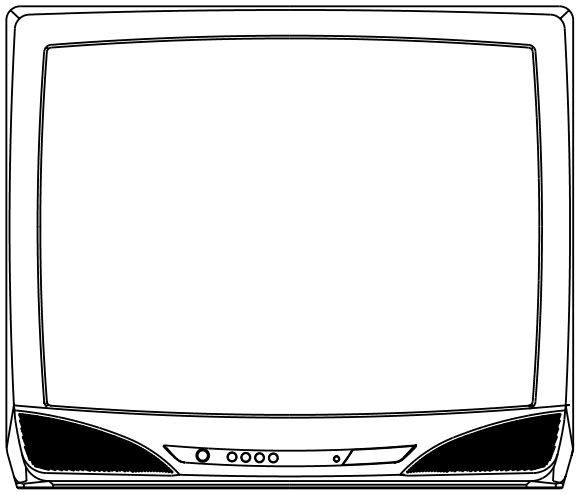
Memorex®

MT2252

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION E

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.

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GENERAL SPECIFICATIONS

G-1	**TV System**	CRT	CRT Size / Visual Size	25 inch / 626mmV	
			CRT Type	Normal	
			Deflection	100	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	110 W at AC 120 V 60 Hz	
			Stand by (at AC)	4 W at AC 120 V 60 Hz	
			Per Year	-- kWh/Year	
		Protector	Power Fuse	Yes	
G-4	**Regulation**		Safety	UL	
			Radiation	FCC	
			X-Radiation	DHHS	
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		No
			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-74	
		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	27 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)		No
		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
		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	
		Channel Lock		No
		Just Clock Function		No

GENERAL SPECIFICATIONS

		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	
				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			Yes	
		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		No
				Audio Input		No
				Other Terminal		No
			Rear	Video Input(Rear1)		No
				Video Input(Rear2)		No
				Audio Input(Rear1)		No
				Audio Input(Rear2)		No
				Video Output		No
				Audio Output		No
				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)	618 x 504 x 525	
G-15	Weight			Net (Approx.)	27kg	(59.9 lbs)
				Gross (Approx.)	29Kg	(64.3 lbs)
G-16	Carton		Master Carton			No
				Content	----	Sets
				Material		--_____ /--

GENERAL SPECIFICATIONS

			Dimensions W x D x H(mm)	-- x -- x --
			Description of Origin	No
		Gift Box		Yes
			Material	Double/Brown
			Dimensions W x D x H(mm)	689 x 577 x 620
			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		204 Sets/40' container
G-17	**Cabinet Material**		Cabinet Front	PS 94V0 DECABROM
			Cabinet Rear	PS 94V0 DECABROM

DISASSEMBLY INSTRUCTIONS

1. REMOVAL OF ANODE CAP

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

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

REMOVAL

1. Follow the steps as follows to discharge the Anode Cap. **(Refer to Fig. 1-1.)**
   Connect one end of an Alligator Clip to the metal part of a flat-blade screwdriver and the other end to ground.
   While holding the plastic part of the insulated Screwdriver, touch the support of the Anode with the tip of the Screwdriver.
   A cracking noise will be heard as the voltage is discharged.

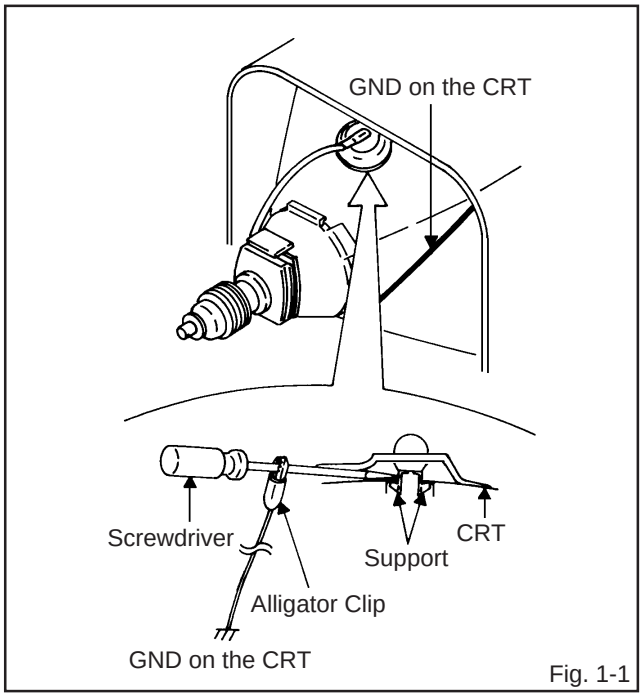


Fig. 1-1

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

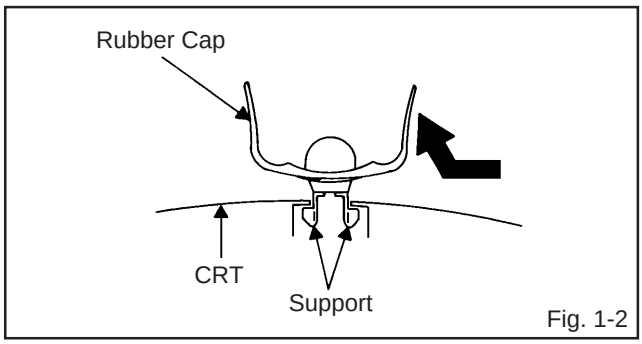


Fig. 1-2

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

NOTE

Take care not to damage the Rubber Cap.

INSTALLATION

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

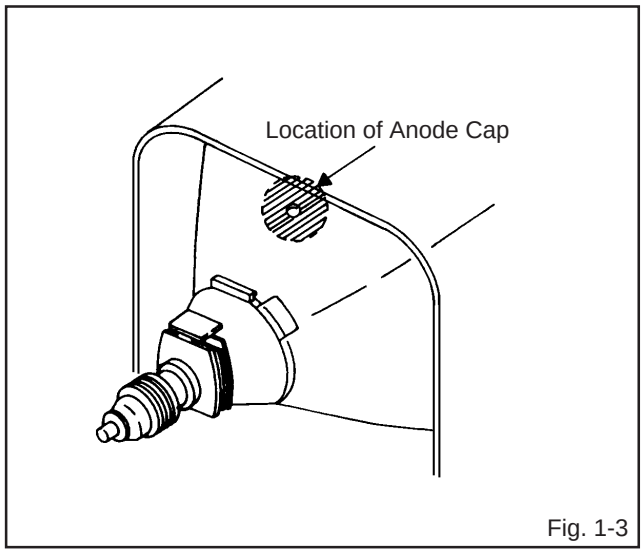


Fig. 1-3

NOTE

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

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

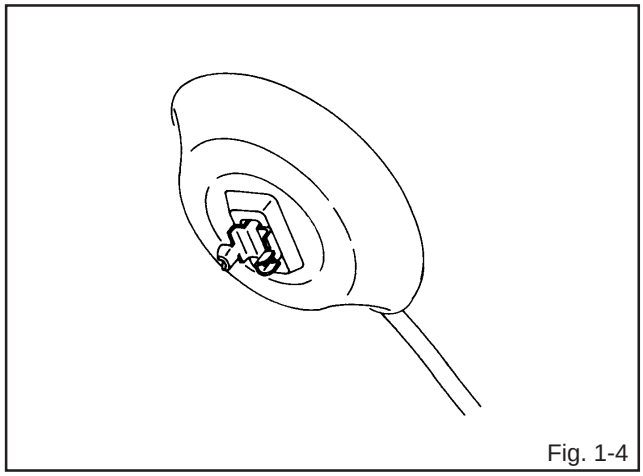


Fig. 1-4

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

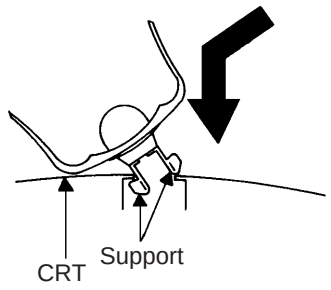


Fig. 1-5

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

2. REMOVAL OF DEFLECTION YOKE

(Refer to Fig. 2-1)

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

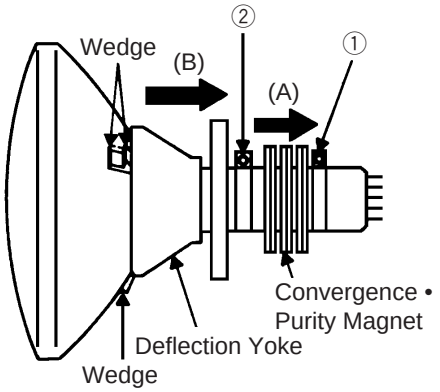


Fig. 2-1

INSTALLATION

Install new Deflection Yoke in reverse steps of REMOVAL.

NOTE

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

SERVICE MODE LIST

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

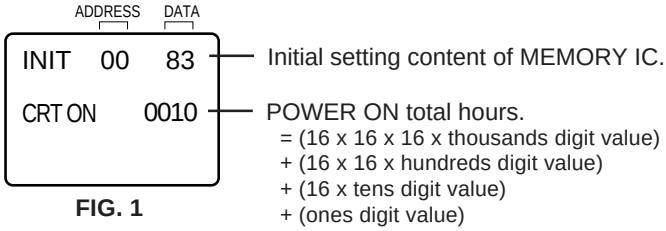


FIG. 1

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	A0	5A	A2	39	02	63	24	38	A3	21	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**.

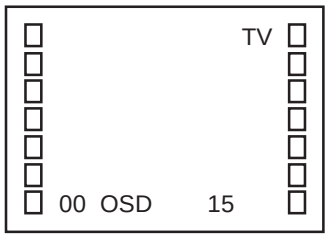


Fig. 1-1

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 64dB monoscope pattern.
2. Connect the digital voltmeter to **TP001** and the **GND**.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(02)** on the remote control to select "RF AGC DELAY".
4. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 3.00 ± 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=135, 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 15 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 synchro scope to **TP024**.
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

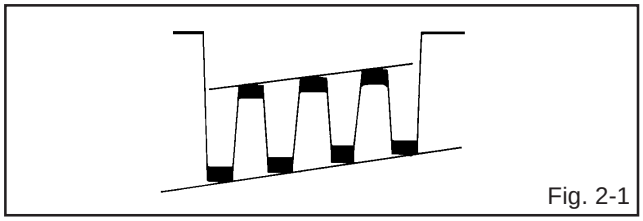


Fig. 2-1

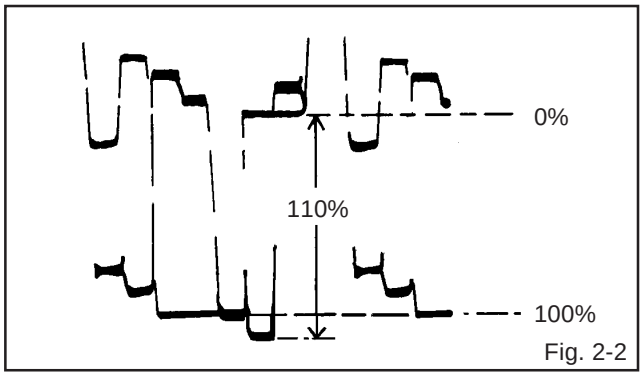


Fig. 2-2

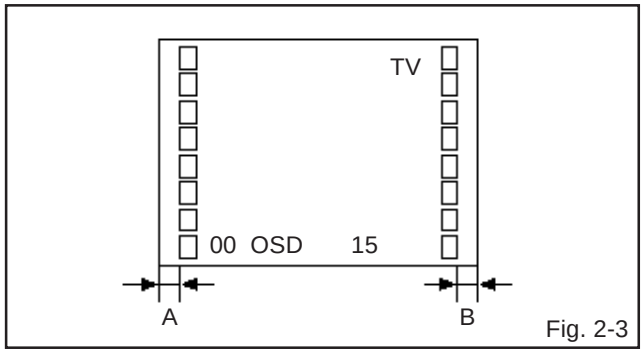


Fig. 2-3

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.

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 between the **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: CONSTANT 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 ± 0.5V.

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 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 unit the output of L-CH and R-CH become 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.

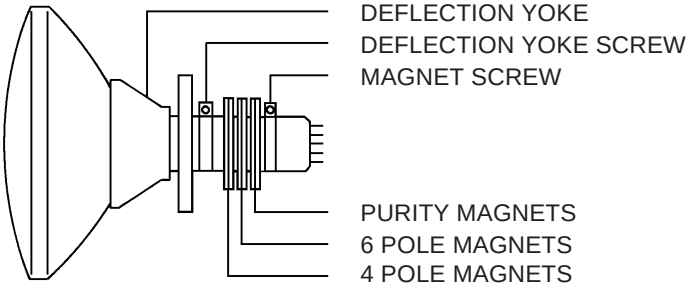


Fig. 3-1

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)**

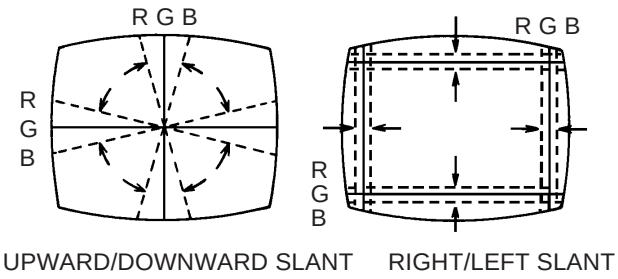


Fig. 3-2-a

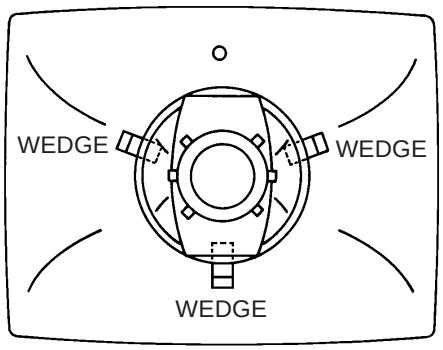
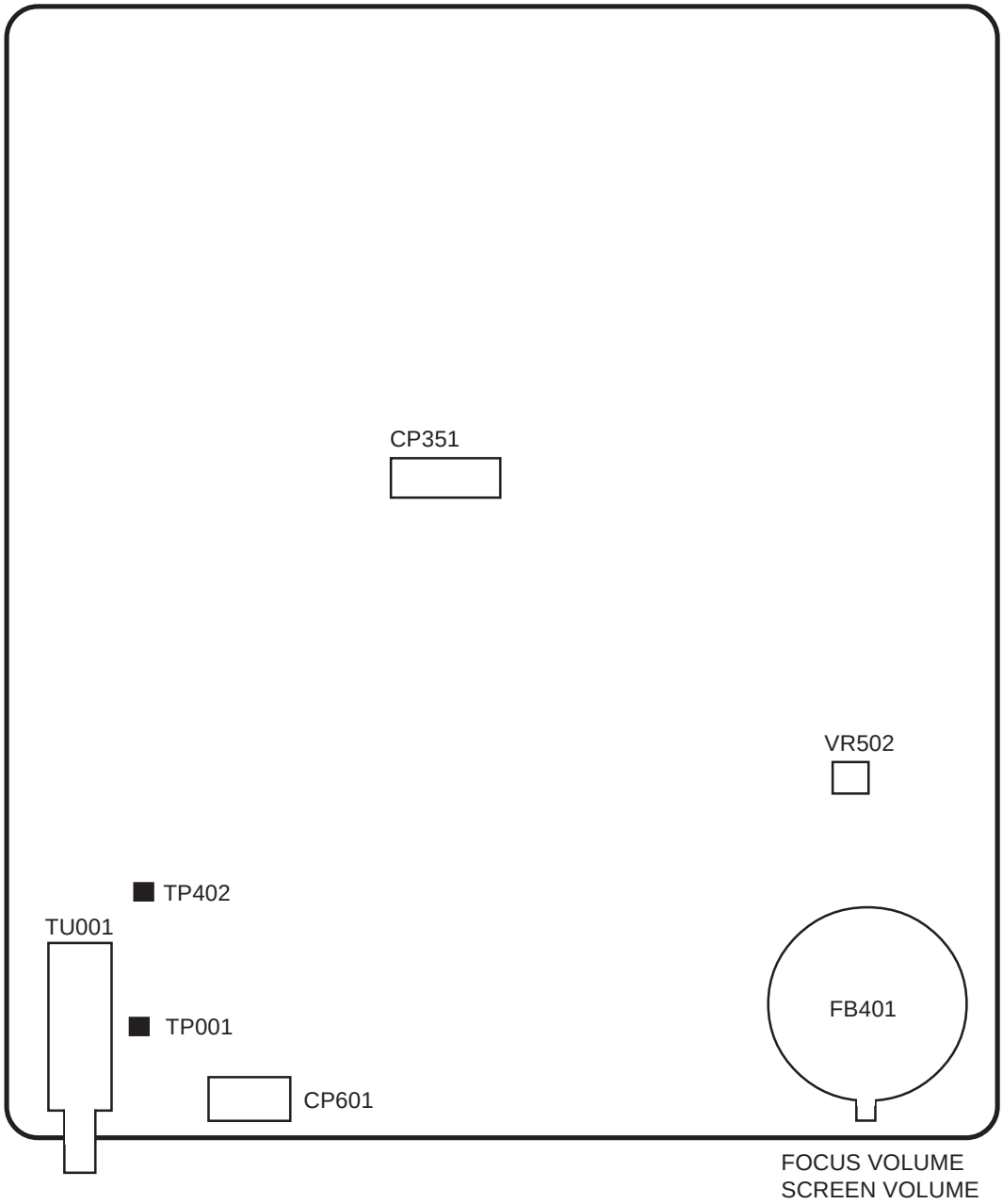
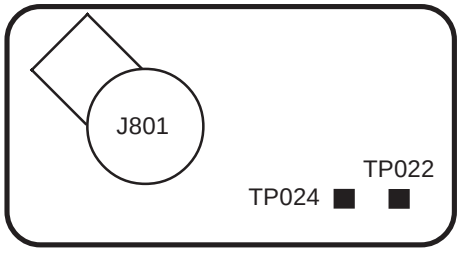


Fig. 3-2-b

MAJOR COMPONENTS LOCATION GUIDE

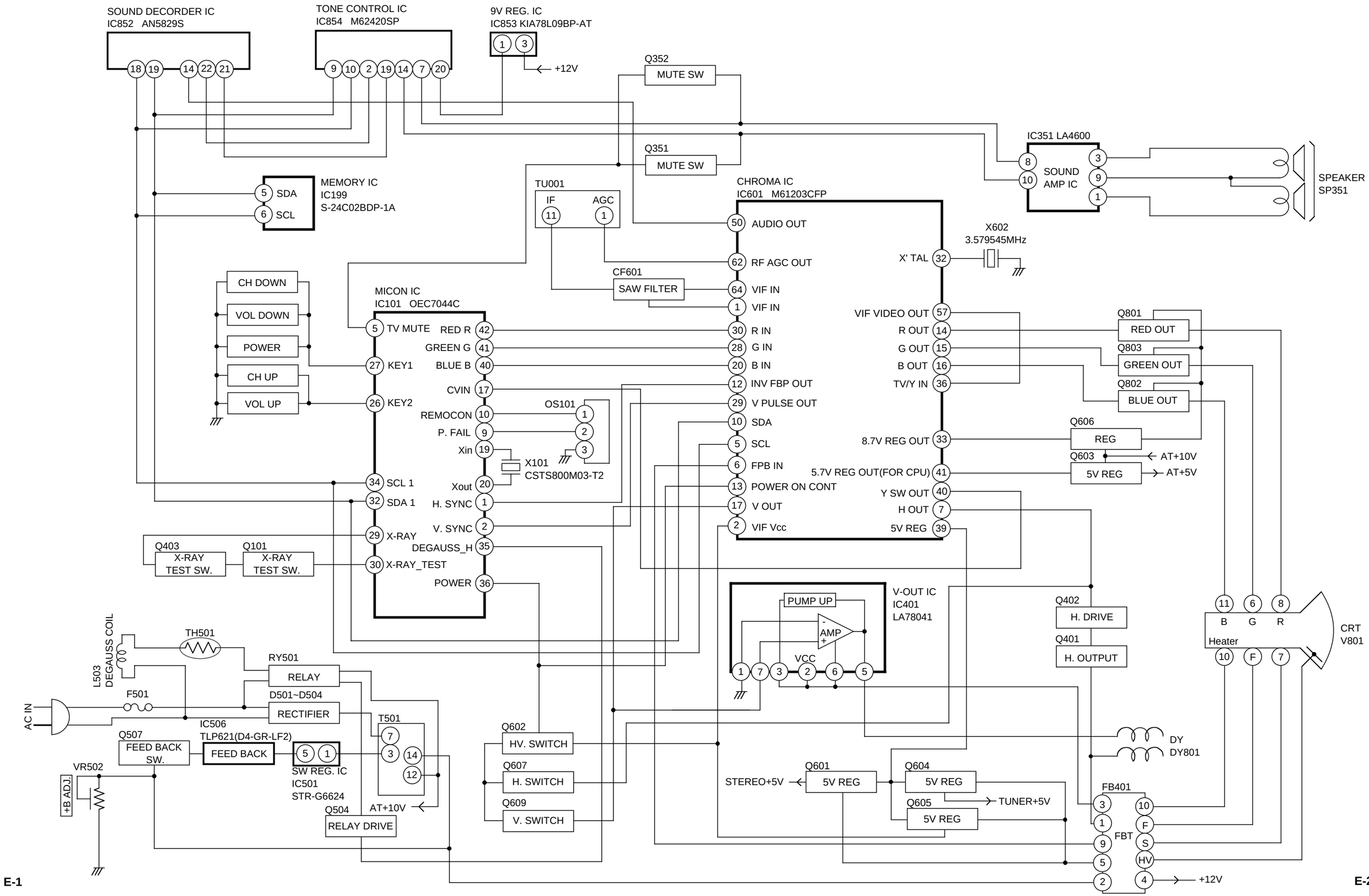


MAIN PCB



CRT PCB

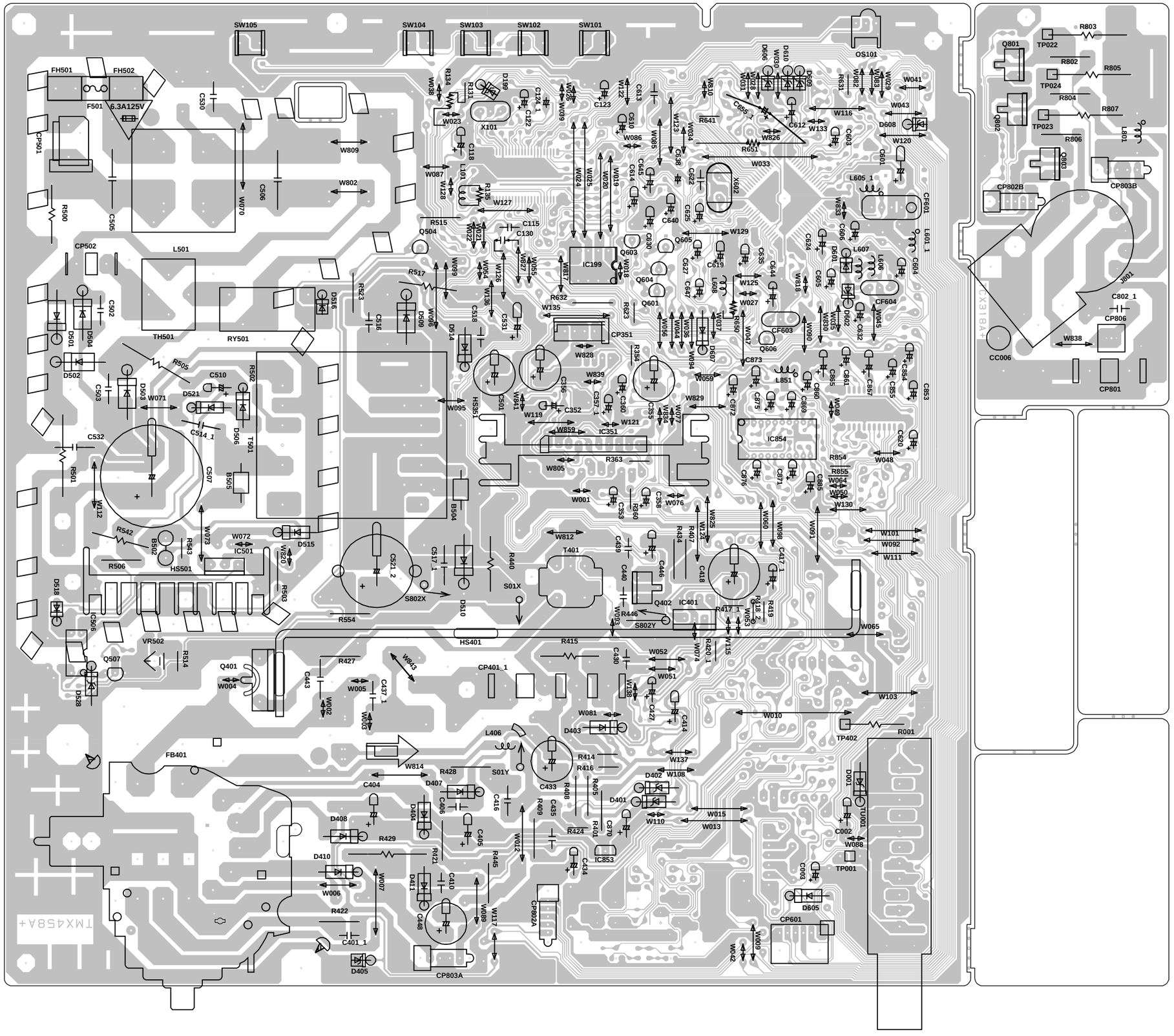
BLOCK DIAGRAM



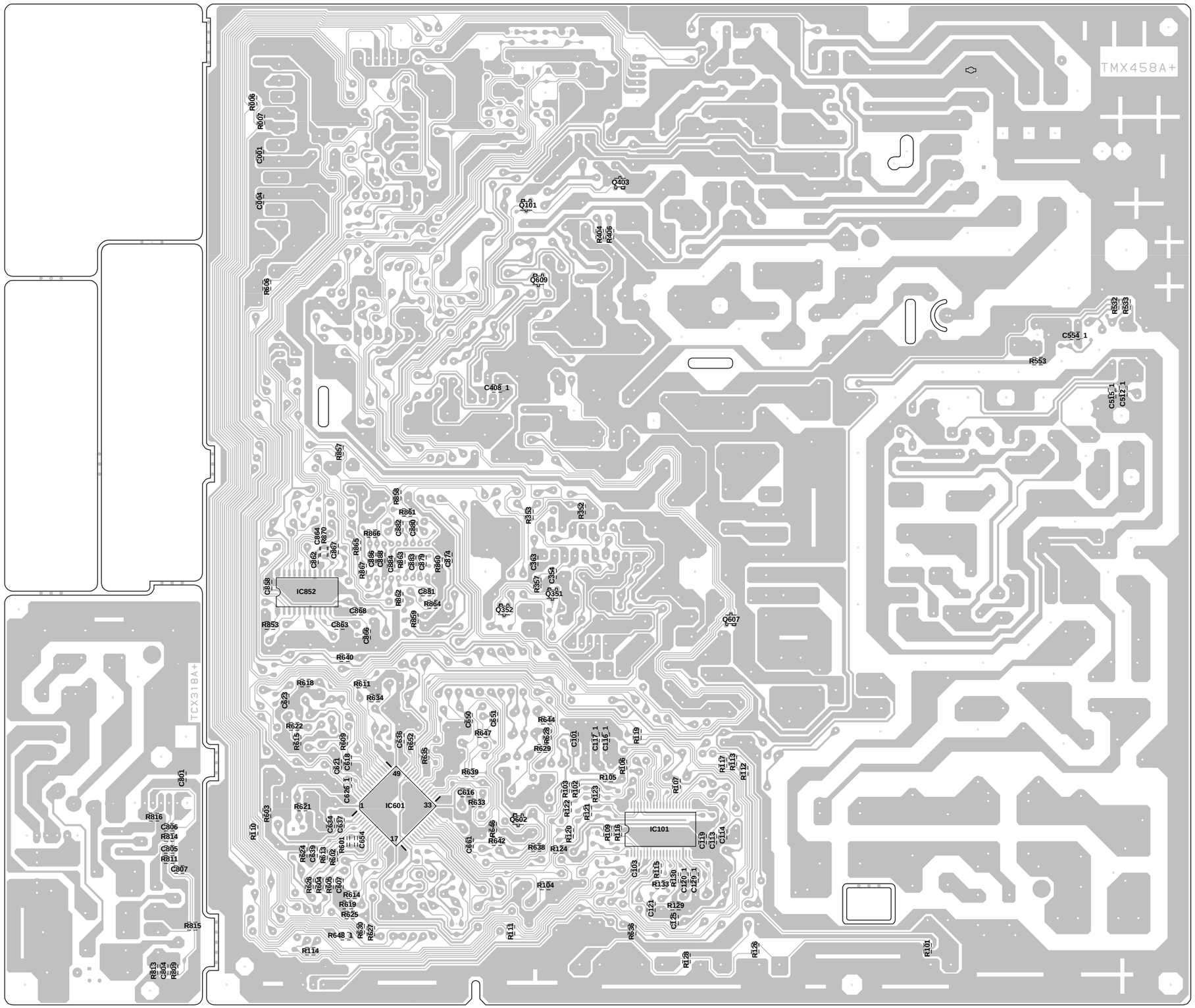
E-1

E-2

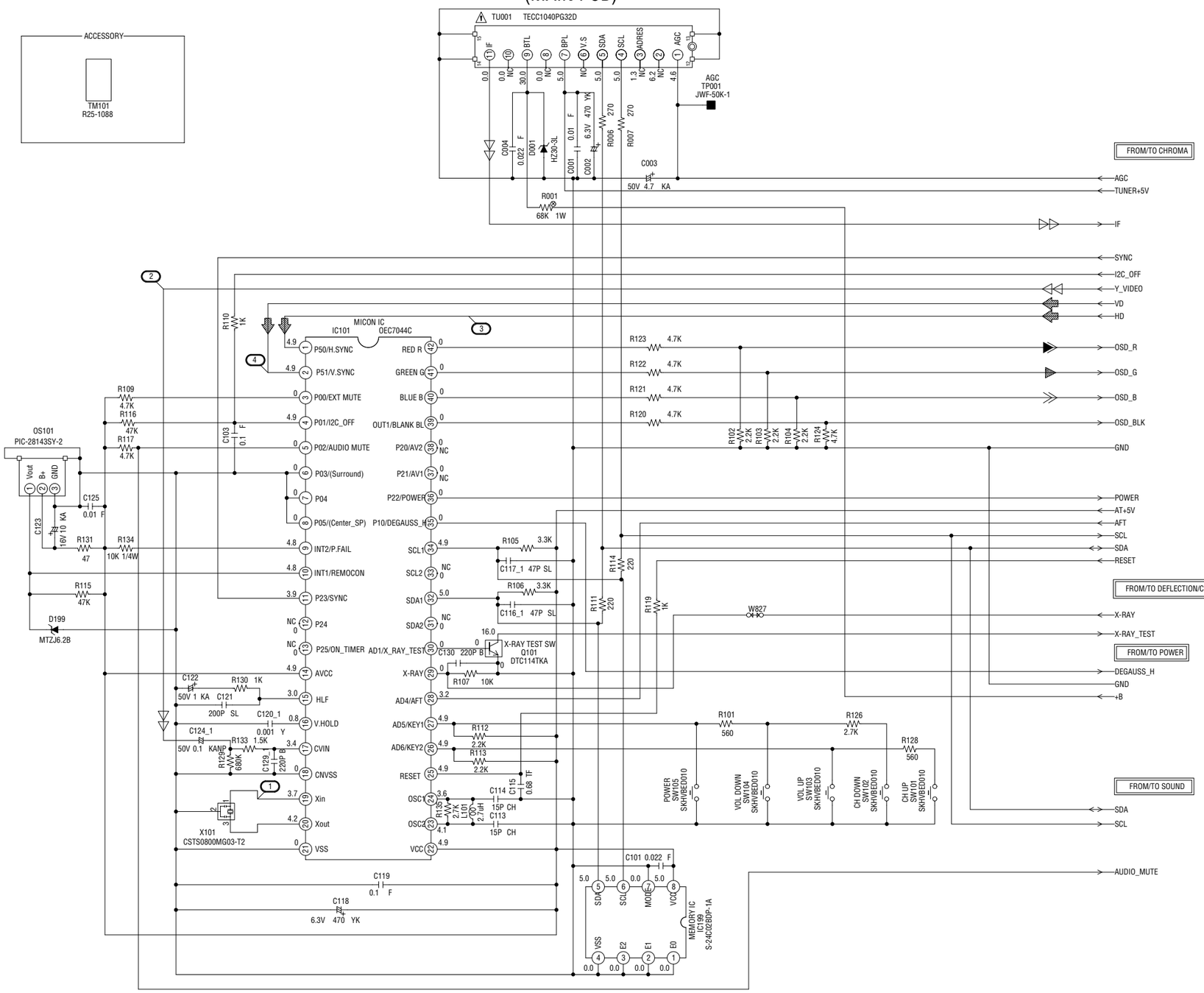
PRINTED CIRCUIT BOARDS
MAIN/CRT (INSERTED PARTS)
SOLDER SIDE



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



MICON/TUNER SCHEMATIC DIAGRAM
(MAIN PCB)



PCB010
TMX458

CAUTION: DIGITAL TRANSISTOR

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

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

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

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

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

CHROMA SCHEMATIC DIAGRAM
(MAIN PCB)

FROM POWER
AT+10V
GND
TO SOUND
STEREO+5V
TU_AUDIO_OUT
FROM/TO MICON/TUNER
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 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
B.OUT 6
INT.MONI 5
IIC_OFF 4
SDA 3
SCL 2
GND 1
5V REG Q601 2SD734
5V REG Q604 2SD734
5V REG Q605 2SD734
REG Q606 2SD734
5V REG Q603 2SD734
CF604 EFCT4R5MW5
CF603 SFSH4.5MCB
D607 1SS133
X602 3.57954MHz
W818
W830
W817
W833
W826
SAW FILTER CF601 SAF45MFY220ZR
CHROMA IC I6O1 M61203CFP
L601_1 1.2uH
L605_1 1uH
L606 2.2uH
L607 15uH
L608 6.8uH
D602 MTZ8.2B
D601 1SS133
D609 MTZ6.8B
D608 MTZ6.8B
D606 MTZ6.8B
D610 MTZ6.8B
V.SWITCH Q609 DTC114EK
H.SWITCH Q607 DTC114EK
HV.SWITCH Q602 DTA144EKA
AUDIO OUT
AUDIO BYPASS
EXT AUDIO IN
FM DIRECT OUT
VIF VCO F/B
VREG Vcc
VIF APC FILTER
VIF VIDEO OUT
VIF GND
AFT OUT
QIF IN
RF AGC OUT
RF AGC FILTER
Hi Vcc
INTELLIGENT MONI
MCU RESE
5.7V REG OUT(FOR CPU)
Y SW OUT
5v REG
VIDEO/CHROMA GND
TV/Y IN
CHROMA APC FILTER
ACL/ABCL
R IN
V PULSE OUT
G IN
FAST BLK
SPOT KILLER
fsc OUT
VIDEO CHROMA Vcc
V RAMP CAP
V RAMP FEEDBACK
B IN
STRAT UP Vcc
VIF Vcc
H VCO F/B
SCL
FBP IN
H OUT
ODF
SDA
AFC FILTER
INV FBP OUT
POWER ON CONT
R OUT
G 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
64 VIF IN
1 VIF IN
17 V OUT
16 B OUT
PCB010
TMX458

CAUTION: DIGITAL TRANSISTOR
CAUTION: DIGITAL TRANSISTOR

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

DEFLECTION/CRT SCHEMATIC DIAGRAM (MAIN PCB)

FROM/TO CHROMA
CLAMP
G.OUT
B.OUT
R.OUT
V_FEEDBACK
V_OUT
ABCL
H_SYNC
H_OUT
FBT+8V
GND

FROM/TO MICON/TUNER
X-RAY
X-RAY_TEST

TO SOUND
+12V

FROM POWER
+B
GND

CP802A 51048-0510 — CD802 2E053701 — CP802B 51048-0510
GND 5 — CLAMP 4 — G.OUT 3 — B.OUT 2 — R.OUT 1

K001 8115529
K002 8115529
K003 8115529
MG801 29MMSTAR
CD801 8M82025A
CP801 TS-80P-02-V1

V-OUT IC IC401 LA78041
THERMAL PROTECTION
PUMP UP
AMP
VCC GND
1 2 3 4 5 6 7
3.9 26.1 2.2 0 13 26 39

C414 35V 100 YK
D403 11E1-EIC
R418_2 22K +-1%
R420_1 6.8K 1/4W
C430 100V 0.068 TF
R415 330 1W
R414 1/2W 1.5K
C408_1 150P SL
R417_1 11K 1/4W +-1%
R419 2.7K 1/4W
C417_1 1 TF
C418 25V 2200 YK
R407 1/2W 2.2
R434 1/2W 2.2
C427 50V 10 MHE
R416 1/2W 1.5K
HS401 763WAA0104
DY801 3321 203 00040
CC006 TP-1S-05

V801 A63AFW36X
B G R

RED OUT Q801 2SC4217
GREEN OUT Q803 2SC4217
BLUE OUT Q802 2SC4217
C807 0.1 F
C804 390P CH
C806 390P CH
C805 390P CH
R809 4.7K
R814 4.7K
R811 4.7K
R813 330
R816 330
R815 330
100.6 3.2 2.7
98.4 3.2 2.7
95.4 3.2 2.7

R401 100K +-1%
R405 22K +-1%
D401 HZ2F-TL
R404 1/4W 2.7K
R406 1/4W 2.7K
R408 1/4W 18K +-1%
D402 HZ11B1L
X-RAY TEST SW. Q403 DTA144EKA
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 35V 470 YK
CP401_1 TS-80P-04-V1

C437_1 250V 0.56 PMS
R429 4.7 2W
C439 500V 22P SL
H.DRIVE Q402 2SC2621
27.0 0.3 0
C440 500V 470P B
R446 1/2W 4.7K
T401 5013001
H.OUTPUT Q401 2SD2499(LBOEC1) 114.0
C443 1.6KV 0.01 ECWH
R427 100 1/4W
W843
FB401 3225010F
112.0 COL
128.0
128.0 VIDEO
0 B+
0 AFC
0 HEA
0 TER
0 GND
0.3 E12
-0.1 E25
FOCUS
SCREEN
CP806 005P-2100
W838
S802Y
R440 3.3K 5W
C446 160V 1 MHE
W812
D405 MTZJ6.2B
C401_1 220P B
R422 6.8K 1/2W
L406 18uH
C416 200V 0.027 PP
R428 8.2 1/2W
D410 AU02A-EIC
D407 AU02A-EIC
C406 500V 0.0022 B
W814
C802_1 2KV 0.001 B
L801 220uH
C801 330P CH
J801 CVT3275-5102
96.4 6.4 101.6 99.6 0

D408 AU02A-EIC
C404 16V 470 MHE
C448 250V 10 YK
D404 AU02A-EIC
C405 16V 470 YK
R445 100K 1/4W
C435 100V 0.22 TF
R421 100K 1/4W

CP803A 51052-0400 — CD803 2E044101 — CP803B 51052-0400
HEATER 4 — GND 3 — GND 2 — 180V 1

PCB010 TMX458
PCB110 TCX318

R.SIGNAL
G.SIGNAL
B.SIGNAL
DEFLECTION SIGNAL

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

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

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

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

CAUTION: DIGITAL TRANSISTOR

POWER SCHEMATIC DIAGRAM
(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)

RELAY DRIVE Q504 2SC1815Y
D516 1SS133
R515 47K 10K 1/4W
R523 47K 10K 1/4W
RY501 SDT-S-109LMR
DEGAUSS COIL L503 8R250009
CP502 TV-50P-02-A1
TH501 PTBD14K2-3R0Q141
R500 47K 2.7M 1/2W +-10%
C530 250V 0.001 KH
R501 1.2 7W
W802
W809
D501 RM1TC-EIC
D502 RM1TC-EIC
D503 RM1TC-EIC
D504 RM1TC-EIC
C502 2KV 0.001 B
C503 2KV 0.001 B
C505 1 250V 0.1 ECQUL
C506 250V 0.1 ECQUL
C507 200V 330 USR
6.3A 125V
FH501 EYF-52BC
23706.3 F501 6.3A125V
FH502 EYF-52BC
L501 FET24S-H22502
AC120V_60Hz CD501 0R614909
BLACK
WHITE
BLADE WIDE
CP501 THL-P03P-B1
SW REG.IC IC501 STR-G6624
DRIVER
FB/OCP VCC GND S D
1.7 0.2 100.5 16.5 0
R505 47K 3W
W820
R503 3.3K 1/4W +-1%
FEED BACK IC506 TLP621(D4-GR-LF2)
C554_1 0.0022 Y
FEED BACK SWITCHING Q507 2SC1815Y
+B ADJ VR502 470
R514 2.7K 1/4W
R553 1.8K
R554 56K 1/2W
R533 390
R532 330
D528 MTZJ5.6B
C512_1 470P B
D515 11EQS04N
R543 680 1/2W
D518 1SS133
R506 2.2K 1/2W
C515_1 470P B
R542 0.15 1W
HS501 763WAAA023
B502 BL02RN2-R62T4
C510 35V 100 MHE
D521 1SS133
B505 BL01RN1-A63
C514_1 2KV 0.0012 YR
D506 RMPG06J
R502 22 1/2W
C532 1 250V 0.0022 KH
GND1
T501 8135048S
154.4 150.4 NC NC
C516 500V 470P B
D509 21DQ09N
R517 0.39 2W
C501 25V 1000 MHE
B504 BL01RN1-A63
D510 RU2AM
C517_1 2KV 0.0015 YR
C521_2 160V 100 YXF
S802X
C518 500V 470P B
D514 11EQS04N
C531 16V 1000 MHE

TO CHROMA
AT+10V
GND
TO DEFLECTION/CRT
GND
+B
TO SOUND
SOUND+B
GND
SOUND_GND
FROM/TO MICON/TUNER
+B
DEGAUSS_H
GND

CAUTION: ⏚ IS THE LIVE CONNECTION

PCB010
TMX458

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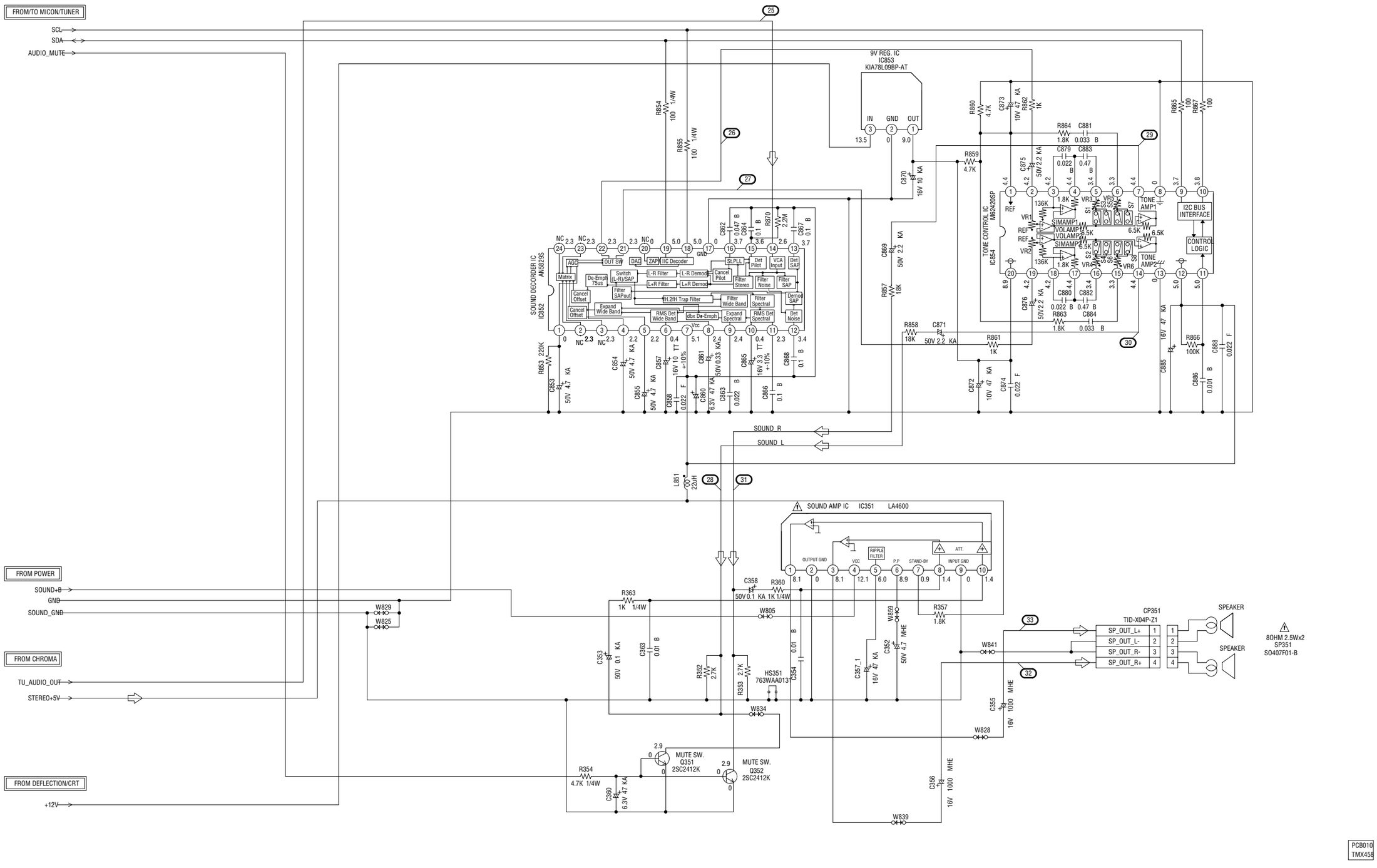
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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
(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 。

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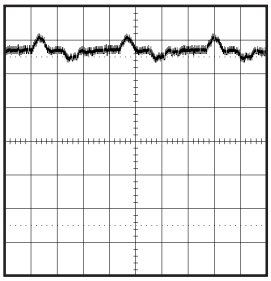
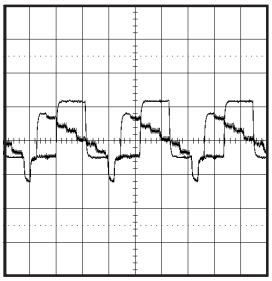
WAVEFORMS

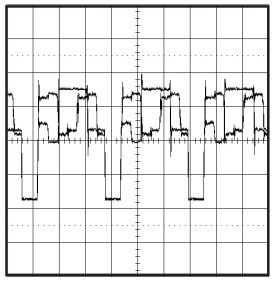
MICON/TUNER



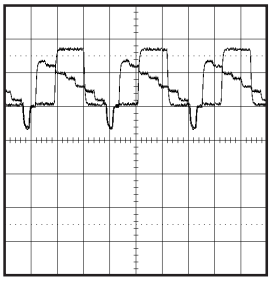
① 200mV 5ms/div



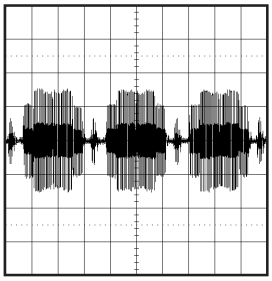
⑥ 0.5V 20µs/div



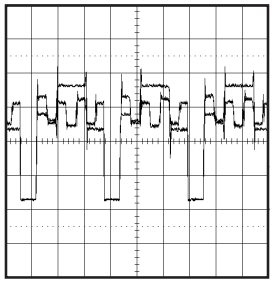
⑪ 1V 20µs/div



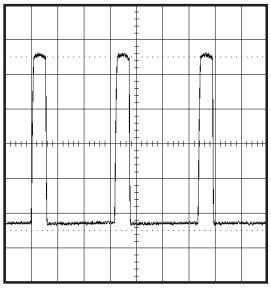
② 0.5V 20µs/div



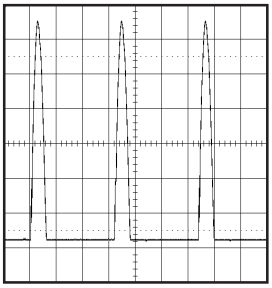
⑦ 200mV 20µs/div



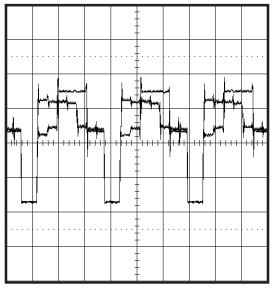
⑫ 1V 20µs/div



③ 200mV 20µs/div

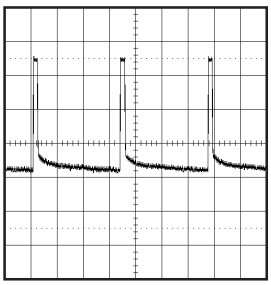


⑧ 20V 20µs/div

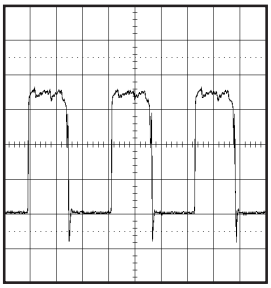


⑬ 1V 20µs/div

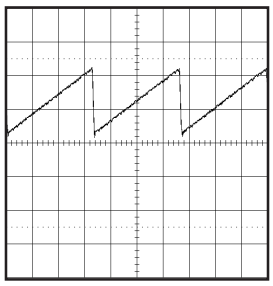
DEFLECTION/CRT



④ 200mV 5ms/div

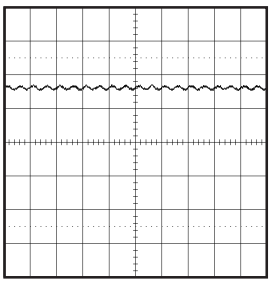


⑨ 200mV 20µs/div

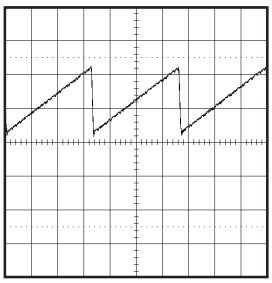


⑭ 0.5V 5ms/div

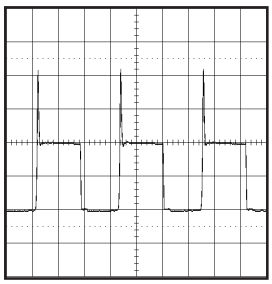
CHROMA



⑤ 0.5V 2ms/div



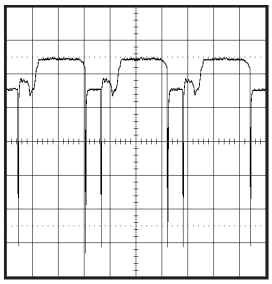
⑩ 0.5V 5ms/div



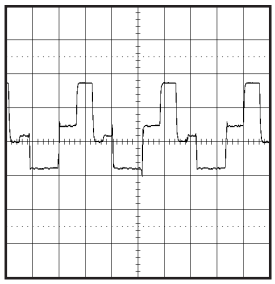
⑮ 20V 20µs/div

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

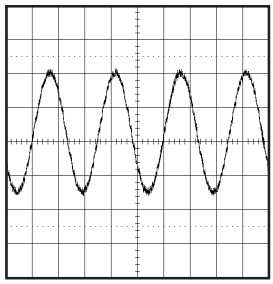
WAVEFORMS



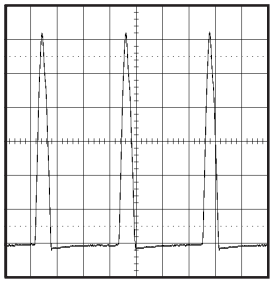
⑯ 2V 20µs/div



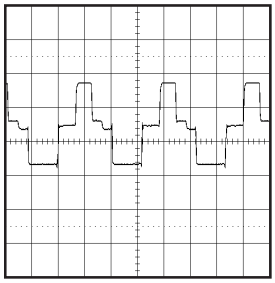
㉑ 50V 20µs/div



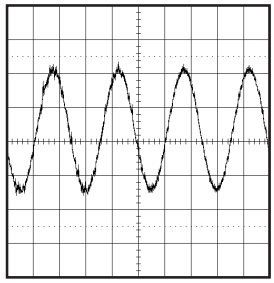
㉖ 200mV 1ms/div



⑰ 200V 20µs/div

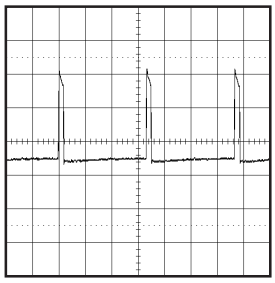


㉒ 50V 20µs/div

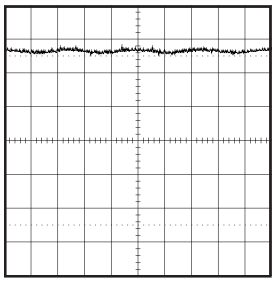


㉗ 200mV 1ms/div

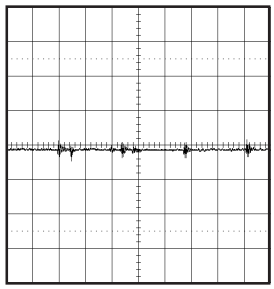
POWER



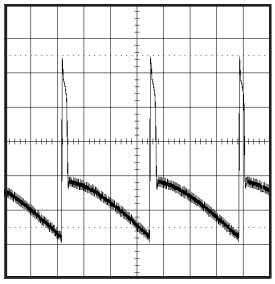
⑱ 10V 5ms/div



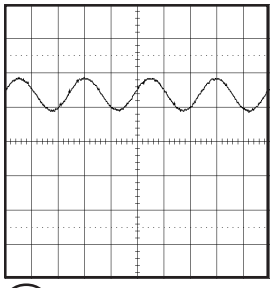
㉓ 0.5V 1ms/div



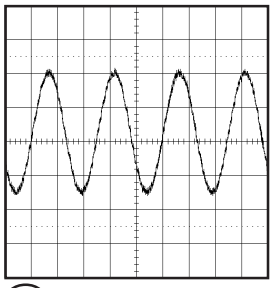
㉘ 0.5V 5µs/div



⑲ 10V 5ms/div

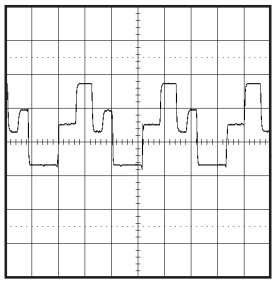


㉔ 1V 1ms/div

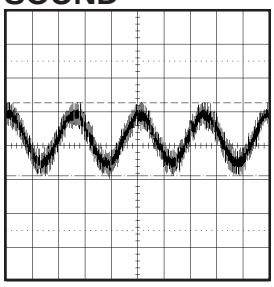


㉙ 200mV 1ms/div

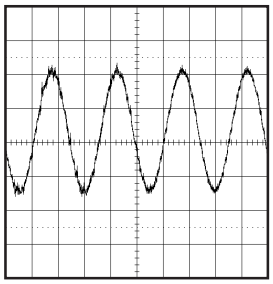
SOUND



⑳ 50V 20µs/div



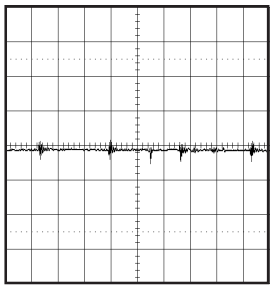
㉕ 0.5V 1ms/div



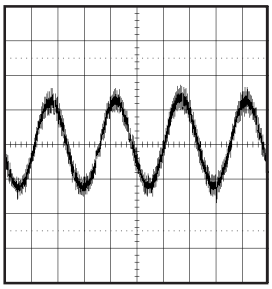
㉚ 200mV 1ms/div

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

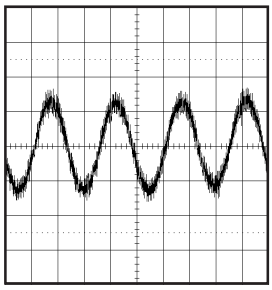
WAVEFORMS



(31) 5.0V 20ms/div



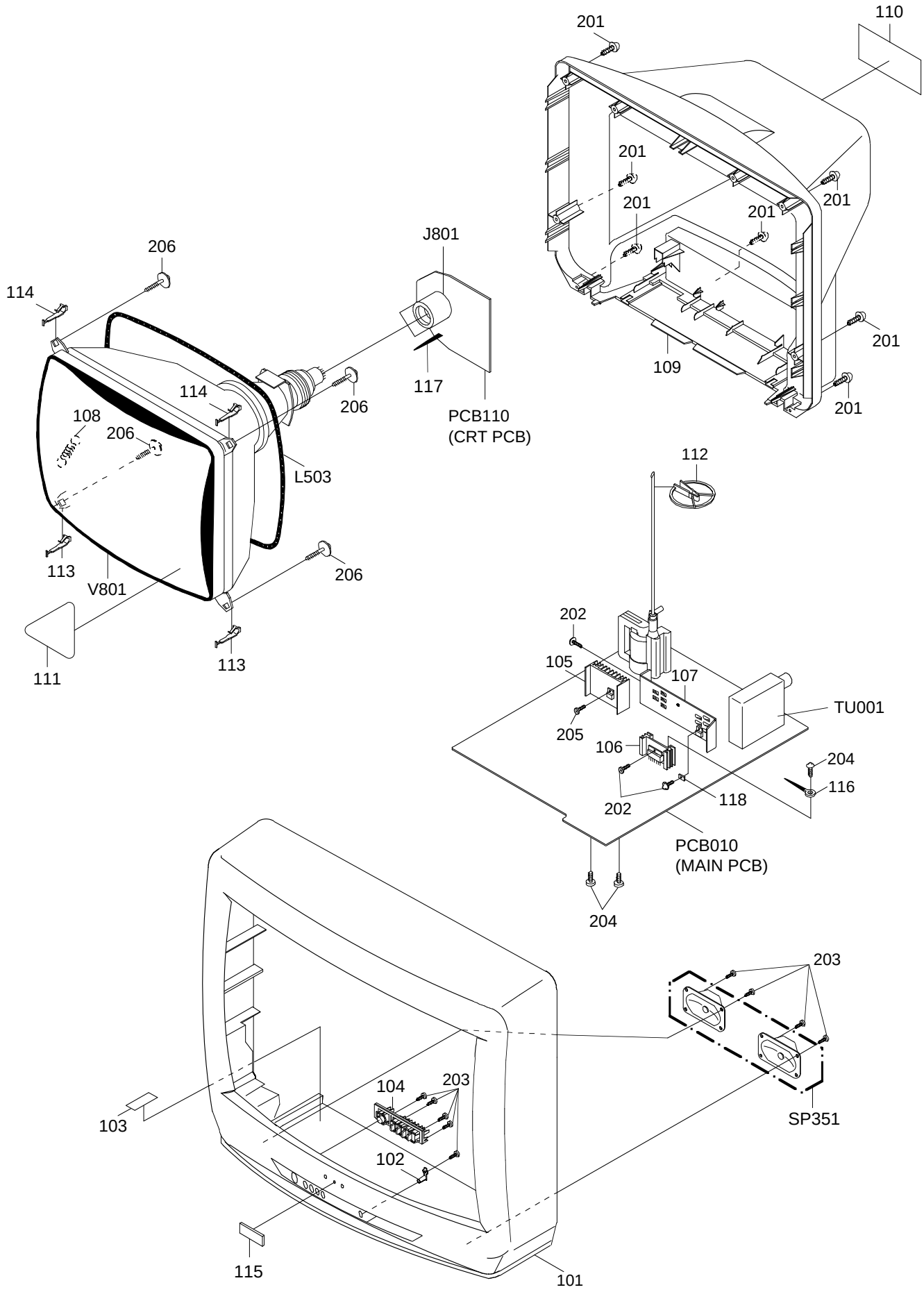
(32) 0.5V 1ms/div



(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	701APJA056	CABINET,FRONT		
102	713WPA0098	GUIDE,REMOCON		
103	7260000306	SHEET,CAUTION		
104	735WPA0439	BUTTON,ASS'Y		
105	---	HEAT SINK		
106	---	HEAT SINK		
107	---	HEAT SINK		
108	741WUA0021	SPRING,EARTH		
109	702APA0121	CABINET,BACK		
110	722A08A074	SHEET,RATING		
111	723000B301	FILM,DECORATION		
112	899HV3T001	HOLDER,ANODE WIRE		
113	762WPA0009	HOLDER,CRT WIRE		
114	8994201000	HOLDER,CRT WIRE		
115	711WPCA021	BADGE BRAND		
116	8995034000	CORD CLIP UL CO.		
117	---	COATING CLIP		
118	---	METEAL SPACER		
201	8117540B04	SCREW,TAPPING (B0)	TRUSS	4x20
202	8109I30A04	SCREW,TAP TITE (B)	WH7	3x10
203	8110630A04	SCREW,TAP TITE (P)	BRAZIER	3x10
204	8109630802	SCREW,TAP TITE (B)	BRAZIER	3x8
205	810B130A04	SCREW/WASHER (B)		M3x10
206	8141J50C54	SCREW,TAP TITE (P)	GW22	5x35
---	JB5L0200	POLYBAG		
---	J3I0B001	INSTRUCTION BOOK		
---	J3I0B017	REGISTRATION CARD		
---	791AHA0021	FILM,BAG		
---	792AHA0083	PACKAGE,TOP		
---	792AHA0084	PACKAGE,BOTTOM		
---	793ACDA110	GIFT BOX		

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
RESISTORS			
R001	R3X181683J	R, METAL	68K OHM 1W
R134	R002T4103J	RC	10K OHM 1/4W
R135	R00106272J	RC	2.7K OHM 1/6W
⚠ R401	R4X5T6104F	R, METAL	100K OHM 1/6W
⚠ R404	R903N8272J	RC	2.7K OHM 1/8W
⚠ R405	R4X5T6223F	R, METAL	22K OHM 1/6W
⚠ R406	R903N8272J	RC	2.7K OHM 1/8W
⚠ R407	R002T22R2J	RC	2.2 OHM 1/2W
⚠ R408	R4X5T6183F	R, METAL	18K OHM 1/6W
⚠ R409	R4X5T6622F	R, METAL	6.2K OHM 1/6W
R415	R3X181331J	R, METAL	330 OHM 1W
⚠ R421	R001T4104J	RC	100K OHM 1/4W
⚠ R424	R4X5T6123F	R, METAL	12K OHM 1/6W
⚠ R429	R6558A4R7J	R, FUSE	4.7 OHM 2W
⚠ R434	R002T22R2J	RC	2.2 OHM 1/2W
⚠ R440	R5X2CD332J	R, CEMENT	3.3K OHM 5W
⚠ R500	R0G3K2275K	RC	2.7M OHM 1/2W
⚠ R501	R5X2CE1R2J	R, CEMENT	1.2 OHM 7W
R502	R002T2220J	RC	22 OHM 1/2W
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
R515	R002T4103J	RC	10K OHM 1/4W
⚠ R517	R3X28AR39J	R, METAL	0.39 OHM 2W
⚠ R542	R33681R15J	R, METAL	0.15 OHM 1W
⚠ R543	R635U2681J	R, FUSE	680 OHM 1/2W
R650	R00104271J	RC	270 OHM 1/4W
R651	R00106332J	RC	3.3K 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			
C130	CHG0B04H2K	CC	220 PF 50V B
⚠ C404	E5EZT2471M	CE	470 UF 16V
⚠ C405	E02LT2471M	CE	470 UF 16V
C414	E02LT4101M	CE	100 UF 35V
C416	P3N1F2273J	CPP	0.027 UF 200V
⚠ C418	E02LF3222M	CE	2200 UF 25V
C433	E02LT4471M	CE	470 UF 35V
⚠ C434	E02LT8220M	CE	22 UF 100V
⚠ C437	P4J7F3564J	CMPP	0.56 UF 250V PMS
⚠ C443	P414F9103H	CMPP	0.01 UF 1.6KV ECWH
⚠ C446	E5EZTB010M	CE	1 UF 160V
⚠ C448	E0ELTD100M	CE	10 UF 250V
C501	E5EZF3102M	CE	1000 UF 25V
⚠ C502	C130B0713K	CC	0.001 UF 2KV B
⚠ C503	C130B0713K	CC	0.001 UF 2KV B
⚠ C505	P2122B104M	CMP	0.1 UF 250V ECQUL
⚠ C506	P2122B104M	CMP	0.1 UF 250V ECQUL
⚠ C507	E52DGC331M	CE	330 UF 200V
⚠ C510	E5EZT4101M	CE	100 UF 35V
C514	C0JLYR7B3K	CC	0.0012UF 2KV YR or
	C01BBP7B3K	CC	0.0012UF 2KV BP
C517	C0JLYR7E3K	CC	0.0015UF 2KV YR or
	C01BBP7E3K	CC	0.0015UF 2KV BP
C521	E62NFB101M	CE	100 UF 160V
⚠ C530	CB3LE0M13M	CC	0.001 UF 250V
⚠ C531	E5EZT2102M	CE	1000 UF 16V
⚠ C532	CB3LE0MH3M	CC	0.0022UF 250V
C654	CS0RCH4H2J	CC	220 PF 50V CH
C655	E02L05100M	CE	10 UF 50V
DIODES			
D001	D94TA30013	DIODE, ZENER	HZ30-3L TD
D199	D97U06R21B	DIODE, ZENER	MTZJ6.2B 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 or
	D92UA6R2B2	DIODE, ZENER	RD6.2ES AB2
⚠ 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	DIODE, SILICON	RM11C-EIC
⚠ D502	D2WTRM11C0	DIODE, SILICON	RM11C-EIC

REF. NO.	PART NO.	DESCRIPTION	
DIODES			
⚠ D503	D2WTRM11C0	DIODE, SILICON	RM11C-EIC
⚠ D504	D2WTRM11C0	DIODE, SILICON	RM11C-EIC
⚠ 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 or
	D92UA8R2B2	DIODE, ZENER	RD8.2ES AB2
D605	D2WT011E10	DIODE, SILICON	11E1-EIC
D606	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D607	D1VT001330	DIODE, SILICON	1SS133T-77
D608	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D609	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
D610	D97U06R81B	DIODE, ZENER	MTZJ6.8B T-77
ICS			
IC101	I56F07044C	IC	OEC7044C
IC199	A3I0B0E015	IC	S-24C02BDP-1A
⚠ IC351	I03SP46000	IC	LA4600
⚠ IC401	I03TD80410	IC	LA78041
⚠ IC501	I2BT06624G	IC	STR-G6624
⚠ IC506	0002500560	PHOTO COUPLER	TLP621(D4-GR-LF2)
IC601	I06FC1203C	IC	M61203CFP
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)
Q352	T8YJ2412K0	TRANSISTOR, SILICON	2SC2412KT146(R,S)
⚠ Q401	TDUU024990	TRANSISTOR, SILICON	2SD2499(LB0EC1)
⚠ Q402	TC3Q026210	TRANSISTOR, SILICON	2SC2621(D,E)-RAC
Q403	TPYJD05001	COMPOUND TRANSISTOR	DTA144EKAT146
Q504	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2) or
	TCATC31980	TRANSISTOR, SILICON	KTC3198-AT(Y,GR)
Q507	TC5T018154	TRANSISTOR, SILICON	2SC1815Y(TPE2) or
	TCATC31980	TRANSISTOR, SILICON	KTC3198-AT(Y,GR)
Q601	TD3T007340	TRANSISTOR, SILICON	2SD734(E,F)-AA
Q602	TPYJD05001	COMPOUND TRANSISTOR	DTA144EKAT146
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
Q609	TNYTB05001	COMPOUND TRANSISTOR	DTC114EKT147
⚠ Q801	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q802	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q803	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
COILS & TRANSFORMERS			
L101	021LA62R7K	COIL	2.7 UH
L406	021U6D180K	COIL	18 UH
⚠ L501	029F000074	COIL, LINE FILTER	FET24S-H22502
⚠ L503	028R250009	COIL, DEGAUSS	8R250009
L601	0216731R2K	COIL	1.2 UH
L605	0216731R0J	COIL	1 UH
L606	021LA62R2K	COIL	2.2 UH
L607	021LA6150K	COIL	15 UH
L608	021LA66R8K	COIL	6.8 UH
L801	021673221K	COIL	220 UH
L851	021673220K	COIL	22 UH
T401	045013001J	TRANS, HORIZONTAL DRIVE	5013001
⚠ T501	048135048S	TRANSFORMER, SWITCHING	8135048S
JACK			
⚠ 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 RESISTOR			
VR502	V1163Q2BTC	VOLUME, SEMI FIXED	EVNCYAA03BQ2

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		
		P.C.BOARD ASSEMBLIES		
	PCB010	A3I0B0E01A	PCB ASS'Y	TMX458A	
	PCB110	A3I0B0E11A	PCB ASS'Y	TCX318A	
		MISCELLANEOUS		
	B502	024AT03482	CORE, BEADS	BL02RN2-R62T4	
	B504	024AT03655	CORE, BEADS	BL01RN1-A63T6	
	B505	024AT03655	CORE, BEADS	BL01RN1-A63T6	
⚠	CD501	120R614909	CORD, AC	0R614909	
	CD801	068M82025A	CORD, CONNECTOR	8M82025A	
	CD802	122E053701	CORD, JUMPER	2E053701	
	CD803	122E044101	CORD, JUMPER	2E044101	
	CF601	1022T45R72	FILTER, SAW	SAF45MFY220ZR	
	CF603	1012T4R509	FILTER, CERAMIC	SFSH4.5MCB-TF21	
	CF604	1011T4R517	FILTER, CERAMIC	EFCT4R5MW5	
	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	or
		069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD	
	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	
	CP806	069W010010	CONNECTOR PCB SIDE	005P-2100	
	CP802A	067R005019	WIRE HOLDER	51048-0510	
	CP802B	067R005019	WIRE HOLDER	51048-0510	
	CP803A	067R104019	WIRE HOLDER	51052-0400	
	CP803B	067R104019	WIRE HOLDER	51052-0400	
⚠	DY801	027Q062501	DY	3321 203 00040	
⚠	F501	081PA6R302	FUSE	23706.3	
⚠	FB401	043225010F	TRANSFORMER, FLYBACK	3225010F	
	FH501	06710T0006	HOLDER, FUSE	EYF-52BC	
	FH502	06710T0006	HOLDER, FUSE	EYF-52BC	
	K001	129A000010	WEDGE	8115529	
	K002	129A000010	WEDGE	8115529	
	K003	129A000010	WEDGE	8115529	
	MG801	026A062704	MAGNET, CONVERGENCE	29MMSTAR	
	OS101	077Q014003	REMOTE RECEIVER	PIC-28143SY-2	or
		077Q047001	REMOTE RECEIVER	PIC-47143SY	
⚠	RY501	0560Q10201	RELAY	SDT-S-109LMR	or
		0560V10118	RELAY	ALKS325	
⚠	SP351	070Y433002	SPEAKER	SO407F01-B	
⚠	TH501	DF40B3R0Q0	DEGAUSS ELEMENT	PTBD14K2-3R0Q141	
	TM101	076R074170	TRANSMITTER	R25-1088	
⚠	TU001	0145K00055	TUNER, VHF-UHF	TECC1040PG32D	
⚠	V801	092T250501	COLOR PICTURE TUBE	A63AFW36X	
	X101	1002T00802	CERAMIC OSCILLATOR	CSTS0800MG03-T2	
	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.	M3I0-B0E
O/R NO.	A113525

OWNER'S MANUAL
MANUAL DE INSTRUCCIONES

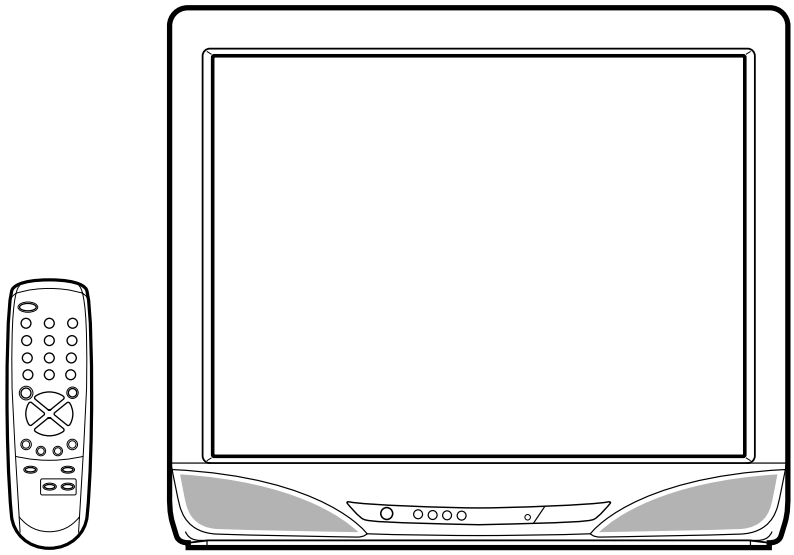
Memorex®

ENGLISH

ESPAÑOL

25" MTS STEREO COLOR TELEVISION
25" TELEVISOR COLOR ESTEREO MTS

MT2252
MT2252 SERIES A



ATTENTION

If you purchase a universal remote control from your local retailer, please contact the remote manufacturer for the required programming code.
Si usted a comprado un control de remoto universal, por favor comunicace con el fabricante para el codico de programaccion requerido.

TV/CATV MODE SELECTION
SELECCION DE MODO DE TV/CATV

When shipped from the factory, the TV/CATV menu option is set to the "CATV" (Cable Television) mode. If not using CATV, set this menu option to "TV" mode.
Al salir la unidad de fábrica, la opción de menú de TV/CATV se ajusta al modo de "CATV" (Televisión por cable).
Si no utiliza CATV, ajuste esta opción de menú al modo de "TV".

Before operating the unit, please read this manual thoroughly.
Antes de usar la unidad, lea detenidadmente este manual de instrucciones.

ENGLISH

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance with the FCC Rules could void the user's authority to operate this equipment.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE:
Please keep all packaging material for at least 90 days in case you need to return this product to your place of purchase or Memorex.

IMPORTANT SAFEGUARDS

1. **READ INSTRUCTIONS**
   All the safety and operating instructions should be read before the unit is operated.
2. **RETAIN INSTRUCTIONS**
   The safety and operating instructions should be retained for future reference.
3. **HEED WARNINGS**
   All warnings on the unit and in the operating instructions should be adhered to.
4. **FOLLOW INSTRUCTIONS**
   All operating and use instructions should be followed.
5. **CLEANING**
   Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning the exterior cabinet only.
6. **ATTACHMENTS**
   The manufacturer of this unit does not make any recommendations for attachments, as they may cause hazards.
7. **WATER AND MOISTURE**
   Do not use this unit near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
8. **ACCESSORIES**
   Do not place this unit on an unstable cart, stand, tripod, bracket, or table.
   The unit may fall, causing serious injury, and serious damage to the unit.

PORTABLE CART WARNING
(symbol provided by RETAC)

S3126A

8A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

9. **VENTILATION**
   Slots and openings in the cabinet back or bottom are provided for ventilation, to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed near or over a radiator or heat source. This unit should not be placed in a built-in installation, such as a bookcase, or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. **POWER SOURCE**
    This unit should be operated only from the type of power source indicated on the rating plate. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.
11. **GROUNDING OR POLARIZATION**
    This unit is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. If your unit is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin, this plug will only fit into a grounding-type power outlet. This too, is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
12. **POWERCORD PROTECTION**
    Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

13. LIGHTNING

To protect your unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the unit due to lightning and power line surges.

14. POWER LINES

An outside antenna system should not be located in the vicinity of overhead power lines, other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

15. OVERLOADING

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. OBJECT AND LIQUID ENTRY

Do not push objects through any openings in this unit as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid into the unit.

17. OUTDOOR ANTENNA GROUNDING

If an outside antenna or cable system is connected to the unit, be sure the antenna or cable system is grounded to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

18. SERVICING

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. DAMAGE REQUIRING SERVICE

Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions:

a. When the power-supply cord or plug is damaged.
b. If liquid has been spilled, or objects have fallen into the unit.
c. If the unit has been exposed to rain or water.
d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
e. If the unit has been dropped or the cabinet has been damaged.
f. When the unit exhibits a distinct change in performance, this indicates a need for service.

20. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part.
Unauthorized substitutions may result in fire, electric shock or other hazards.

21. SAFETY CHECK

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

22. WALL OR CEILING MOUNTING

If mounting this unit to a wall or ceiling follow the installation recommended by the manufacturer of a mounting bracket specifically designed for this type of product. Use only a mounting device that can handle the weight and size of your unit. Should your bracket require drilling holes into this unit, this would void the manufacturers warranty.

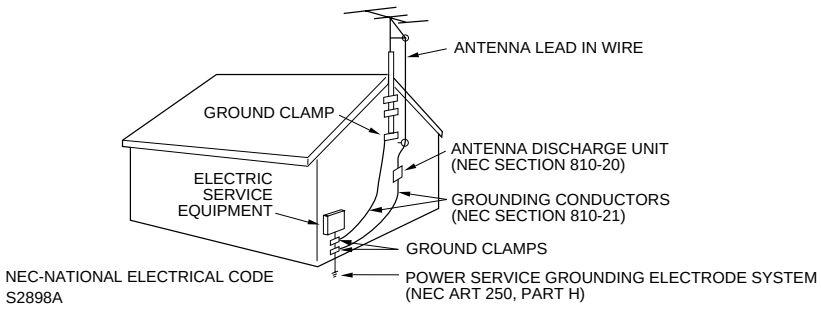
23. HEAT

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

24. NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



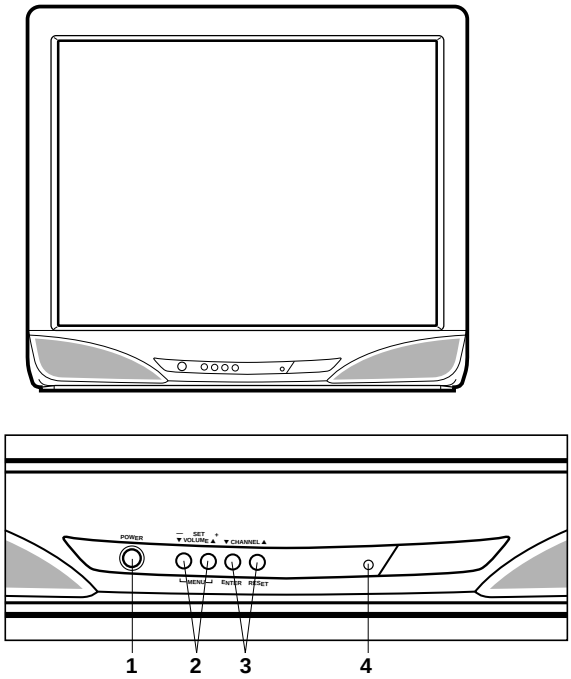
ENGLISH

FEATURES

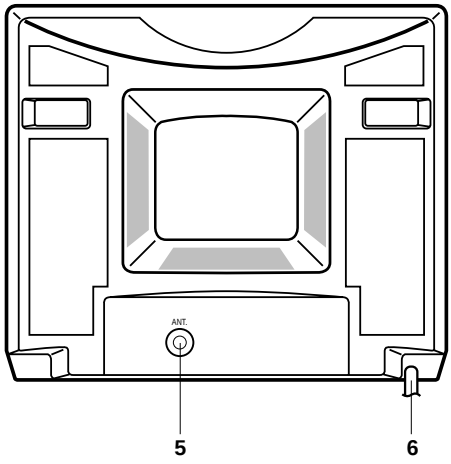
- **181 Channel Tuner -** The tuning system is capable of receiving all 68 VHF/UHF standard broadcast channels that are available in your area. When operating on a cable system, it can tune to the standard VHF channel frequencies plus up to 113 cable channel frequencies. The actual number of channels received depends upon channel reception in your area or your cable system.
- **On-Screen 3 Language Display -** This TV can display the on screen language in English, Spanish or French.
- **Sleep Timer -** Operable from the remote control, this TV can be programmed up to 120 minutes to turn off automatically.
- **Memory Back Up -** This system prevents loss of memorized channel selections in case a power interruption to the TV should occur.
- **V-Chip -** The V-Chip function can read the rating of a TV program or movie content if the program is encoded with this information. V-Chip will allow you to set a restriction level.
- **Picture Control Adjustments -** The On-Screen display allows precise remote control adjustment of BRIGHTNESS, COLOR, CONTRAST, SHARPNESS and TINT.
- **Closed Captioned Decoder -** Displays text captions or 1/2 of full screen text on the screen for hearing impaired viewers.
- **Stereo/SAP Reception -** This TV is designed to receive stereo and separate audio program (SAP) broadcasts where available.

LOCATION OF CONTROLS

FRONT

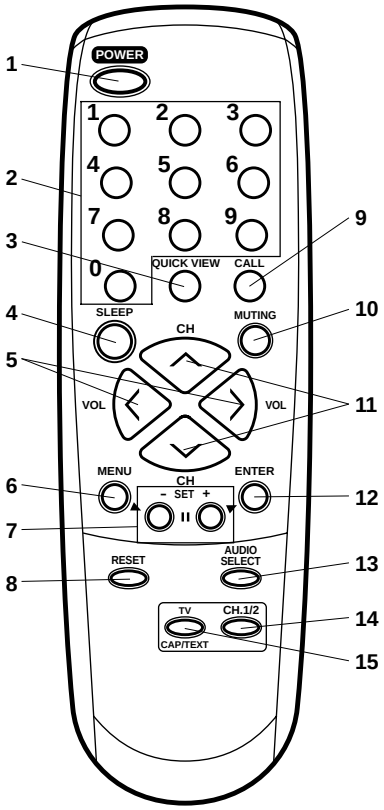


BACK



1. **POWER Button -** Press to turn the TV on or off.
2. **VOLUME ▼ / ▲ Buttons -** Press to raise or lower the level of the sound.
   (MENU Buttons) - Press both buttons to display the On-Screen menu functions.
   (SET – / + Buttons) - Press to select the desired setting during On-Screen operations.
3. **CHANNEL ▼ / ▲ Buttons -** Press to select a higher or lower numbered channel set into memory.
   (ENTER Button) - Press to enter or select information for On-Screen operations.
   (RESET Button) - Press to reset the On-Screen picture and sound adjustments to their factory preset positions. Press to reset a password in the V-CHIP Password setting mode.
4. **Remote Sensor -** Signals from the Remote Control unit are received here.
5. **VHF/UHF IN (ANT) Jack -** Connect a VHF/UHF antenna or CATV cable to this jack.
6. **AC Power Cord -** Plug into an outlet having 120V, 60 Hz AC power only.

REMOTE CONTROL



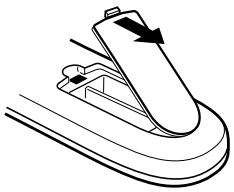
1. **POWER Button -** Press to turn the TV on. Press again to turn the TV off.
2. **Direct Channel Selection Buttons (0-9) -** Allows direct access to any channel.
3. **QUICK VIEW Button -** This button allows you to go back to the previous channel selected by just pressing the QUICK VIEW button. Press this button again to return to the channel you were watching.
4. **SLEEP Button -** To set the TV to turn off after a preset amount of time, press the SLEEP button on the remote control. The clock will count down 10 minutes each time the button is pressed in the order of 120, 110, 100, ·····20, 10, 0. After the sleep time is programmed, the display will disappear then reappear momentarily every ten minutes to remind you the sleep timer function is operating. To confirm the sleep time setting, press the SLEEP button once and the remaining time will be momentarily displayed. To cancel sleep time, press the SLEEP button repeatedly until the display turns to 0.
5. **VOL (VOLUME) > / < Buttons -** Press the > button to increase, or the < button to decrease the volume level.
6. **MENU Button -** Press to display the On-Screen menu function.
7. **SET – / + Buttons -** Press to select the desired setting during On-Screen operations.
8. **RESET Button -** Press to reset the On-Screen picture and sound adjustments to their factory preset positions.
9. **CALL Button -** When you press this button, the channel number will appear in the upper right corner of the screen. Press the button again to remove display from the screen.
10. **MUTING Button -** To turn off the sound, press this button once. The TV will be silenced and the symbol "MUTING" will appear on the screen. The muting feature can be released by pressing the MUTING button again or one of the VOL > or < buttons.
11. **CH (CHANNEL) ∧ / ∨ Buttons -** Press the ∧ button to change to a higher numbered channel set into memory. Press the ∨ button to change to a lower numbered channel set into memory.
12. **ENTER Button -** Press to enter or select information for On-Screen operations.
13. **AUDIO SELECT Button -** Switches sound between mono, stereo, and SAP when receiving broadcasts in stereo or SAP.
14. **CH.1/2 Button -** Switches between Channel 1 and Channel 2 in the Closed Caption mode.
15. **TV/CAP/TEXT Button -** Press this button to switch between normal TV and the two Closed Caption modes (captions and 1/2 of full screen text). Closed Captioning will display text on screen for hearing impaired viewers.

ENGLISH

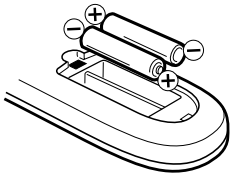
Before using the remote control, batteries must first be installed.

HOW TO INSTALL BATTERIES

1. Open the battery compartment cover.



2. Install two "AAA" batteries.



3. Replace the battery compartment cover.

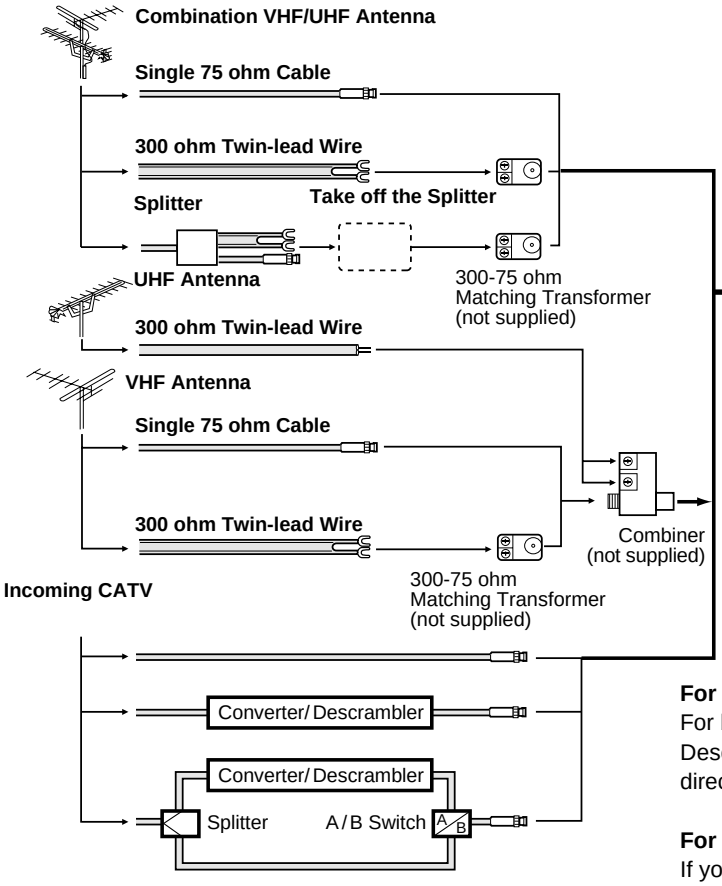
Use two "AAA" size batteries. The batteries may last approximately one year depending on how much the remote control is used. For best performance, it is recommended that batteries should be replaced on a yearly basis, or when the remote operation becomes erratic. Do not mix old and new batteries or different types.

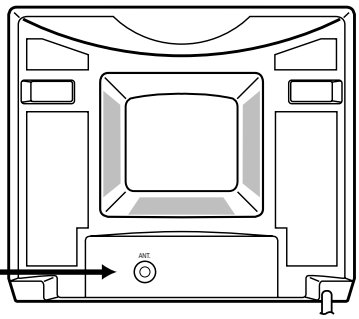
BATTERY PRECAUTIONS

These precautions should be followed when using batteries in this device:

- Use only the size and type of batteries specified.
- Be sure to follow the correct polarity when installing the batteries as indicated in the battery compartment. Reversed batteries may cause damage to the device.
- Do not mix different types of batteries together (e.g. Alkaline and Carbon-zinc) or old batteries with fresh ones.
- If the device is not to be used for a long period of time, remove the batteries to prevent damage or injury from possible battery leakage.
- Do not try to recharge batteries not intended to be re-charged; they can overheat and rupture (Follow battery manufacturer's directions).

ANTENNA/CATV CONNECTIONS





This television has an extended tuning range and can tune most cable channels without using a cable company supplied converter box. Some cable companies offer "premium pay channels" in which the signal is scrambled. Descrambling these signals for normal viewing requires the use of a descrambler device which is generally provided by the cable company.

Combination VHF/UHF Antenna (Single 75 ohm Cable or 300 ohm Twin-lead Wire)
Connect the 75 ohm cable from a combination VHF/UHF antenna to the Antenna Jack. If your combination antenna has a 300 ohm Twin-lead Wire, use the 300-75 ohm Matching Transformer (not supplied).

Combination VHF/UHF Antenna (Separate VHF and UHF 300 ohm Twin-leads)
Connect the UHF Twin-lead Wire to a Combiner (not supplied). Connect the VHF Twin-lead to the 300-75 ohm Matching Transformer (not supplied). Attach the Transformer to the Combiner. Attach the Combiner to the Antenna Jack.

Separate VHF/UHF Antennas
Connect the 75 ohm Cable from the VHF antenna and the UHF antenna Twin-lead to a combiner (not supplied). Attach the Combiner to the Antenna Jack.
NOTE: If your VHF antenna has a Twin-lead Wire, use the 300-75 ohm Matching Transformer (not supplied), then connect the Transformer to the Combiner.

For Subscribers to Basic Cable TV Service
For basic cable service not requiring a Converter/ Descrambler box, connect the CATV 75 ohm Coaxial Cable directly to the Antenna Jack on the back of the television.

For Subscribers to Scrambled Cable TV Service
If you subscribe to a cable service which requires the use of a Converter/Descrambler box, connect the incoming cable to the Converter/Descrambler box and connect the output of the box to the Antenna Jack on the back of the television. Follow the connections shown left. Set the television to the output of the Converter/Descrambler box (usually channel 3 or 4) and use the Converter/Descrambler box to select channels.

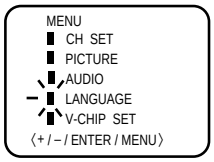
For Subscribers to Unscrambled Basic Cable with Scrambled Premium Channels
If you subscribe to a cable service in which basic cable channels are unscrambled and premium channels require the use of a Converter/Descrambler box, you may wish to use a two-set signal splitter (sometimes called a "two-set coupler") and an A/B Switch box from the cable installer or an electronics supply store. Follow the connections shown left. With the switch in the "B" position, you can directly tune any nonscrambled channels on your TV. With the switch in the "A" position, tune your TV to the output of the Converter/ Descrambler box (usually channel 3 or 4) and use the box to tune scrambled channels.

SETTING LANGUAGE

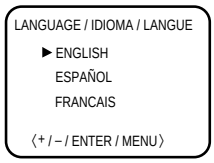
This TV can display the on-screen language in English, Spanish or French.
On-screen language selection (step 3) will automatically appear on the screen when you press the MENU button initially. Select the language you prefer first, then proceed with the other menu options.

1 Press the MENU button.

2 Press the SET + or – button to select the LANGUAGE mode, then press the ENTER button.



3 Press the SET + or – button to select the desired language: English (ENGLISH), Spanish (ESPAÑOL) or French (FRANCAIS), then press the ENTER button.



4 Press the MENU button until the menu screen is cleared.

ENGLISH

NOTE:
If Spanish or French is chosen, the Closed Caption indicators will be in the selected language, but the Closed Caption text will not be affected by the language selection.

TV OPERATION

1 To turn on the TV, press the POWER button.

2 The VOLUME can be adjusted to a desired level by pressing the VOL (VOLUME) > or < button.

The sound level will be indicated on the TV screen by green bars and a number. As the sound level increases, so do the number of bars and the number on the screen. The same is true for decreasing the level.

3 Set the TV/CATV menu option to the desired position. When shipped from the factory, this menu setting is in the CATV setting. See "TO MEMORIZE CHANNELS".

TV	-	VHF/UHF channels
CATV	-	CABLE TV channels

4 **CH (CHANNEL) Up and Down buttons**
Press and release the CH (CHANNEL) ∧ or ∨ button. The channel automatically stops at the next channel set into memory. Press and hold the button down to change channels more quickly.

For proper operation, before selecting channels, they should be set into the TV's memory.
See "TO MEMORIZE CHANNELS".

Direct Channel Selection buttons (0-9)
Press these buttons to select a channel. The channel number will appear on the upper right corner of the TV screen. If an invalid channel number is selected, the display will revert to the original channel.

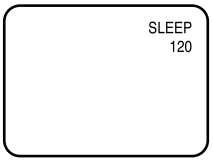
TV Mode Direct Channel Selection
When the TV/CATV menu option is in the TV setting, all channels can be instantly selected by using two buttons. (For example, to select channel 2, press "0", then "2". If you press only "2", channel selection will be delayed for a few seconds). For channels 10 and above, press the 2 digits in order.

CATV Mode Direct Channel Selection
When the TV/CATV menu option is in the CATV setting, channels can be selected as follows:

CH. 1-9	Press "0" twice, then 1-9 as needed. Example, to select channel 2, press "002".
CH. 10-12	Press "0", then remaining 2 digits. Example, to select channel 12, press "012".
CH. 13-99	Press the 2 digits in order. Example, to select channel 36, press "36".
CH. 100-125	Press the 3 digits in order. Example, to select channel 120, press "120".

NOTE: If the station being viewed stops broadcasting, the TV will automatically shut off after 15 minutes.

SLEEP
To set the TV to turn off after a preset amount of time, press the SLEEP button on the remote control. The clock will count down 10 minutes each time the button is pressed in the order of 120, 110, 100, ·····20, 10, 0. After the sleep time is programmed, the display will disappear then reappear momentarily every ten minutes to remind you the sleep timer function is operating. To confirm the sleep time setting, press the SLEEP button once and the remaining time will be momentarily displayed. To cancel sleep time, press the SLEEP button repeatedly until the display turns to 0.



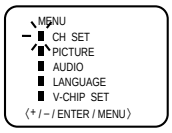
TO MEMORIZE CHANNELS

This TV is equipped with a channel memory feature which allows channels to skip up or down to the next channel set into memory, skipping over unwanted channels.
Before selecting channels, they must be programmed into the TV's memory. In addition to normal VHF and UHF channels, this TV can receive up to 113 Cable TV channels. To use this TV with an antenna, set the TV/CATV menu option to the TV setting. When shipped from the factory, this menu option is in the CATV setting.

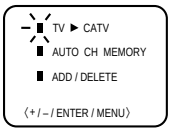
TV/CATV SELECTION

1 Press the MENU button.

2 Press the SET + or – button until the indicator next to "CH SET" begins to flash, then press the ENTER button.



3 Press the SET + or – button until the indicator next to "TV/CATV" begins to flash.



4 Press the ENTER button to select the TV or CATV mode. The arrow indicates the selected mode.

5 Press the MENU button twice to return to normal TV viewing.

The chart below is typical of many cable system channel allocations.

CATV CHART

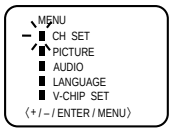
Number on this TV Corresponding CATV channel									14 A	15 B	16 C	17 D	18 E	19 F	20 G	21 H	22 I
23 J	24 K	25 L	26 M	27 N	28 O	29 P	30 Q	31 R	32 S	33 T	34 U	35 V	36 W	37 AA	38 BB	39 CC	40 DD
41 EE	42 FF	43 GG	44 HH	45 II	46 JJ	47 KK	48 LL	49 MM	50 NN	51 OO	52 PP	53 QQ	54 RR	55 SS	56 TT	57 UU	58 VV
59 WW	60 AAA	61 BBB	62 CCC	63 DDD	64 EEE	65 FFF	66 GGG	67 HHH	68 III	69 JJJ	70 KKK	71 LLL	72 MMM	73 NNN	74 OOO	75 PPP	76 QQQ
77 RRR	78 SSS	79 TTT	80 UUU	81 VVV	82 WWW	83 XXX	84 YYY	85 ZZZ	86 86	87 87	88 88	89 89	90 90	91 91	92 92	93 93	94 94
95 A-5	96 A-4	97 A-3	98 A-2	99 A-1	100 100	101 101	102 102	103 103	104 104	105 105	106 106	107 107	108 108	109 109	110 110	111 111	112 112
113 113	114 114	115 115	116 116	117 117	118 118	119 119	120 120	121 121	122 122	123 123	124 124	125 125	01 5A				

NOTE: Contact your cable company to determine the type of cable system used in your area.

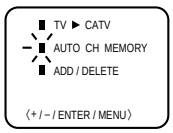
AUTOMATIC CHANNEL MEMORY

1 Press the MENU button.

2 Press the SET + or – button until the indicator next to "CH SET" begins to flash, then press the ENTER button.



3 Press the SET + or – button until the indicator next to "AUTO CH MEMORY" begins to flash, then press the ENTER button. The TV will begin memorizing all the channels available in your area. Channel numbers will remain red until auto memorizing is complete.

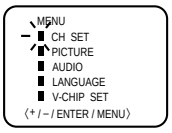


4 Press the MENU button twice to return to normal TV viewing.

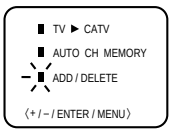
TO ADD/DELETE CHANNELS

1 Press the MENU button.

2 Press the SET + or – button until the indicator next to "CH SET" begins to flash, then press the ENTER button.



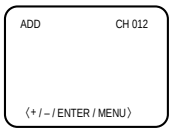
3 Press the SET + or – button until the indicator next to "ADD/DELETE" begins to flash, then press the ENTER button.



4 Select the desired channels to be added or deleted using the Direct Channel Selection buttons (10 keys, 0-9), the CH ∧ or ∨ button or the SET + or – button.

5 Press the ENTER button to select ADD or DELETE. If an unmemorized channel was selected (step 4), the channel indication will be red. Press the ENTER button if you wish to ADD the unmemorized channel. The channel indicator will change from red to green when a channel is added and the channel will be memorized. If a memorized channel was selected (step 4), the channel indication will be green.

Press the ENTER button if you wish to DELETE the channel from memory. The channel indicator will change from green to red when a channel is deleted.
Repeat Steps 4 and 5 for each channel to be added or deleted.



6 Press the MENU button three times after adding or deleting all of the desired channels, to return to normal TV viewing.

SETTING V-CHIP

This TV is fitted with a V-CHIP controller which provides you with channel viewing access controls and restrictions. This function is to prevent your children from watching violence or sexual scenes that you may choose to exclude.

1. Press the MENU button and press the SET + or – button to select the V-CHIP SET option, then press the ENTER button.
2. Enter your password (4 digits) using the Direct channel selection buttons (0-9).
   In the event of entering incorrect password press the RESET button. Then press the ENTER button.
3. Enter the same password for confirmation, then press the ENTER button.
4. Press the SET + or – button to select the V-CHIP option. Press the ENTER button to select the ON.
5. Press the SET + or – button to select the TV RATING or MOVIE RATING option. Press the ENTER button.
6. Press the SET + or – button to select the desired rating for the applicable video or TV channel. Press the ENTER button.
7. Press the MENU button until the MENU screen is cleared.

TV RATING

SET – ⟷ SET +

OFF ↔ TV-Y ↔ TV-Y7 ↔ TV-G ↔ TV-PG ↔ TV-14 ↔ TV-MA

TV-Y : all children	TV-PG : parental guidance
TV-Y7 : 7 years old and above	TV-14 : 14 years old and above
TV-G : childrens program	TV-MA : 17 years old and above

When you select TV-Y7, TV-PG, TV-14 or TV-MA, press the CALL button to explain the rating.
Press the SET + or – button to select the desired rating you want.
Press the ENTER button to select the setting ON or OFF.

MOVIE RATING

SET – ⟷ SET +

OFF ↔ G ↔ PG ↔ PG-13 ↔ R ↔ NC-17 ↔ X

G : all ages	R : under 17 years old parental guidance suggested
PG : parental guidance	
PG-13 : parental guidance less than 13 years old	NC-17 : 17 years old and above
	X : adult only

NOTES:

- When you dislocated or lost the password, you can cancel the existing password by the following procedure:
  - Press VOLUME ▼ button of main unit.
  - Keep pressing VOLUME ▼ button and press "0" key of remote control simultaneously for a few seconds.
- If you want to change password, follow steps 1 and 2 and select "CHANGE PASSWORD" option then enter your new password.
- The V-Chip function is activated only on programs and tapes that have the rating signal.
- Once you block a program using the V-Chip function, the blocked program cannot be watched based on the content of the show. When the program starts, the "ENTER PASSWORD" will appear on the screen. When you want to release the V-Chip temporarily, enter the password.
  If you change the channel or turn off the TV while the V-Chip function was temporarily released, the original setting will be resumed. If you return to the channel you were watching you must re-enter your password to temporarily release your V-Chip function again.
- If you are changing channels using a VCR or a cable box, while the TV remains on channel 3 or 4, the V-Chip operates differently. When you enter your password to temporarily release the block on any channel, you have completely disabled the V-Chip function for all stations. To reset the V-Chip turn your TV off and back on.
- Some cable boxes are built with a delay feature, in some cases it can take up to 10 seconds for a program to appear after the password has been input.

CLOSED CAPTION

WHAT IS CLOSED CAPTIONING?

This television has the capability to decode and display Closed Captioned television programs. Closed Captioning will display text on the screen for hearing impaired viewers or it will translate and display text in another language.

TO VIEW CLOSED CAPTIONS

Press the TV/CAP/TEXT button on the remote control to switch between normal TV and the two Closed Caption Modes (Captions and 1/2 of Full Screen Text).

Captions: This Closed Caption Mode will display text on the screen in English or another language (depending on the setting of the Closed Captions CH. 1/2 button). Generally, Closed Captions in English are transmitted on Captions Channel 1 and Closed Captions in other languages are transmitted on Captions Channel 2.

Text: The Text Closed Caption Mode will usually fill 1/2 of full screen with a programming schedule or other information. After selecting a Closed Caption Mode, it will stay in effect until it is changed, even if the channel is changed. If the Captions signal is lost due to a commercial or a break in the signal, the Captions will reappear when the signal is received again. If the channels are changed, the Captions will be delayed approximately 10 seconds. The Captions will appear in places on the screen where they will least interfere with the picture, usually on the bottom of the screen. News programs will usually show three-line Closed Captions which scroll onto the screen. Most other shows provide two or three lined Captions placed near the character who is speaking so the viewer can follow the dialogue. Words in italics or underlined describe titles, words in foreign languages or words requiring emphasis. Words that are sung usually appear enclosed by musical notes. For television programs broadcasting with Closed Captions, look in your TV guide for the Closed Captions symbol (CC).

- When activating the Closed Captioned Decoder, there will be a short delay before the Closed Captioned text appears on the screen.
- Closed Captioned text is only displayed in locations where it is available.
- If no caption signal is received, no captions will appear, but the television will remain in the Caption Mode.
- Misspellings or unusual characters may occasionally appear during Closed Captioning. This is normal with Closed Captioning, especially with live programs. This is because during live programs, captions are also entered live. These transmissions do not allow time for editing.
- When Captions are being displayed, on-screen displays, such as volume and mute may not be seen or may interfere with Closed Captions.
- Some cable systems and copy protection systems may interfere with the Closed Captioned signal.
- If using an indoor antenna or if TV reception is very poor, the Closed Caption Decoder may not appear or may appear with strange characters or misspelled words. In this case, adjust the antenna for better reception or use an outdoor antenna.

ENGLISH

STEREO AND SEPARATE AUDIO PROGRAM (SAP)

The TV is equipped with a feature known as Multi-channel TV Sound or MTS. MTS broadcasts greatly enhance TV viewing by bringing you programs with high fidelity stereo sound. MTS also provides an extra channel called the Separate Audio Program or SAP which broadcasters can use to transmit a second language for bilingual transmission or for other purposes.

LISTENING TO STEREO SOUND

When the TV is turned on or a channel selection is made, make certain that the word “STEREO” appears on the screen. This means that "Stereo" broadcasting is available. You can enjoy stereo sound from the left and right speakers.

- When the "Mono" broadcasting is received, no indication is displayed.
- If the broadcast signal is not strong enough or clear stereo sound is not available, press the AUDIO SELECT button to change to mono sound. The noise should be eliminated. Press it again to return to the stereo sound.

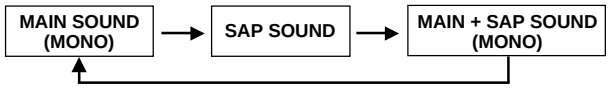
LISTENING TO SAP (SEPARATE AUDIO PROGRAM)

When the TV is turned on or a channel selection is made, make certain that the letters “SAP” appear on the screen. This means that the "Separate Audio Program" broadcasting is available.

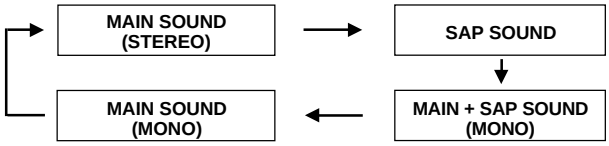
TO SELECT DESIRED SOUND

Press the AUDIO SELECT button to select the desired sound.

MONO+SAP BROADCASTING



STEREO+SAP BROADCASTING



SOUND ADJUSTMENTS

Sound controls are factory preset but you can adjust them individually as follows:
To display sound adjustments on the screen, press the MENU button. Press the SET + or – button to select the AUDIO option, then press the ENTER button.

BASS

Press the ENTER button until “BASS” appears on the screen, then press the SET + or – button to adjust the bass sound.

TREBLE

Press the ENTER button until “TREBLE” appears on the screen, then press the SET + or – button to adjust the treble sound.

BALANCE

Press the ENTER button until “BALANCE” appears on the screen, then press the SET + or – button to obtain an equal sound level from both speakers.

RESET

Pressing the RESET button while making sound adjustments will return all adjustments to the factory preset levels.

NOTE: The on-screen display will disappear 6 seconds after finishing an adjustment. The settings can only be adjusted when they are displayed on the TV screen.

ADJUSTING PICTURE

You can adjust the settings for color, sharpness, contrast, brightness and tint.

1 Press the MENU button.

2 Press the SET + or – button until the indicator next to "PICTURE" begins to flash, then press the ENTER button.

3 Press the ENTER button repeatedly to select the item you want to adjust.

BRIGHTNESS → CONTRAST → COLOR → TINT → SHARPNESS

4 Press the SET + or – button to adjust the setting.

	+	–
BRIGHTNESS	increase brightness	decrease brightness
CONTRAST	increase contrast	decrease contrast
COLOR	be brilliant color	be pale color
TINT	be greenish color	be reddish color
SHARPNESS	makes picture clearer	makes picture softer

TO RETURN TO INITIAL SETTING

Press the RESET button while the picture adjusting mode appears on-screen.

TROUBLESHOOTING GUIDE

Before requesting service, please refer to the following chart for the symptom and possible solution.

SYMPTOMS	POSSIBLE SOLUTIONS
TV does not operate	• Make sure the power cord is plugged in. • Try another AC outlet. • Power is off, check fuse or circuit breaker. • Unplug unit for an hour, then plug it back in.
Poor sound or No sound	• Station or CATV experiencing problems, tune to another station. • Check sound adjustments (Volume and Muting). • Check for sources of possible interference.
Poor picture or No picture	• Station or CATV experiencing problems, tune to another station. • Make sure channels are set into memory. • Check antenna or CATV connections, adjust antenna. • Check for sources of possible interference. • Check picture control adjustments.
Poor reception on some channels	• Station or CATV experiencing problems, tune to another station. • Make sure channels are set into memory. • Station is weak, adjust antenna to receive desired station. • Check for sources of possible interference.
Poor color or no color	• Station or CATV experiencing problems, tune to another station. • Make sure channels are set into memory. • Check picture control adjustments. • Check antenna or CATV connections, adjust antenna. • Check for sources of possible interference.
Picture wobbles or drifts	• Station or CATV experiencing problems, tune to another station. • Make sure channels are set into memory. • CATV company is scrambling signal. • Adjust antenna.

SYMPTOMS	POSSIBLE SOLUTIONS
No CATV reception	• Check all CATV connections. • Set TV/CATV menu option to the CATV mode. • Station or CATV system problems, try another station.
Horizontal or diagonal bars on screen	• Check antenna connections, adjust or re-direct antenna. • Check for sources of possible interference.
No reception above channel 13	• Make sure TV/CATV menu option is in the appropriate mode. • If using antenna, check UHF antenna connections.
No Remote operation	• Batteries are weak, dead or inserted incorrectly. • Remote is out of range, move closer to TV (within 15 feet). • Make sure Remote is aimed at sensor. • Confirm there are no obstructions between the Remote and the TV. • Make sure the power cord is plugged in.
TV shuts off	• No broadcast on station tuned. • Sleep Timer is set. • Power interrupted.
No reception	• Reset your password.
Closed - Caption is not activated	• TV station experiencing problems or program tuned is not closed captioned. Try another channel. • Check CATV connection or VHF/UHF antenna, reposition or rotate antenna. • Press TV/CAP/TEXT button to turn on the closed caption decoder.
Display is not shown in your language	• Select proper language in the menu options.

ENGLISH

SPECIFICATIONS

AC Power Input:	120V, 60Hz
AC Power Consumption:	110 Watts
Chassis Construction:	IC Solid state
Picture Tube:	25" (measured diagonally)
Horizontal resolution:	260 lines
Audio Power Output Rating:	2.5 + 2.5 Watts
Speaker:	1-1/2" x 2-11/16" Full Range, 8 ohm x 2
Tuner Type:	181 Channel, Quartz PLL Frequency Synthesized
Remote Control:	Infrared, Direct Access, 2 x AAA batteries (not supplied)

Receiving Channels:	
VHF	2-13
UHF	14-69
CATV	01-97 (5A)-(A-3) 98-99 (A-2)-(A-1) 14-22 (A)-(I) 23-36 (J)-(W) 37-65 (AA)-(FFF) 66-125 (GGG)-(125)
Antenna Input Impedance:	75 Ohm (VHF/UHF/CATV) Coaxial Input
Dimensions:	24-5/16" (W) x 19-13/16" (D) x 20-11/16" (H)
Weight:	59.9 lbs

ACCESSORY

Remote Control

Memorex®

For additional set-up or operating assistance, please visit our WEBSITE at www.memcorpinc.com or contact CUSTOMER SERVICE at 1-800-919-3647
Please keep all packaging material for at least 90 days in case you need to return this product to your place of purchase or Memorex.
FOR PARTS AND ACCESSORIES, CONTACT FOX INT'L AT 1-800-321-6993"

MEMO

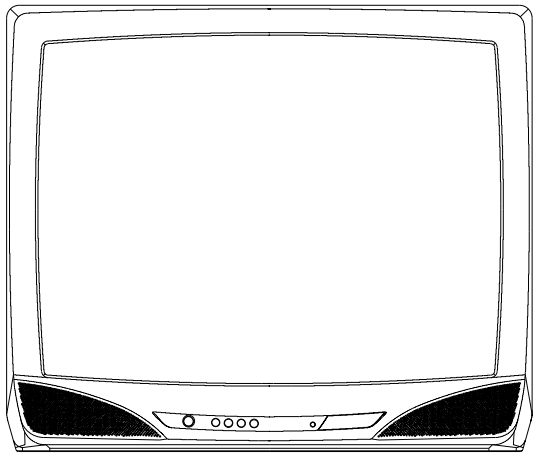
MEMO

Memorex®

MT2252 SERIES A

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION A

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.

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GENERAL SPECIFICATIONS

G-1	TV System	CRT	CRT Size / Visual Size		25 inch / 626mmV
			CRT Type		Normal
			Deflection		100 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	
					110 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
			Radiation		FCC
			X-Radiation		DHHS
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		No
			Color Stream		No
			Channel(TV/Cable)		Yes
			CH Label		No
			Sleep Timer		Yes
			Sound Mute		Yes
			V-chip Rating		Yes

GENERAL SPECIFICATIONS

G-8	**OSD Language**	OSD Language Setting		English French Spanish '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		27 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)	No
			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
			FF	No
			Rew	No
			Rec	No
			Play	No
			Stop	No
			TV	No
			VCR	No
			Cable	No

GENERAL SPECIFICATIONS

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
		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
			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

GENERAL SPECIFICATIONS

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	No
				Audio Input	No
				Other Terminal	No
			Rear	Video Input(Rear1)	No
				Video Input(Rear2)	No
				Audio Input(Rear1)	No
				Audio Input(Rear2)	No
				Video Output	No
				Audio Output	No
				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)	618 x 504 x 525
G-15	**Weight**			Net (Approx.)	27kg (59.9 lbs)
				Gross (Approx.)	29Kg (64.3 lbs)
G-16	**Carton**	Master Carton			No
				Content	---- Sets
				Material	-- /--
				Dimensions W x D x H(mm)	-- x -- x --
				Description of Origin	No
		Gift Box			Yes
				Material	Double/Brown
				Dimensions W x D x H(mm)	689 x 577 x 620
				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			204 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.

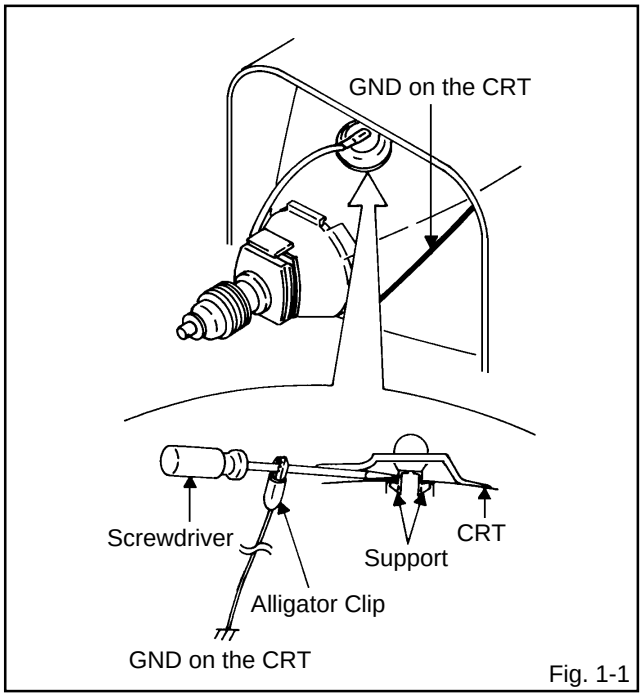


Fig. 1-1

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.)**

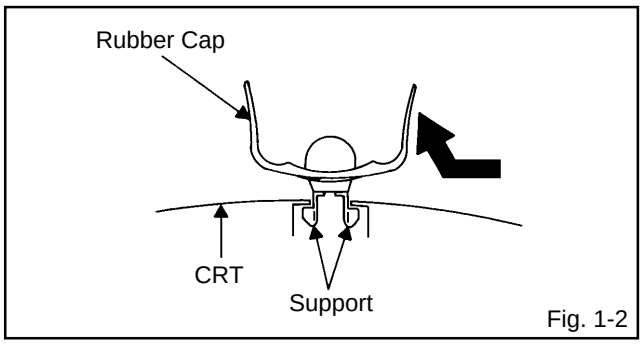


Fig. 1-2

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.)**

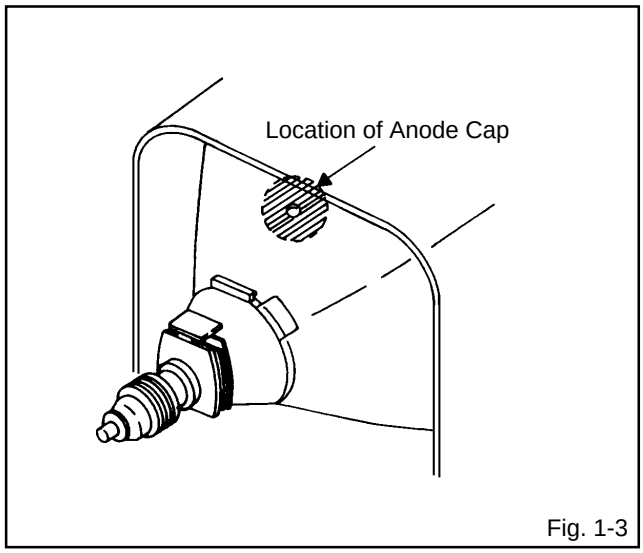


Fig. 1-3

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.)**

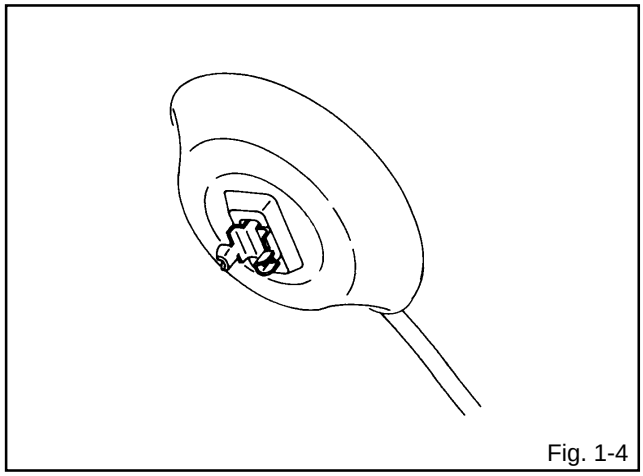


Fig. 1-4

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

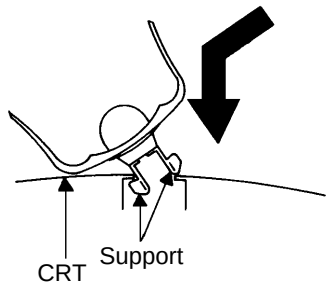


Fig. 1-5

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

2. REMOVAL OF DEFLECTION YOKE

(Refer to Fig. 2-1)

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

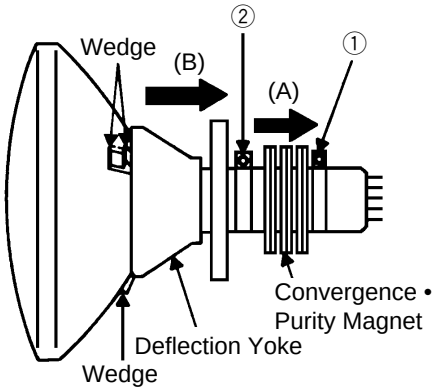


Fig. 2-1

INSTALLATION

Install new Deflection Yoke in reverse steps of REMOVAL.

NOTE

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

SERVICE MODE LIST

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

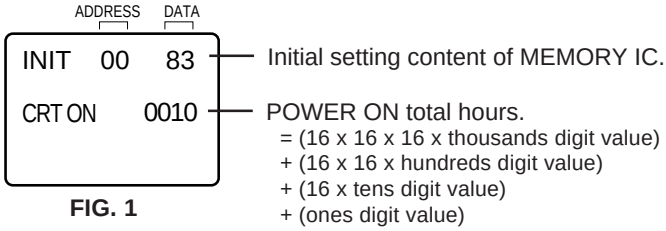


FIG. 1

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	A0	5A	A2	39	02	63	24	3A	A3	21	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**.

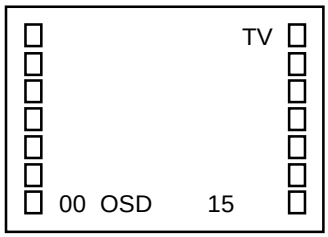


Fig. 1-1

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	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 **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".
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=81, B.DRIVE=65, R.BIAS=69, G.BIAS=80, B.BIAS=70, BRIGHTNESS=135, 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 **TP024**.
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 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

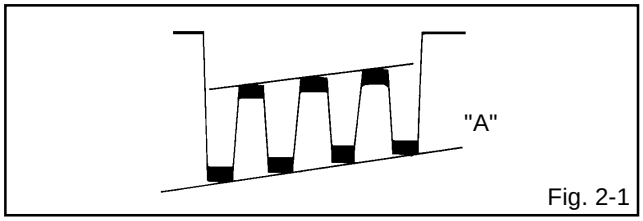


Fig. 2-1

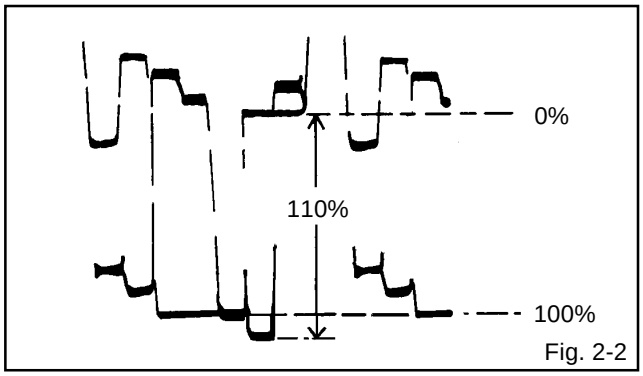


Fig. 2-2

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 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.

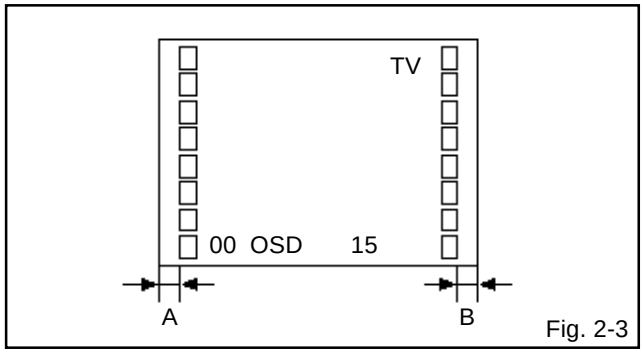


Fig. 2-3

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 between the **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: CONSTANT 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 ± 0.5V.

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 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 unit the output of L-CH and R-CH become 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 rastezr 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.

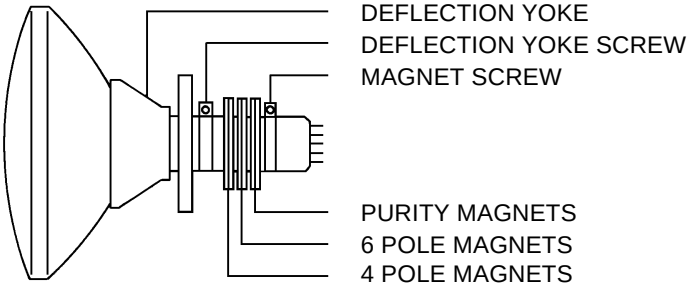


Fig. 3-1

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)**

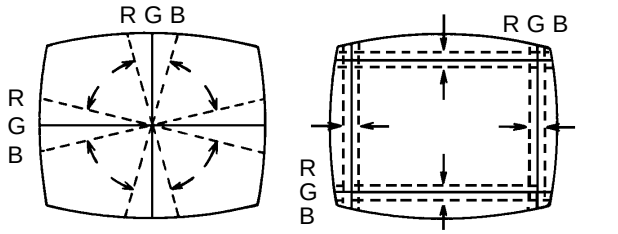


Fig. 3-2-a

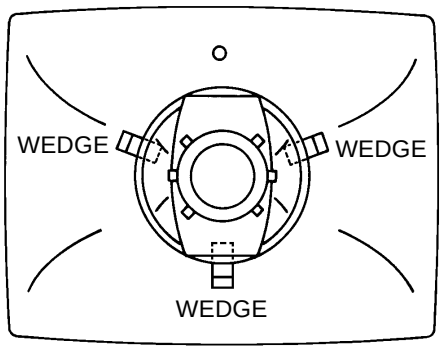
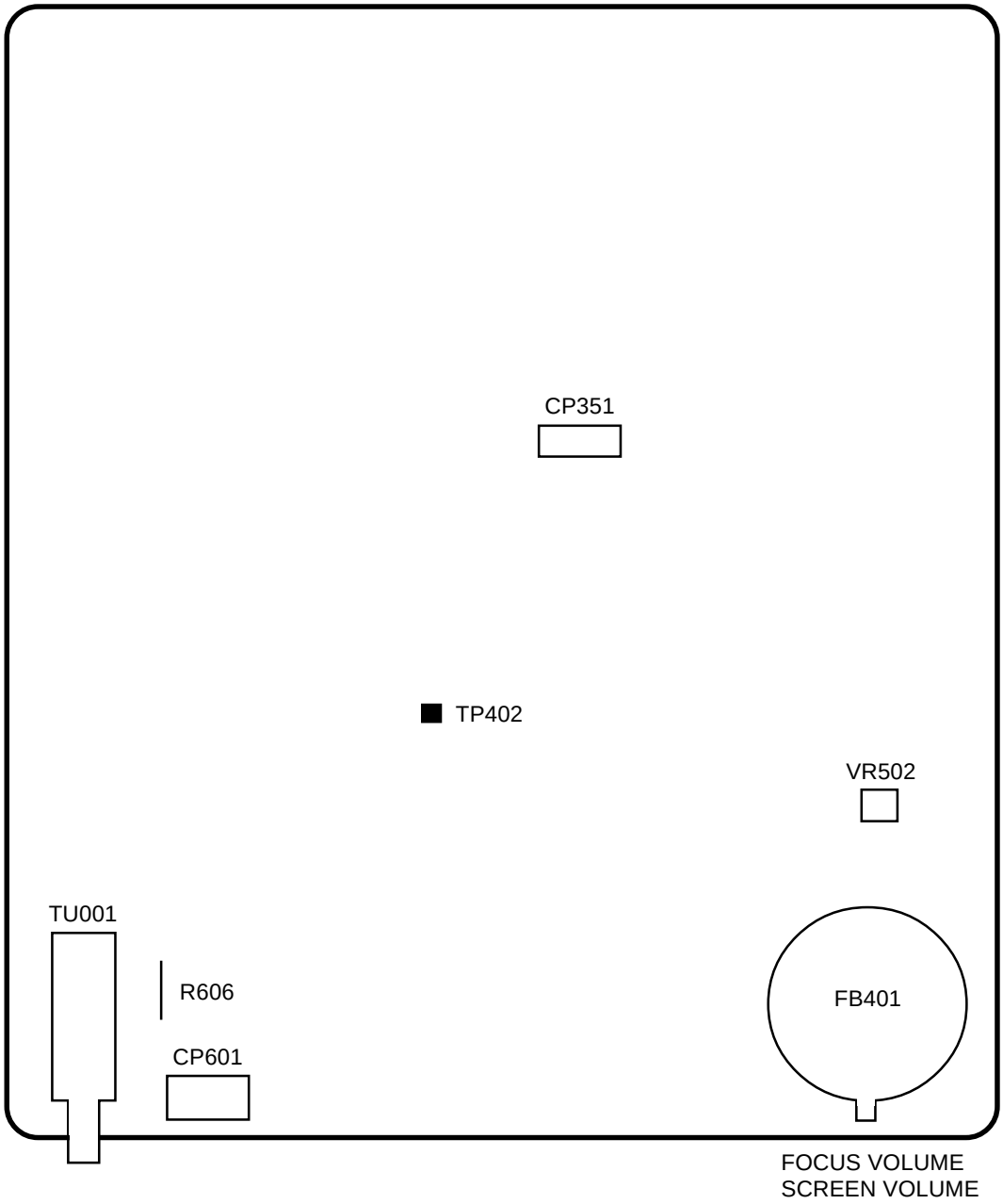
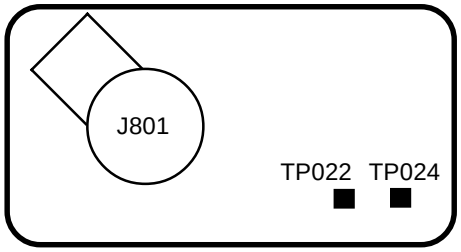


Fig. 3-2-b

MAJOR COMPONENTS LOCATION GUIDE

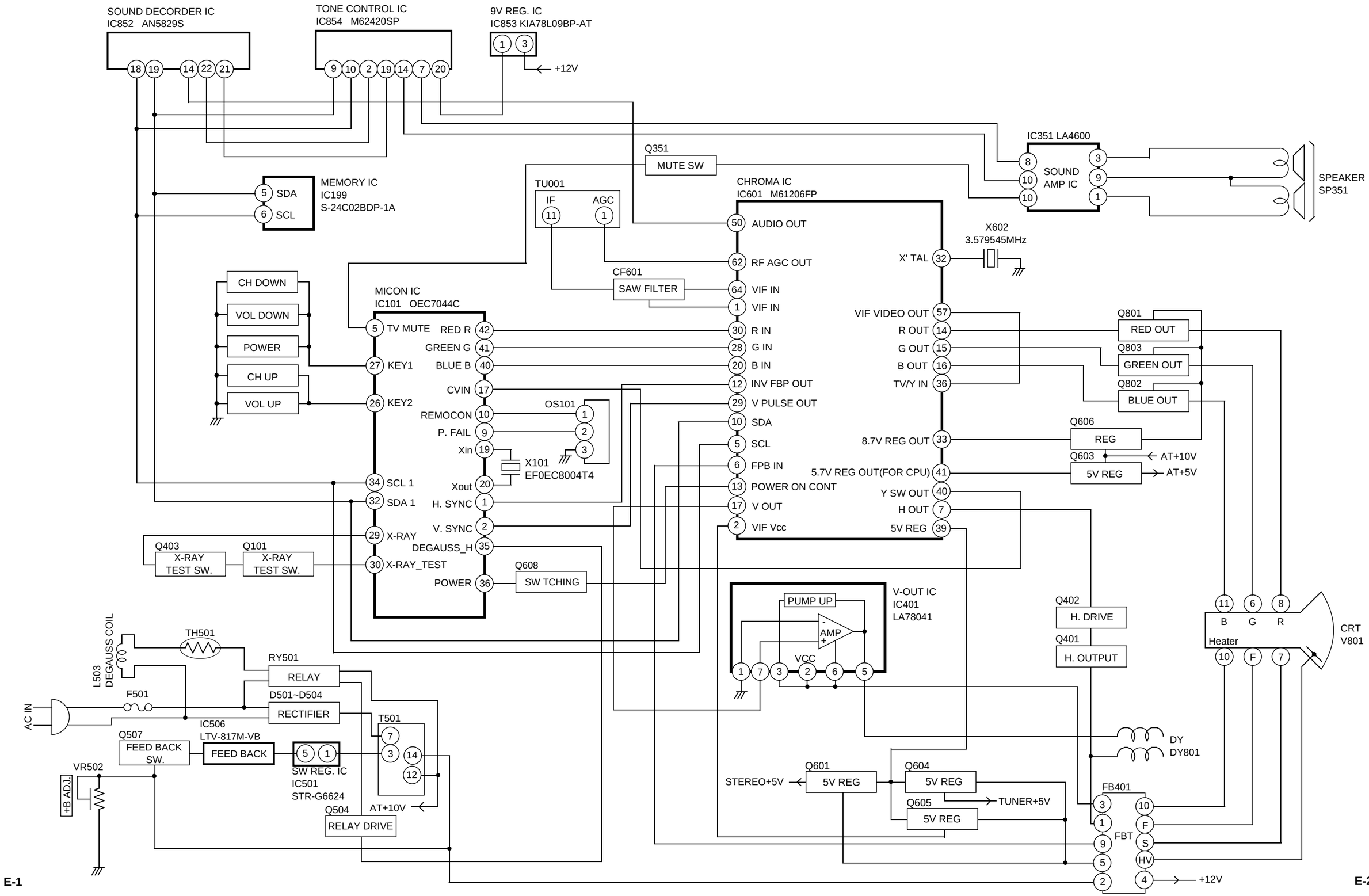


MAIN PCB



CRT PCB

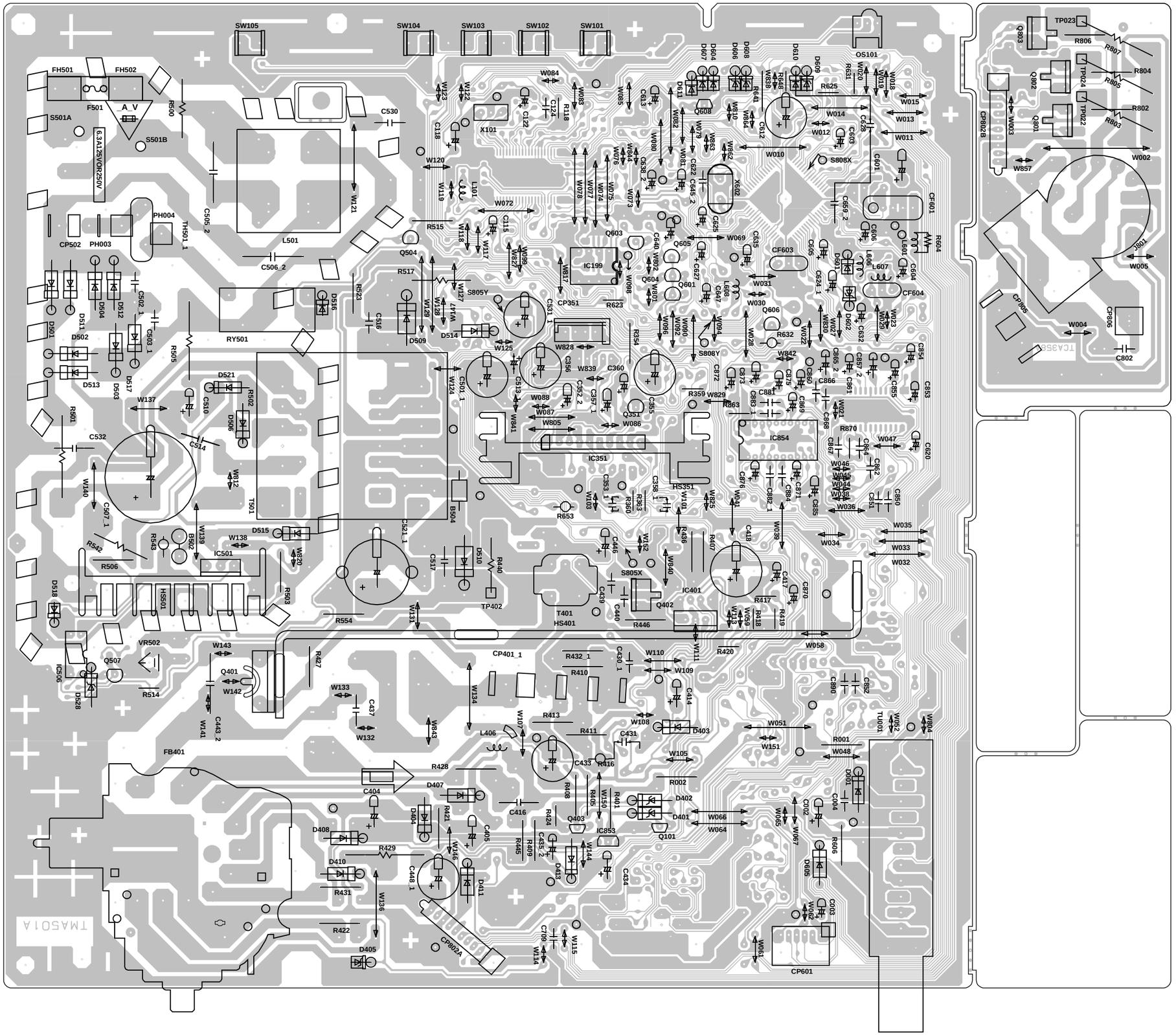
BLOCK DIAGRAM



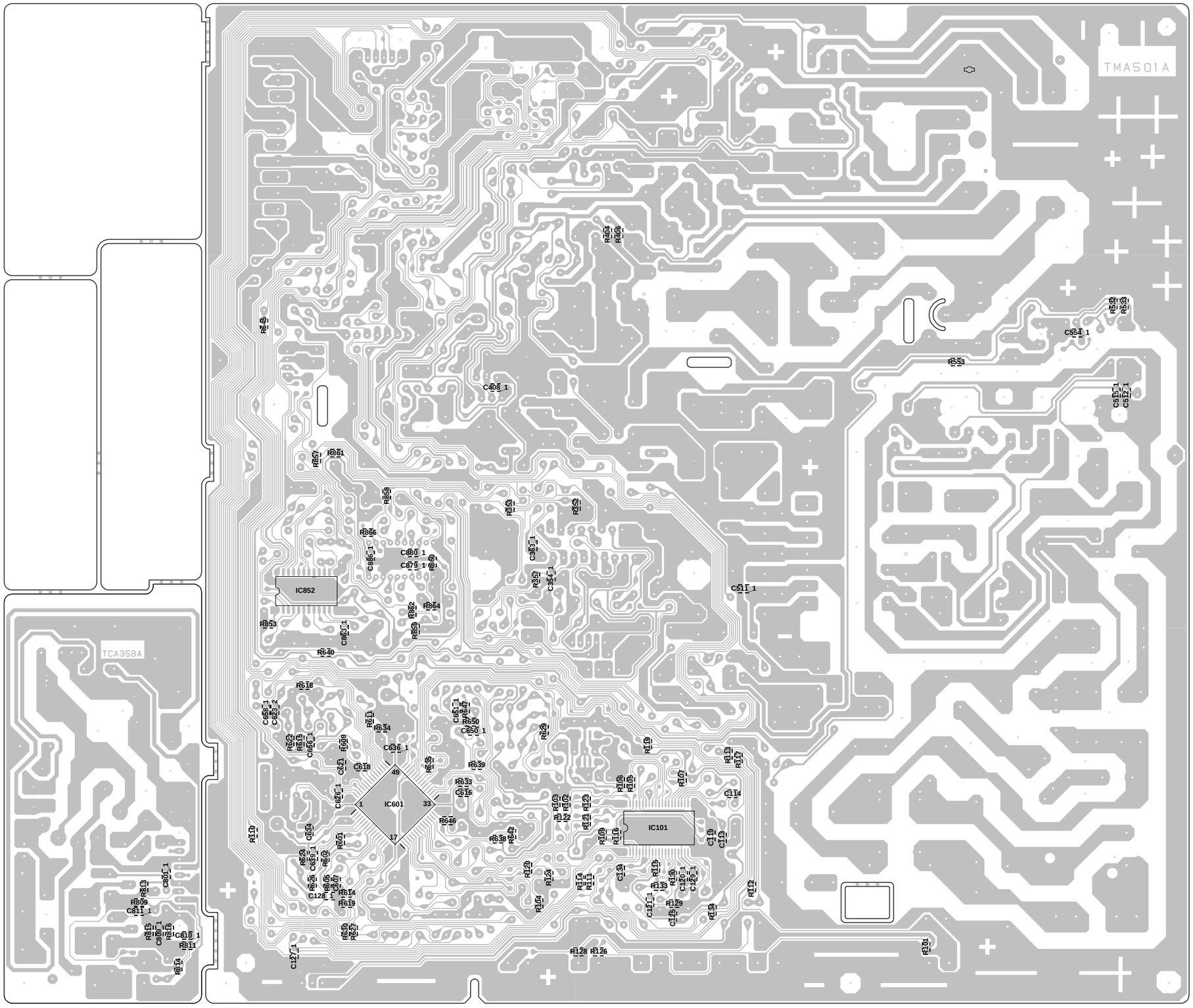
E-1

E-2

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



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



MICON/TUNER SCHEMATIC DIAGRAM(MAIN PCB)

TU001 ENV56D66G3

ACCESSORY

TM101
RC-DW

MICON IC
IC101 OEC7044C

OS101
PIC-28143SY-2

X101
EFOEC8004T4

MEMORY IC
IC199
S-24C02BDP-1A

FROM/TO CHROMA
AGC
TUNER+5V
IF
SYNC
I2C_OFF
Y_VIDEO
VD
HD
OSD_R
OSD_G
OSD_B
OSD_BLK
GND

FROM/TO DEFLECTION/CRT
X-RAY
X-RAY_TEST

FROM/TO POWER
DEGAUSS_H
+B
GND
POWER
AT+5V
AFT
SCL
SDA
RESET

FROM/TO SOUND
GND
SDA
SCL
AUDIO_MUTE

CAUTION: DIGITAL TRANSISTOR

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

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

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

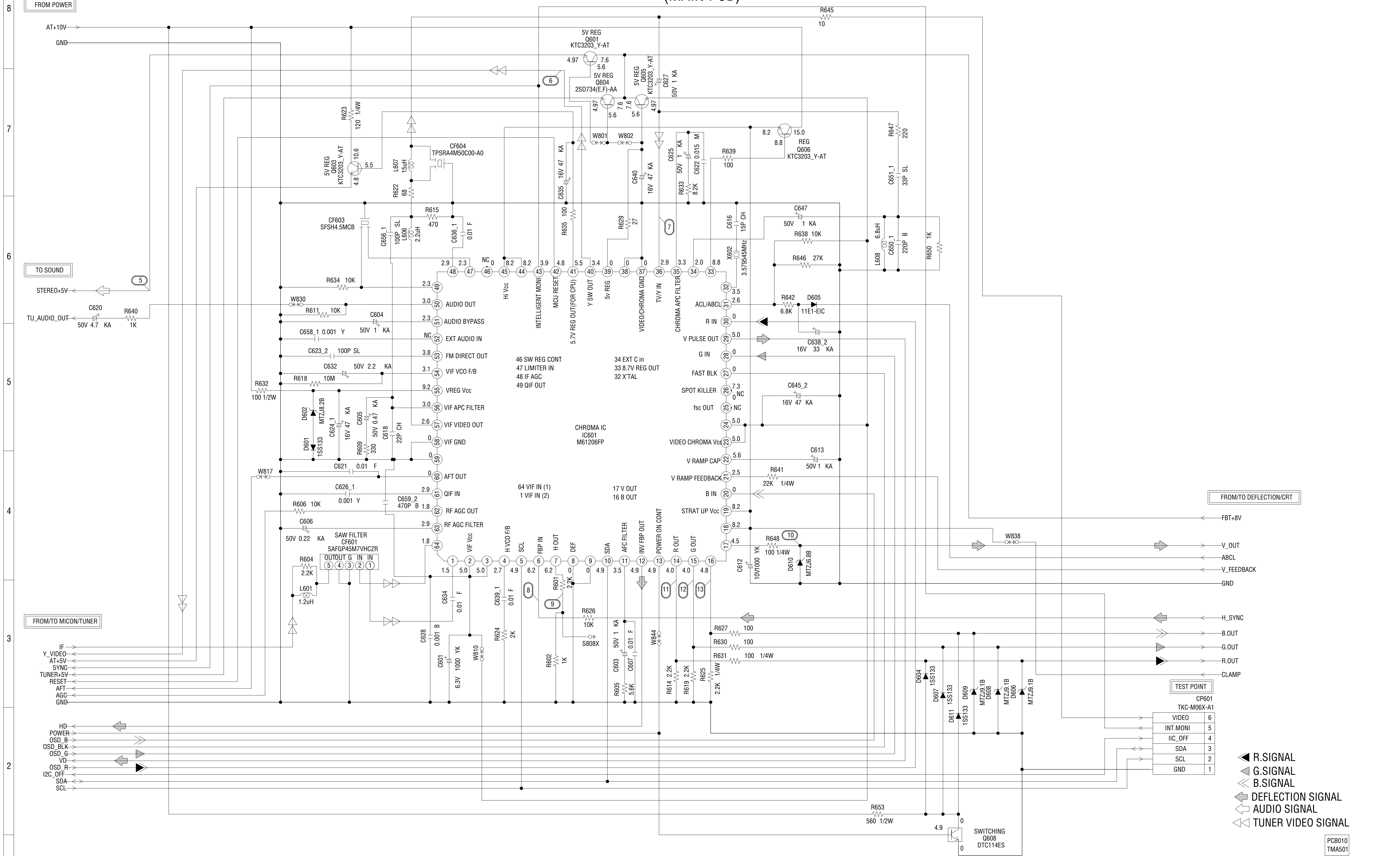
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

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

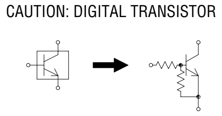
PCB010
TMA501

CHROMA SCHEMATIC DIAGRAM

(MAIN PCB)


FROM POWER
AT+10V
GND
TO SOUND
STEREO+5V
TU_AUDIO_OUT
FROM/TO MICON/TUNER
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
5V REG
Q601
KTC3203_Y-AT
5V REG
Q604
2SD734(E,F)-AA
5V REG
Q605
KTC3203_Y-AT
5V REG
Q603
KTC3203_Y-AT
REG
Q606
KTC3203_Y-AT
CF604
TPSRA4M50C00-A0
CF603
SFSH4.5MCB
R645
10
CHROMA IC
IC601
M61206FP
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
64 VIF IN (1)
1 VIF IN (2)
17 V OUT
16 B OUT
AUDIO OUT
AUDIO BYPASS
EXT AUDIO IN
FM DIRECT OUT
VIF VCO F/B
VREG Vcc
VIF APC FILTER
VIF VIDEO OUT
VIF GND
AFT OUT
QIF IN
RF AGC OUT
RF AGC FILTER
ACL/ABCL
R IN
V PULSE OUT
G IN
FAST BLK
SPOT KILLER
fsc OUT
VIDEO CHROMA Vcc
V RAMP CAP
V RAMP FEEDBACK
B IN
STRAT UP Vcc
Hi Vcc
INTELLIGENT MONI
MCU RESET
5.7V REG OUT(FOR CPU)
Y SW OUT
5v REG
VIDEO/CHROMA GND
TV/Y IN
CHROMA APC FILTER
VIF Vcc
H VCO F/B
SCL
FBP IN
H OUT
DEF
SDA
AFC FILTER
INV FBP OUT
POWER ON CONT
R OUT
G OUT
SAW FILTER
CF601
SAFGP45M7VHCZR
X602
3.579545MHz
FROM/TO DEFLECTION/CRT
FBT+8V
V_OUT
ABCL
V_FEEDBACK
GND
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
SWITCHING
Q608
DTC114ES
R.SIGNAL
G.SIGNAL
B.SIGNAL
DEFLECTION SIGNAL
AUDIO SIGNAL
TUNER VIDEO SIGNAL
PCB010
TMA501

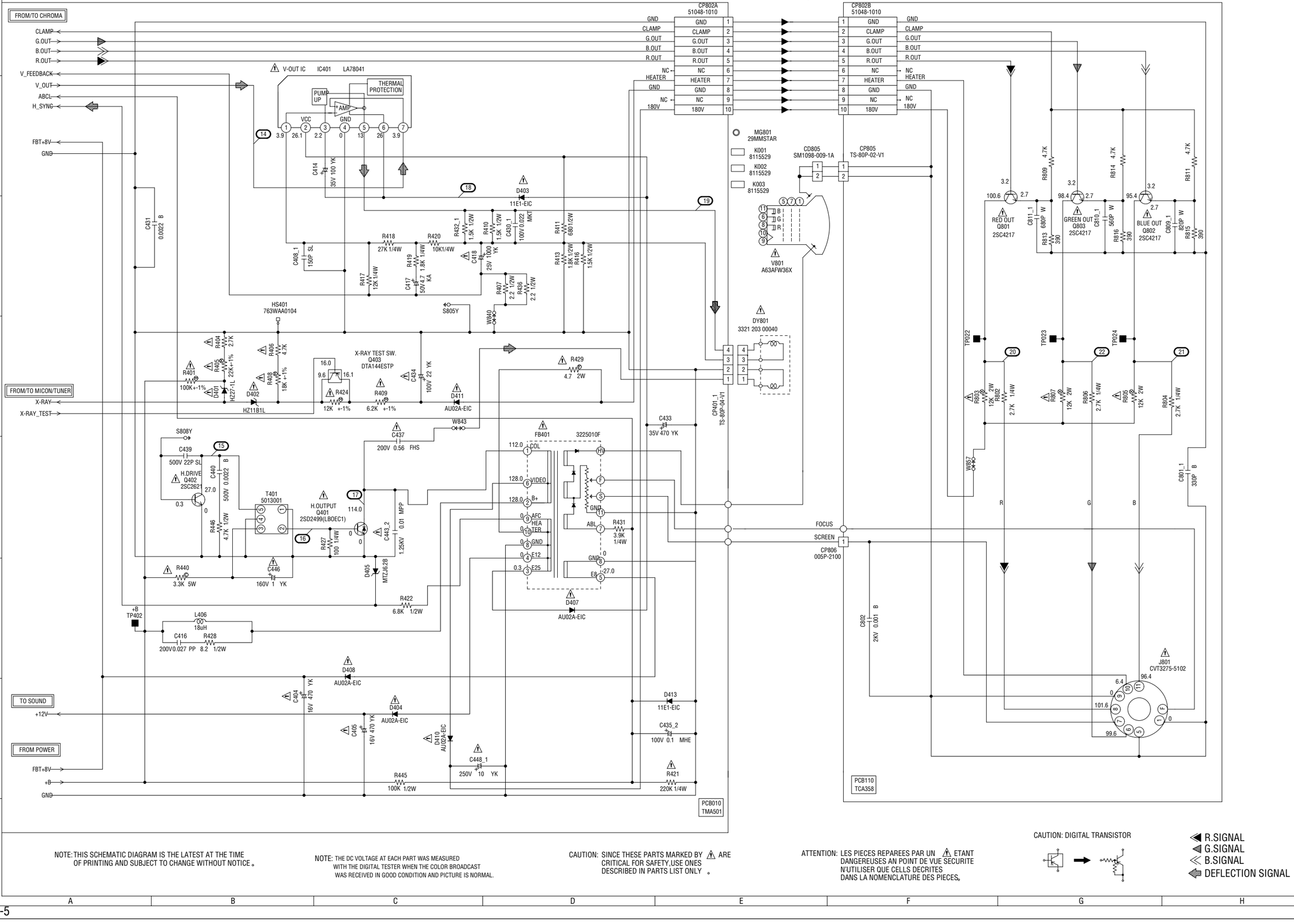
CAUTION: DIGITAL TRANSISTOR



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.

DEFLECTION/CRT 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.

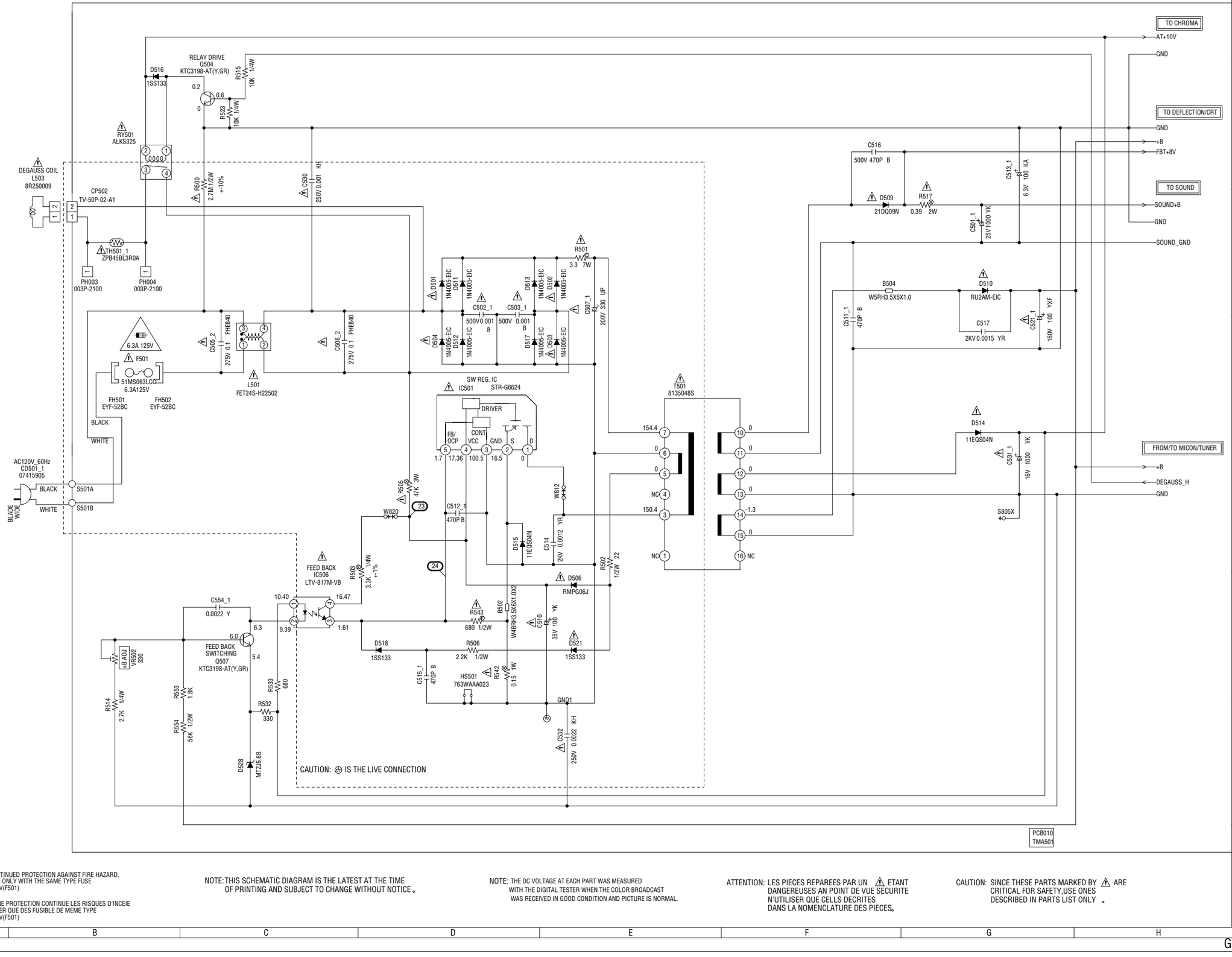
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

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

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

POWER SCHEMATIC DIAGRAM
(MAIN PCB)



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)

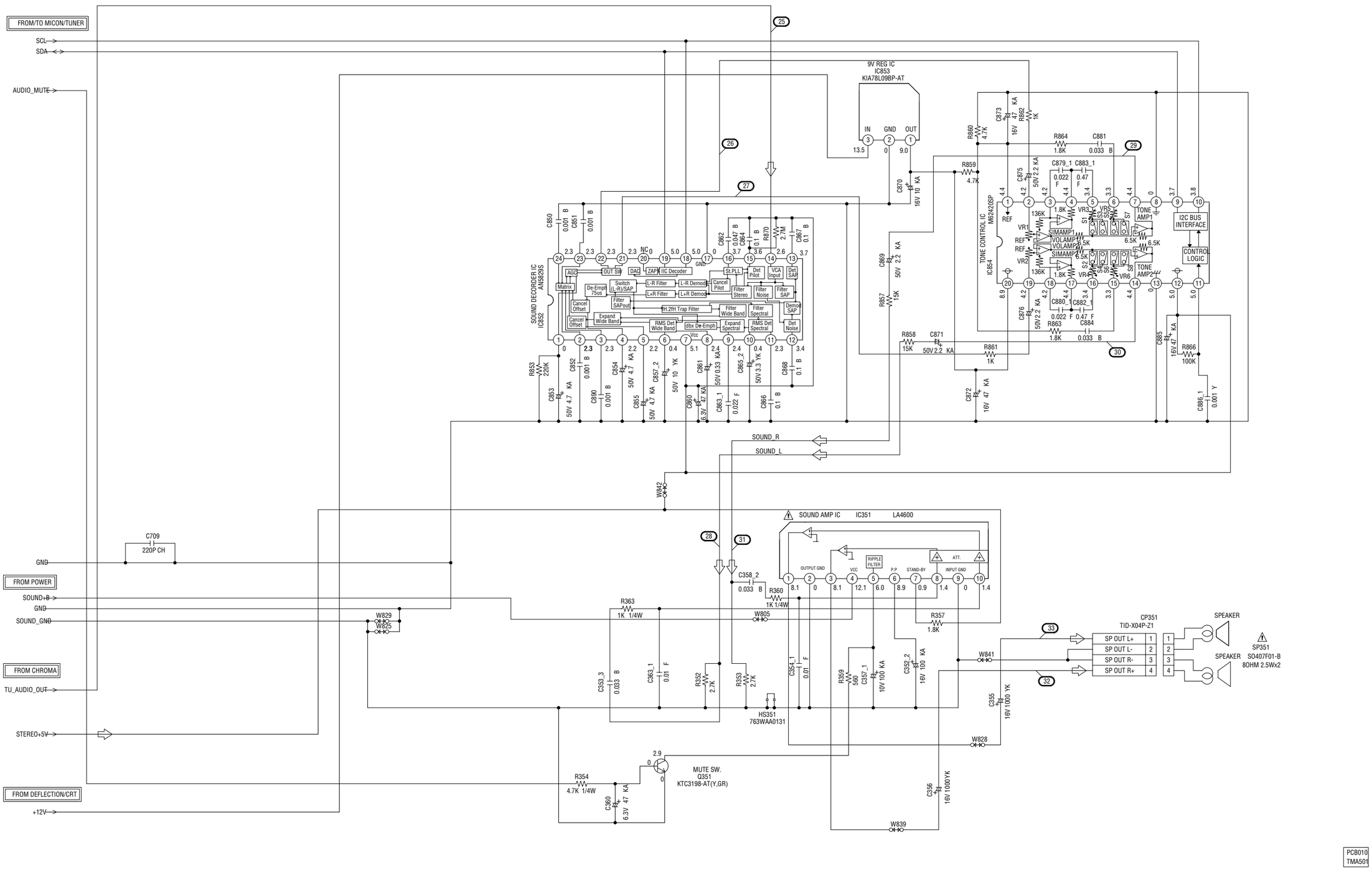
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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
(MAIN PCB)



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

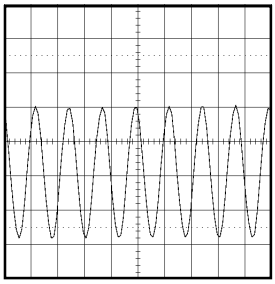
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

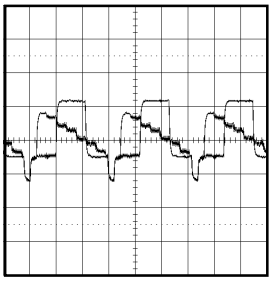
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

WAVEFORMS

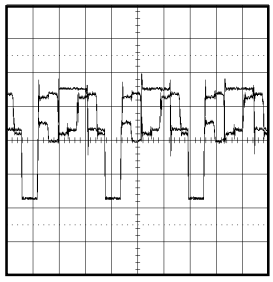
MICON/TUNER



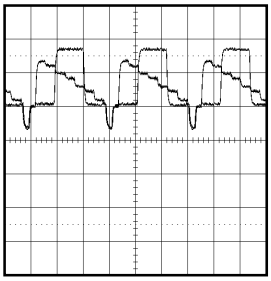
① 1V 0.1µs/div



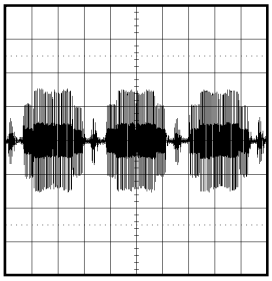
⑥ 0.5V 20µs/div



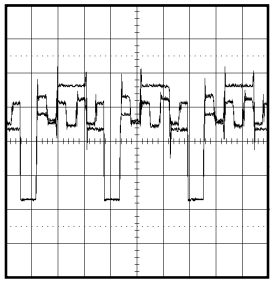
⑪ 1V 20µs/div



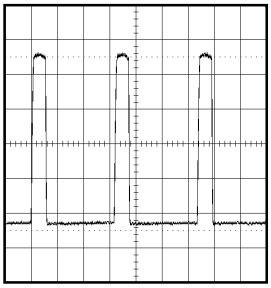
② 0.5V 20µs/div



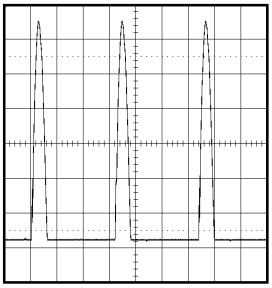
⑦ 200mV 20µs/div



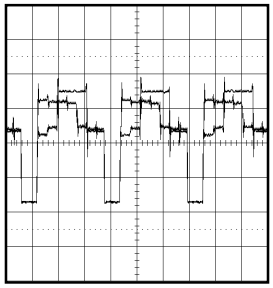
⑫ 1V 20µs/div



③ 200mV 20µs/div

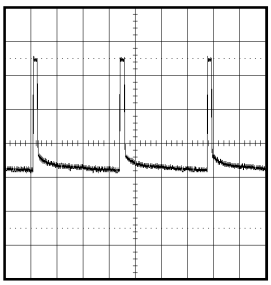


⑧ 20V 20µs/div

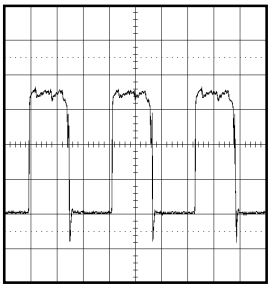


⑬ 1V 20µs/div

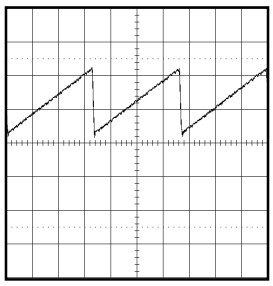
DEFLECTION/CRT



④ 200mV 5ms/div

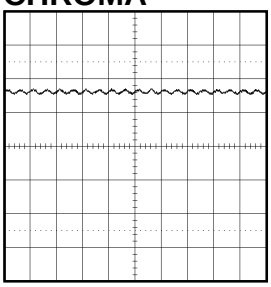


⑨ 200mV 20µs/div

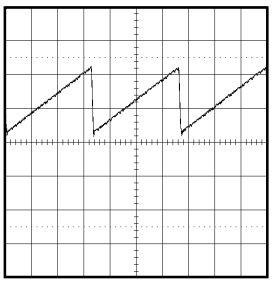


⑭ 0.5V 5ms/div

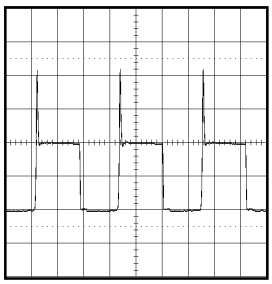
CHROMA



⑤ 0.5V 2ms/div



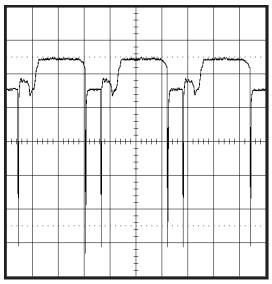
⑩ 0.5V 5ms/div



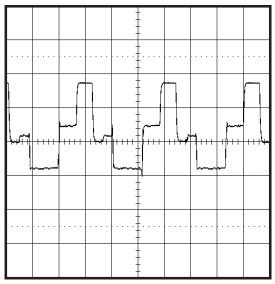
⑮ 20V 20µs/div

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

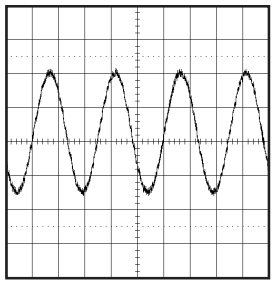
WAVEFORMS



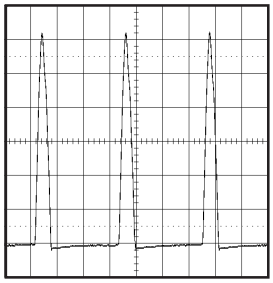
⑯ 2V 20µs/div



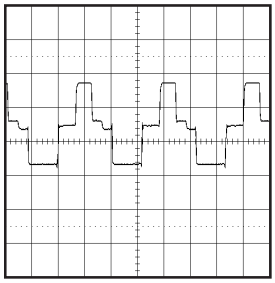
㉑ 50V 20µs/div



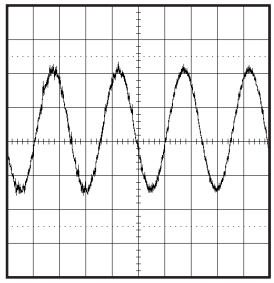
㉖ 200mV 1ms/div



⑰ 200V 20µs/div

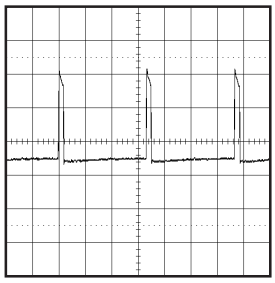


㉒ 50V 20µs/div

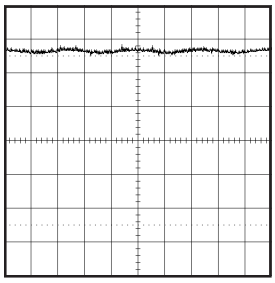


㉗ 200mV 1ms/div

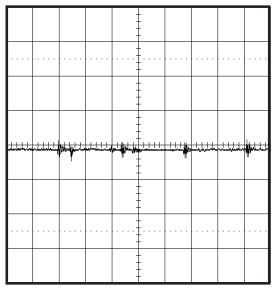
POWER



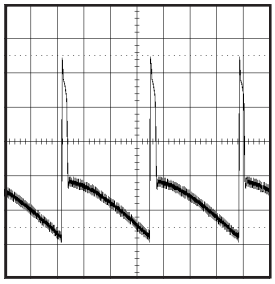
⑱ 10V 5ms/div



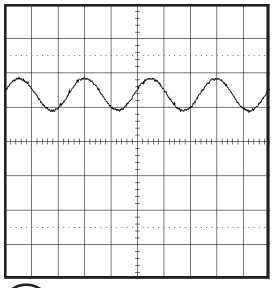
㉓ 0.5V 1ms/div



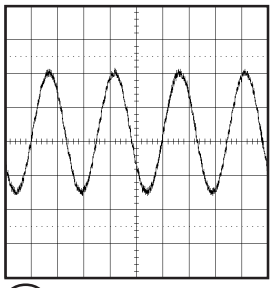
㉘ 0.5V 5µs/div



⑲ 10V 5ms/div

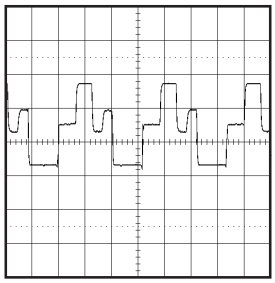


㉔ 1V 1ms/div

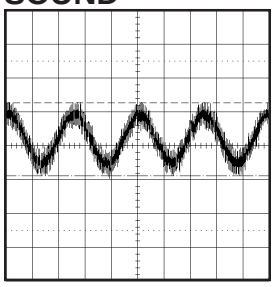


㉙ 200mV 1ms/div

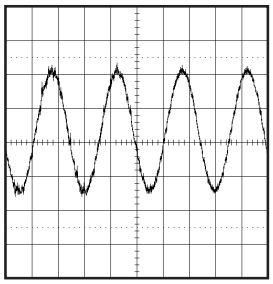
SOUND



⑳ 50V 20µs/div



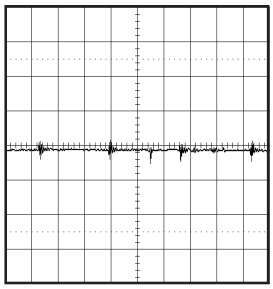
㉕ 0.5V 1ms/div



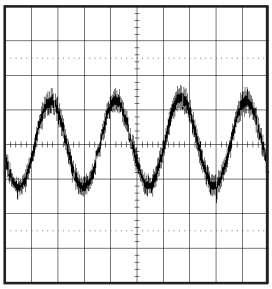
㉚ 200mV 1ms/div

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

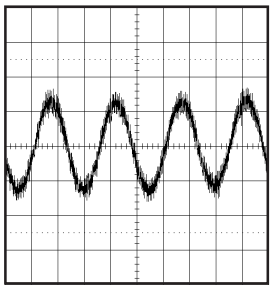
WAVEFORMS



(31) 5.0V 20ms/div



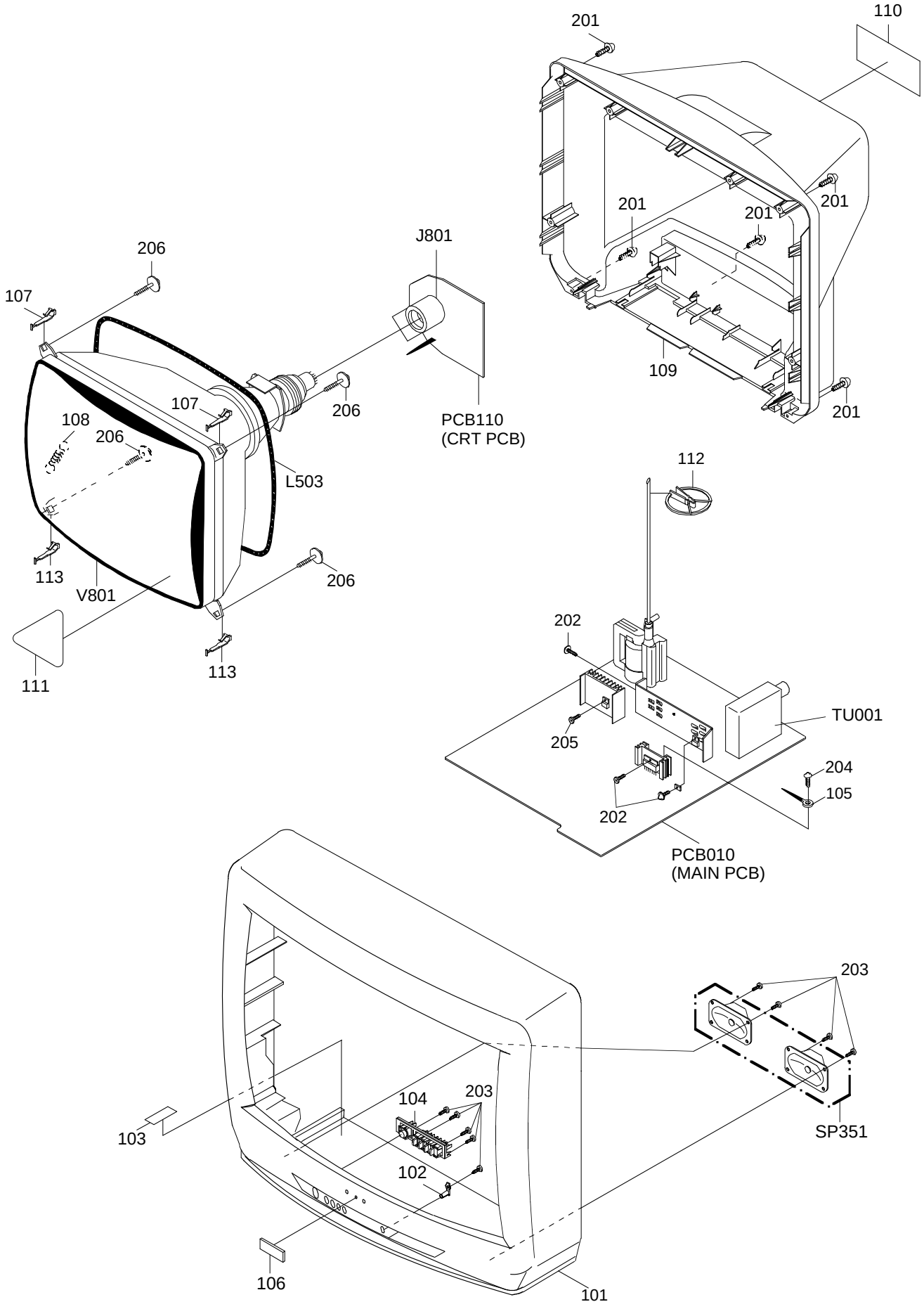
(32) 0.5V 1ms/div



(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	701APJA056	CABINET,FRONT		
102	713WPA0098	GUIDE,REMOCON		
103	7260000306	SHEET,CAUTION		
104	735WPA0439	BUTTON,ASS'Y		
105	8995034000	CORD CLIP UL CO.		
106	711WPCA021	BADGE BRAND		
107	8994201000	HOLDER,CRT WIRE		
108	741WUA0021	SPRING,EARTH		
109	702APA0121	CABINET,BACK		
110	722A08A077	SHEET,RATING		
111	723000B301	FILM,DECORATION		
112	899HV3T000	HOLDER,ANODE WIRE		
113	762WPA0009	HOLDER,CRT WIRE		
201	8117540B04	SCREW,TAPPING (B0)	TRUSS	4x20
202	8109I30A04	SCREW,TAP TITE (B)	WH7	3x10
203	8110630A04	SCREW,TAP TITE (P)	BRAZIER	3x10
204	8109630802	SCREW,TAP TITE (B)	BRAZIER	3x8
205	810B130A04	SCREW,WASHER (B)		M3x10
206	8111J50D05	SCREW/TAPPING (A)	GW22	5x35
---	J3K00701	INSTRUCTION BOOK		
---	J3I0B017	REGISTRATION CARD		
---	JB5L0200	POLY BAG		
---	793ACDA106	GIFT BOX		
---	792AHA0084	PACKAGE,BOTTOM		
---	792AHA0083	PACKAGE,TOP		
---	791AHA0021	FILM,BAG		
---	A3K007E975	INSTRUCTION BOOK KIT		

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
RESISTORS			
⚠ R401	R4X5T6104F	R, METAL	100K OHM 1/6W
⚠ R404	R903N8272J	RC	2.7K OHM 1/8W
⚠ R405	R4X5T6223F	R, METAL	22K OHM 1/6W
⚠ R406	R903N8472J	RC	4.7K OHM 1/8W
R407	R002T22R2J	RC	2.2 OHM 1/2W
⚠ R408	R4X5T6183F	R, METAL	18K OHM 1/6W
⚠ R409	R4X5T6622F	R, METAL	6.2K OHM 1/6W
⚠ R421	R001T4224J	RC	200K OHM 1/4W
⚠ R424	R4X5T6123F	R ,METAL	12K OHM 1/6W
⚠ R429	R6558A4R7J	R, FUSE	4.7 OHM 2W
⚠ R440	R5X2CD332J	R, CEMENT	3.3K OHM 5W
⚠ R500	R0G3K2275K	RC	2.7M OHM 1/2W
⚠ R501	R5Y2CE3R3J	R, CEMENT	3.3 OHM 7W
R502	R002T2220J	RC	22 OHM 1/2W
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
R515	R002T4103J	RC	10K 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
⚠ C405	E02LT2471M	CE	470 UF 16V
⚠ C414	E02LT4101M	CE	100 UF 35V
C416	P3N1F2273J	CPP	0.027 UF 200V
⚠ C418	E02LT3102M	CE	1000 UF 25V
C433	E02LT4471M	CE	470 UF 35V
⚠ C434	E02LT8220M	CE	22 UF 100V
⚠ C437	P447F2564J	CMPP	0.56 UF 200V FHS
⚠ C443	P4N8FJ103H	CMPP	0.01 UF 1.25KV
⚠ C444	E02LT2471M	CE	470 UF 16V
⚠ C446	E02LTB010M	CE	1 UF 160V
⚠ C448	E0ELTD100M	CE	10 UF 250V
C501	E02LT3102M	CE	1000 UF 25V
⚠ C502	E0JTB0513K	CE	0.001 UF 500V
⚠ C503	E0JTB0513K	CE	0.001 UF 500V
⚠ C505	P2472B104M	CMP	0.1 UF 275V PHE840
⚠ C506	P2472B104M	CMP	0.1 UF 275V PHE840
⚠ C507	E51CGC331M	CE	330 UF 200V
⚠ C510	E02LT4101M	CE	100 UF 35V
C513	E50HT0101M	CE	100 UF 6.3V
C514	C0JLYR7B3K	CC	0.0012UF 2KV YR
C517	C0JLYR7E3K	CC	0.0015UF 2KV YR
⚠ C521	E62NFB101M	CE	100 UF 160V
⚠ C530	CB3LE0M13M	CC	0.001 UF 250V or
	E02LT2102M	CE	1000 UF 16V
⚠ C532	CB3LE0MH3M	CC	0.0022UF 250V or
	CBLLYEMH3M	CC	0.0022UF 250V
C628	CHG0B0413K	CC	0.001 UF 50V B
C802	C0HTB0713K	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
⚠ D504	D2WXN40050	DIODE, SILICON	1N4005-EIC
⚠ D506	D2LTPG06J0	DIODE, SILICON	RMPG06J-G3
⚠ D509	D28T21DQN9	DIODE, SCHOTTKY	21DQ09N-TA2B1
⚠ D510	D2WXRU2AM0	DIODE, SILICON	RU2AM-EIC
D511	D2WXN40050	DIODE, SILICON	1N4005-EIC

REF. NO.	PART NO.	DESCRIPTION	
DIODES			
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	A3K007E015	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
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
⚠ Q801	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q802	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
⚠ Q803	TC3F042170	TRANSISTOR, SILICON	2SC4217(D,E)-RAC
COILS &TRANSFORMERS			
L101	021LA62R7K	COIL	2.7 UH
L406	021U6D180K	COIL	18 UH
⚠ L501	029F000074	COIL, LINE FILTER	FET24S-H22502
⚠ L503	028R250009	COIL, DEGAUSS	8R250009
L601	021LA61R2K	COIL	1.2 UH
L606	021LA62R2K	COIL	2.2 UH
L607	021LA6150K	COIL	15 UH
L608	021LA66R8K	COIL	6.8 UH
T401	045013001J	TRANS, HORIZONTAL DRIVE	5013001
⚠ T501	048135048S	TRANSFORMER, SWITCHING	8135048S
JACK			
⚠ 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 RESISTOR			
VR502	V1163L2BTC	VOLUME, SEMI FIXED	EVNCYAA03BY2
P.C.BOARD ASSEMBLIES			
PCB010	A3K007E01A	PCB ASS'Y	TMA501A
PCB110	A3K007E11A	PCB ASS'Y	TCA358A
MISCELLANEOUS			
B502	024HT03563	CORE, BEADS	W4BRH3.5X6X1.0X2

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
		MISCELLANEOUS	
	B504	024HT03553	CORE, BEADS	W5RH3.5X5X1.0
	CD501	1207415905	CORD, AC	7415905
	CD805	06CU82039A	CORD CONNECTOR	SM1098-009-1A
	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
	CP805	069W320018	CONNECTOR PCB SIDE	TS-80P-02-V1
	CP806	069W010010	CONNECTOR PCB SIDE	005P-2100
	CP802A	067R010019	WIRE HOLDER	51048-1010
	CP802B	067R010019	WIRE HOLDER	51048-1010
⚠	DY801	027Q062501	DY	3321 203 00040
⚠	F501	081PC6R304	FUSE	51MS063LCC
⚠	FB401	043225010F	TRANSFORMER, FLYBACK	3225010F
	FH501	06710T0006	HOLDER, FUSE	EYF-52BC
	FH502	06710T0006	HOLDER, FUSE	EYF-52BC
	K001	129A000010	WEDGE	8115529
	K002	129A000010	WEDGE	8115529
	K003	129A000010	WEDGE	8115529
	MG801	026A062704	MAGNET, CONVERGENCE	29MMSTAR
	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
⚠	SP351	070Y433002	SPEAKER	SO407F01-B
⚠	TH501	DF5EL3R0A0	DEGAUSS ELEMENT	ZPB45BL3R0A
	TM101	076N0DW050	TRANSMITTER	RC-DW
⚠	TU001	0145S00052	TUNER, VHF-UHF	ENV56D66G3
⚠	V801	092T250501	COLOR PICTURE TUBE	A63AFW36X
	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.	M3K0-07E
O/R NO.	A143508