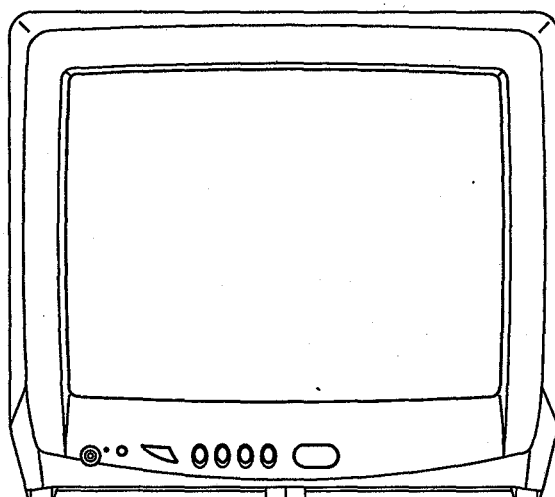


SERVICE MANUAL

ORION

TV-518 SI / TV-518

COLOR TELEVISION RECEIVER



ORIGINAL
CHASSIS CODE A

Best. Nr. SM518SI

Design and specifications are subject to change without notice.

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 \triangle 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 external 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 CHASSIS CODE.)

1. MODEL NUMBER and CHASSIS CODE
You can find it in the back of your unit.
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	20 inch / 400.0mmV
			CRT Type	Normal
			Deflection	90 degree
			Magnetic Field BV/BH	+0.45G/0.18G
			Color System	PAL
			Speaker	1 Speaker
			Position	Bottom
			Size	3 Inch
			Impedance	8 ohm
			Sound Output	MAX 1.5 W 10%(Typical) 1.2 W
	PAL60Hz	Yes		
G-2	Tuning System	Broadcasting System		CCIR System B/G
		Tuner and Receive CH	System	1 Tuner
			Destination	W/ Hyper
			Tuning System	F-Synth
			Input Impedance	VHF/UHF 75 ohm
			CH Coverage	E2 - E4, X - Z+2, S1 - S10, E5 - E12, S11 - S41, E21 - E69
		Intermediate Frequency	Picture(FP)	38.90MHz
			Sound(FS)	33.4MHz
			FP-FS	5.5MHz
			Auto Tuning Method	C.C.I.R CH PLAN
	Preset CH	80		
	Stereo/Dual TV Sound	No		
	Tuner Sound Muting	Yes		
G-3	Power	Power Source	AC DC	230V AC 50Hz
		Power Consumption	at AC	63 W at AC 230 V 50 Hz 7 W at AC 230 V 50 Hz -- kWh/Year
			Stand by (at AC) Per Year	
		Protector	Power Fuse Safety Circuit IC Protector(Micro Fuse)	Yes Yes No
G-4	Regulation	Safety		CE
		Radiation		CE
		X-Radiation		PTB
G-5	Temperature	Operation		+5°C ~ +40°C
		Storage		-20°C ~ +60°C
G-6	Operating Humidity			Less than 80% RH
G-7	On Screen Display	Menu		Yes
		Menu Type		Character
		Picture		Yes
			Contrast	Yes
			Brightness	Yes
			Color	Yes
			Tint	No
			Sharpness	Yes
		Audio		No
			Bass	No
			Treble	No
			Balance	No
			BBE On/Off	No
			Stable Sound On/Off	No
		CH Tuning		Yes
			Manual	Yes
			Auto	Yes
			CH Allocation	Yes
		Language		Yes
		Clock Set		No
On/Off Timer Set		No		
Pin Code Registration		No		

GENERAL SPECIFICATIONS

	Nicam Auto Off		No
	Colour System		No
	Sound System		No
	AV2 Output Source		No
	Control Level		Yes
	Volume		Yes
	Brightness		Yes
	Contrast		Yes
	Color		Yes
	Tint (NTSC Only)		No
	Sharpness		Yes
	Tuning		Yes
	Bass		No
	Treble		No
	Balance		No
	Back Light		No
	Nicam ST		No
	Tone 1/2		No
	Pin Code		No
	AV		Yes
	Skip		Yes
	Channel		Yes
	Hotel Lock		No
	Sleep Timer		Yes
	Sound Mute		Yes
G-8	OSD Language		English French Spanish German Italian
G-9	Clock and Timer	Sleep Timer	Max-Time Step
		On/Off Timer	Program(On Timer / Off Timer)
		Wake Up Timer	
		Timer Back-up (at Power Off Mode)	more than
			120 Min 10 Min No No -- Min Sec
G-10	Remote Control	Unit	RC-GE
		Glow in Dark Remocon	No
		Format	NEC
		Custom Code	80-63 h
		Power Source	Voltage(D.C) UM size x pcs
		Total Keys	31 Keys
		Keys	Power(Stand By)
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0 / AV	Yes
		CH Up	No
		CH Down	No
		Volume Up / +	Yes
		Volume Down / -	Yes
		Quick View	No
		Sleep	Yes
		Info(CH Call)	Yes
		Normal	No
		Menu	Yes
		Enter	Yes
		Mute	Yes
		Fine Tuning +	No
		Fine Tuning -	No

GENERAL SPECIFICATIONS

		Tone 1/2	No
	TEXT Keys	TEXT / MIX / TV	Yes
		CH Up / Page Up	Yes
		CH Down / Page Down	Yes
		Red	Yes
		Green	Yes
		Yellow / Fine Tuning -	Yes
		Cyan / Fine Tuning +	Yes
		F/T/B(Expand) / Normal	Yes
		Reveal / Skip	Yes
		Display Cancel	Yes
		Reset	Yes
		Reset / Tone 1/2	No
		Hold / Status	Yes
		Sub Page / Quick View	Yes
		G-11	Features
Auto Shut Off	Yes		
Canal+	No		
CATV	Yes		
Anti-theft	No		
Memory(Last CH)	Yes		
Memory(Last Volume)	Yes		
BBE	No		
Auto Search	Yes		
CH Allocation	Yes		
Channel Lock	No		
Just Clock Function	No		
Game Position	No		
CH Label	No		
VM Circuit	No		
Full OSD	No		
Unitext	Yes		
Fasttext	No		
Top Text	No		
Premiere	No		
Comb Filter	No		
	_____ Lines		
Auto CH Memory	Yes		
Auto Set Up	No		
Stable Sound	No		
FBT Leak Test Protect	No		
Hotel Lock	No		
Power On Memory	Yes		
G-12	Accessories	Owner's Manual	Language German
			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	Yes

GENERAL SPECIFICATIONS

		UM size x pcs	UM-4 x 2 pcs		
		OEM Brand	No		
		AC Cord	No		
		AV Cord (2Pin-1Pin)	No		
		Registration Card	No		
		300 ohm to 75 ohm Antenna Adapter	No		
G-13	Interface	Switch	Front	Power	No
			System Select	No	
			Main Power SW	Yes	
			Sub Power	No	
			Channel Up	Yes	
			Channel Down	Yes	
			Volume Up	Yes	
			Volume Down	Yes	
			Rear	AC/DC	No
		TV/CATV Selector	No		
		Degauss	No		
		Main Power SW	No		
		Indicator	Power	No	
			Stand-by	Yes	
			On Timer	No	
		Terminals	Front	Video Input	RCA x1
				Audio Input	RCA x1
				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(21Pin)	Yes (x1)
				Component Input	No
				Diversity	No
				Ext Speaker	No
				DC Jack 12V(Center +)	No
				VHF/UHF Antenna Input	Din Type
AC Outlet	No				
G-14	Set Size			Approx. W x D x H (mm)	488 x 465 x 416
G-15	Weight			Net (Approx.)	17.5 kg (---lbs)
		Gross (Approx.)	20.0kg (---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/Full Color		
		Dimensions W x D x H(mm)	546 x 526 x 472		
		Design	As per Buyer's		
		Description of Origin	No		
		Drop Test	Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces		
		Height (cm)	46		
Container Stuffing	436 Sets/40' container				
G-17	Material	Cabinet	Cabinet Front	PS 94V0 DECABROM	
		Cabinet Rear	PS 94V0 DECABROM		
		PCB	Non-Halogen Demand	No	
		Eyelet Demand	No		
G-18	Environment	Pb Free	Lead-free Solder	No	
		Other	No		
		Cd Free	No		

DISASSEMBLY INSTRUCTIONS

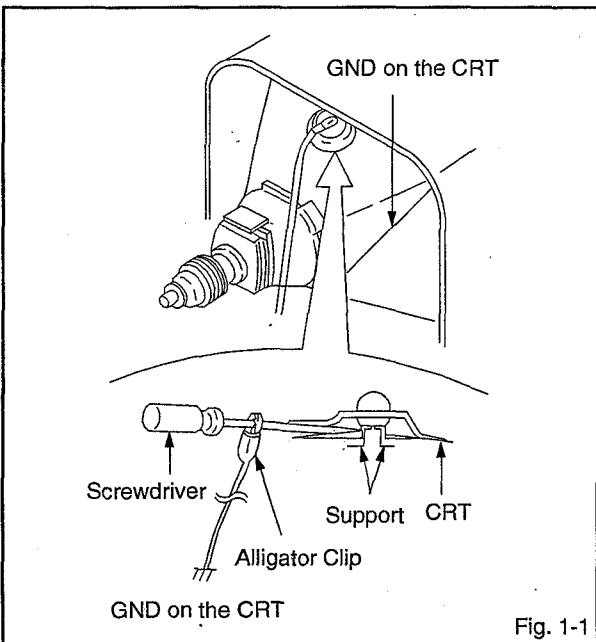
1. REMOVAL OF ANODE CAP

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

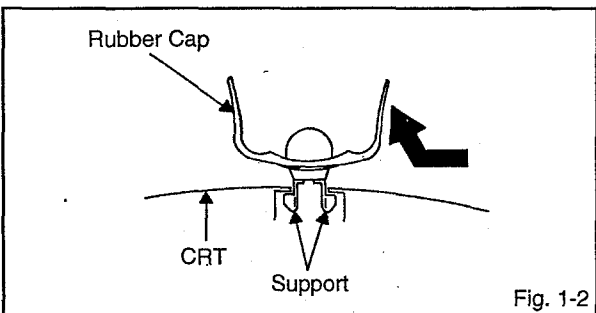
- * After turning the power off there might still be a potential voltage that is very dangerous. When removing the Anode Cap, make sure to discharge the Anode Cap's potential voltage.
- * Do not use pliers to loosen or tighten the Anode Cap terminal, this may cause the spring to be damaged.

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.



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.)



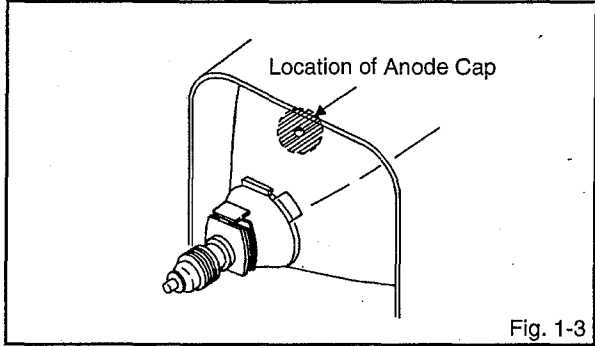
3. After one side is removed, pull in the opposite direction to remove the other.

NOTE

Take care not to damage the Rubber Cap.

INSTALLATION

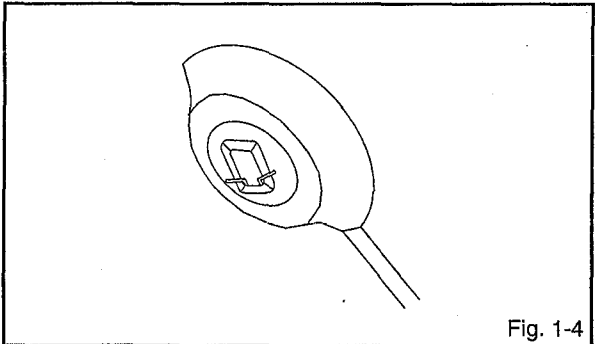
1. Clean the spot where the cap was located with a small amount of alcohol. (Refer to Fig. 1-3.)



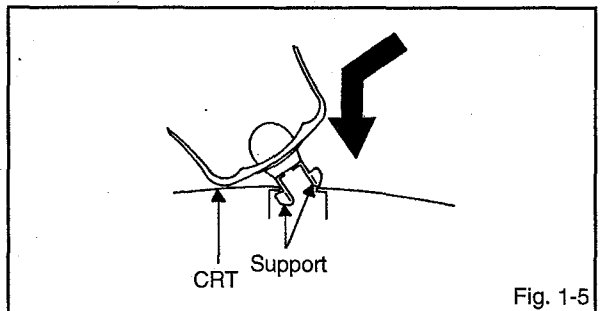
NOTE

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.)



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



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

SERVICE MODE LIST

This unit provided with the following SERVICE MODES so you can repair, examine and adjust easily.
To enter the Service Mode, press both set key and remote control key for more than 2 seconds.

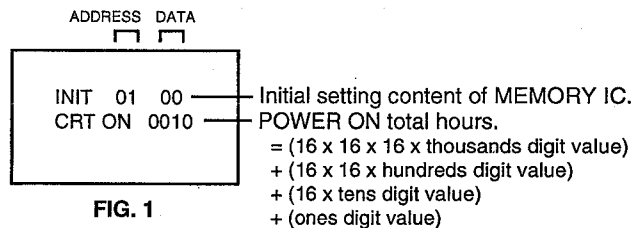
Set Key	Remocon Key	Operations
VOL. (-) MIN	0	Reset the user setting items (PICTURE, VOLUME and LANGUAGE) to the initial state for delivery.
VOL. (-) MIN	1	Initialization of the factory. NOTE: Do not use this for the normal servicing.
VOL. (-) MIN	6	POWER ON total hours is displayed on the screen. Refer to the "CONFIRMATION OF HOURS USED". Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (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 HOURS USED

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

NOTE: If you set a factory initialization, the total hours is reset to "0".

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



WHEN REPLACING EEPROM (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	+B	+C	+D	+E	+F
00	---	00	00	00	00	39	94	41	00	41	00	09	03	00	06	00
10	10	00	80	80	80	02	00	---	---	---	---	---	---	---	---	---

Table 1

1. Enter DATA SET mode by setting VOLUME to minimum.
2. While holding down VOLUME button on front cabinet, press key 6 on remote control for more than 2 seconds.

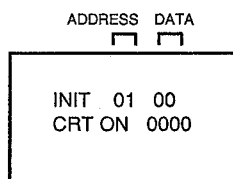


Fig. 1

3. ADDRESS is now selected and should "blink". Using the VOL. +/- button 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 VOL. +/- button 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.

After the data input, set to the initializing of shipping.

9. Turn POWER on.
10. While holding down VOLUME button on front cabinet, press key 1 on remote control for more than 2 seconds.
11. After the finishing of the initializing of shipping, the unit will turn off automatically.

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.
- When you exchange IC and Transistor for a heat sink, apply the silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor.)

Prepare the following measurement tools for electrical adjustments.

1. Oscilloscope
2. Digital Voltmeter
3. Pattern Generator

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 2 seconds to appear the adjustment mode on the screen as shown in Fig. 1-1.

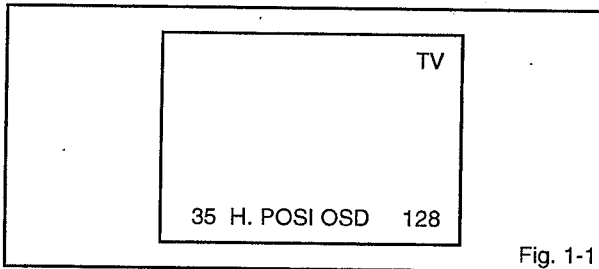


Fig. 1-1

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	CUT OFF	20	TINT
01	RF AGC	21	SHARP
02	AGC GAIN	22	CONT CENT
03	R DRIVE	23	CONT MAX
04	R CUT OFF	24	CONT MIN
05	G DRIVE	25	COLOR CENT
06	G CUT OFF	26	COLOR MAX
07	B DRIVE	27	COLOR MIN
08	H POSI 50	28	M R CUT OFF
09	V.POSI 50	29	M G CUT OFF
10	V POSI 60	30	M B CUT OFF
11	V SIZE 50	31	CVBS OUT
12	V SIZE 60	32	APR THR
13	VCO COARSE	33	BELL
14	VCO FINE	34	BANDPASS
15	-	35	H POSI OSD
16	-	36	V POSI OSD
17	BRIGHT CENT	37	H POSI TXT
18	BRIGHT MAX	38	V POSI TXT
19	BRIGHT MIN	39	H POSI 60

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: AGC VOLTAGE

1. Place the set with Aging Test for more than 15 minutes.
2. Receive the UHF (63 ± 1dB).
3. Connect the digital voltmeter between the TP002 and the (GND) of TU001.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (01) on the remote control to select "RF AGC".
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 2.5 ± 0.05V.

2-2: CUT OFF

1. Place the set with Aging Test for more than 15 minutes.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (00) on the remote control to select "CUT OFF".
4. Adjust the Screen Volume until a dim raster is obtained.

2-3: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustment.

1. Place the set with Aging Test for more than 10 minutes.
2. Receive the white 100% signal from the Pattern Generator.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (28) on the remote control to select "M R CUT OFF".
5. Using the VOL. UP/DOWN button on the remote control, adjust the M R CUT OFF.
6. Press the CH. UP/DOWN button on the remote control to select the "R DRIVE", "G DRIVE", or "M G CUT OFF".
7. Using the VOL. UP/DOWN button on the remote control, adjust the R DRIVE, G DRIVE, M G CUT OFF or M R CUT OFF.
8. Perform the above adjustments 6 and 7 until the white color is looked like a white.

2-4: FOCUS

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

2-5: CONSTANT VOLTAGE

1. Place the set with Aging Test for more than 15 minutes.
2. Using the remote control, set the brightness and contrast to normal position.
3. Connect the digital voltmeter to TP501 (R445).
4. Set condition is AV MODE without signal.
5. Adjust the VR501 until the digital voltmeter is 135 ± 0.5V.

ELECTRICAL ADJUSTMENTS

2-7: HORIZONTAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(08)** on the remote control to select "H POSI(50)".
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.
5. Receive the monoscope pattern of NTSC.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(39)** on the remote control to select "H POSI(60)".
8. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.

2-8: VERTICAL SIZE

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(11)** on the remote control to select "V SIZE(50)".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes $8 \pm 3\%$.
5. Receive the monoscope pattern of NTSC.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(12)** on the remote control to select "V SIZE(60)".
8. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes $8 \pm 3\%$.

2-9: BRIGHT CENT

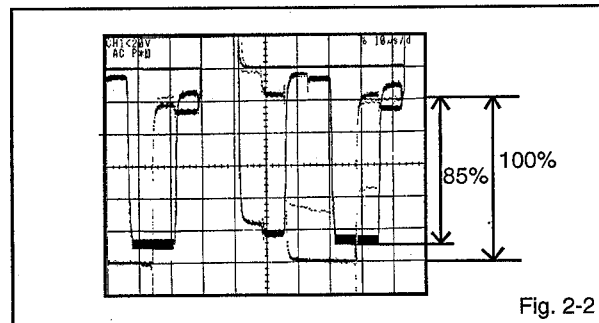
1. Place the set with Aging Test for more than 15 minutes.
2. Receive the monoscope pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(17)** on the remote control to select "BRIGHT CENT".
5. Press the VOL. UP/DOWN button on the remote control until the GLAY SCALE 25% section become to be the half black.
6. Receive the monoscope pattern. (Audio Video Input)
7. Press the AV button on the remote control to set to the AV mode. Then perform the above adjustments 3~5.

2-10: CONT CENT

1. Place the set with Aging Test for more than 15 minutes.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(22)** on the remote control to select "CONT CENT".
3. Press the VOL. UP/DOWN button on the remote control until the cont cent step No. becomes "37".
5. Press the AV button on the remote control to set the AV mode.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(22)** on the remote control to select "CONT CENT".
7. Press the VOL. UP/DOWN button on the remote control until the cont cent step No. becomes "40".

2-11: COLOR CENT

1. Receive the color bar pattern. (RF Input)
2. Connect the oscilloscope to **TP023**.
3. Using the remote control, set the brightness, contrast and color to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(25)** on the remote control to select "COLOR CENT".
5. Adjust the VOLTS RANGE VARIABLE knob of the oscilloscope until the range between white 100% and 0% is set to 5 scales on the screen of the oscilloscope.
6. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to $85 \pm 10\%$ for the white level. (**Refer to Fig. 2-2**)
7. Receive the color bar pattern. (Audio Video Input)
8. Press the AV button on the remote control to set the AV mode. Then perform the above adjustments 2~6.



2-12: VCO COARSE/VCO FINE

1. Connect the oscillator (38.9MHz) to between the **TP003** and the **(GND)** of **TU001**.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(13)** on the remote control to select "VCO COARSE".
3. Press the VOL. UP/DOWN button on the remote control until the "+" appear on the screen.
4. Press the CH UP button once to set to "VCO FINE" mode.
5. Press the VOL. UP/DOWN button on the remote control to select the 4 step down point from the upper limit on the "+".
(Example: In case of the "+" point 30~41, select 37.)

ELECTRICAL ADJUSTMENTS

2-13: VERTICAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of Fig. 1-1 and press the channel button (09) on the remote control to select "V POSI(50)".
4. Check if the step No. V. POSI is "8".
5. Adjust the **VR401** until the horizontal line becomes fit to notch of the shadow mask.

2-14 : Confirmation of Fixed Value (Step No.)

Please check if the fixed values of the each adjustment items are set correctly referring below.

NO.	FUNCTION	RF	AV
02	AGC GAIN	00	---
04	R CUT OFF	00	---
06	G CUT OFF	00	---
07	B DRIVE	45	---
10	V POSI 60	08	---
18	BRIGHT MAX	37	37
19	BRIGHT MIN	08	08
20	TINT	32	32
21	SHARP	02	02
23	CONT MAX	50	50
24	CONT MIN	08	08
26	COLOR MAX	50	50
27	COLOR MIN	10	10
30	M B CUT OFF	127	---
31	CVBS OUT	31	---
32	APR THR	04	---
33	BELL	10	---
34	BANDPASS	06	---
35	H POSI OSD	128	---
36	V POSI OSD	50	---
37	H POSI TEXT	115	---
38	V POSI TEXT	58	---

ELECTRICAL ADJUSTMENTS

3. PURITY AND CONVERGENCE ADJUSTMENTS

NOTE

1. Turn the unit on and let it warm up for at least 30 minutes before performing the following adjustments.
2. Place the CRT surface facing east or west to reduce the terrestrial magnetism.
3. Turn ON the unit and demagnetize with a Degauss Coil.

3-1: STATIC CONVERGENCE (ROUGH ADJUSTMENT)

1. Tighten the screw for the magnet. Refer to the adjusted CRT for the position. **(Refer to Fig. 3-1)**
If the deflection yoke and magnet are in one body, untighten the screw for the body.
2. Receive the green raster pattern from the color bar generator.
3. Slide the deflection yoke until it touches the funnel side of the CRT.
4. Adjust center of screen to green, with red and blue on the sides, using the pair of purity magnets.
5. Switch the color bar generator from the green raster pattern to the crosshatch pattern.
6. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
7. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.
8. Adjust the crosshatch pattern to change to white by repeating steps 6 and 7.

3-2: PURITY

NOTE

Adjust after performing adjustments in section 3-1.

1. Receive the green raster pattern from color bar generator.
2. Adjust the pair of purity magnets to center the color on the screen.
Adjust the pair of purity magnets so the color at the ends are equally wide.
3. Move the deflection yoke backward (to neck side) slowly, and stop it at the position when the whole screen is green.
4. Confirm red and blue colors.
5. Adjust the slant of the deflection yoke while watching the screen, then tighten the fixing screw.

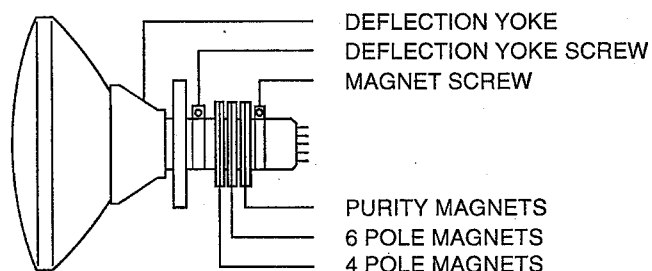


Fig. 3-1

3-3: STATIC CONVERGENCE

NOTE

Adjust after performing adjustments in section 3-2.

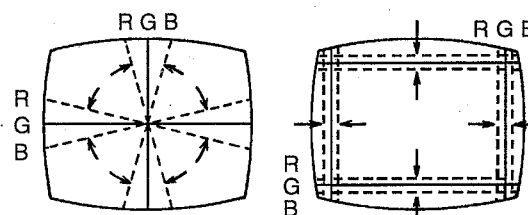
1. Receive the crosshatch pattern from the color bar generator.
2. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

3-4: DYNAMIC CONVERGENCE

NOTE

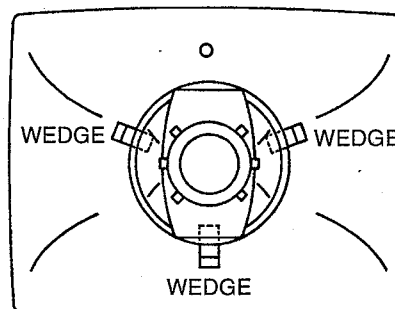
Adjust after performing adjustments in section 3-3.

1. Adjust the differences around the screen by moving the deflection yoke upward/downward and right/left. **(Refer to Fig. 3-2-a)**
2. Insert three wedges between the deflection yoke and CRT funnel to fix the deflection yoke. **(Refer to Fig. 3-2-b)**



UPWARD/DOWNWARD SLANT RIGHT/LEFT SLANT

Fig. 3-2-a

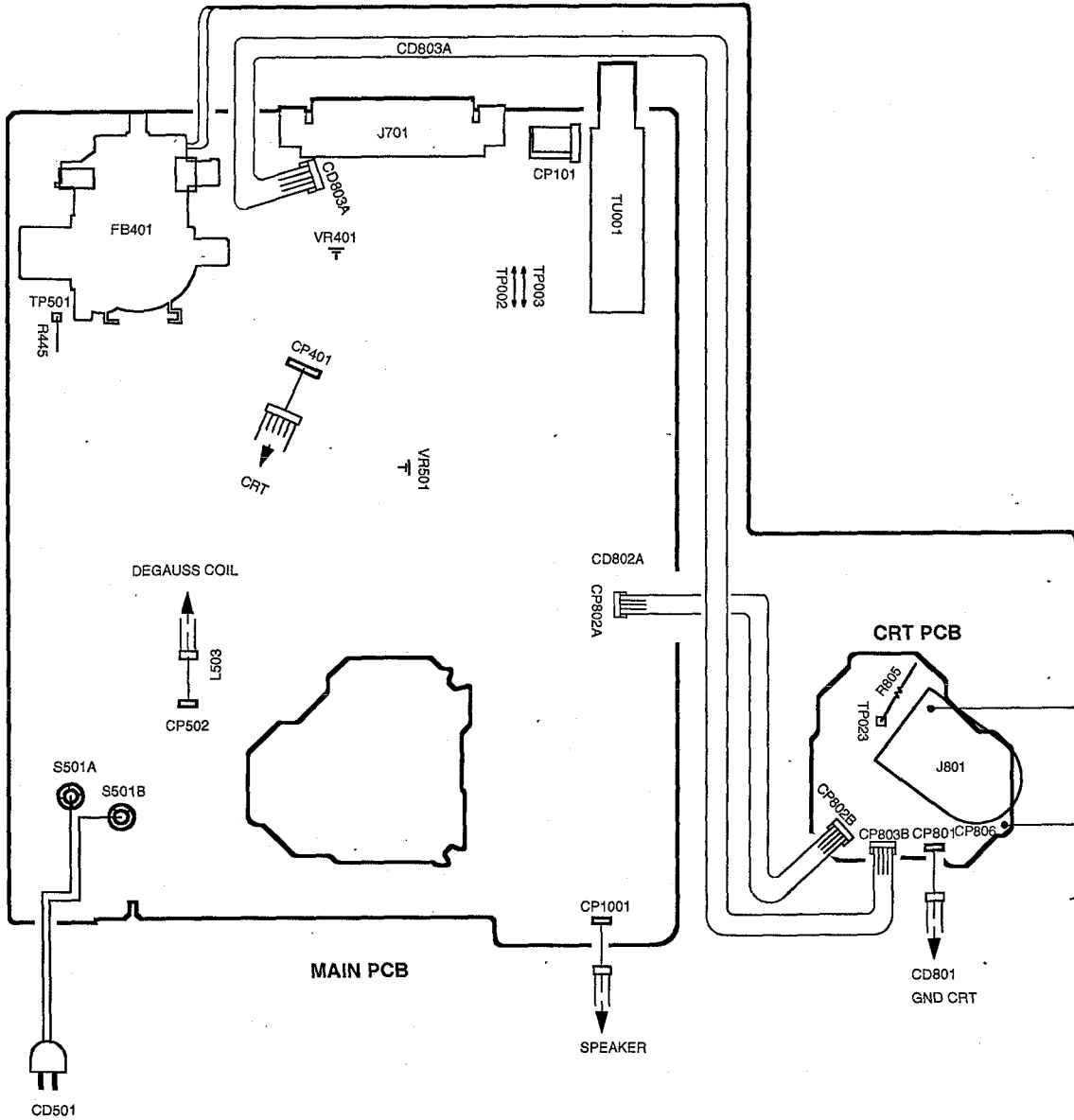


WEDGE POSITION

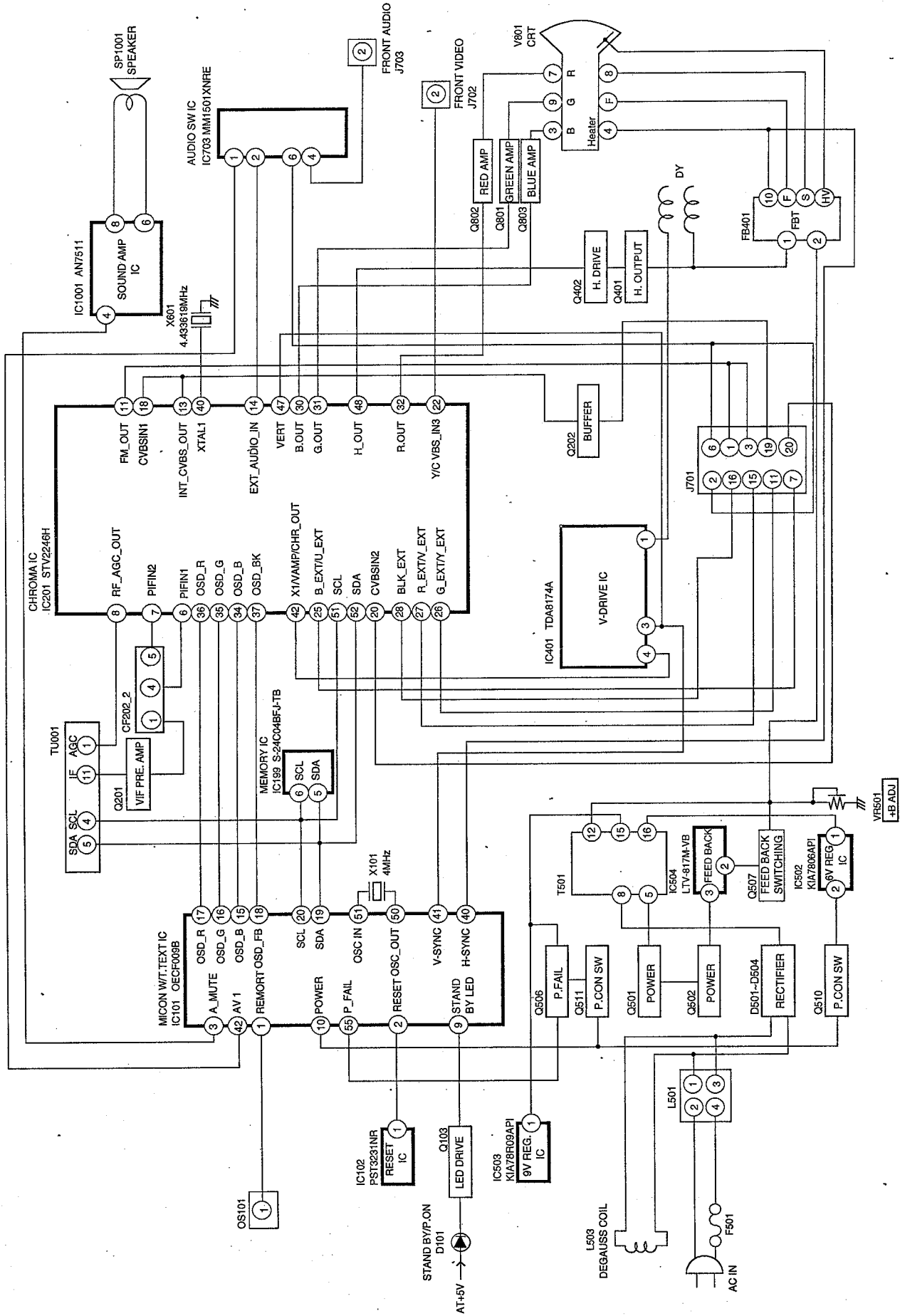
Fig. 3-2-b

ELECTRICAL ADJUSTMENTS

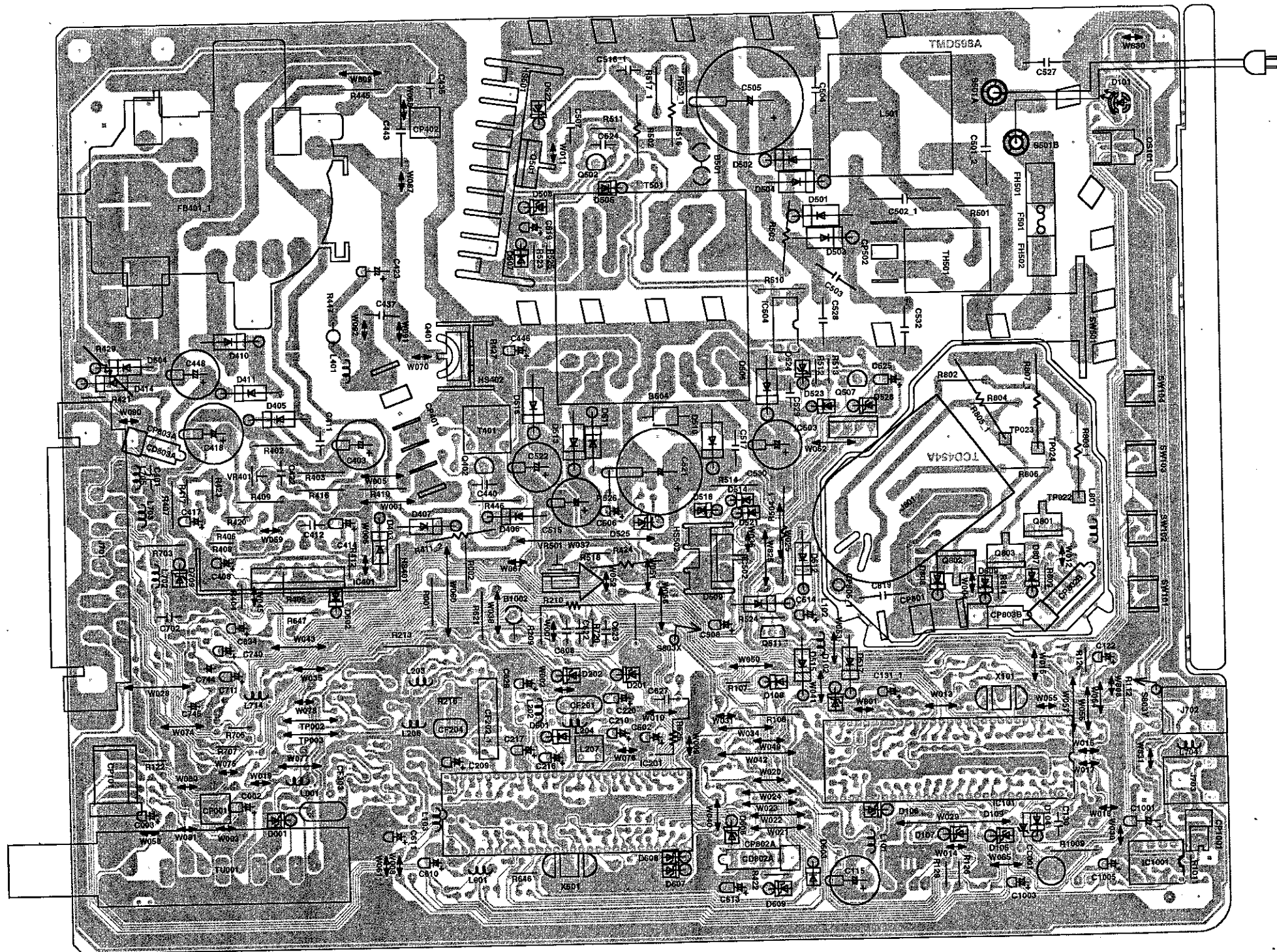
4. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



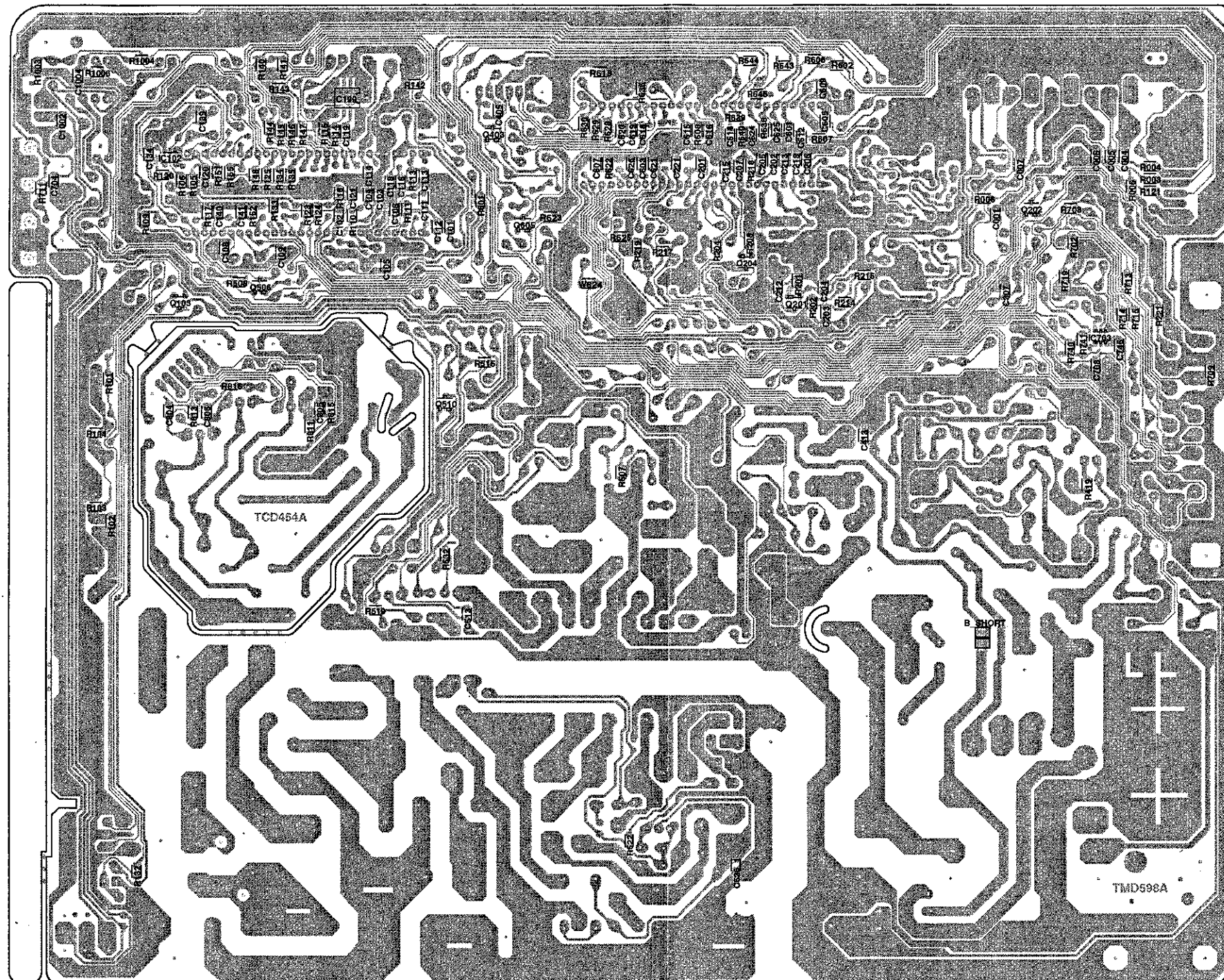
BLOCK DIAGRAM



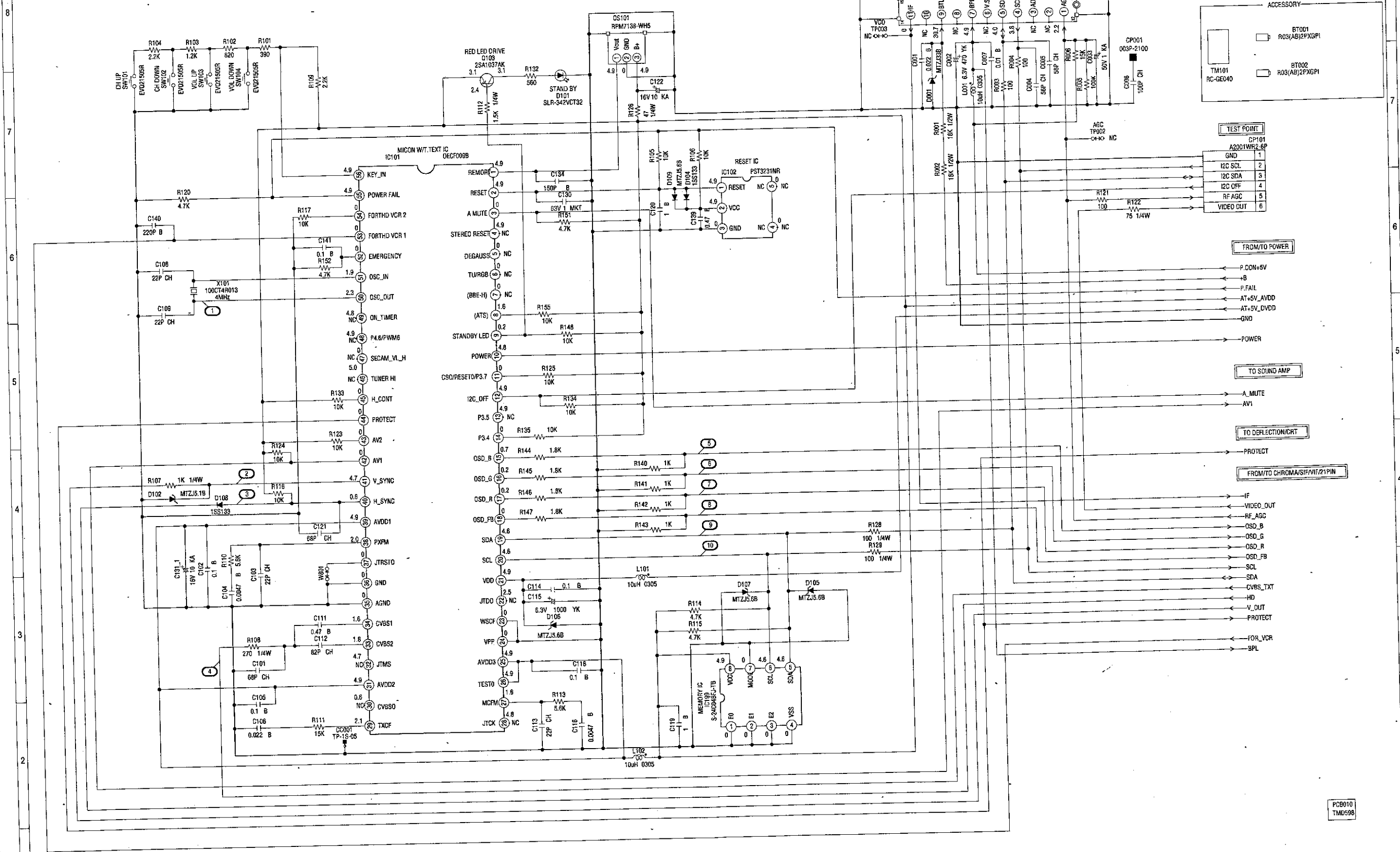
PRINTED CIRCUIT BOARDS
MAIN/CRT (INSERTED PARTS)
SOLDER SIDE



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



MICON/TUNER SCHEMATIC DIAGRAM (MAIN PCB)

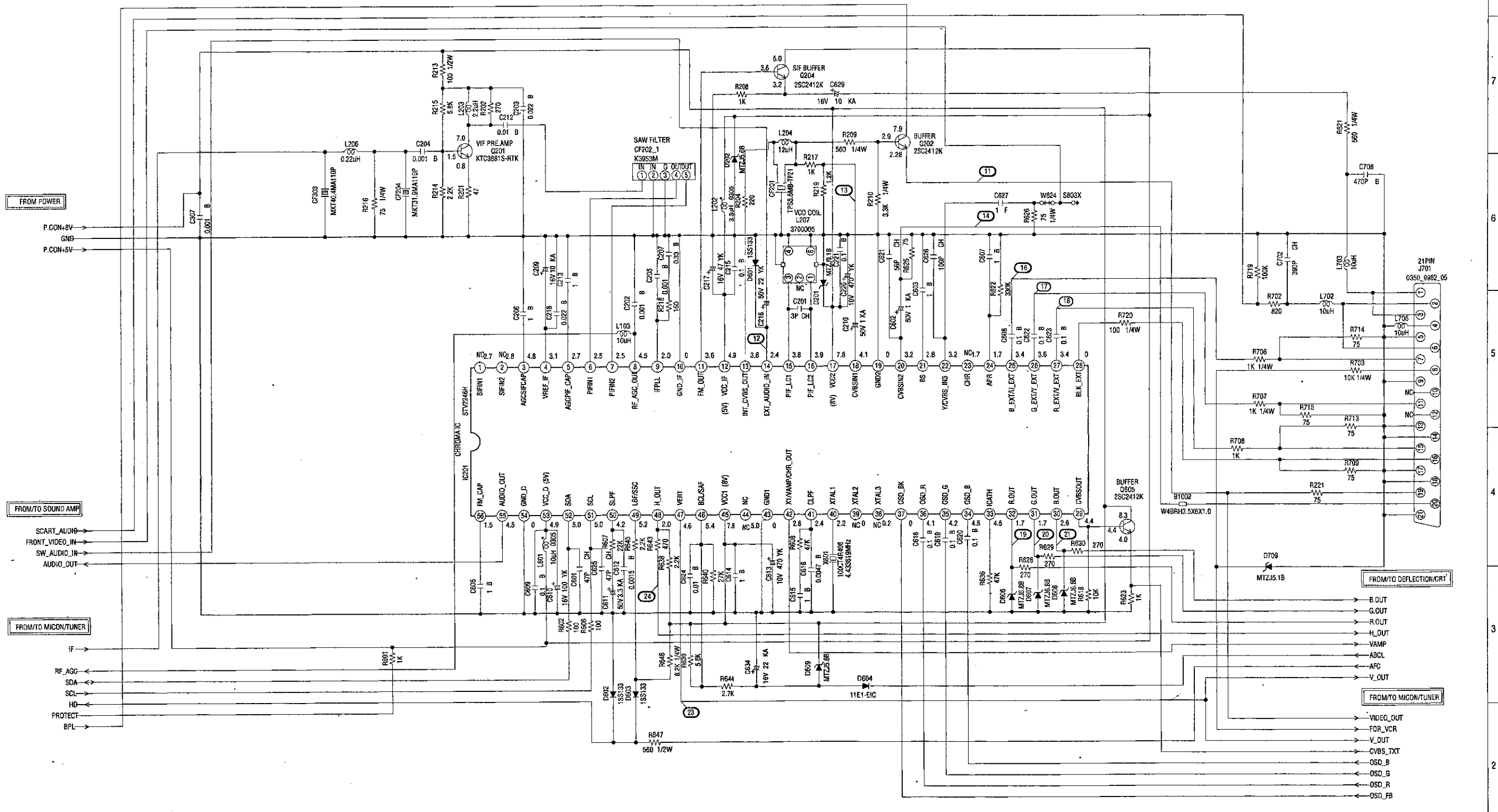


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

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.

PCB010
TMD598

CHROMA/SIF/VIF/21PIN SCHEMATIC DIAGRAM (MAIN PCB)

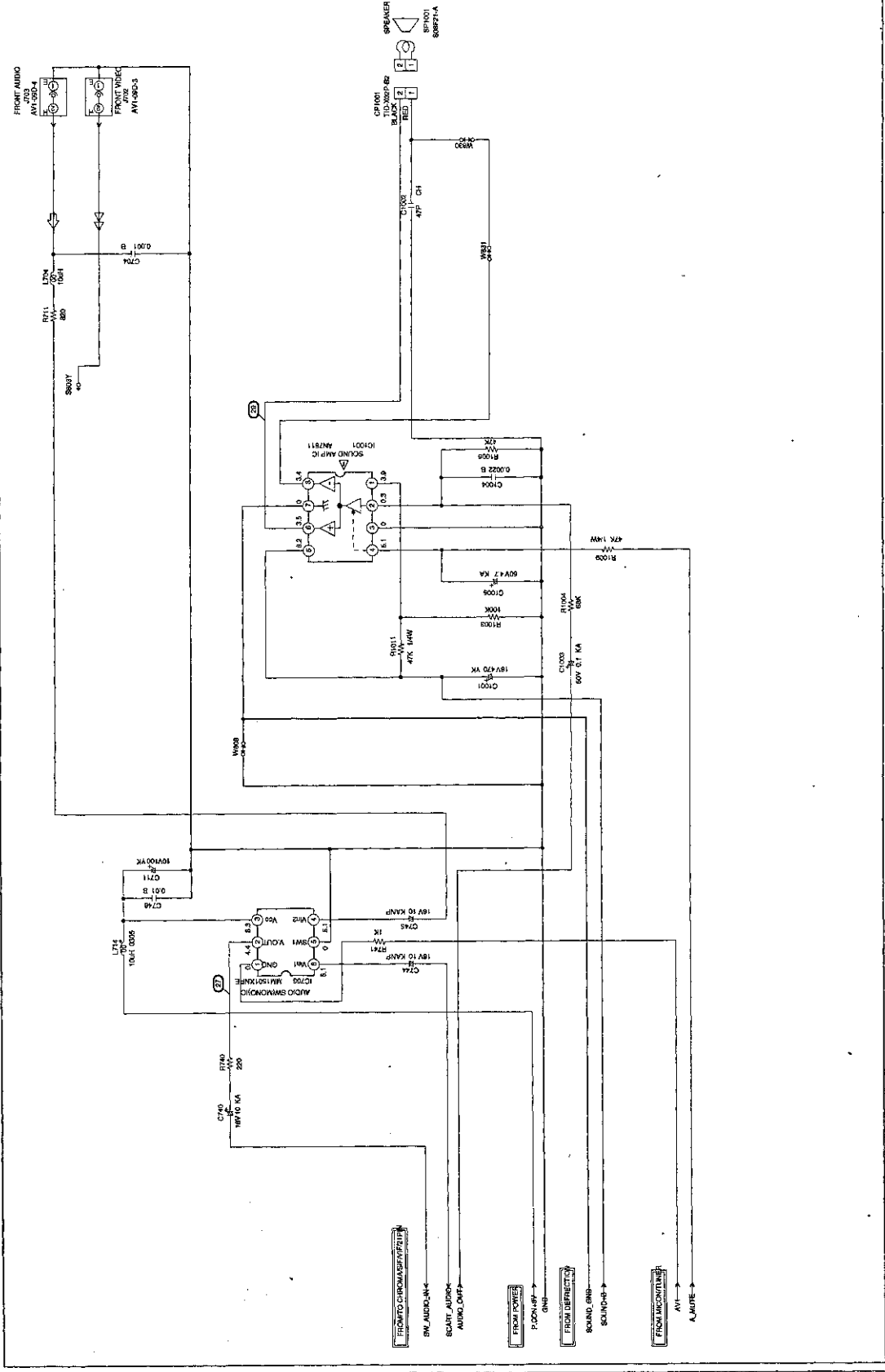


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

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.

PCB010
TMD598

SOUND AMP/FRONT AV SCHEMATIC DIAGRAM (MAIN PCB)



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

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

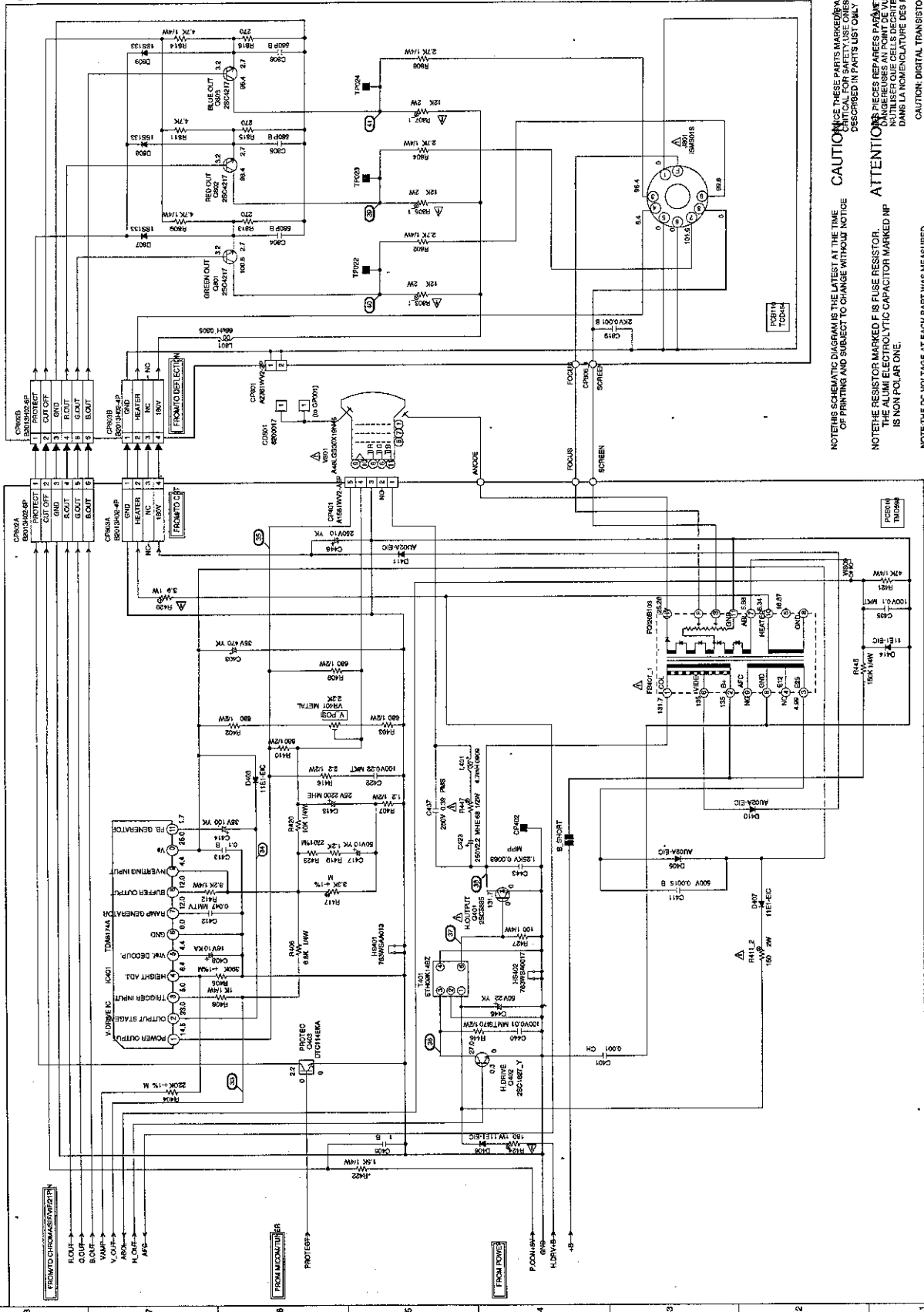
ATTENTION: PIÈCES REPARABLES PARTS CRITICAL TO SAFETY USE ONLY. DANGEREUSES AN POINT DE VUE SECURITE. UTILISER SEULEMENT LES CELLULES DEPIECES CRITIQUEES DANS LA Nomenclature DES PIECES.

CAUTION: PLEASE REPAIR PARTS MARKED CRITICAL FOR SAFETY USE ONLY. DESCRIBED IN PARTS LIST ONLY.

PCB010
TUD010

A B C D E F G H
1 2 3 4 5 6 7 8
G-5 G-6

DEFLECTION/CRT SCHEMATIC DIAGRAM (JOB)



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

CAUTION: THESE PARTS MARKED WITH A TRIANGLE ARE CRITICAL FOR SAFETY. USE ONES DESCRIBED IN PARTS LIST ONLY

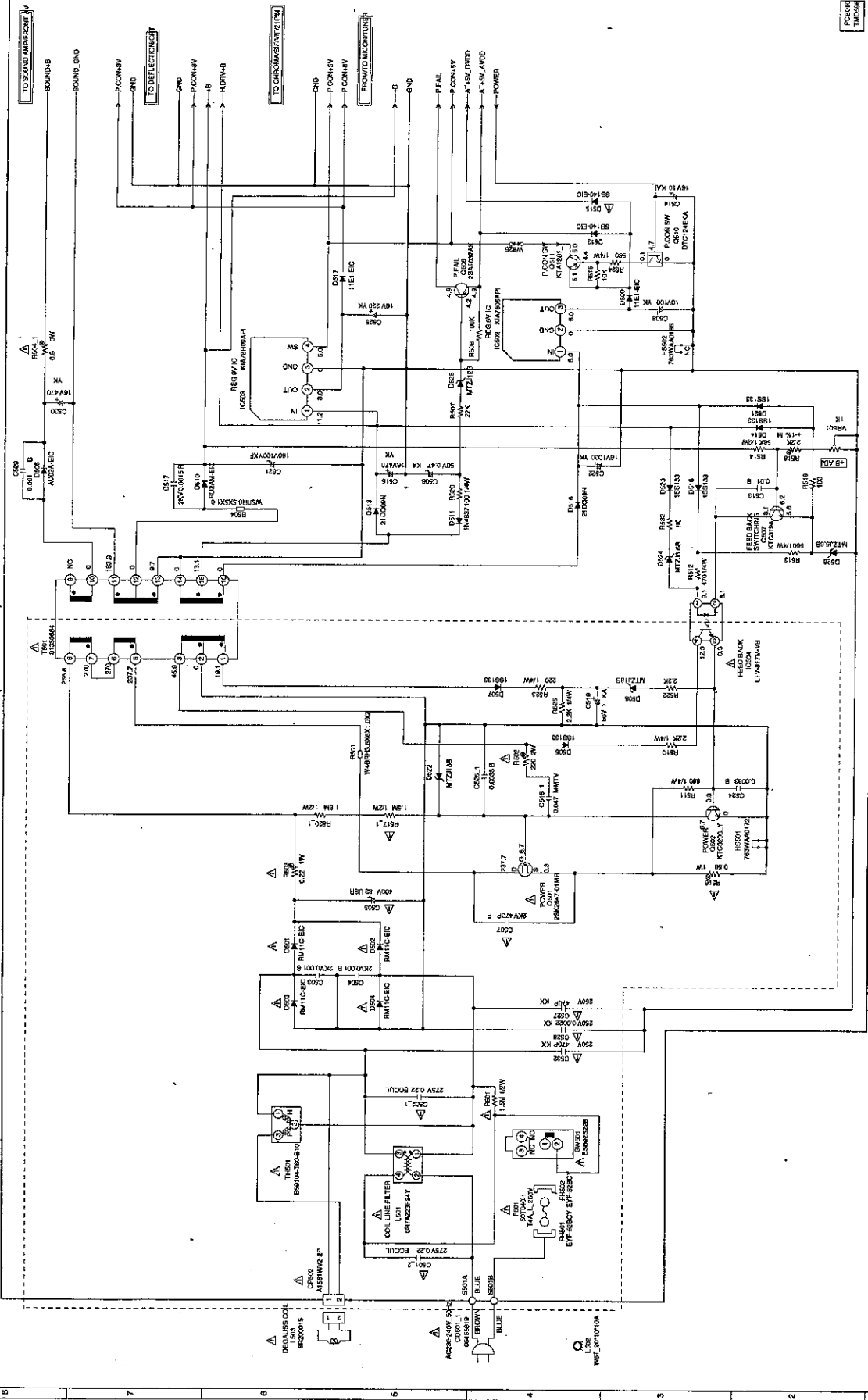
NOTE THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

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: RECIBES DEPARTES PASSEFANT UTILISER QUE CELLS DECRIRES DANS LA NOMENCLATURE DES RECIBES

CAUTION: DIGITAL TRANSISTOR

POWER SCHEMATIC DIAGRAM (MAIN PCB)



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

ATTENTION: PIÈCES REPARÉES PARMIANT DANGEREUSES AN POINT DE VUE SECURITE UTILISEZ QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

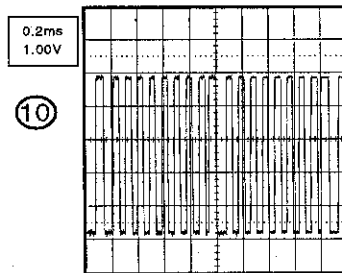
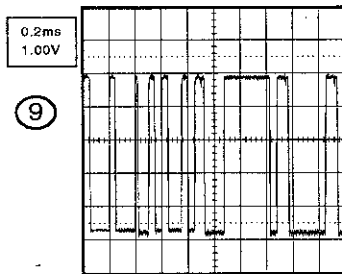
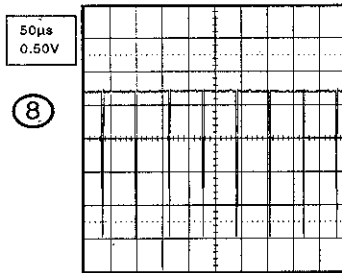
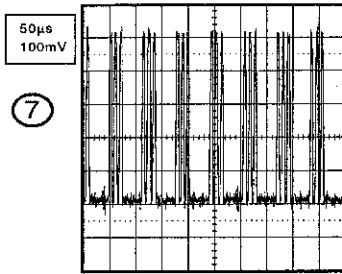
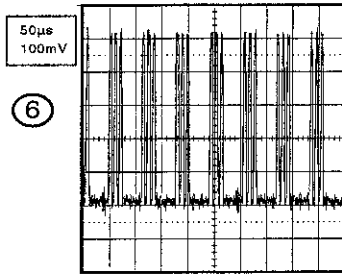
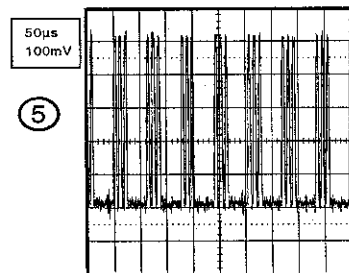
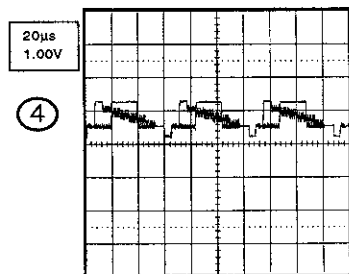
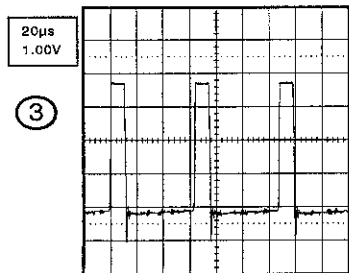
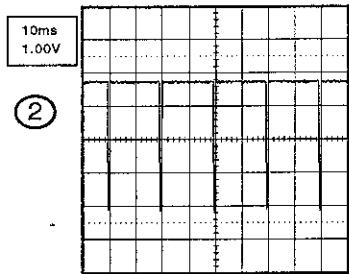
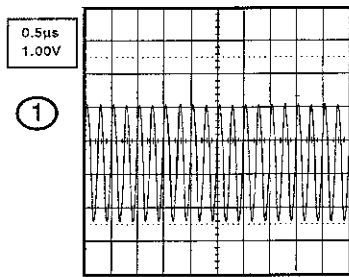
CAUTION: THESE PARTS MARKED ARE CRITICAL FOR SAFETY. USE ONES DESCRIBED IN PARTS LIST ONLY.



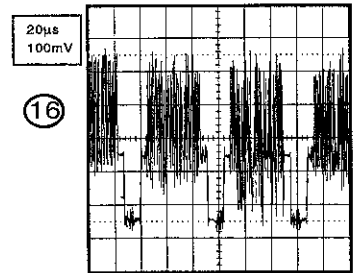
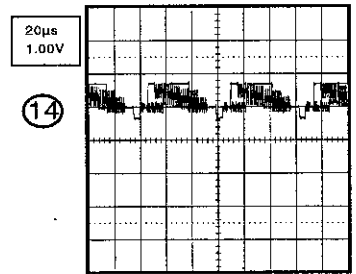
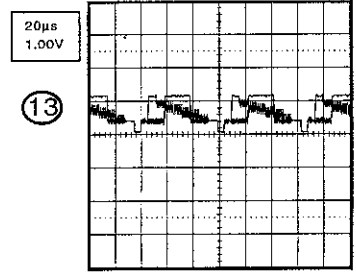
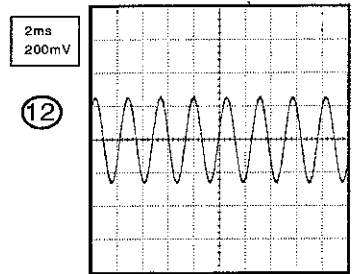
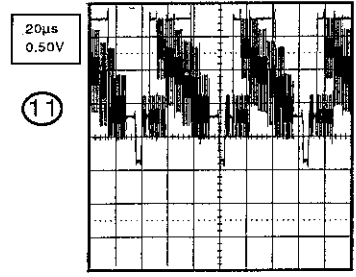
G-9 A B C D E F G H G-10

WAVEFORMS

MICON/TUNER

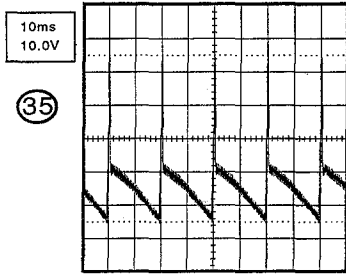
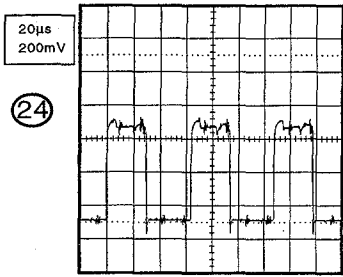
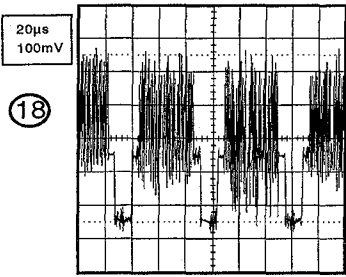
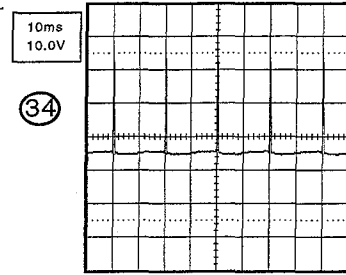
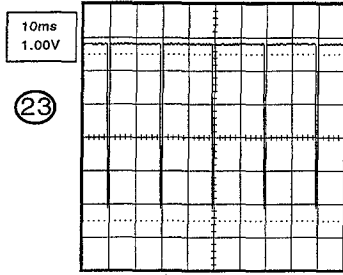
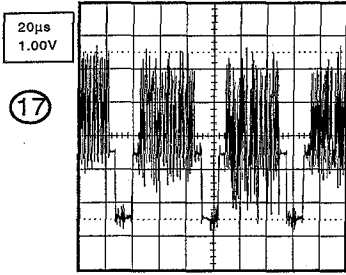


CHROMA/SIF/VIF/21PIN

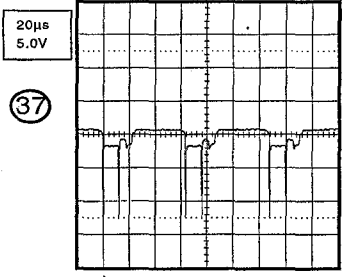
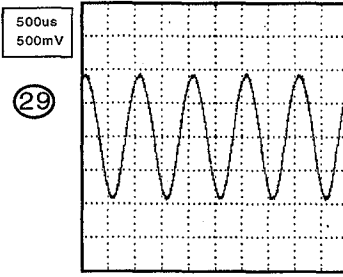
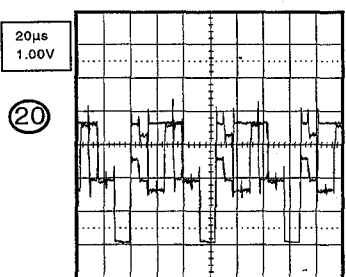
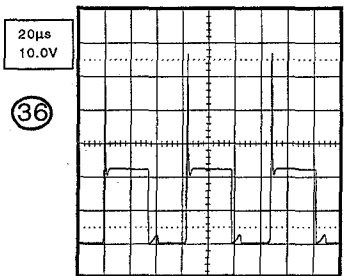
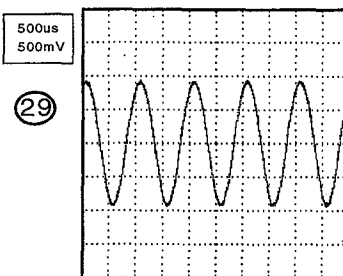
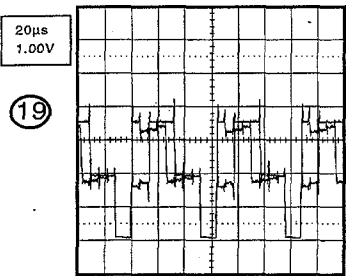


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

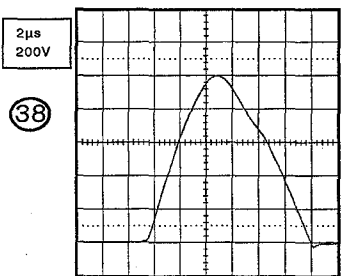
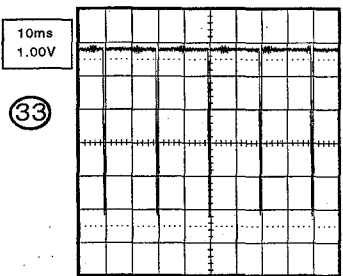
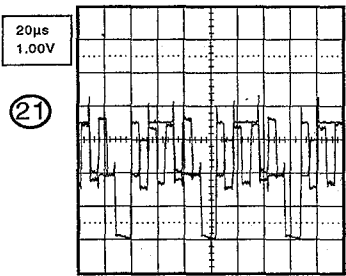
WAVEFORMS



SOUND AMP

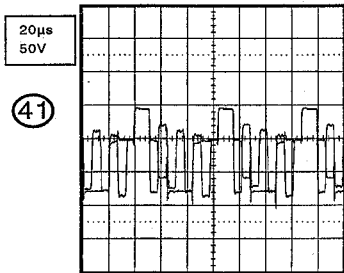
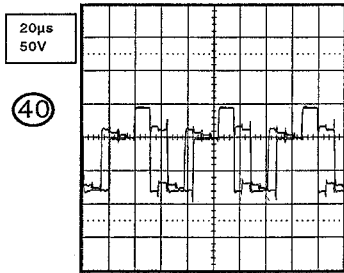
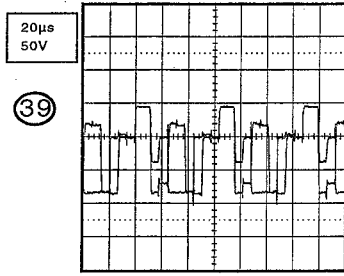


DEFLECTION/CRT



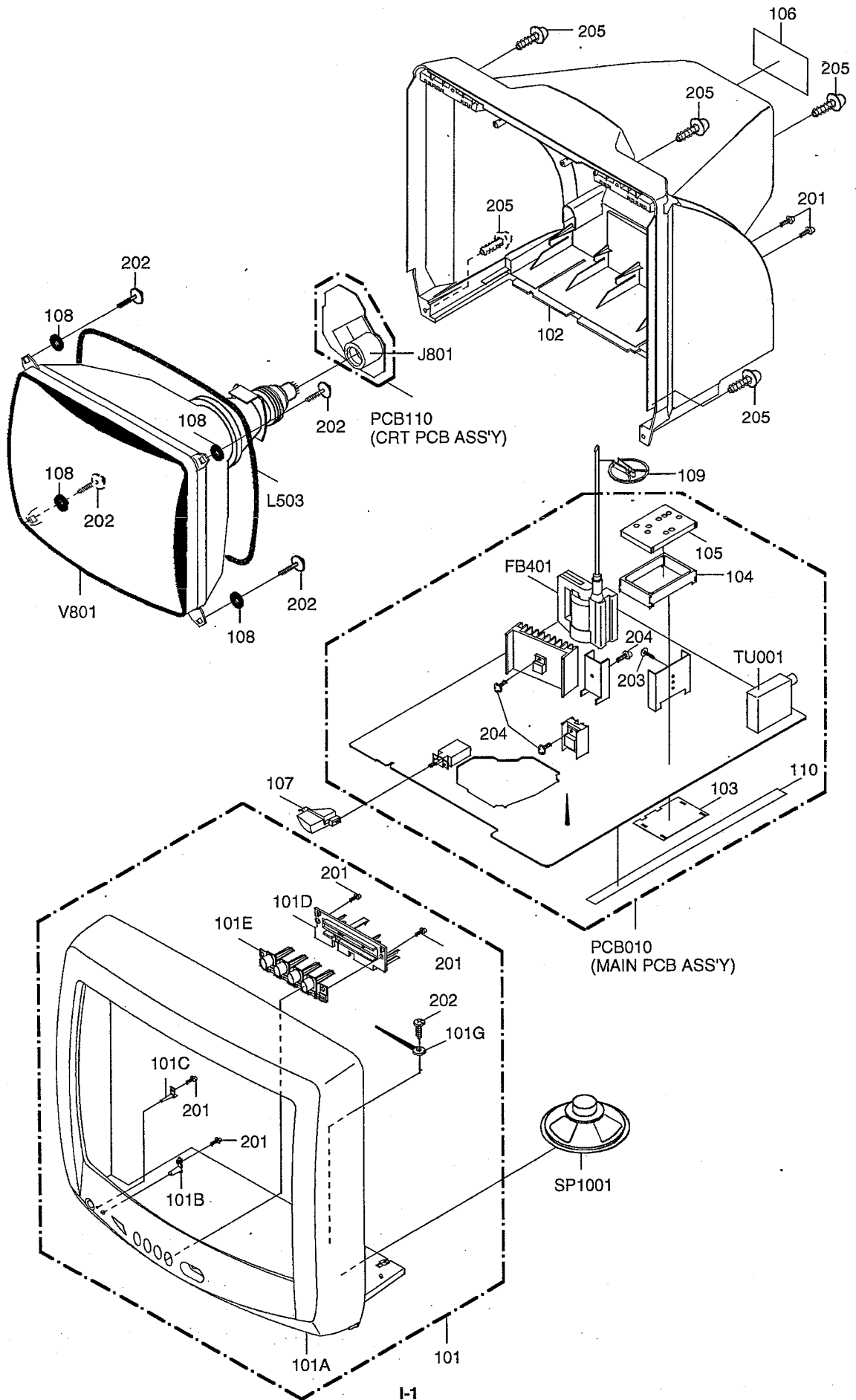
NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS



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	7A701A030A	FRONT,CABI ASS'Y	
101A	701WFC515	CABINET,FRONT	
101B	713WPAA124	GUIDE,REMOCON	
101C	713WPAA034	GLASS,LED	
101D	735WPAA632	BUTTON,BASE	
101E	735WPBA965	BUTTON,FRAME	
102	A3P401C740	CABINET,BACK ASS'Y	
103	752WSAA006	PLATE,SHIELD	
104	752WSAA008	SHIELD,CASE	
105	752WSAA013	SHIELD,LID	
106	722202A788	SHEET,RATING	
107	735WPBB008	BUTTON,POWER	
108	800WR0A002	SHEET,CRT SUPPORT	
109	899HV3T000	HOLDER,ANODE WIRE	
110	800WQ0A066	FELT,SHEET	5x130xT=0.5
201	8110630A04	SCREW,TAP TITE(P)	BRAZIER 3x10
202	8121F50B84	SCREW,TAP TITE(P)	FAI20 FLAT 5x28
203	8107630804	SCREW,TAP TITE(S)	BRAZIER 3x8
204	8109I30804	SCREW,TAP TITE(B)	WH7 3x8
205	8117540A64	SCREW,TAPPING(B0)	TRUSS 4x16
---	791WHAA045	LAMIFILM BAG	
---	792UHAA053	PACKAGE, TOP	
---	792UHAA054	PACKAGE, BOTTOM	
---	793UCDB290	GIFT BOX	
---	J3M41701C	INSTRUCTION BOOK	
---	JB5X0100	POLYBAG, INSTRUCTION	
---	A3M4171975	INSTRUCTION BOOK KIT	

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			DIODES		
△ R411	R3X28A151J	R,METAL OXIDE 150 OHM 2W	D604	D2WT011E10	DIODE SILICON 11E1-EIC
△ R424	R3X181181J	R,METAL OXIDE 180 OHM 1W	D606	D97U06R81B	DIODE,ZENER MTZJ6.8B T-77
△ R429	R655813R9J	R,FUSE 3.9 OHM 1W	D607	D97U06R81B	DIODE,ZENER MTZJ6.8B T-77
△ R447	R635U2680J	R,FUSE 68 OHM 1/2W	D608	D97U06R81B	DIODE,ZENER MTZJ6.8B T-77
△ R501	R002T2155J	RC 1.5M OHM 1/2W	D609	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77
R502	R3X28A221J	R,METAL OXIDE 220 OHM 2W	D709	D97U05R11B	DIODE,ZENER MTZJ5.1B T-77
△ R503	R63581R22J	R,FUSE 0.22 OHM 1W	D807	D1VT001330	DIODE,SILICON 1SS133T-77
R504	R3X28B6R8J	R,METAL OXIDE 6.8 OHM 3W	D808	D1VT001330	DIODE,SILICON 1SS133T-77
△ R516	R3X181R56J	R,METAL OXIDE 0.56 OHM 1W	D809	D1VT001330	DIODE,SILICON 1SS133T-77
△ R517	R002T2155J	RC 1.5M OHM 1/2W	ICS		
△ R803	R3X18A123J	R,METAL OXIDE 12K OHM 2W	IC101	I5PD0F009B	IC OECF009B
△ R805	R3X18A123J	R,METAL OXIDE 12K OHM 2W	IC102	I9UF032310	IC PST3231NR
△ R807	R3X18A123J	R,METAL OXIDE 12K OHM 2W	IC199	A3P401R015	IC S-24C04BFJ-TB
CAPACITORS			IC201	I0WDE2246H	IC STV2246H
C418	E5EZF3222M	CE 2200 UF 25V	IC401	I0WTD81740	IC TDA8174A
C437	P4J7F3394J	CMPP 0.39 UF 250V PMS	IC502	I1KA97806A	IC KIA7806API
C443	P4N8FJ682H	CMPP 0.0068UF 1.25KV	IC503	I1KA98R09A	IC KIA78R09API
△ C501	P2122B224M	CMP 0.22 UF 275V ECQUL	△ IC504	0002E00610	PHOTO COUPLER LTV-817M-VB
△ C502	P2122B224M	CMP 0.22 UF 275V ECQUL	IC703	I0UF015010	IC MM1501XNRE
C503	C0JBB0713K	CC 0.001 UF 2KV B	IC1001	I01DP75110	IC AN7511
C504	C0JBB0713K	CC 0.001 UF 2KV B	TRANSISTORS		
△ C505	E52DHH820M	CE 82 UF 400V	Q103	T6YJ1037K0	TRANSISTOR,SILICON 2SA1037AKT146R,S
C507	C03L0R7Q2K	CC 470 PF 2KV R	Q201	T8AA03881S	TRANSISTOR SILICON KTC3881S-RTK
C517	C0PLRR7E3K	CC 0.0015 UF 2KV R	Q202	T8YJ2412K0	TRANSISTOR SILICON 2SC2412KT146 R,S
C521	E62NFB101M	CE 100 UF 160V	Q204	T8YJ2412K0	TRANSISTOR SILICON 2SC2412KT146 R,S
△ C527	CD39B0MQ2K	CC 470 PF 250V	△ Q401	TC1G058850	TRANSISTOR SILICON 2SC5885
△ C528	CD39E0MH3M	CC 0.0022UF 250V	Q402	TC5T01627Y	TRANSISTOR SILICON 2SC1627_Y(TPE2)
△ C532	CD39B0MQ2K	CC 470 PF 250V	Q403	TNYJB05001	COMPOUND TRANSISTOR DTC114EKAT146
C819	C0JBB0713K	CC 0.001 UF 2KV B	△ Q501	T410K26470	FET 2SK2647-01MR
DIODES			Q502	TCAT032034	TRANSISTOR, SILICON KTC3203_Y-AT
D001	D97U03301B	DIODE,ZENER MTZJ33B T-77	Q506	T6YJ1037K0	TRANSISTOR,SILICON 2SA1037AKT146R,S
D101	0021721150	LED SLR-342VCT32	Q507	TCATC31980	TRANSISTOR,SILICON KTC3198-AT(Y,GR)
D102	D97U05R11B	DIODE,ZENER MTZJ5.1B T-77	Q510	TNYJC05001	COMPOUND TRANSISTOR DTC124EKAT146
D104	D1VT001330	DIODE,SILICON 1SS133T-77	Q511	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
D105	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77	Q605	T8YJ2412K0	TRANSISTOR SILICON 2SC2412KT146 R,S
D106	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77	Q801	TC3F042170	TRANSISTOR,SILICON 2SC4217(D,E)-RAC
D107	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77	Q802	TC3F042170	TRANSISTOR,SILICON 2SC4217(D,E)-RAC
D108	D1VT001330	DIODE,SILICON 1SS133T-77	Q803	TC3F042170	TRANSISTOR,SILICON 2SC4217(D,E)-RAC
D109	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77	COILS & TRANSFORMERS		
D201	D97U09R11B	DIODE,ZENER MTZJ9.1B T-77	L001	02167F100J	COIL 10 UH
D202	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77	L101	02167F100J	COIL 10 UH
D401	D97U02701B	DIODE,ZENER MTZJ27B T-77	L102	02167F100J	COIL 10 UH
D402	D97U02701B	DIODE,ZENER MTZJ27B T-77	L103	021LA6100K	COIL 10 UH
D403	D2WT011E10	DIODE SILICON 11E1-EIC	L202	02167F3R3J	COIL 3.3 UH
D405	D2WTAU02A0	DIODE SILICON AU02A-EIC	L203	021LA62R2K	COIL 2.2 UH
D406	D2WT011E10	DIODE SILICON 11E1-EIC	L204	021LA6120K	COIL 12 UH
D407	D2WT011E10	DIODE SILICON 11E1-EIC	L206	021LA6R22M	COIL 0.22 UH
D410	D2WTAU02A0	DIODE SILICON AU02A-EIC	L207	033700005R	COIL,VIDEO IFT 3700005
D411	D2WTAU02A0	DIODE SILICON AU02A-EIC	L401	021679472K	COIL 4.7 MH
D414	D2WT011E10	DIODE SILICON 11E1-EIC	△ L501	029T000094	COIL,LINE FILTER 0R7A223F24Y
△ D501	D2WTRM11C0	DIODE,SILICON RM11C-EIC	L502	02AHB0A0A4	CORE,FERRITE WST_20"10"10A
△ D502	D2WTRM11C0	DIODE SILICON RM11C-EIC	△ L503	028R200015	COIL,DEGAUSS 8R200015
△ D503	D2WTRM11C0	DIODE SILICON RM11C-EIC	L601	02167F100J	COIL 10 UH
△ D504	D2WTRM11C0	DIODE SILICON RM11C-EIC	L702	021LA6100K	COIL 10 UH
D505	D1VT001330	DIODE,SILICON 1SS133T-77	L703	021LA6100K	COIL 10 UH
D506	D2WTAU02A0	DIODE SILICON AU02A-EIC	L704	021LA6100J	COIL 10 UH
D507	D1VT001330	DIODE,SILICON 1SS133T-77	L705	021LA6100K	COIL 10 UH
D508	D97U01801B	DIODE,ZENER MTZJ18B T-77	L714	02167F100J	COIL 10 UH
D509	D2WT011E10	DIODE SILICON 11E1-EIC	L801	02167F680J	COIL 68 UH
D510	D2WXR2A0M0	DIODE SILICON RU2AM-EIC	T401	045009003J	TRANS,HORIZONTAL DRIVE ETH09K14BZ
D511	D2WXN49370	DIODE SILICON 1N4937	△ T501	0481350884	TRANSFORMER,SWITCHING 81350884
D512	D2WXS1400	DIODE SCHOTTKY SB140-EIC	JACKS		
D513	D28T21DQ9N	DIODE SCHOTTKY 21DQ9N-TA2B1	J701	063G100042	SOCKET,21PIN 0350_9982_05
D514	D1VT001330	DIODE,SILICON 1SS133T-77	J702	060Q401077	RCA JACK AV1-09D-3
△ D515	D2WXS1400	DIODE SCHOTTKY SB140-EIC	J703	060Q401076	RCA JACK AV1-09D-4
D516	D28T21DQ9N	DIODE SCHOTTKY 21DQ9N-TA2B1	J801	066F120018	SOCKET,CATHODE RAY TUBE ISMS01S
D517	D2WT011E10	DIODE SILICON 11E1-EIC	SWITCHES		
D518	D1VT001330	DIODE,SILICON 1SS133T-77	SW101	0504101T34	SWITCH,TACT EVQ21505R
D521	D1VT001330	DIODE,SILICON 1SS133T-77	SW102	0504101T34	SWITCH,TACT EVQ21505R
D522	D97U01801B	DIODE,ZENER MTZJ18B T-77	SW103	0504101T34	SWITCH,TACT EVQ21505R
D523	D1VT001330	DIODE,SILICON 1SS133T-77	SW104	0504101T34	SWITCH,TACT EVQ21505R
D524	D97U03R61B	DIODE,ZENER MTZJ3.6B T-77	△ SW501	0530105019	SWITCH ESB92S22B
D525	D97U01201B	DIODE,ZENER MTZJ12B T-77	VARIABLE RESISTORS		
D528	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77	VR401	V1K63H3BTE	VOLUME,SEMI FIXED NVG6TLTAB222
D601	D1VT001330	DIODE,SILICON 1SS133T-77	VR501	V116313BTC	VOLUME,SEMI FIXED EVNVCYAA03B13
D602	D1VT001330	DIODE,SILICON 1SS133T-77	P.C. BOARD ASSEMBLIES		
D603	D1VT001330	DIODE,SILICON 1SS133T-77	PCB010	A3P401C010K	PCB ASSY TMD598A

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
P.C. BOARD ASSEMBLIES			
PCB110	A3P401C110K	PCB ASSY	TCD454A
MISCELLANEOUS			
B501	024HT03563	CORE,BEADS	W4BRH3.5X6X1.0X2
B504	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
B1002	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
BT001	1412004013	BATTERY,MANGAN	R03(AB)2PXGPI
BT002	1412004013	BATTERY,MANGAN	R03(AB)2PXGPI
△ CD501	1206455819	CORD AC BUSH	6455819
CD801	1278200017	BRAIDED WIRE	8200017
CD802	WDL6038038	FLAT CABLE AWM2468	AWG26 6C BLACK 380MM
CD803	WBL6030038	FLAT CABLE AWM2468	AWG26 4C BLACK 300MM
CF201	1012T5R503	FILTER,CERAMIC TRAP	TPS5.5MB-TF21
CF202	102E038R9B	FILTER,SAW	K3953M
CF204	1012T03101	FILTER CERAMIC TRAP	MKT31.9MA110P-TF
CF303	1012T04001	FILTER,CERAMIC TRAP	MKT40.4MA110P-TF
CP001	069W01001A	CONNECTOR PCB SIDE	003P-2100
CP101	069S260639	CONNECTOR PCB SIDE	A2001WR2-6P
CP401	069S450089	CONNECTOR PCB SIDE	A1561WV2-A5P
CP402	069W01001A	CONNECTOR PCB SIDE	003P-2100
CP502	069S420110	CONNECTOR PCB SIDE	A1561WV2-2P
CP801	069S320010	CONNECTOR PCB SIDE	A2361WV2-2P
CP1001	069W120019	CONNECTOR PCB SIDE	TID-X02P-B2
CP802A	067U006049	WIRE HOLDER	B2013H02-6P
CP802B	067U006049	WIRE HOLDER	B2013H02-6P
CP803A	067U004029	WIRE HOLDER	B2013H02-4P
CP803B	067U004029	WIRE HOLDER	B2013H02-4P
EL002	124120301A	EYE LET	XRY20X30BD
△ F501	080NT04004	FUSE	50T040H
△ FB401	043219016F	TRANSFORMER,FLYBACK	FQI20B103
FH501	06710T0009	HOLDER,FUSE	EYF-52BCY
FH502	06710T0009	HOLDER,FUSE	EYF-52BCY
OS101	0773071001	REMOTE RECEIVER	RPM7138-WH5
SP1001	070Y132020	SPEAKER	S08F21-A
△ TH501	D8E080B100	DEGAUSS ELEMENT	B59104-T80-B10
TM101	076N0GE040	TRANSMITTER	RC-GE040
TU001	0145517007	TUNER,VHF-UHF	TUWRF4EG-778F2A
△ V801	098Y200480	COLOR PICTURE TUBE W/DY	A48LGS30X19N45
X101	100CT4R013	CRYSTAL	HC-49/U-S
X601	100CT4R018	CRYSTAL	HC-49/U

RESISTOR

RC..... CARBON RESISTOR

CAPACITORS

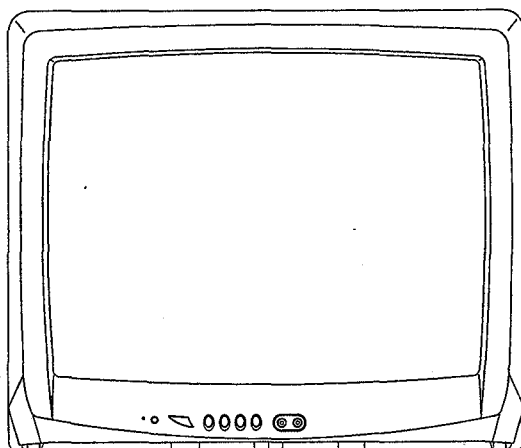
CC..... CERAMIC CAPACITOR
 CE..... ALUMI ELECTROLYTIC CAPACITOR
 CP..... POLYESTER CAPACITOR
 CPP..... POLYPROPYLENE CAPACITOR
 CPL..... PLASTIC CAPACITOR
 GMP..... METAL POLYESTER CAPACITOR
 CMPL..... METAL PLASTIC CAPACITOR
 CMPP..... METAL POLYPROPYLENE CAPACITOR

ORION

TV-518

SERVICE MANUAL

COLOR TELEVISION RECEIVER



**SUPPLEMENT
CHASSIS CODE A**

This SUPPLEMENT must be used together SERVICE MANUAL for TV-518 SI.
All other test and repair procedures are as shown in the ORIGINAL MANUAL.
Please file this SUPPLEMENT with the ORIGINAL VERSIONS.

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	TV-518 SI		TV-518	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
TM101	076N0GE040	TRANSMITTER RC-GE040	076N0GE020	TRANSMITTER RC-GE020

MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	TV-518 SI		TV-518	
	PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
101	7A701A030A	FRONT,CABI ASS'Y	7A701A141A	FRONT,CABI ASS'Y
101A	701WPJC515	CABINET,FRONT	701WPJC713	CABINET,FRONT
101D	735WPAA669	BUTTON,BASE	735WPAA666	BUTTON,BASE
101E	735WPBA965	BUTTON,FRAME	735WPAA662	BUTTON,FRAME
102	A3P401C740	CABINET,BACK ASS'Y	A3P411C740	CABINET,BACK ASS'Y
106	722202A788	SHEET,RATING	722202A824	SHEET,RATING
107	735WPBB150	BUTTON,POWER	735WPAA670	BUTTON,POWER
---	793UCDB290	GIFT BOX	793UCDB354	GIFT BOX