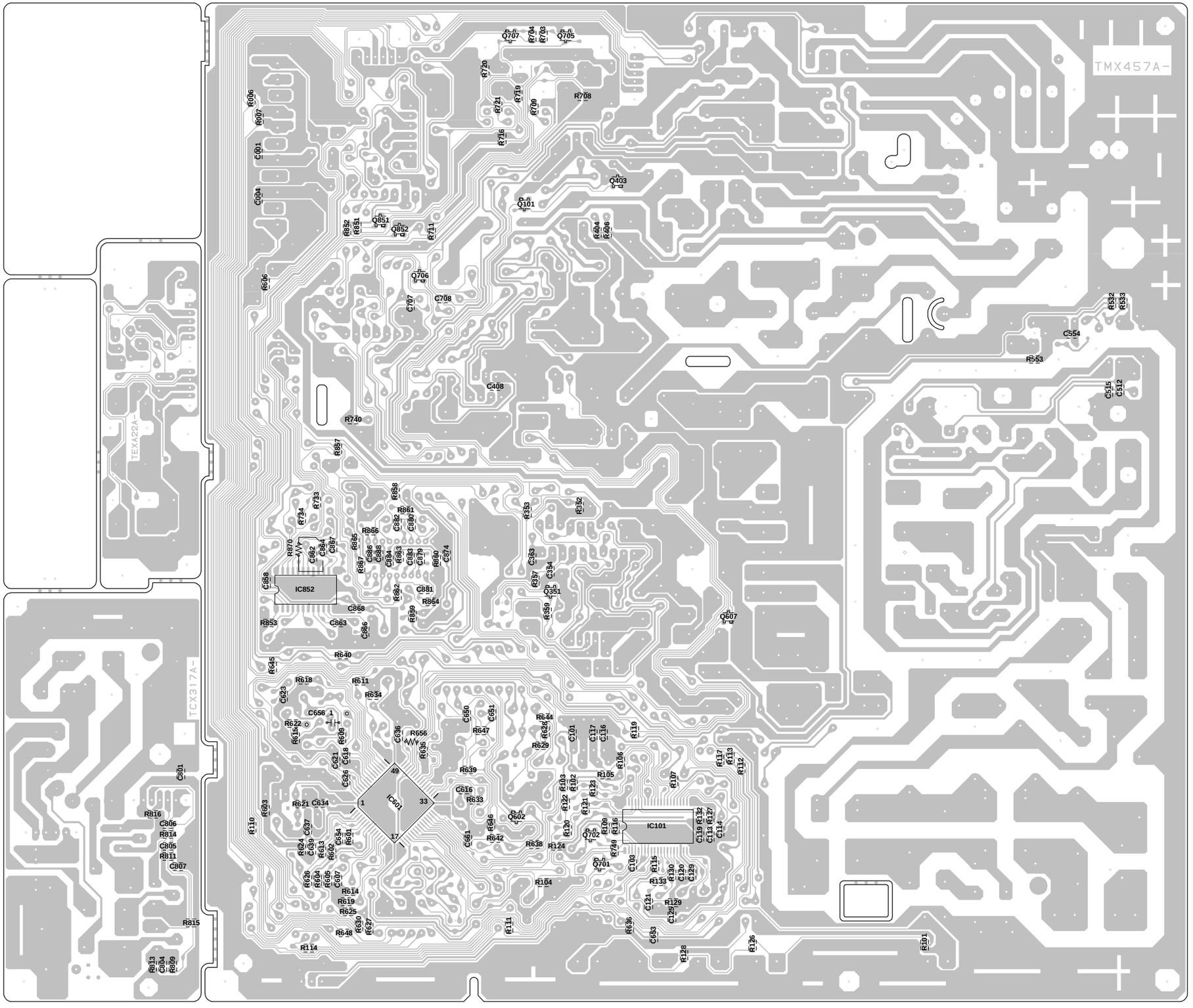
BLOCK DIAGRAM



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

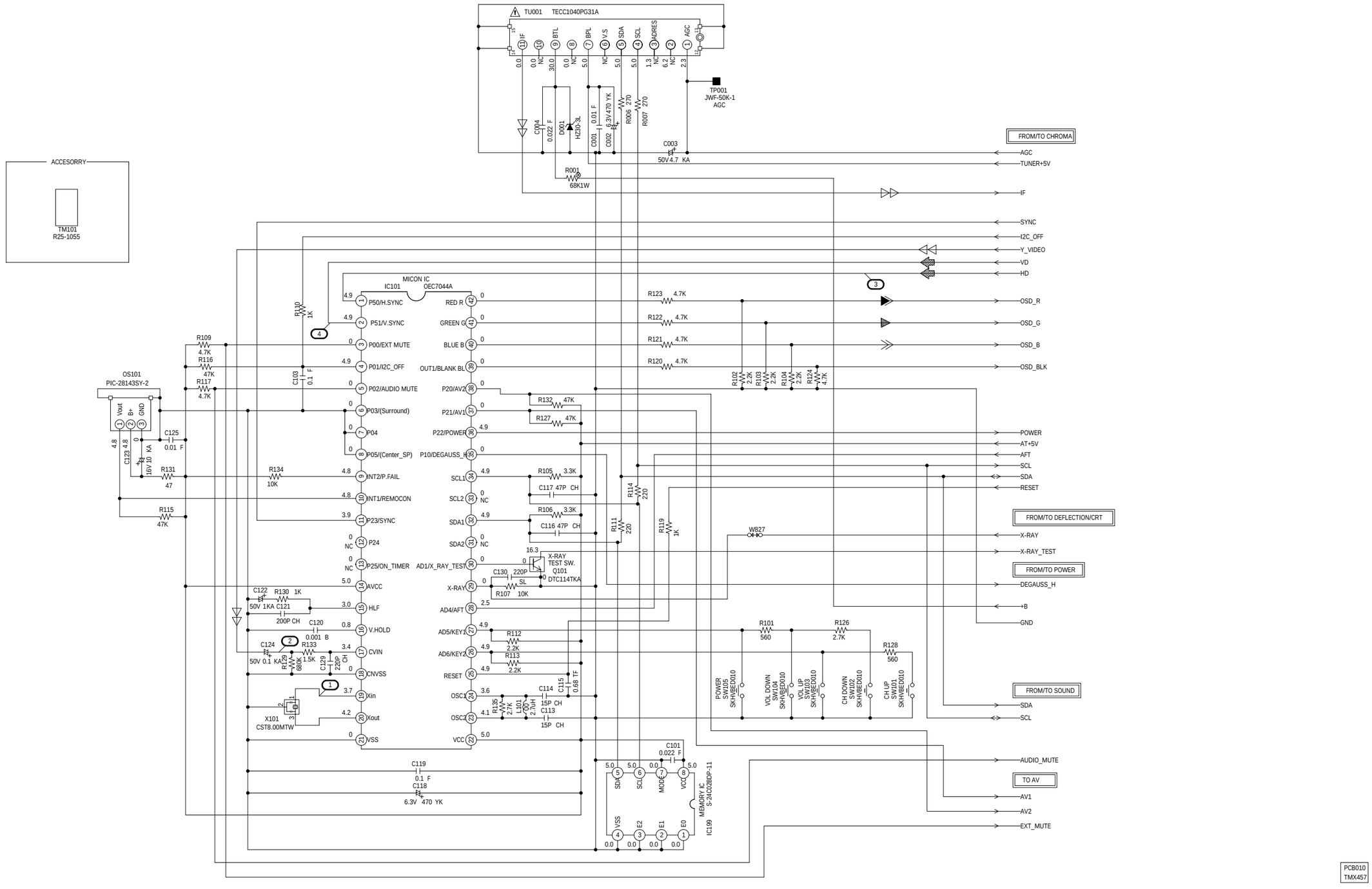


PRINTED CIRCUIT BOARDS
MAIN/CRT (CHIP MOUNTED PARTS)
SOLDER SIDE



MICON/TUNER SCHEMATIC DIAGRAM

(TV MT PCB)



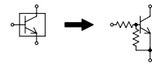
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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。

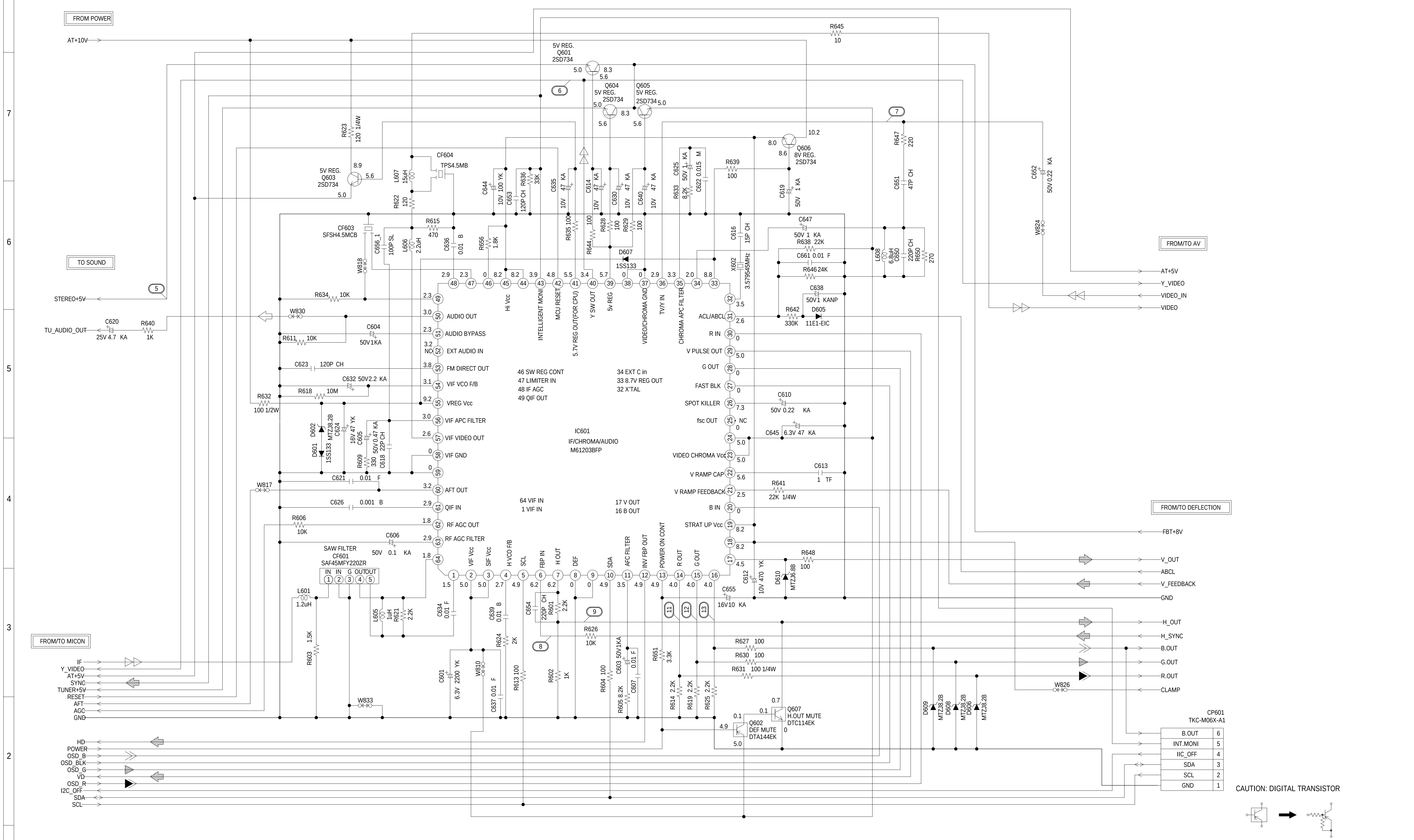
CAUTION: DIGITAL TRANSISTOR



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

CHROMA SCHEMATIC DIAGRAM

(TV MT PCB)



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 SIGNAL
AUDIO SIGNAL
LUMINANCE SIGNAL
COLOR SIGNAL
TUNER VIDEO SIGNAL
R.SIGNAL
G.SIGNAL
B.SIGNAL

DEFLECTION/CRT SCHEMATIC DIAGRAM (TV MT PCB)

FROM/TO CHROMA
CLAMP
G.OUT
B.OUT
R.OUT
V_OUT
V_FEEDBACK
ABCL
H_OUT
H_SYNC
FBT+8V
TO SOUND
P.CON+12V
FROM/TO MICON
X-RAY
X-RAY_TEST
FROM POWER
+B
GND

V.OUTPUT IC IC401 LA78041
THERMAL PROTECTION
PUMP UP
AMP
VCC
GND
4.9 25.1 27.0 0 53.0 52.0 4.4
C414 35V 100 YK
C415 500V22P SL
D403 11E1-EIC
C430 100V0.068 PF
R415 220 1W
R411 470 1/2W
R418 22K 1/4W
R420 3.9K 1/4W
C408 150P CH
R417 10K 1/4W
R419 1.8K 1/4W
C417_2 2.2 MMTV
C418 25V2200YK
R467 2.2 1/2W
R434 2.2 1/2W
C427 50V10 MHE
R416 1K 1/2W
HS401 763WAA0119
R404 1.5K
R405 22K +-1%
R406 4.7K
R401 100K +-1%
D401 HZ27-1L
R408 15K +-1%
D402 HZ11B1L
X-RAY TEST SW. Q403 DTA144EK
16.0 9.6 16.1
R424 12K+-1%
R409 6.2K +-1%
C434 100V 22 YK
C410 0.0022 B
D411 AU02A-EIC
C433 35V1000 YK
C437 200V0.47 FHS
L401 ELH5L7120
R402 1K1W
C402 2KV 0.001 BP
R429 2.2 2W
C439 500V 22P SL
H.DRIVE Q402 2SC2621
C440 500V470P B
T401 5013003
R446 4.7K 1/2W
H.OUTPUT Q401 2SD2499(LBOEC1)
C443 1.6KV 0.015 ECWH
W897
C444 2KV390P BP
W898
R427 100 1/4W
R440 2.7K 5W
W812
C446 160V 1 MHE
D405 MTZJ6.2B
C401 500V220P B
R422 4.7K 1/2W
TP402
W847
FB401 3227005
112.0 COL
128.0 E180
128.0 B+
0 AFC
0 HEATER
0 GND
0 E8
0.3 E12
-0.1 E25
ABL -27.0
D410 AU02A-EIC
D407 AU02A-EIC
W814
C406 500V 0.0022 B
D408 AU02A-EIC
C404 16V 470 MHE
D404 AU02A-EIC
C405 16V 470 YK
C448_1 200V 10 SSF
R445 100K 1/2W
C435 100V0.22 TF
R421 220K 1/4W
W831
W857
C801 330P CH

CP802A 51048-0510
GND 5
CLAMP 4
G.OUT 3
B.OUT 2
R.OUT 1
CD802 2E054201
CP802B 51048-0510
L801 HF57T18.5*10*10
CP801 TS-80P-02-V1
CD801 8M82025A
CP805 TS-80P-02-V1
CD805 8M82025A
V801 A68ADT25X01
CD804 8M34010A
DY 68T1XXZ/NN
CP401_1 TS-80P-04-V1
CC006
C807 0.1 F
RED OUT Q801 2SC4075-YAC
GREEN OUT Q803 2SC4075-YAC
BLUE OUT Q802 2SC4075-YAC
C804 560P CH
C806 560P CH
C805 560P CH
R809 4.7K
R814 4.7K
R811 4.7K
100.6 2.7
98.4 2.7
95.4 2.7
R813 330
R816 330
R815 330
TP022
TP023
TP024
R803 12K 2W
R802 2.7K 1/4W
R807 12K 2W
R806 2.7K 1/4W
R805 12K 2W
R804 2.7K 1/4W
FOCUS
SCREEN
W838
CP806 005P-2100
C802_1 2KV 0.001 B
J801 CVT3275-5102
6.4 96.4
97.8
37.0
99.6
HEATER GND GND 180V
CP803A 51052-0400
CD803 2E044101
CP803B 51052-0400
PCB010 TMX457
PCB110 TCX317

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.

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

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

CAUTION: DIGITAL TRANSISTOR

R.SIGNAL
G.SIGNAL
B.SIGNAL
DEFLECTION SIGNAL

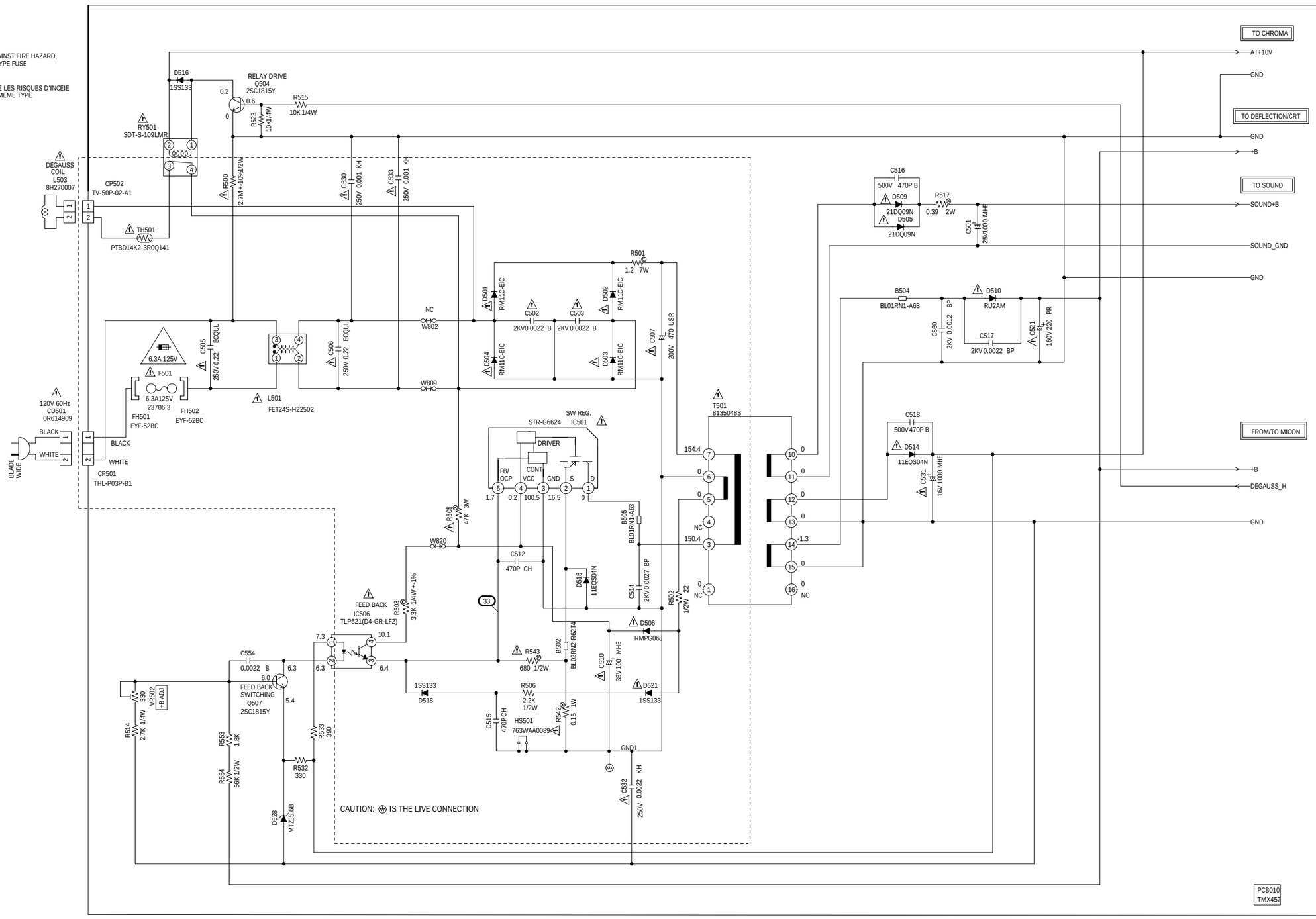
POWER SCHEMATIC DIAGRAM

(TV MT PCB)

6.3A 125V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 6.3A 125V(F501)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 6.3A 125V(F501)



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

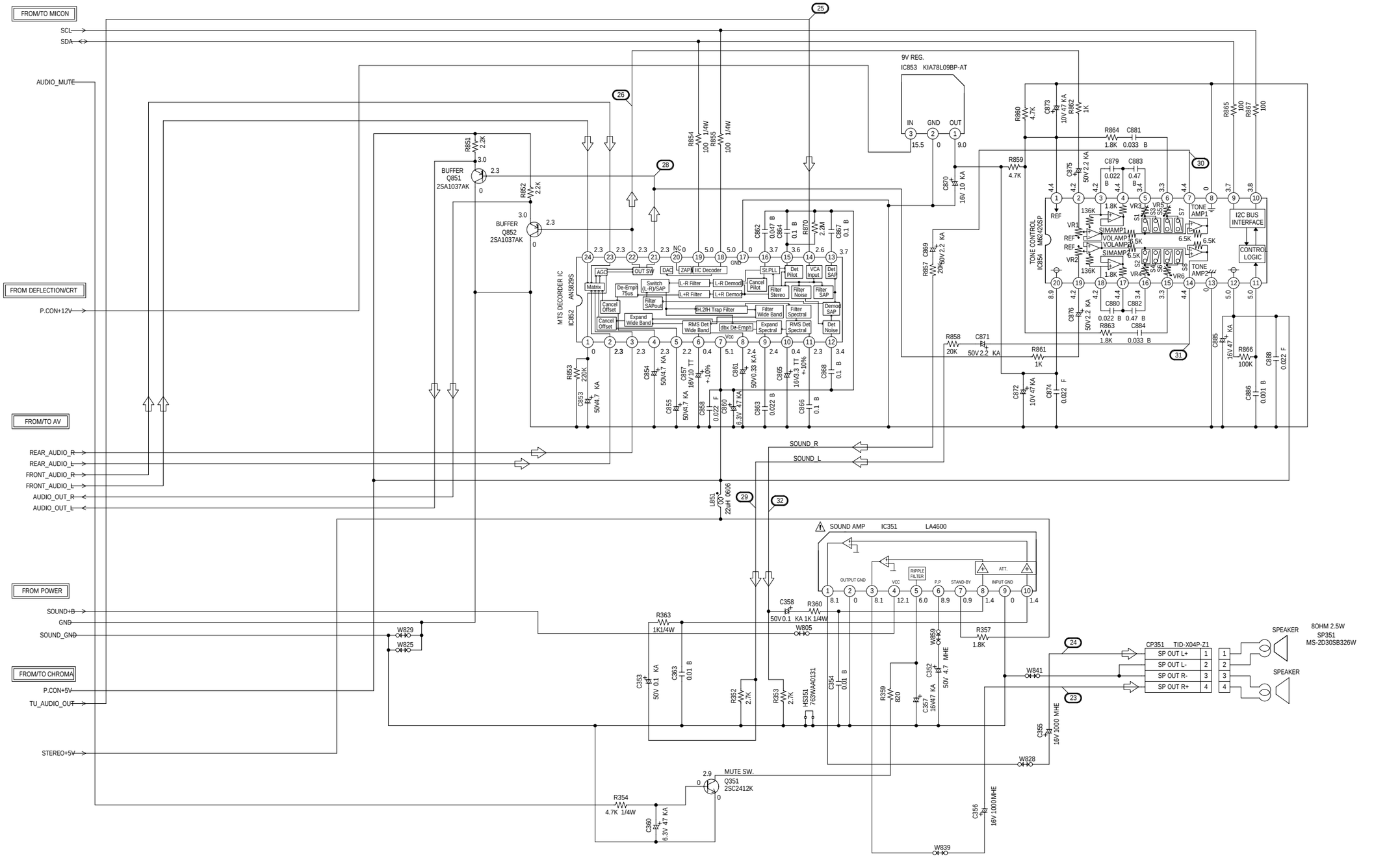
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

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

SOUND SCHEMATIC DIAGRAM

(TV MT PCB)



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。

AV SCHEMATIC DIAGRAM

(TV MT PCB)

F_A/V_IN(STEREO)
J702
JPJ1187-010010

A_IN_R
A_IN_L
V_IN

W811
0 Ω

PCB250
TEXA22

CD701
2E043505

51048-0410
CP701A

CP701B
52147-0410

R740
75

CC001

R733
1K

C702
16V 10 KA

R734
1K

C701
16V 10 KA

D704
MTZJ6.8B

D702
MTZJ6.8B

FROM/TO SOUND
FRONT_AUDIO_L
FRONT_AUDIO_R
REAR_AUDIO_R
REAR_AUDIO_L
AUDIO_OUT_R
AUDIO_OUT_L
GND

IC702
VIDEO SW.
NJM2234L

Vin1 SW1 Vin2 SW2 Vin3 V+ Vout GND
5.9 5.0 5.9 5.0 5.9 9.0 4.0 0

C706
16V10KA

D701
MTZJ12B

C718
16V 10 KA

D703
MTZJ12B

C712
10V 470 YK

C707
0.022 F

FROM/TO MICON
EXT_MUTE
AV2
AV1

FROM/TO CHROMA
VIDEO
VIDEO_IN
Y_VIDEO
AT+5V

R_A/V_IN(STEREO)
J701
YKC21-7163A

A_IN_R
A_IN_L
V_IN
A_OUT_R
A_OUT_L
V_OUT

C717
16V 10 KA

R711
1K

C704

R709
1K

C703
16V10 KA

16V10 KA

D708
MTZJ6.8B

D707
MTZJ6.8B

R702
10 1/4W

R720
1K

C726

R721
1K

C728
16V10 KA

R719
75

C721
10V 470 YK

R760
47 1/4W

MUTE SW.
Q701
DTA144EK

R749
2.2K

MUTE SW.
Q705
2SC2412K

R703
1K

MUTE SW.
Q707
2SC2412K

R704
1K

MUTE SW
Q702
DTC114EK

C705
50V 4.7 KA

D706
MTZJ6.8B

D709
MTZJ6.8B

W848

R708
75

R716
1K

D705
MTZJ12B

BUFFER
Q706
2SA1037AK

C708
33P CH

PCB010
TMX457

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 。

AUDIO SIGNAL

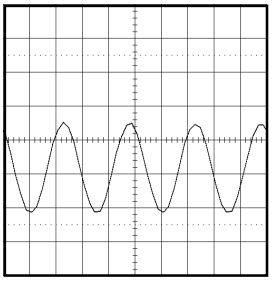
TUNER VIDEO SIGNAL

CAUTION: DIGITAL TRANSISTOR

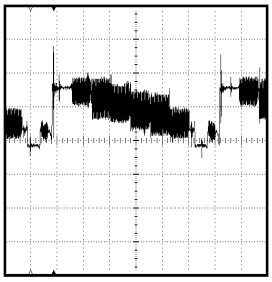
CAUTION: DIGITAL TRANSISTOR

WAVEFORMS

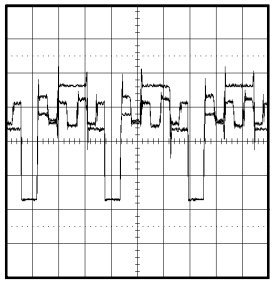
MICON/TUNER



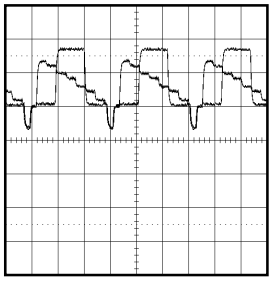
① 1.0V 5ns/div



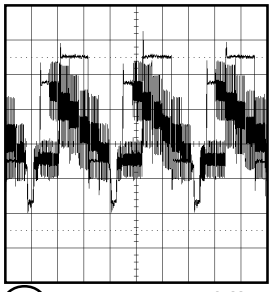
⑥ 0.5V 10µs/div



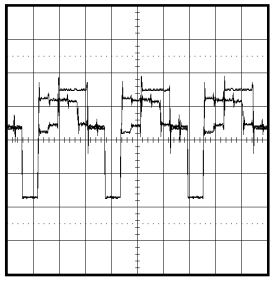
⑫ 1.0V 20µs/div



② 0.5V 20µs/div

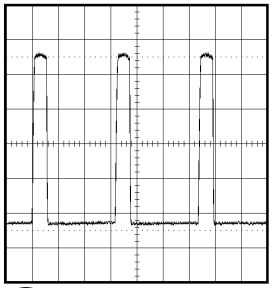


⑦ 0.5V 20µs/div

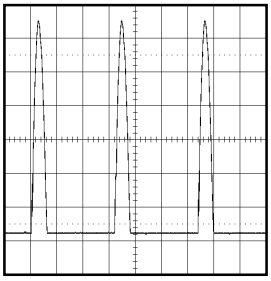


⑬ 1.0V 20µs/div

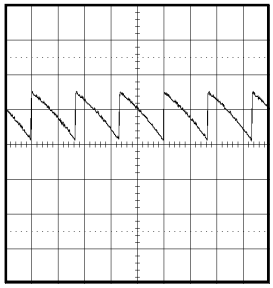
DEFLECTION/CRT



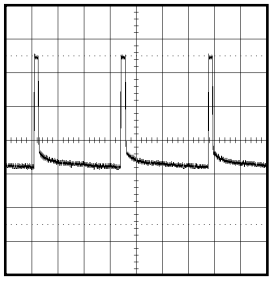
③ 200mV 20µs/div



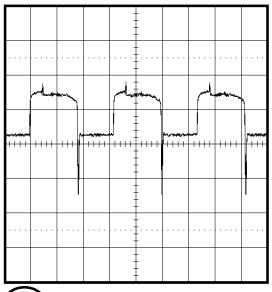
⑧ 1.0V 20µs/div



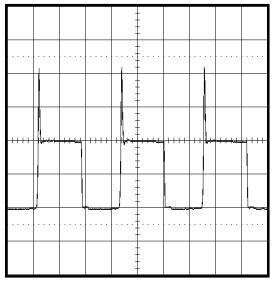
⑭ 1.0V 10ms/div



④ 200mV 5ms/div

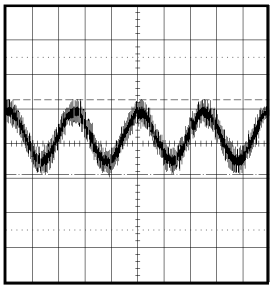


⑨ 0.5V 20µs/div

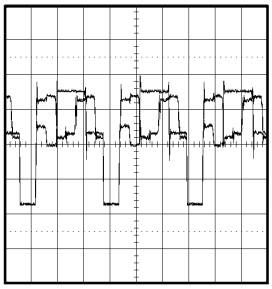


⑮ 20V 20µs/div

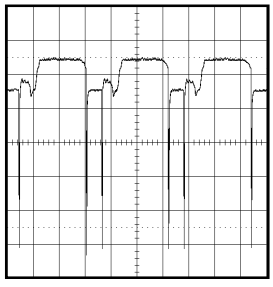
CHROMA



⑤ 0.5V 1ms/div



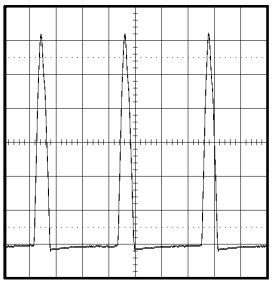
⑪ 1.0V 20µs/div



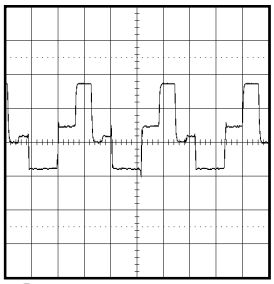
⑯ 2.0V 20µs/div

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

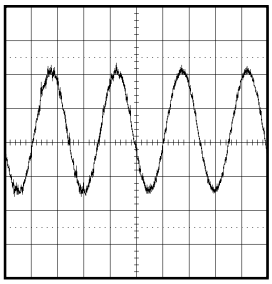
WAVEFORMS



⑰ 200V 20µs/div

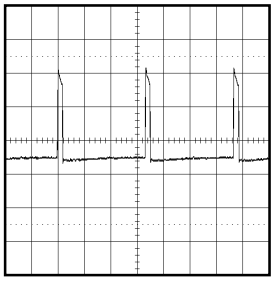


㉒ 50V 20µs/div

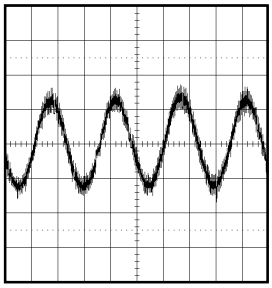


㉘ 200mV 1ms/div

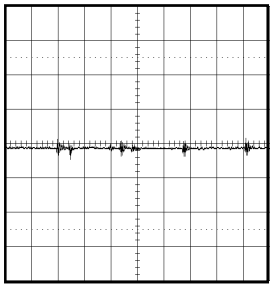
SOUND



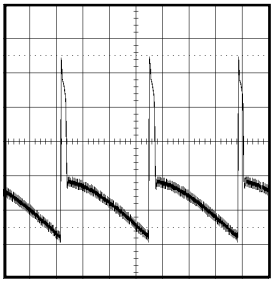
⑱ 10V 5ms/div



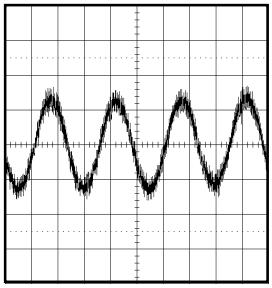
㉓ 0.5V 1ms/div



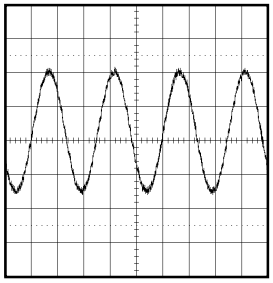
㉙ 0.5V 5µs/div



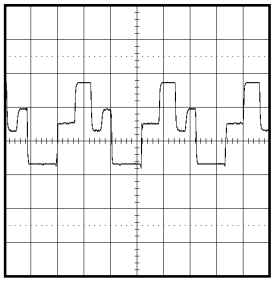
⑲ 10V 5ms/div



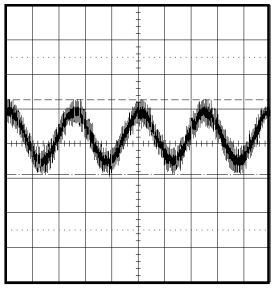
㉔ 0.5V 1ms/div



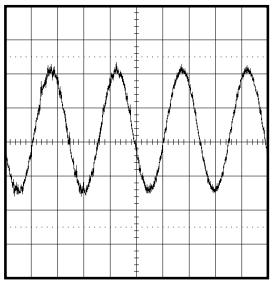
㉚ 200mV 1ms/div



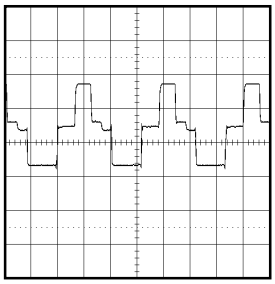
⑳ 50V 20µs/div



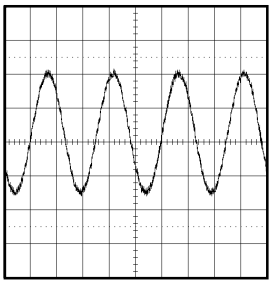
㉕ 0.5V 1ms/div



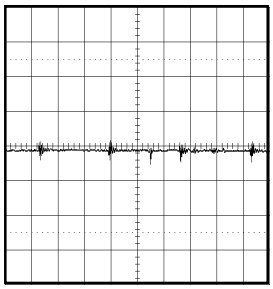
㉛ 200mV 1ms/div



㉑ 50V 20µs/div



㉖ 200mV 1ms/div

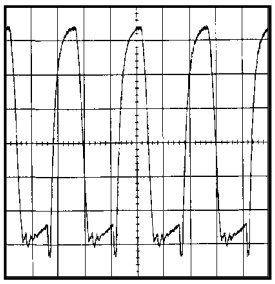


㉜ 5.0V 20ms/div

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

WAVEFORMS

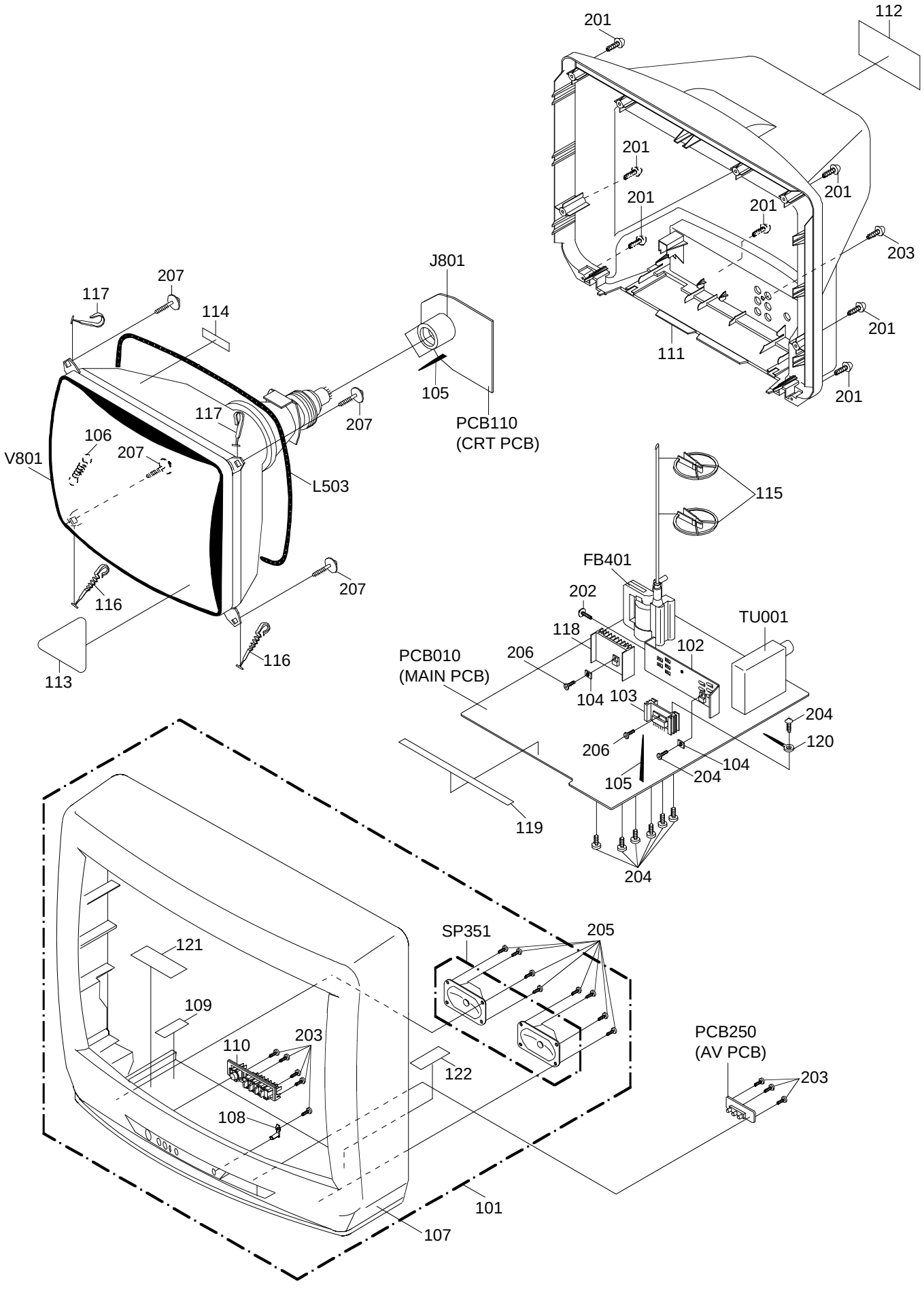
POWER



(33) 500mV 5µs/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	A3I257H720	CABINET,FRONT ASS'Y		
102	---	HEAT SINK		
103	---	HEAT SINK		
104	---	METAL SPACER		
105	---	COATING CLIP		
106	741WUA0021	SPRING,EARTH		
107	701APJA031	CABINET,FRONT		
108	713WPA0098	GUIDE,REMOCON		
109	7230006856	SHEET,CAUTION		
110	735WPA0439	BUTTON ASS'Y		
111	702APA0100	CABINET,BACK		
112	722A08A055	SHEET,RATING		
113	723000B007	FILM,DECORATION		
114	7232020733	SHEET,BRAND		
115	899HV3T001	HOLDER,ANODE WIRE		
116	762WPA0009	HOLDER,CRT WIRE		
117	8994201000	HOLDER,CRT WIRE		
118	---	HEAT SINK		
119	800WQ00045	FELT SHEET		
120	8995034000	CORD CLIP UL CO.		
121	7220001109	SHEET,HWC		
122	7240001041	SHEET,CSA WARNING		
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	8117330A04	SCREW,TAPPING (B0)	FLAT	3x10
206	810A130804	SCREW/WASHER (A)		M3x8
207	8111J50D04	SCREW,TAPPING (A)	GW22	5x40
---	JB5U0100	POLYBAG		
---	J3I25701	INSTRUCTION BOOK		
---	791AHA0014	LAMIFILM BAG		
---	792AHA0077	PACKAGE,TOP		
---	792AHA0078	PACKAGE,BOTTOM		
---	793ACDA083	GIFT BOX		

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
RESISTORS			
R001	R3X181683J	R, METAL	68K OHM 1W
R134	R00106103J	RC	10K OHM 1/6W
R135	R00106272J	RC	2.7K OHM 1/6W
⚠ R401	R4X5T6104F	R, METAL	100K OHM 1/6W
⚠ R402	R3X181102J	R, METAL OXIDE	1K OHM 1W
⚠ R404	R801R7152J	RC	1.5K OHM 1/10W
⚠ R405	R4X5T6223F	R, METAL	22K OHM 1/6W
⚠ R406	R801R7472J	RC	4.7K OHM 1/10W
⚠ R407	R002T22R2J	RC	2.2 OHM 1/2W
⚠ 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
⚠ R421	R001T4224J	RC	220K OHM 1/4W
⚠ R424	R4X5T6123F	R, WETAL	12K OHM 1/6W
⚠ R429	R6558A2R2J	R, FUSE	2.2 OHM 2W
⚠ R434	R002T22R2J	RC	2.2 OHM 1/2W
⚠ R440	R5X2CD272J	R, CEMENT	2.7K OHM 5W
⚠ R500	R0G3K2275K	RC	2.7M OHM 1/2W
R501	R5X2CE1R2J	R, CEMENT	1.2 OHM 7W
R503	R4X5T4332F	R, METAL	3.3K OHM 1/4W
⚠ R505	R3X28B473J	R, METAL OXIDE	47K OHM 3W
⚠ R506	R002T2222J	RC	2.2K OHM 1/2W
R514	R002T4272J	RC	2.7K OHM 1/4W
R517	R3X28AR39J	R, METAL	0.39 OHM 2W
⚠ R542	R33681R15J	R, METAL	0.15OHM 1W
⚠ R543	R635U2681J	R, FUSE	680 OHM 1/2W
R601	R801R7222J	RC	2.2K OHM 1/10W
R650	R00106271J	RC	270 OHM 1/6W
R651	R00106332J	RC	3.3K OHM 1/6W
R656	R00106182J	RC	1.8K OHM 1/6W
⚠ R803	R3X18A123J	R, METAL OXIDE	12K OHM 2W
⚠ R805	R3X18A123J	R, METAL OXIDE	12K OHM 2W
⚠ R807	R3X18A123J	R, METAL OXIDE	12K OHM 2W
R870	R801R7225J	RC	2.2M OHM 1/10W
CAPACITORS			
C130	C0J0SL4H2J	CC	220 PF 50V SL
C402	C01BBP713K	CC	0.001 UF 2KV BP
⚠ C404	E5EZT2471M	CE	470 UF 16V
⚠ C405	E02LT2471M	CE	470 UF 16V
C414	E02LT4101M	CE	100 UF 35V
C415	C0JTSL5H1K	CC	22 PF 500V SL
⚠ C418	E02LF3222M	CE	2200 UF 25V
C433	E02LF4102M	CE	1000 UF 35V
⚠ C434	E02LT8220M	CE	22 UF 100V
⚠ C437	P447F2474J	CMPP	0.47 UF 200V FHS or
	P4J7F3474J	CMPP	0.47 UF 250V PMS
⚠ C443	P414F9153H	CMPP	0.015 UF 1.6KV ECWH
⚠ C444	C01BBP7N2K	CC	390 PF 2KV BP
⚠ C446	E5EZTB010M	CE	1 UF 160V
⚠ C448	E02STC100M	CE	10 UF 200V
C501	E5EZF3102M	CE	1000 UF 25V
⚠ C502	C13HB07H3K	CC	0.0022UF 2KV B
⚠ C503	C13HB07H3K	CC	0.0022UF 2KV B
⚠ C505	P2122B224M	CMP	0.22 UF 250V ECQUL
⚠ C506	P2122B224M	CMP	0.22 UF 250V ECQUL
⚠ C507	E52DGC471M	CE	470 UF 200V or
	E5MCFC471M	CE	470 UF 200V
⚠ C510	E5EZT4101M	CE	100 UF 35V
C514	C01BBP7K3K	CC	0.0027UF 2KV BP
C517	C01BBP7H3K	CC	0.0022UF 2KV BP
⚠ C521	E53VFB221M	CE	220 UF 160V
⚠ C530	CB3LE0M13M	CC	0.001 UF 250V
⚠ C531	E5EZT2102M	CE	1000 UF 16V
⚠ C532	CB3LE0MH3M	CC	0.0022UF 250V
⚠ C533	CB3LE0M13M	CC	0.001 UF 250V
C560	C01BBP7B3K	CC	0.0012UF 2KV BP
C655	E50HU2100M	CE	10 UF 16V
C656	C0JTSL412K	CC	100 PF 50V SL
DIODES			
D001	D94TA30013	DIODE, ZENER	HZ30-3L TD or
	D97U03001B	DIODE, ZENER	MTZJ30B T-77
⚠ D401	D94TA27011	DIODE, ZENER	HZ27-1L TD or
	D97U02701B	DIODE, ZENER	MTZJ27B T-77
⚠ D402	D94TA11B11	DIODE, ZENER	HZ11B1L TD or
	D97U01101B	DIODE, ZENER	MTZJ11B T-77
⚠ D403	D2WT011E10	DIODE, SILICON	11E1-EIC
⚠ D404	D2WTAU02A0	DIODE, SILICON	AU02A-EIC

REF. NO.	PART NO.	DESCRIPTION	
DIODES			
D405	D97U06R21B	DIODE, ZENER	MTZJ6.2B T-77
⚠ D407	D2WTAU02A0	DIODE, SILICON	AU02A-EIC
⚠ D408	D2WTAU02A0	DIODE, SILICON	AU02A-EIC
⚠ D410	D2WTAU02A0	DIODE, SILICON	AU02A-EIC
⚠ D411	D2WTAU02A0	DIODE, SILICON	AU02A-EIC
⚠ D501	D2WTRM11C0	DOIDE, SILICON	RM11C-EIC
⚠ D502	D2WTRM11C0	DOIDE, SILICON	RM11C-EIC
⚠ D503	D2WTRM11C0	DOIDE, SILICON	RM11C-EIC
⚠ D504	D2WTRM11C0	DOIDE, SILICON	RM11C-EIC
⚠ D505	D28T21DQN9	DIODE, SCHOTTKY	21DQ09N-TA2B1
⚠ D506	D2LTPG06J0	DIODE, SILICON	RMPG06J-G3
⚠ D509	D28T21DQN9	DIODE, SCHOTTKY	21DQ09N-TA2B1
⚠ D510	D2BTRU2AM0	DIODE, SILICON	RU2AM V1
⚠ D514	D28TQS04N0	DIODE, SCHOTTKY	11EQS04N-TA1B2
D515	D28TQS04N0	DIODE, SCHOTTKY	11EQS04N-TA1B2
D516	D1VT001330	DIODE, SILICON	1SS133T-77
D518	D1VT001330	DIODE, SILICON	1SS133T-77
⚠ D521	D1VT001330	DIODE, SILICON	1SS133T-77
D528	D97U05R61B	DIODE, ZENER	MTZJ5.6B T-77
D601	D1VT001330	DIODE, SILICON	1SS133T-77
D602	D97U08R21B	DIODE, ZENER	MTZJ8.2B T-77
D605	D2WT011E10	DIODE, SILICON	11E1-EIC
D606	D97U08R21B	DIODE, ZENER	MTZJ8.2B T-77
D607	D1VT001330	DIODE, SILICON	1SS133T-77
D608	D97U08R21B	DIODE, ZENER	MTZJ8.2B T-77
D609	D97U08R21B	DIODE, ZENER	MTZJ8.2B T-77
D610	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D701	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D702	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D703	D97U01201B	DIODE, ZENER	MTZJ12B T-77
D704	D97U06R81B	DIODE, ZENER	MTZJ6.8B 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
ICS			
IC101	I56F07044A	IC	OEC7044A
IC199	A3I255H015	IC	S-24C02BDP-11
⚠ IC351	I03SP46000	IC	LA4600
⚠ IC401	I03TD80410	IC	LA78041
⚠ IC501	I2BT06624G	IC	STR-G6624
⚠ IC506	0002500560	PHOTO COUPLER	TLP621(D4-GR-LF2)
IC601	I06FC12030	IC	M61203BFP
IC702	I0QS02234L	IC	NJM2234L
IC852	I01FF58290	IC	AN5829S
IC853	I1KJ98L090	IC	KIA78L09BP-AT
IC854	I06DF62420	IC	M62420SP
TRANSISTORS			
Q101	TNYJJ05001	COMPOUND TRANSISTOR	DTC114TKAT146
Q351	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
⚠ Q401	TDUU024990	TRANSISTOR, SILICON	2SD2499(LBOEC1)
⚠ Q402	TC3Q026210	TRANSISTOR, SILICON	2SC2621(D,E)-RAC
Q403	TPYTD05001	COMPOUND TRANSISTOR	DTA144EKT147
Q504	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2)
Q507	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2)
Q601	TD3T007340	TRANSISTOR, SILICON	2SD734(E,F)-AA
Q602	TPYTD05001	COMPOUND TRANSISTOR	DTA144EKT147
Q603	TD3T007340	TRANSISTOR, SILICON	2SD734(E,F)-AA
Q604	TD3T007340	TRANSISTOR, SILICON	2SD734(E,F)-AA
Q605	TD3T007340	TRANSISTOR, SILICON	2SD734(E,F)-AA
Q606	TD3T007340	TRANSISTOR, SILICON	2SD734(E,F)-AA
Q607	TNYTB05001	COMPOUND TRANSISTOR	DTC114EKT147
Q701	TPYTD05001	COMPOUND TRANSISTOR	DTA144EKT147
Q702	TNYTB05001	COMPOUND TRANSISTOR	DTC114EKT147
Q705	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
Q706	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q707	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
⚠ Q801	TC3Q040750	TRANSISTOR, SILICON	2SC4075-YAC or
	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q802	TC3Q040750	TRANSISTOR, SILICON	2SC4075-YAC or
	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q803	TC3Q040750	TRANSISTOR, SILICON	2SC4075-YAC or
	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
Q851	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)
Q852	T6YJ1037K0	TRANSISTOR, SILICON	2SA1037AKT146(R,S)

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		
		COILS &TRANSFORMERS		
	L101	021LA62R7K	COIL	2.7 UH	
⚠	L401	022100031A	COIL, LINEARITY	ELH5L7120	
⚠	L501	029F000074	COIL, LINE FILTER	FET24S-H22502	
⚠	L503	028H270007	COIL, DEGAUSS	8H270007	or
		028R250009	COIL, DEGAUSS	8R250009	
	L601	021LA61R2M	COIL	1.2 UH	
	L605	021LA61R0M	COIL	1 UH	
	L606	021LA62R2K	COIL	2.2 UH	
	L607	021LA6150K	COIL	15 UH	
	L608	021LA66R8K	COIL	6.8 UH	
	L801	02A6A8A0A1	CORE, FERRITE	HF57T18.5*10*10	
	L851	021673220K	COIL	22 UH	
	T401	045013001J	TRANS, HORIZONTAL DRIVE	5013001	
⚠	T501	048135048S	TRANSFORMER, SWITCHING	8135048S	
		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		
	VR502	V1263L2BTC	VOLUME, SEMI FIXED	RH063MCN2R	or
		V1163L2BTC	VOLUME, SEMI FIXED	EVNCYAA03BY2	
		P.C.BOARD ASSEMBLIES		
	PCB010	A3I257H01A	PCB ASS'Y	TMX457A	
	PCB110	A3I256H11A	PCB ASS'Y	TCX317A	
	PCB250	A3I256H25A	PCB ASS'Y	TEXA22A	
		MISCELLANEOUS		
	B502	024AT03482	CORE, BEADS	BL02RN2-R62T4	
	B504	024AT03655	CORE, BEADS	BL01RN1-A63T6	
	B505	024AT03655	CORE, BEADS	BL01RN1-A63T6	
⚠	CD501	120R614909	CORD, AC	0R614909	or
		1207614909	CORD, AC	7614909	
	CD701	122E043505	CORD, JUMPER	2E043505	
	CD801	068M82025A	CORD, CONNECTOR	8M82025A	
	CD802	122E054201	CORD, JUMPER	122E054201	
	CD803	122E044101	CORD, JUMPER	122E044101	
⚠	CD804	068M34010A	CORD, CONNECTOR DY	8M34010A	
	CD805	068M82025A	CORD, CONNECTOR	8M82025A	
	CF601	1022T45R72	FILTER, SAW	SAF45MFY220ZR	
	CF603	1012T4R509	FILTER, CERAMIC	SFSH4.5MCB-TF21	
	CF604	1012T4R503	FILTER, CERAMIC TRAP	TPS4.5MB-TF21	
	CP351	069W14T299	CONNECTOR PCB SIDE	TID-X04P-Z1	
	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	
	CP601	0697260650	CONNECTOR PCB SIDE	TKC-M06X-A1	
	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	
	CP701A	067R004019	WIRE HOLDER	51048-0410	
	CP701B	069R240589	CONNECTOR PCB SIDE	52147-0410	
	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	800WFAA006	CUSHION A		
⚠	F501	081PA6R302	FUSE	23706.3	
⚠	FB401	043227005Q	TRANSFORMER, FLYBACK	3227005	
	FH501	06710T0006	HOLDER, FUSE	EYF-52BC	
	FH502	06710T0006	HOLDER, FUSE	EYF-52BC	
	OS101	077Q014003	REMOTE RECEIVER	PIC-28143SY-2	
⚠	RY501	0560Q10201	RELAY	SDT-S-109LMR	
	SP351	070W532010	SPEAKER	MS-2D30SB326W	
⚠	TH501	DF40B3R0Q0	DEGAUSS ELEMENT	PTBD14K2-3R0Q141	
	TM101	076R074160	TRANSMITTER	R25-1055	
⚠	TU001	0145K00050	TUNER, UHF-VHF	TECC1040PG31A	
⚠	V801	0984270706	CRT W/DY	A68ADT25X01	
	X101	1002T00801	CERAMIC OSILLATOR	8MHz	or
		1002T00802	CERAMIC OSCILLATOR	8MHz	
	X602	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.	M3I2-57H
O/R NO.	A053508