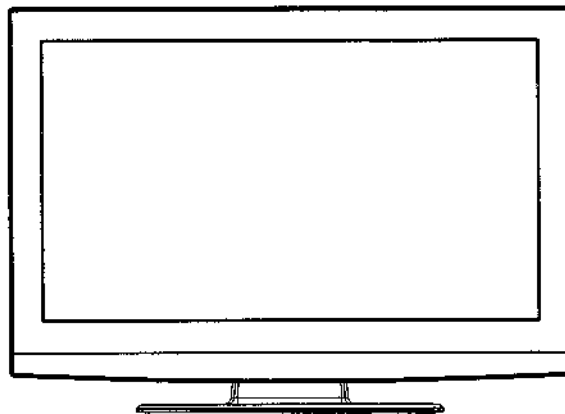


SERVICE MANUAL

ORION

TV32PL120D

Digital LCD Colour Television



**ORIGINAL
CHASSIS CODE B**

Best. Nr. SM32PL120

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. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

5. 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.

6. 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
Headphone jack

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

When you exchange IC and Transistor with a heat sink, apply 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 damage to the IC and Transistor).

PARENTAL CONTROL - RATING LEVEL 4 DIGIT PASSWORD CANCELLATION

If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

1. Turn on the power.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (3) on the remote control for more than 2 seconds.
4. The 4 digit password has now been cancelled.
5. Unplug the AC cord, then plug it in.

NOTE: No indications on the screen when the Parental Lock is setting.
Initializing password is 0000.

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 86°F~104°F(30°C~40°C) higher. Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C). In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder. When soldering or unsoldering, completely remove all of the solder from the pins or solder area, and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size	31.51 inch / 800.4mmV	
			LCD Type	Color TFT LCD	
			Number of Pixels	1366(H) x 768(V)	
			View Range	89/89 degree	
				Left/Right Up/Down	89/89 degree
			Bright Dot	$n \leq 0$	
			Zero Bright Dot Ratio	--	
	Color System		PAL / SECAM		
	Speaker		2 Speaker		
		Position	Front		
		Size	2.2 x 5.0 inch		
		Impedance	4 ohm		
	Sound Output	MAX	10W + 10W		
		10%(Typical)	--		
		NTSC3.58+4.43 / PAL60Hz	Yes		
G-2	Tuning System	Broadcasting System	Analog	U.K., I.R., CCIR, FRENCH System B/G, D/K, I/I, L	
			Digital	DVB-T (OFDM 2k/8k 16QAM/64QAM)	
		Tuner and Receive CH	System	1Tuner (Analog+Digital)	
		CH Coverage	Destination	UK, I.R., CCIR Hyper+France CATV	
			Analog	IreE2-E4, X-Z+2, S1-S10, E5-E12, S11-S41, E21-E69	
			Digital	E5-E12, ItaE-G, F1-F6, Rus6-12, E21-E69	
		Intermediate Frequency	Analog	BG / II / DK, L / L' (SECAM VL)	
			Picture(FP)	38.9 / 38.9 / 38.9 / 33.9MHz	
			Sound(FS)	33.4 / 32.9 / 32.4 / 40.4MHz	
			FP-FS	5.5 / 6.0 / 6.5 / 6.5MHz	
	Digital	36.167MHz			
	Auto Tuning Method		ALL Band (Not C.C.I.R. CH Plan)		
	Preset CH	Analog	99		
		Digital	Carrier 200 / Service 1000		
	Stereo/Dual TV Sound		Nicam/A2 Dual		
	Tuner Sound Muting		Yes		
G-3	Power	Power Source	AC	220-240V AC 50Hz/60Hz	
			DC	--	
		Power Consumption		at AC 160 W at AC 230 V 50 Hz	
				at DC --	
	Stand by (at AC)	w/ EPG Timer	9 W at 230V 50Hz		
		w/o EPG Timer	1 W at 230V 50Hz		
		Per Year	-- kWh/Year		
	Protector	Power Fuse	Yes		
G-4	Regulation	Safety		CE(EN60065:2002)	
		Radiation		CE	
		X-Radiation		--	
G-5	Temperature	Operation		+5°C ~ +40°C	
		Storage		-20°C ~ +60°C	
G-6	Operating Humidity			Less than 80% RH	
G-7	OSD Language			English, Spanish, German, French, Italian, Swedish, Dutch, Russian, Portuguese, Turkish, Greek, Finnish, Polish	
G-8	Clock and Timer	Sleep Timer	Max Time	120 Min	
			Step	10 Min	
		On/Off Timer	Program(On Timer / Off Timer)	-- Program	
		Wake Up Timer		No	
		Timer Back-up (at Power Off Mode)	more than	-- Min Sec	

GENERAL SPECIFICATIONS

G-9	Remote Control	Unit	RC-NV
		Glow in Dark Remocon	Yes
		Remocon Format	ORION
		Format	NEC
		Custom Code	80-63 h
		Power Source	3V
		Voltage(D.C)	UM-3 x 2 pcs
		UM size x pcs	
		Total Keys	42 Keys
	Keys	Power (Stand By)	Yes
		Display / (Status)	Yes
		Analog Menu	Yes
		Digital Menu	Yes
		Input Select	Yes
		TV/DVB-T	Yes
		Guide	Yes
		Picture Size	Yes
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		Sleep	Yes
		Mute	Yes
		Volume Up	No
		Volume Down	No
		Volume Up	Yes
		Volume Down	Yes
		CH Down	No
		CH Up	No
		Menu	No
		Up	Yes
		Down	Yes
		LEFT	Yes
		RIGHT	Yes
		Enter / CH List	Yes
		Exit	Yes
		Freeze frame	No
		TV/Radio	Yes
		Subtitle	Yes
	TTEXT Keys	TEXT / TAP / TV	Yes
		Reveal / Skip	No
		Reveal	Yes
		Display Cancel	No
		HOLD / Freeze	Yes
		Red	Yes
		Green	Yes
		Yellow	Yes
		Cyan	Yes
		Normal	No
		F/T/B(Expand)	Yes
		F/T/B(Expand) / Normal	No
		Quick View	No
		Sub Page / Quick View	Yes
		Up/CH Up	No
		CH Up / Page Up	No
		CH Up / Page Up	Yes
		Down / CH Down	No
		CH Down / Page Down	No
		CH Down / Page Down	Yes
		Reset	No
		Audio 1/2	Yes
		Reset / Audio 1/2	No

GENERAL SPECIFICATIONS

G-10	Features	Power On Memory	No	
		Auto Shut Off	Yes	
		Just Clock Function	No	
		Game Position	No	
		DNR	Yes	
		Comb Filter		Yes
				3D
		Auto Set Up (Fast installation)	Auto tuning (Analog tuner)	Yes
			CH sort	Yes
			ATS	Yes
			Auto clock (Analog tuner)	No
		Picture Setting(TV)	Plug in start	Yes
			Picture Preference	Yes
			Brightness , Contrast , Color	Yes
			Tint	Yes
			Sharpness	Yes
			DNR	Yes
			Color Temperature	Yes
			Blue Back	Yes
			Backlight Control	Yes
			Film Mode	No
			Picture Setting(PC)	BRIGHTNESS , CONTRAST
		HOR POSITION , VER POSITION		Yes
		PHASE , CLOCK		Yes
		AUTO ADJUST		No
		RED , GREEN , BLUE		Yes
		Backlight		Yes
		WXGA INPUT		Yes
		Audio	WVGA INPUT	No
			Nicam	Yes
			Tone Control (Bass/Treble/Balance)	Yes
			Surround	Yes
			BBE	No
			SRS WOW (SRS 3D/Focus/Tru Bass)	No
		Tuning	Variable Audio Out	Yes
Auto Tuning	Yes			
Manual Tuning	Yes			
CH Allocation	Yes			
Lock (Analog)	Panel Lock	No		
	Channel Lock	No		
	Hotel Lock	No		
Screen Saver	Inversion	No		
	Full White	No		
	Screen Saver	No		
	Static Image	No		
Black Side Panel	No			
CH Label	Yes			
TText	Yes			
	Text type	Fasttext / Toptext		
	Text Language	English , French , Swedish , Hungarian Turkish , German , Portuguese , Spanish , Italian , Greek , Slovakian , Russian , Polish , Czech , Rumanian , Estonian , Lettish , Lithuanian , Ukrainian , Croatian , Slovenian , Latvian		
Wide Mode (AUTO/4:3/FULL SCREEN/16:9/CINEMA/14:9)	Yes			
HD Zoom	Yes			
Picture Scroll (Vertical Position)	Yes			
PFC(Power Factor circuit)	Yes			
Freeze frame	Yes (w/o720p, 1080i)			
HD-Ready	Yes			
Plug and Play	No			
Scart Spec	Scart1			
	AV in	Yes		
	AV out	Yes (A.Tuner/D.Tuner)		
	S-Video in	Yes		
	RGB in	Yes		

GENERAL SPECIFICATIONS

Scart2	AV in	Yes
	AV out	Yes (Monitor)
Digital Text (VBI teletext)	S-Video in	Yes
	RGB in	Yes
MHEG-5		Yes
MHP		No
EPG (BBC type 8Days Digital tuner only)		Yes
OAD (Over Air Download)		Yes
Common Interface (Digital tuner only)		Yes
Rec Screen Status		Yes
Ch sorting based on Ch List (Digital/Germany only)		Yes
Rename Carrier (Digital)		Yes
Edit Event Timer		Yes
Software Update via CI Slot		Yes
Preference Language (Audio/Subtitle/Digital Service)(Digital)		Yes
Ch Organizer (Fav, Lock, Skip, Go To, Delete, Rename, Move, Move to)		Yes
Parental Lock (Digital)		Yes
DVB Subtitle (Digital)		Yes
PC Monitor Input		Yes
	VGA (640x480)	Yes (60Hz)
	VGA (720x400)	Yes (70Hz)
	WVGA (848x480)	No
	SVGA (800x600)	Yes (60Hz)
	XGA (1024x768)	Yes (60Hz)
	WXGA (1280x768)	Yes (60Hz)
	WXGA (1280x720)	Yes (60Hz)
	WXGA (1360x768)	Yes (60Hz)
	SXGA (1280x1024)	No
HDMI Input		Yes
	VGA (640x480)	Yes (60Hz)
	720x480i (4:3)	Yes (60Hz)
	720x480i (16:9)	Yes (60Hz)
	720x480p (4:3)	Yes (60Hz)
	720x480p (16:9)	Yes (60Hz)
	720x576i (4:3)	Yes (50Hz)
	720x576i (16:9)	Yes (50Hz)
	720x576p (4:3)	Yes (50Hz)
	720x576p (16:9)	Yes (50Hz)
	1280x720p	Yes (50/60Hz)
	1920x1080i	Yes (50/60Hz)
	Component Input	
720x480i (4:3)		Yes (60Hz)
720x480i (16:9)		Yes (60Hz)
720x480p (4:3)		Yes (60Hz)
720x480p (16:9)		Yes (60Hz)
720x576i (4:3)		Yes (50Hz)
720x576i (16:9)		Yes (50Hz)
720x576p (4:3)		Yes (50Hz)
720x576p (16:9)		Yes (50Hz)
1280x720p		Yes (50/60Hz)
1920x1080i		Yes (50/60Hz)

GENERAL SPECIFICATIONS

G-11	Accessories	Owner's Manual	Language	English/German/French/Spanish/Italian/Dutch/Czech	
			w/Guarantee Card	Yes (except English)	
		Remote Control Unit			Yes
		Rod Antenna			No
			Poles		-
			Terminal		-
		Loop Antenna (W/ Antenna Change Plug)			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
		Quick Set-up Sheet			Yes
		Battery			Yes
				UM size x pcs	UM-3 x 2 pcs
				OEM Brand	No
		AC Adapter			No
		AC Cord (for AC Adapter)			No
		AC Cord			Yes
AV Cord (2Pin-1Pin)			No		
HDMI-DVI Cable			No		
Registration Card			No		
300 ohm to 75 ohm Antenna Adapter			No		
G-12	Interface	Switch	Power (Tact)	Yes	
			System Select	No	
			Main Power SW	No	
			Channel Up/Menu Up	Yes	
			Channel Down/Menu Down	Yes	
			Volume Up/Menu >	Yes	
			Volume Down/Menu <	Yes	
			Input Select/Enter	Yes	
			Menu	Yes	
		Indicator	Power/Stand-by/EPG Timer	Yes(GREEN / RED / ORANGE)	
			On Timer	No	
		Terminals	Side	Video Input 1	RCA x 1
				Audio Input 1	RCA x 2(L/MONO, R)
				S- Input 1	Yes
				Video Input 2	No
				Audio Input 2	No
				S- Input 2	No
				Video Output	No
				Audio Output	RCA x 2(Variable) (L, R)
				Digital Audio Out (Coaxial)	Yes
				Other Terminal	No
				Euro Scart (21Pin)	2Scart
				Component In	Yes
				Audio Input (Component In use)	RCA x 2(L/MONO, R)
				PC Monitor Input (D-Sub)	Yes
				Audio Input	Mini Pin Jack(ø 3.5), STEREO
				HDMI Input 1	Yes
				Audio Input (HDMI/DVI In use)	PC Monitor Audio Input Alternative
				HDMI Input 2	Yes
				Audio Input (HDMI/DVI In use)	Mini Pin Jack(ø 3.5), STEREO
				Sub Woofer Output	No
				Diversity	No
				Ext Speaker	No
		DC Jack 12V(Center +)	No		
		VHF/UHF Antenna Input	DIN Type		
		AC Inlet	Yes		
		Other Terminal	Headphone		
		CI Card Slot	Yes		
G-13	Set Size	Approx. W x D x H (mm)		796.5 x 282 x 581	
		w/o Stand,Handle Approx. W x D x H (mm)		796.5 x 116 x 534	

GENERAL SPECIFICATIONS

G-14	Weight		Net Approx.	13.2kg (29.1 lbs)
			Net w/o Stand,Handle Approx.	12.0kg (26.5 lbs)
			Gross Approx.	16.5kg (36.4 lbs)
G-15	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)	917 x 340 x 700
			Design	As per Buyer's
			Description of Origin	No
		Drop Test		Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces
Height (cm)	62			
	Container Stuffing	261 Sets/40' container		
G-16	Material	Cabinet	Cabinet Front	PC+ABS 94V0 NON-HALOGEN
			Cabinet Rear	'PS 94HB
		PCB	Non-Halogen	No
			Eyelet	Yes
G-17	Environment	Environmental standard requirement		Green procurement of ORION
		Pb- Free		Phase3(PHASE3A)
		Measures for Whisker		Yes
		WEEE		Yes

DISASSEMBLY INSTRUCTIONS

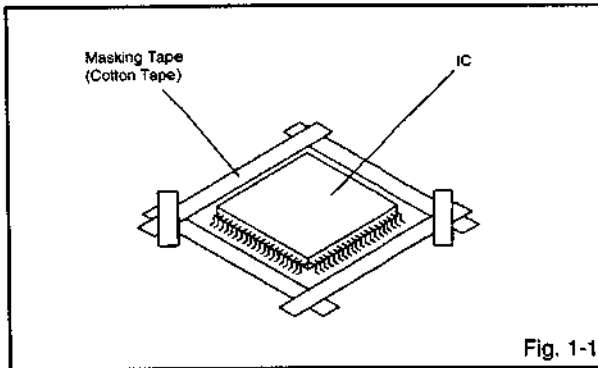
1. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

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

NOTE

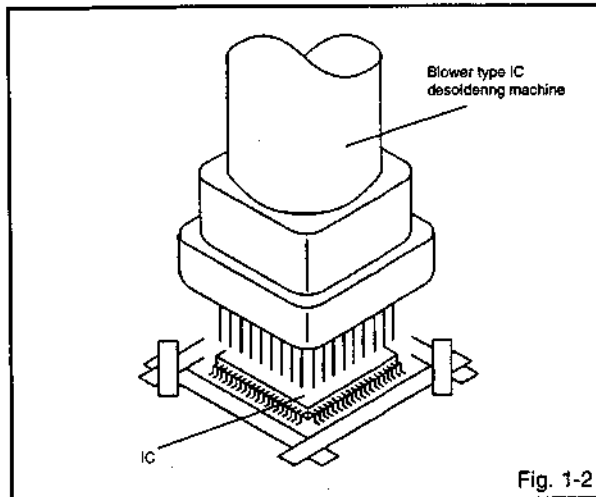
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 1-2.)

NOTE

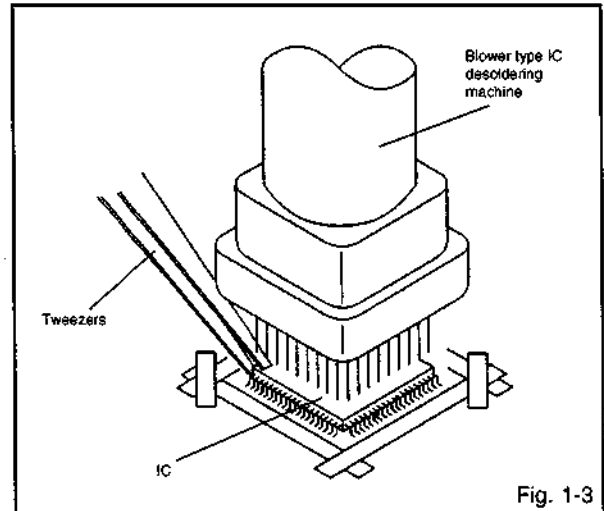
Do not rotate or move the IC back and forth until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 1-3.)

NOTE

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

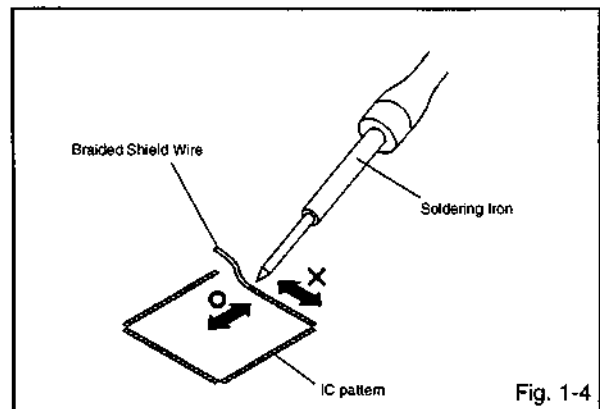


4. Peel off the Masking Tape.

5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 1-4.)

NOTE

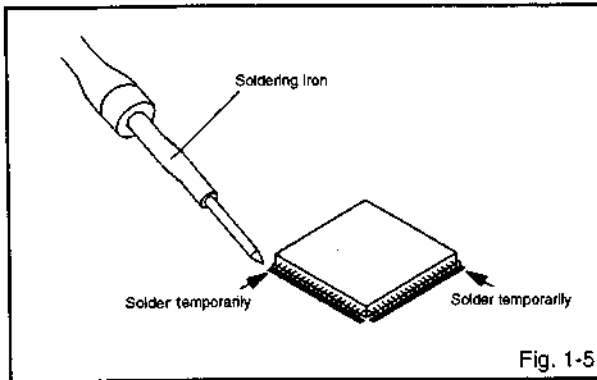
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



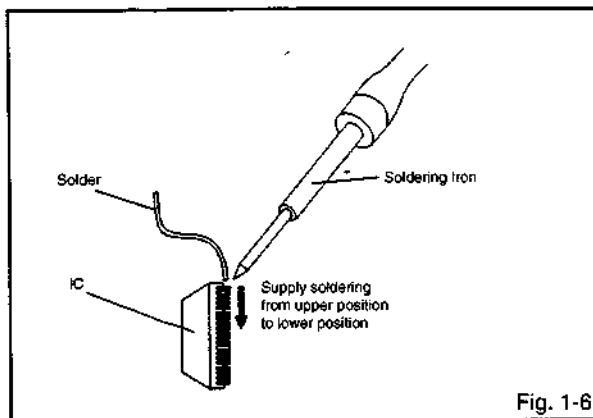
DISASSEMBLY INSTRUCTIONS

INSTALLATION

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



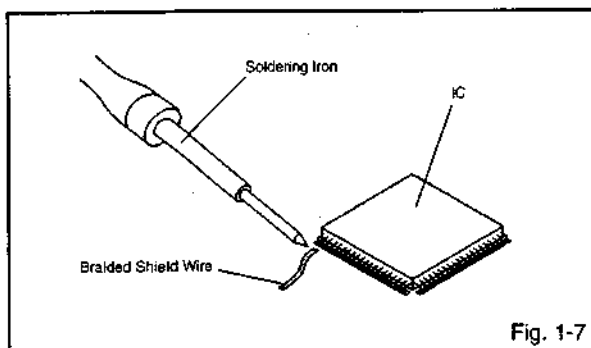
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 1-6.)



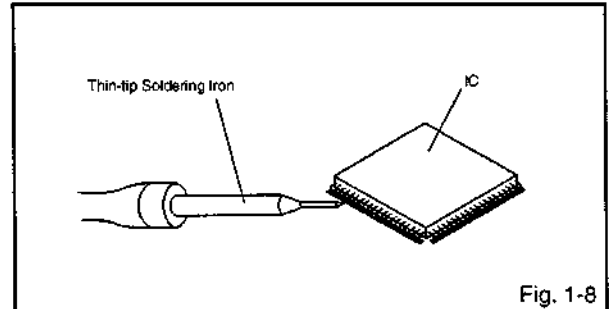
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 1-7.)

NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 1-8.)



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

NOTE

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

SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
POWER ON	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
POWER ON	VOL. DOWN (Minimum)	2	2 sec.	Check of the SUM DATA and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
DTV mode	VOL. DOWN (Minimum)	3	2 sec.	InitialiZation of password of PARENTAL LOCK (DIGITAL). Refer to the "PARENTAL CONTROL-RATING LEVEL".
POWER ON	VOL. DOWN (Minimum)	6	2 sec.	POWER ON total hours are displayed on the screen. Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
POWER ON	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

WHEN REPLACING EEPROM (MEMORY) IC

CONFIRMATION OF CHECK SUM, MICON VERSION AND DIGITAL TV MICON FIRMWARE AND POWER ON TOTAL HOURS

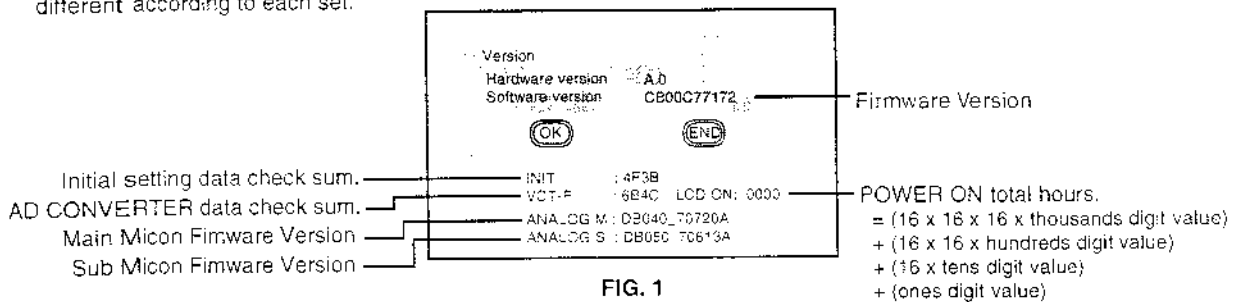
Initial total of MEMORY IC, MICON VERSION, Digital TV MICON Firmware and POWER ON TOTAL HOURS can be checked on the screen. Total hours are displayed in 16 system of notation.

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

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (2) on the remote control for more than 2 seconds.
4. After the confirmation of MICON VERSION and Digital TV MICON Firmware, turn off the power.
ADDRESS and DATA should appear as FIG 1.

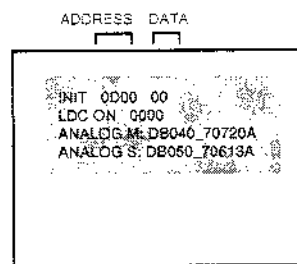
NOTE: The each item value might be different according to each set.



CONFIRMATION OF INITIAL DATA

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 INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (6) on the remote control for more than 2 seconds.
ADDRESS and DATA should appear as FIG 2.



4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

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

10. Turn on the POWER on.
11. Set the VOLUME to minimum.
12. Press both VOL. DOWN button on the set and Channel button (1) on the remote control for more than 2 seconds.
13. 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.

WHEN REPLACING EEPROM (MEMORY) IC

CONFIRMATION OF CHECK SUM, MICON VERSION AND DIGITAL TV MICON FIRMWARE AND POWER ON TOTAL HOURS

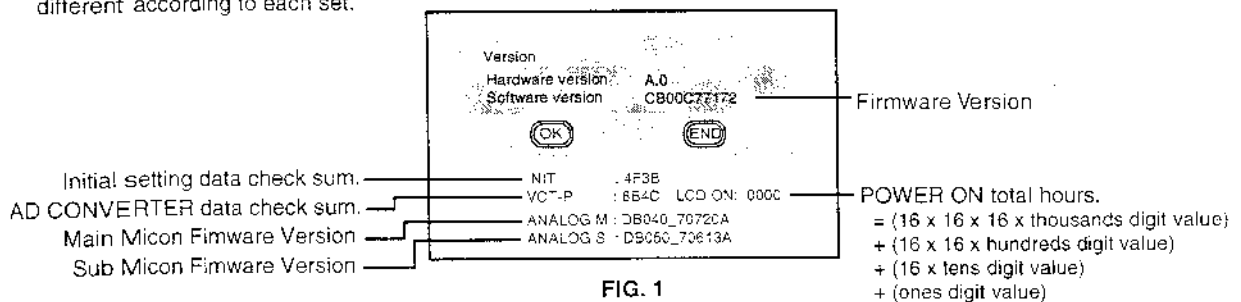
Initial total of MEMORY IC, MICON VERSION, Digital TV MICON Firmware and POWER ON TOTAL HOURS can be checked on the screen. Total hours are displayed in 16 system of notation.

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

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (2) on the remote control for more than 2 seconds.
4. After the confirmation of MICON VERSION and Digital TV MICON Firmware, turn off the power.
ADDRESS and DATA should appear as FIG 1.

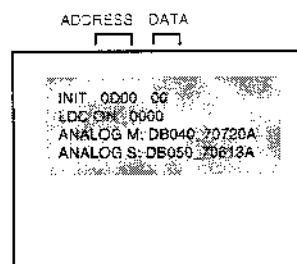
NOTE: The each item value might be different according to each set.



CONFIRMATION OF INITIAL DATA

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 INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (6) on the remote control for more than 2 seconds.
ADDRESS and DATA should appear as FIG 2.



4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

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

10. Turn on the POWER on.
11. Set the VOLUME to minimum.
12. Press both VOL. DOWN button on the set and Channel button (1) on the remote control for more than 2 seconds.
13. 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. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

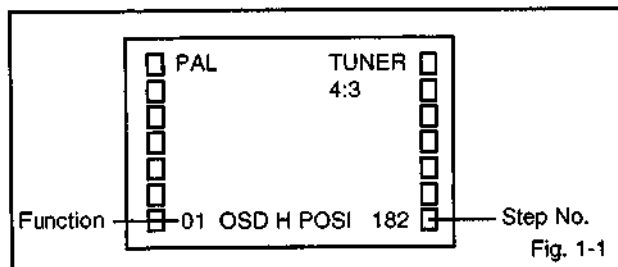
- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on 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. Pattern Generator

On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (9) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in Fig. 1-1.



3. Use the UP/DOWN button or Channel button (0-9) on the remote control to select the options shown in Fig. 1-2.
4. Press the INPUT SELECT button on the remote control to end the adjustments.
5. To display the adjustment screen for TUNER, AV, COMPONENT, HDMI and PC mode, press the INPUT SELECT button on the remote control to set to the TUNER, AV, COMPONENT, HDMI and PC mode. Press the VOL. DOWN button on the set and the channel (9) on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
01	OSD H POSI	23	H POSI MIN
02	OSD V POSI	24	V POSI
03	R DRIVE(N)	25	V POSI MAX
04	R CUT OFF(N)	26	V POSI MIN
05	G DRIVE(N)	27	BACKLIGHT CENTER
06	G CUT OFF(N)	28	BACKLIGHT MAX
07	B DRIVE(N)	29	BACKLIGHT MIN
08	B CUT OFF(N)	30	BRIGHT CENTER
09	R DRIVE(C)	31	BRIGHT MAX
10	R CUT OFF(C)	32	BRIGHT MIN
11	G DRIVE(C)	33	TINT CENTER
12	G CUT OFF(C)	34	CONTRAST CENTER
13	B DRIVE(C)	35	CONTRAST MAX
14	B CUT OFF(C)	36	CONTRAST MIN
15	R DRIVE(W)	37	CONTRAST 40
16	R CUT OFF(W)	38	COLOR CENTER
17	G DRIVE(W)	39	COLOR MAX
18	G CUT OFF(W)	40	COLOR MIN
19	B DRIVE(W)	41	TEXT H POSI
20	B CUT OFF(W)	42	TEXT V POSI
21	H POSI	43	FLICKER ADJ
22	H POSI MAX		

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT SELECT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of Fig. 1-1 and press the channel button (03) on the remote control to select "R DRIVE(N)".
6. Press the CH. UP/DOWN button on the remote control to select the "R DRIVE(N)", "R CUT OFF(N)", "G DRIVE(N)", "G CUT OFF(N)", "B DRIVE(N)", "B CUT OFF(N)", "R DRIVE(C)", "R CUT OFF(C)", "G DRIVE(C)", "G CUT OFF(C)", "B DRIVE(C)", "B CUT OFF(C)", "R DRIVE(W)", "R CUT OFF(W)", "G DRIVE(W)", "G CUT OFF(W)", "B DRIVE(W)" or "B CUT OFF(W)".
7. Adjust the LEFT/RIGHT button on the remote control to whiten the R DRIVE(N), R CUT OFF(N), G DRIVE(N), G CUT OFF(N), B DRIVE(N), B CUT OFF(N), R DRIVE(C), R CUT OFF(C), G DRIVE(C), G CUT OFF(C), B DRIVE(C), B CUT OFF(C), R DRIVE(W), R CUT OFF(W), G DRIVE(W), G CUT OFF(W), B DRIVE(W) or B CUT OFF(W) at each step tone sections equally.
8. Perform the above adjustments 6 and 7 until the white achieved.

ELECTRICAL ADJUSTMENTS

2-2: CONTRAST MAX

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar 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 **(35)** on the remote control to select "CONTRAST MAX".
5. Press the LEFT/RIGHT button on the remote control
6. until the contrast step No. becomes "49".
7. Check if the picture is normal.
8. Receive the color bar pattern. (VIDEO Input)
9. Using the remote control, set the brightness and contrast to normal position.
10. Press the INPUT SELECT button on the remote control to set to the AV mode.
11. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(35)** on the remote control to select "CONTRAST MAX".
12. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "49".
13. Check if the picture is normal.
14. Receive the color bar pattern. (AV RGB Input)
15. Using the remote control, set the brightness and contrast to normal position.
16. Press the INPUT SELECT button on the remote control to set to the AV(RGB) mode. Then perform the above adjustments 11~13.
17. Receive the color bar pattern. (S-VIDEO Input)
Using the remote control, set the brightness and contrast to normal position.
18. Press the INPUT SELECT button on the remote control to set to the AV3(Y/C) mode. Then perform the above adjustments 11~13.
19. Receive the color bar pattern. (COMPONENT Input)
20. Using the remote control, set the brightness and contrast to normal position.
21. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
22. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(35)** on the remote control to select "CONTRAST MAX".
23. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "54".
24. Check if the picture is normal.
25. Receive the color bar pattern. (HDMI Input)
26. Using the remote control, set the brightness and contrast to normal position.
27. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
28. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(35)** on the remote control to select "CONTRAST MAX".
29. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "55".
30. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-3. Confirmation of Fixed Value (Step No.)

Please check if the fixed values of each the adjustment item is set correctly relating below. (FUNCTION/COMPONENT/AV/COMPONENT/PC)

NO.	FUNCTION	TUNER			AV			COMPONENT (INTFC)			COMPONENT (PAL)			HDMI (MITSU)			HDMI (PAL)			HDMI (PC)			HDMI (MITSU)			HDMI (PAL)			PC			DTV														
		Date	CVBS	S/VC	Date	RGB	RGB	Date	480P	720P	Date	480P	720P	Date	480P	720P	Date	480P	720P	Date	480P	720P	Date	480P	720P	Date	480P	720P	Date	480P	720P		Date	480P	720P											
1	OSD H POSI	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182									
2	OSD V POSI	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
3	R DRIVE(M)	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735			
4	R CUT OFF(N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	G DRIVE(M)	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750	745	750	750			
6	G CUT OFF(N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	B DRIVE(M)	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770	765	770	770			
8	B CUT OFF(N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	R DRIVE(C)	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735			
10	R CUT OFF(C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
11	G DRIVE(C)	799	800	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813	799	813	813			
12	G CUT OFF(C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
13	B DRIVE(C)	838	841	842	842	842	842	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841			
14	B CUT OFF(C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
15	R DRIVE(W)	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735	735			
16	R CUT OFF(W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
17	G CUT OFF(W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
18	G DRIVE(W)	720	707	704	704	704	704	706	706	706	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704						
19	B DRIVE(W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
20	B CUT OFF(W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
21	H POSI 50Hz 4:3 (PC)	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242			
22	H POSI 60Hz 4:3 (PC)	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242			
23	H POSI 60Hz FULL SCREEN (PC)	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242	242			
24	V POSI 60Hz FULL SCREEN (PC)	28	27	27	28	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28			
25	V POSI 50Hz Cinema (PC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
26	V POSI 60Hz FULL SCREEN (PC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
27	BACKLIGHT CENTER	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128						
28	BACKLIGHT MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255						
29	BACKLIGHT MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
30	BRIGHT CENTER	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4	10	4	4			
31	BRIGHT MAX	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40						
32	BRIGHT MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
33	TINT CENTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
34	CONTRAST CENTER	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57						
35	CONTRAST MAX	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48	48	55	48						
36	CONTRAST MIN	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18						
37	COLOR 40	47	48	48	47	48	48																																							

ELECTRICAL ADJUSTMENTS

2-4: Confirmation of Fixed Value (Step No.)

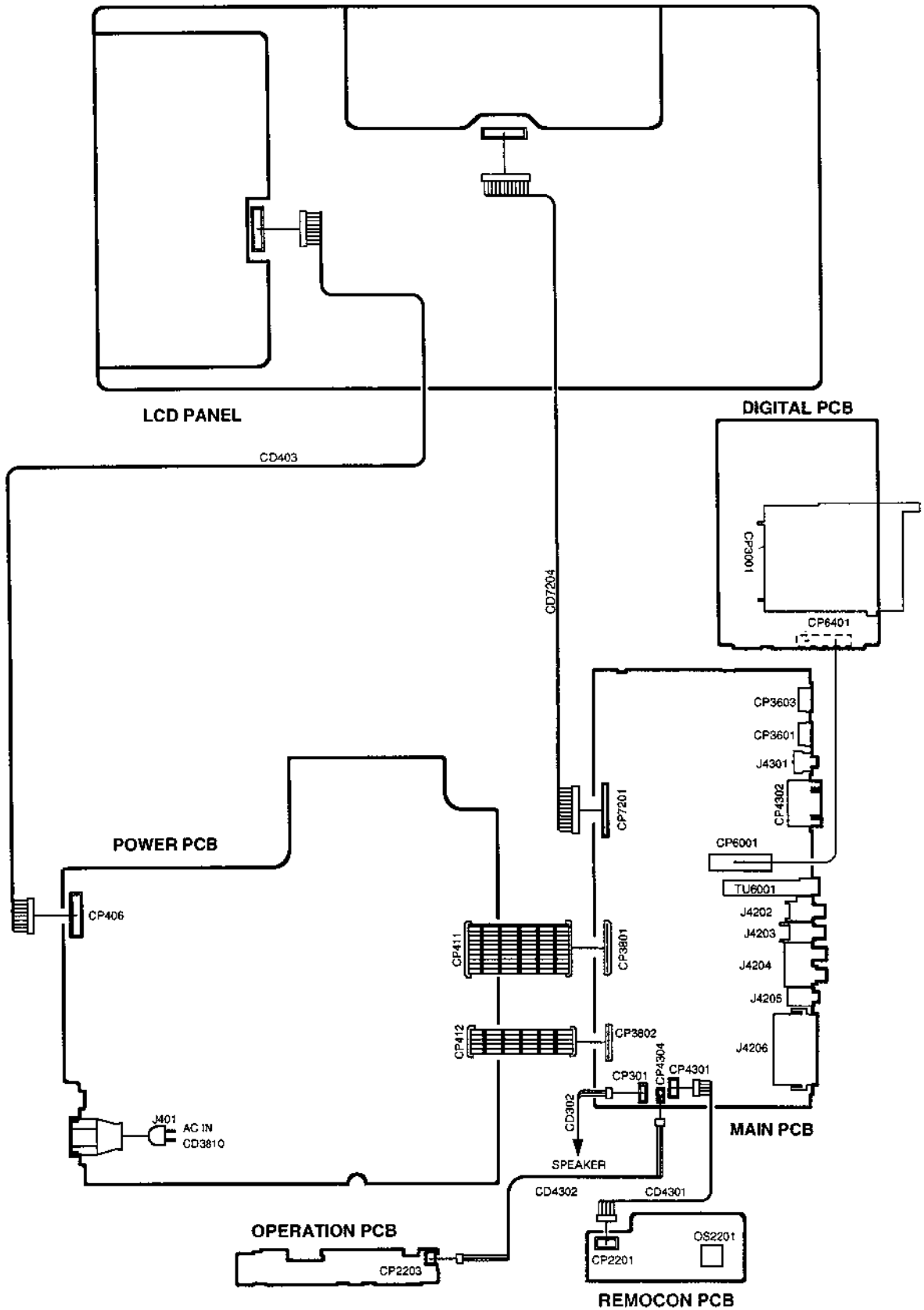
Please check if the fixed values of each the adjustment item is set correctly referring below. (TUNER/MAIN)

NO.	FUNCTION	TUNER												AV/RGB												AV/RGB												AV/RGB											
		AV/RGB						AV/RGB						AV/RGB						AV/RGB						AV/RGB						AV/RGB																	
		576i		PAL50		SECAM		480p		PAL60		SECAM		NTSC3.58		NTSC4.43		576i		PAL50		SECAM		480p		PAL60		SECAM		NTSC3.58		NTSC4.43		576i		PAL50		SECAM		480p		PAL60		SECAM		NTSC3.58		NTSC4.43	
		Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit	Data	Unit				
No. 30	BRIGHT CENTER	40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40		40			
No. 31	BRIGHT MAX	64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64		64			
No. 32	BRIGHT MIN	0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0			
No. 33	TINT CENTER	0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0			
No. 34	CONTRAST CENTER	37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37		37			
No. 35	CONTRAST MAX	49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49		49			
No. 36	CONTRAST MIN	18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18		18			
No. 37	COLOR CENTER	47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47		47			
No. 38	COLOR MAX	63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63		63			
No. 39	COLOR MIN	0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0			
No. 40	COLOR MAX	0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0		0			

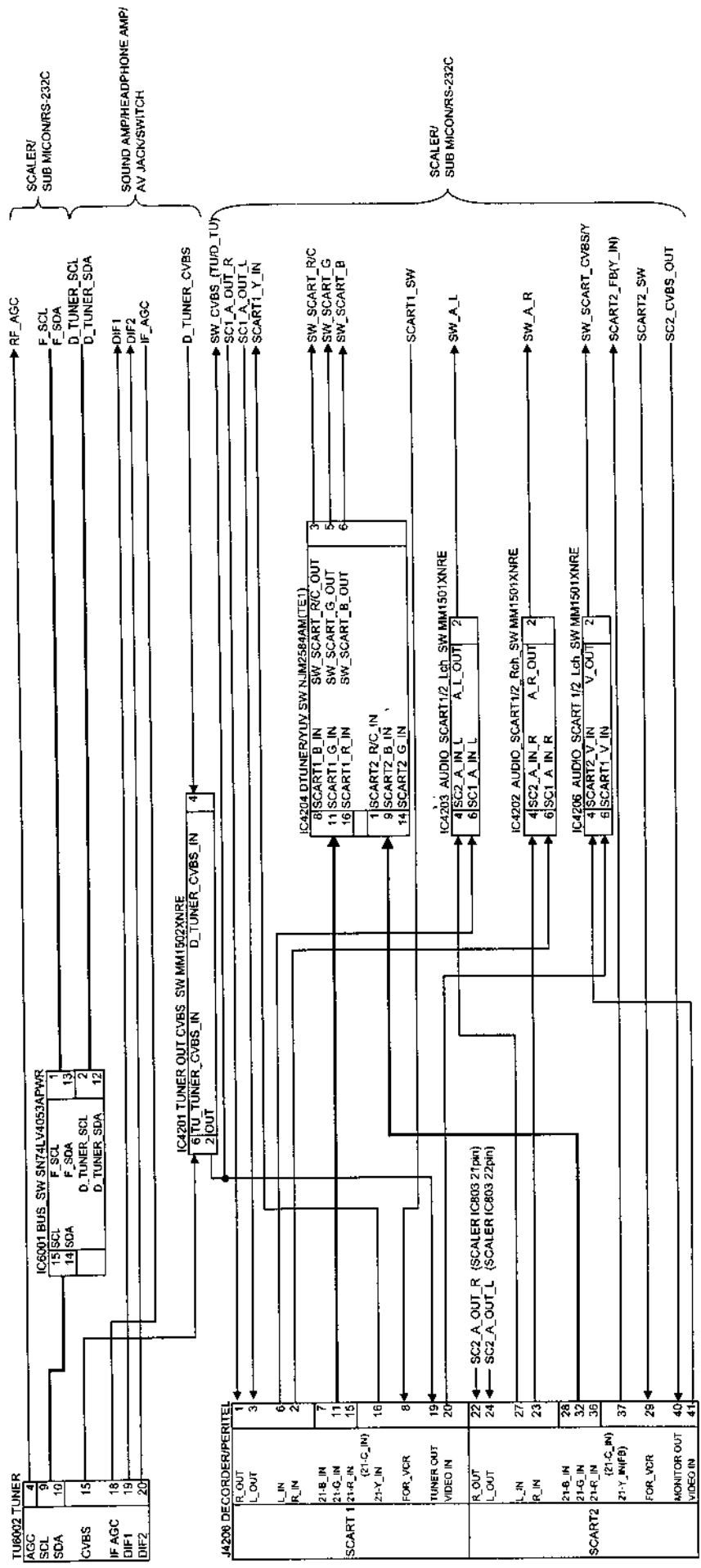
NOTE: For the step no. with "mask", please adjust it according to the situation of the set.

ELECTRICAL ADJUSTMENTS

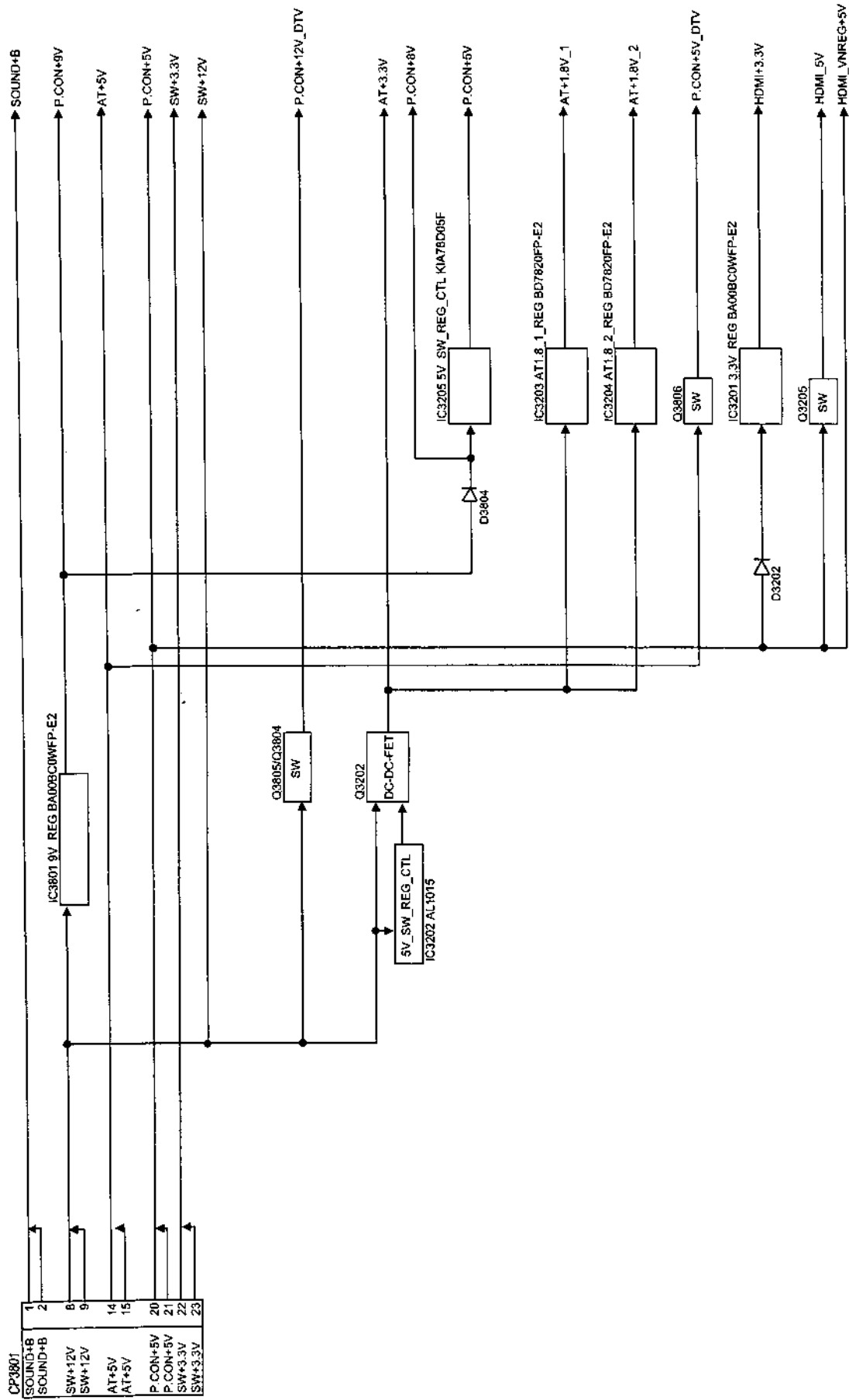
3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



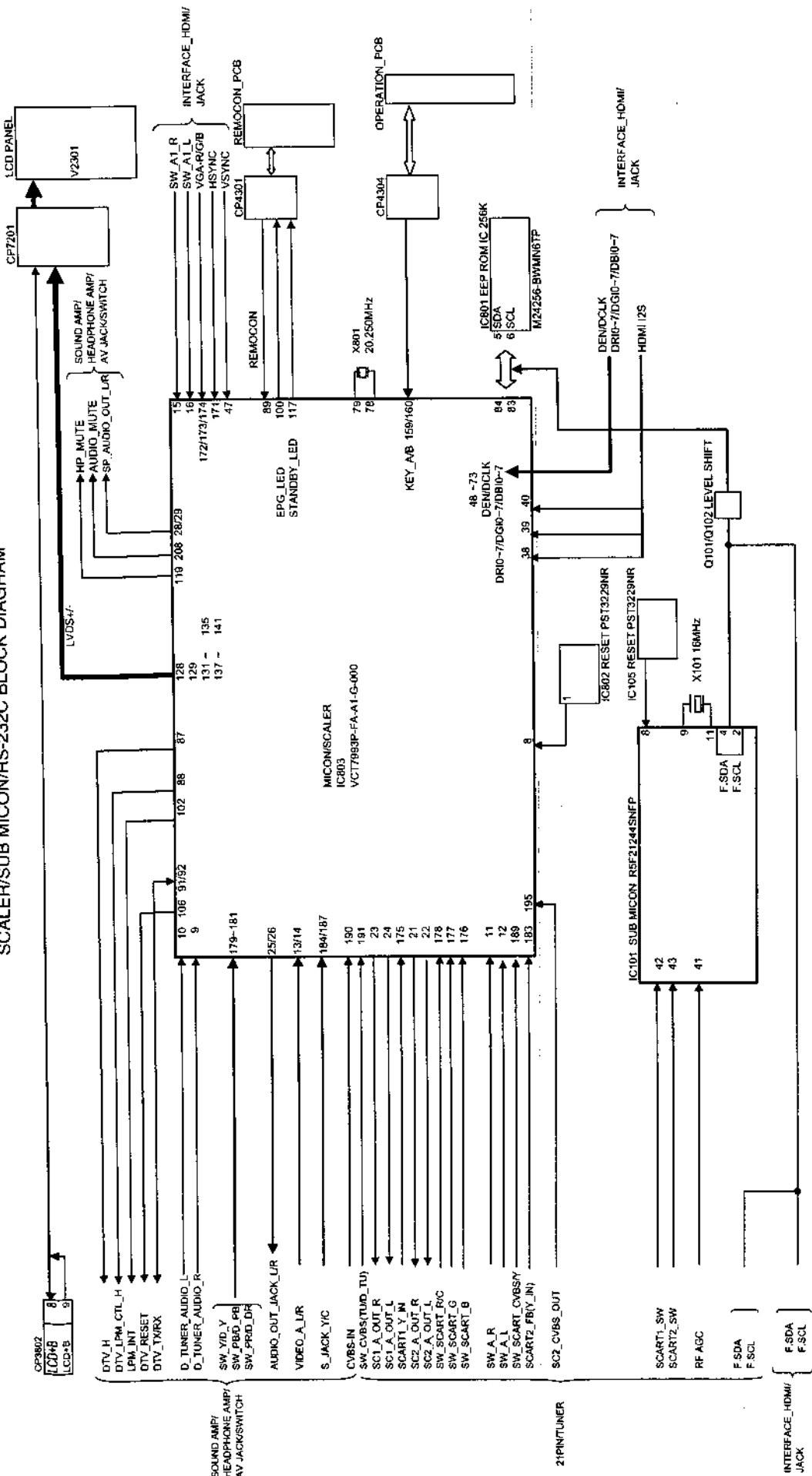
21PIN/TUNER BLOCK DIAGRAM



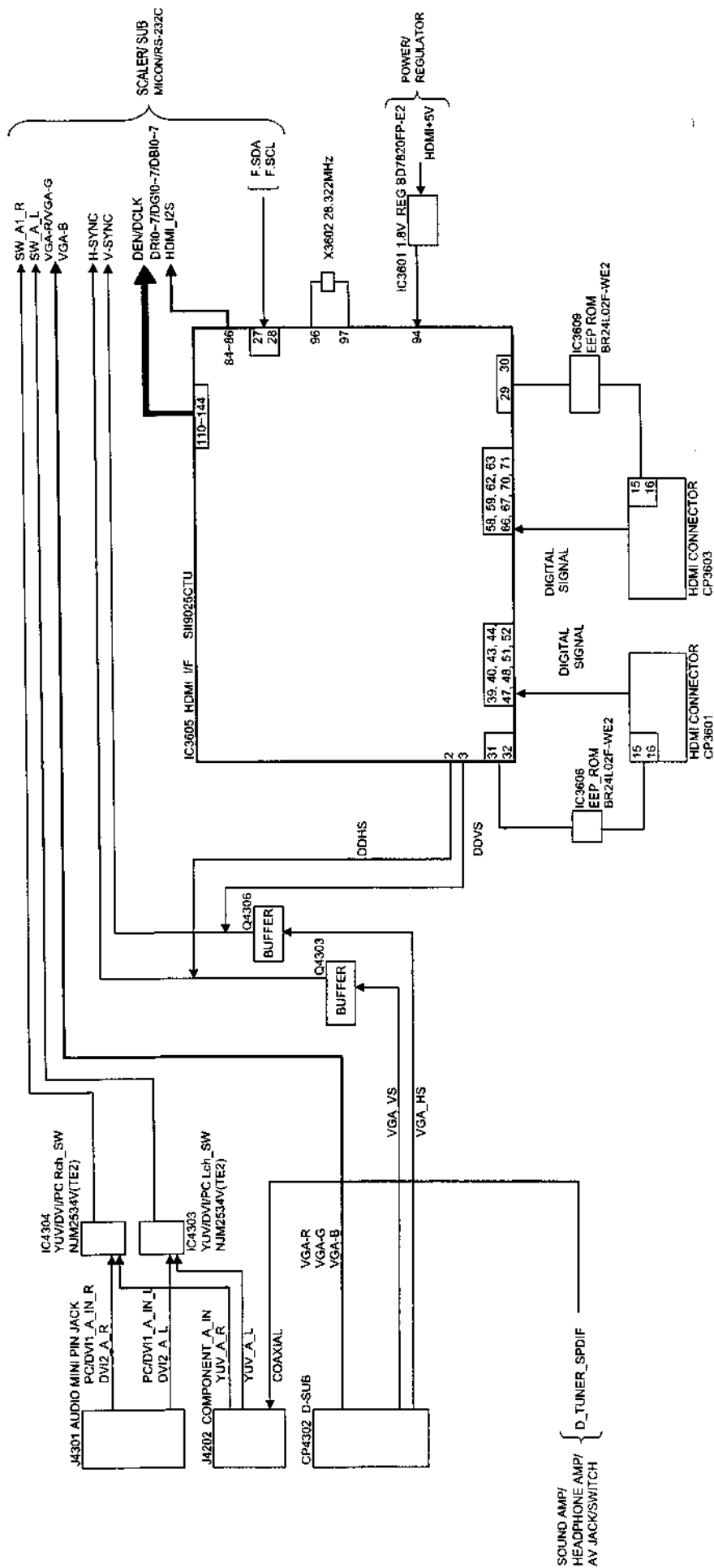
POWER/REGULATOR BLOCK DIAGRAM



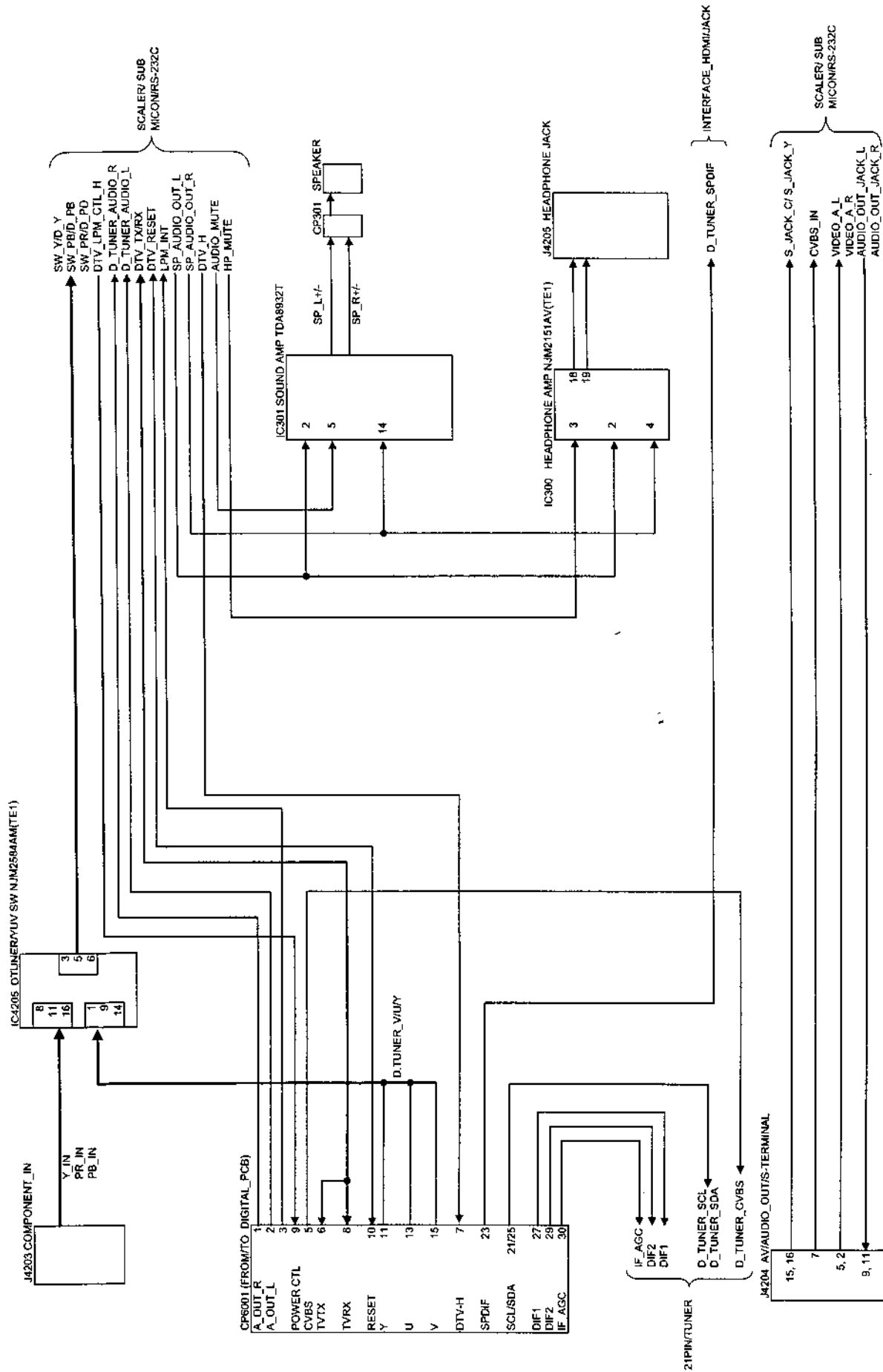
SCALER/SUB MICON/RS-232C BLOCK DIAGRAM



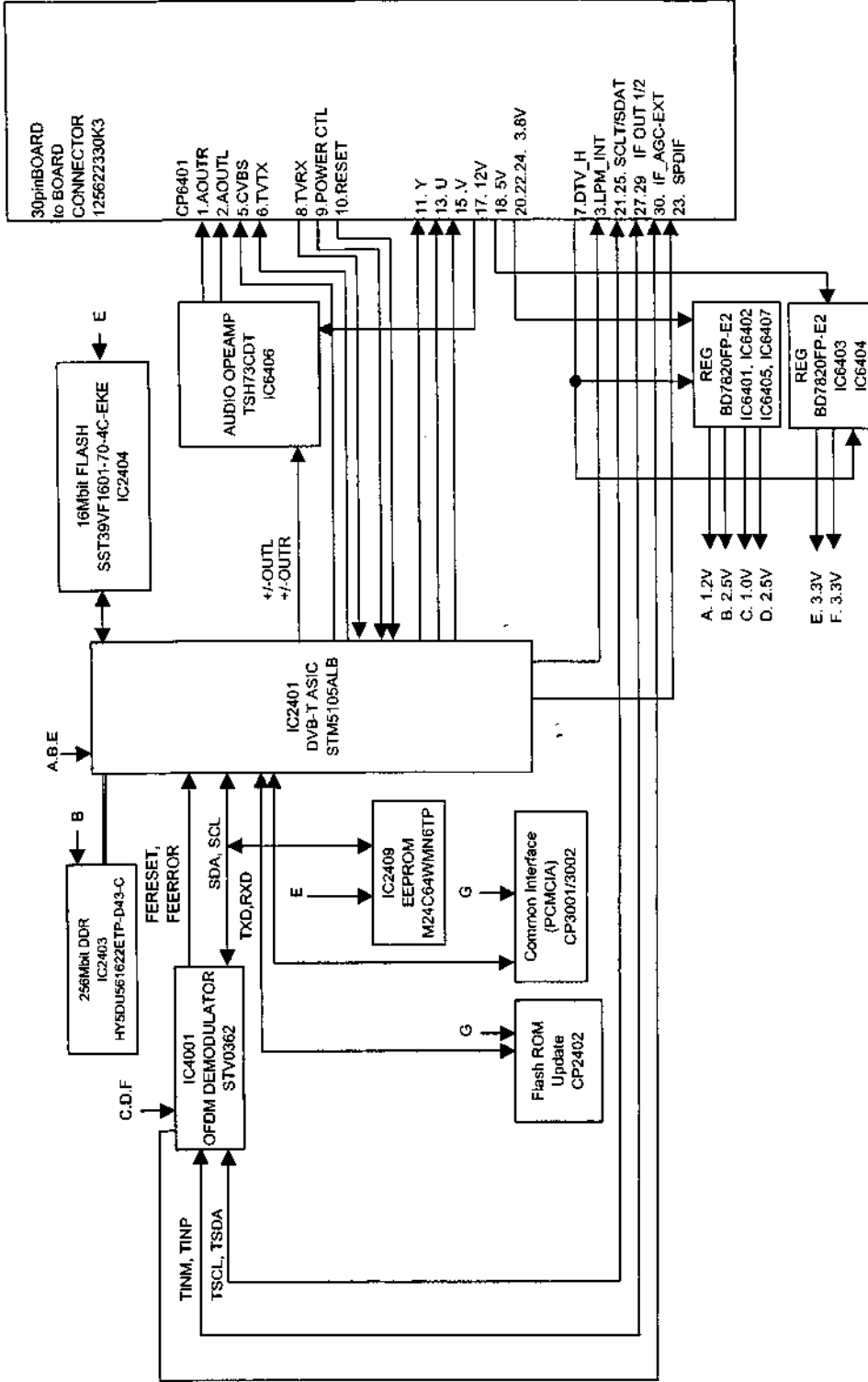
INTERFACE_HDMI/JACK BLOCK DI AGRAM



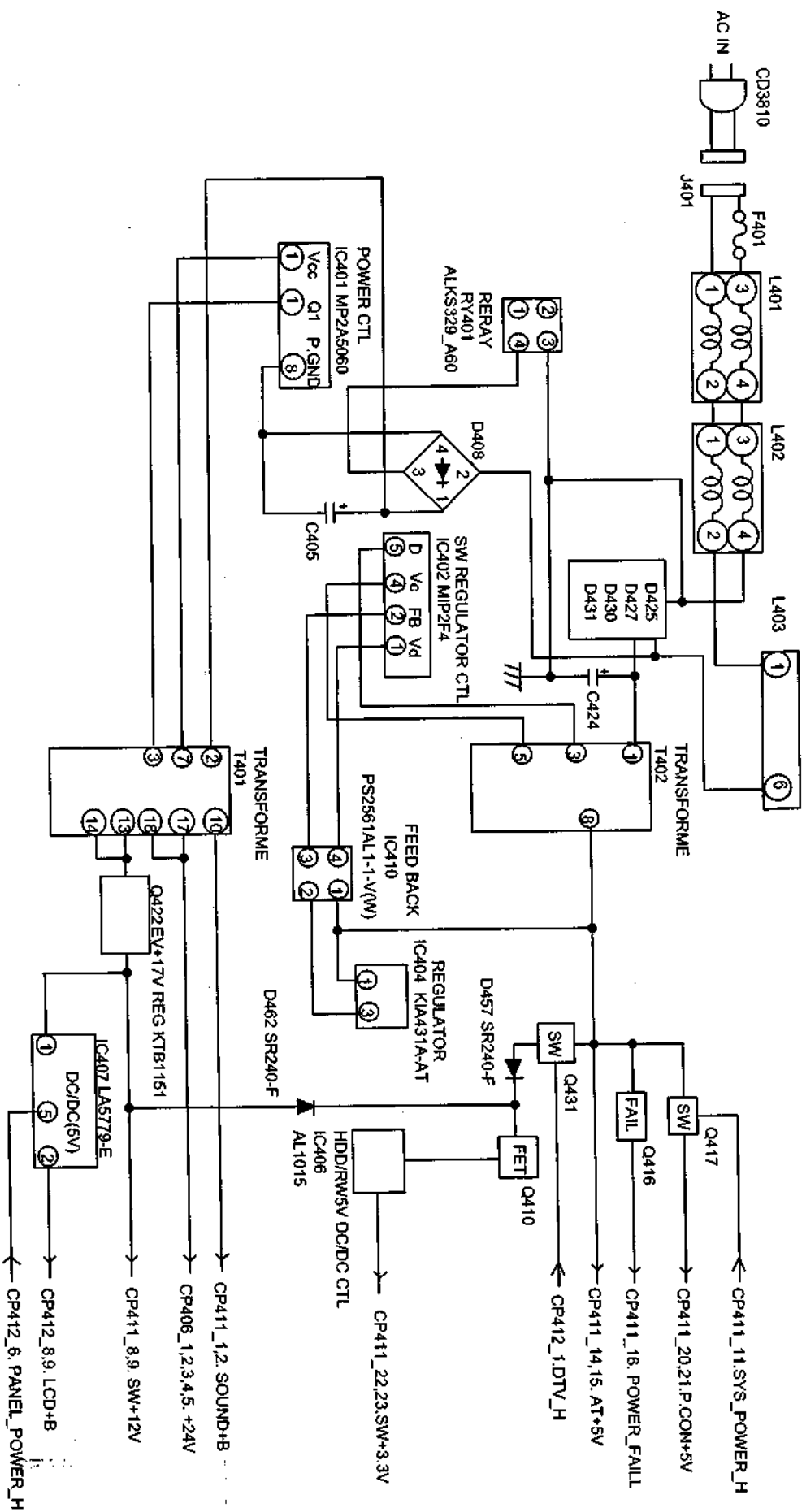
SOUND AMP/HEADPHONE AMP/AV JACK/SWITCH BLOCK DI AGRAM



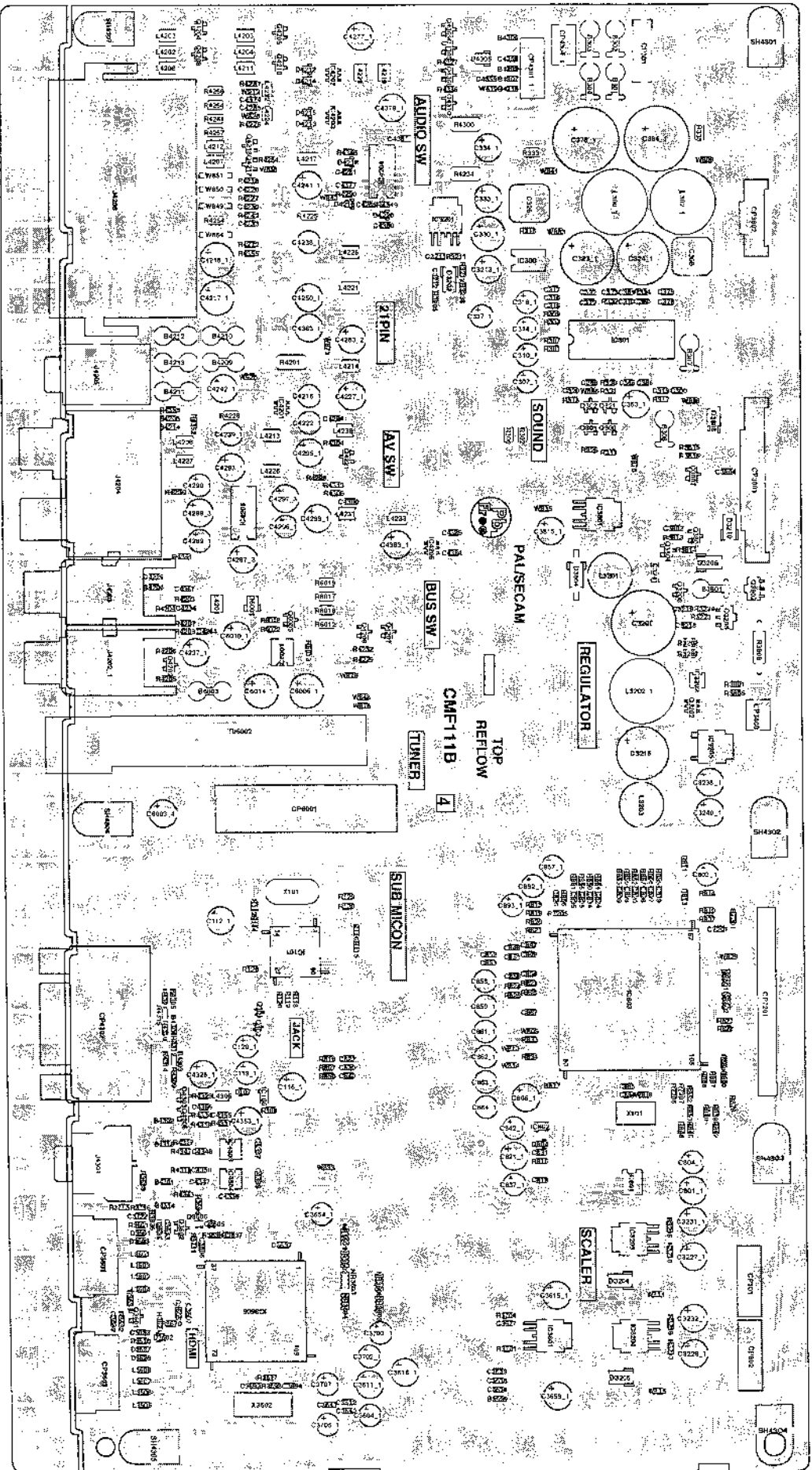
DIGITAL BLOCK DIAGRAM



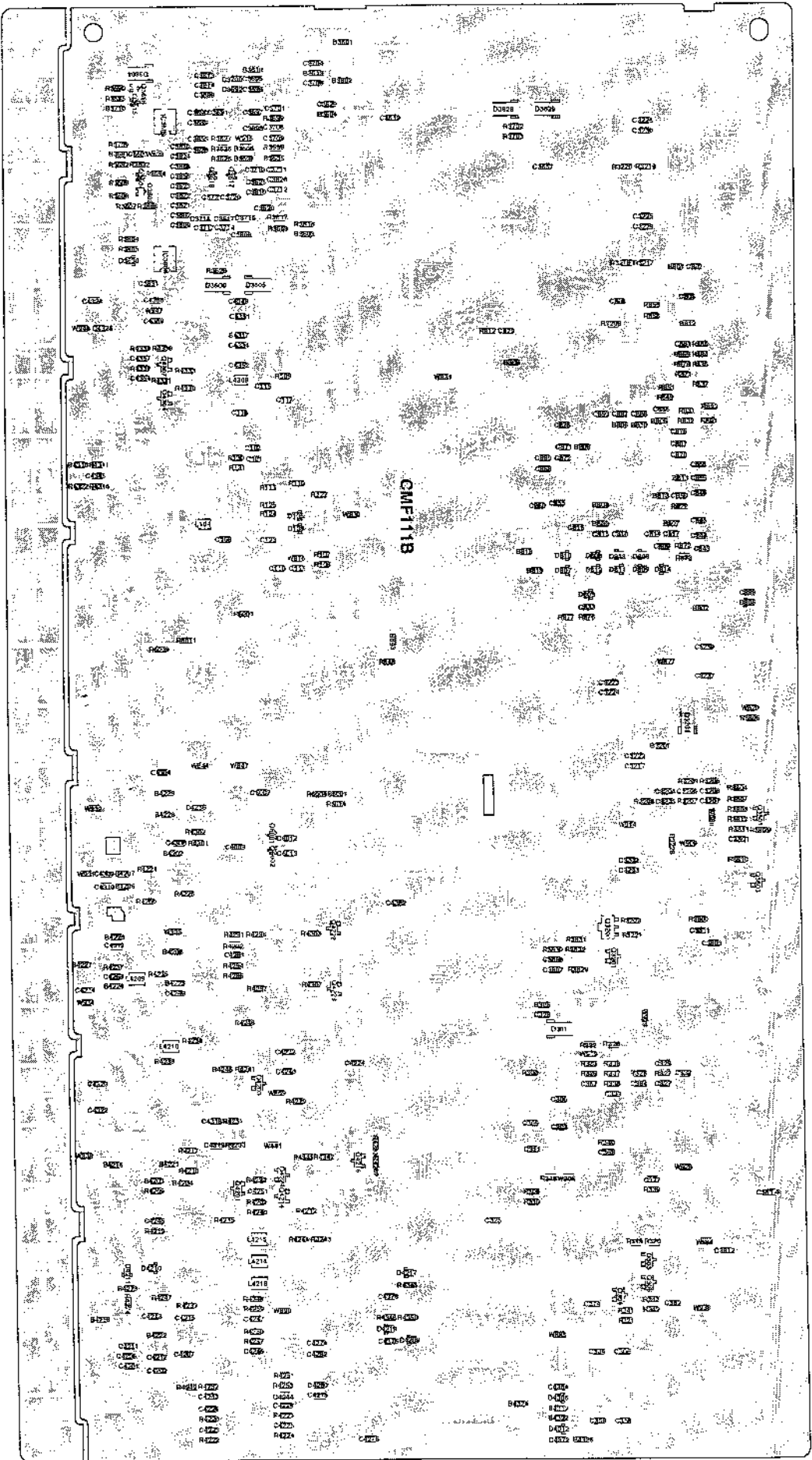
POWER(POWER PCB) BLOCK DIAGRAM



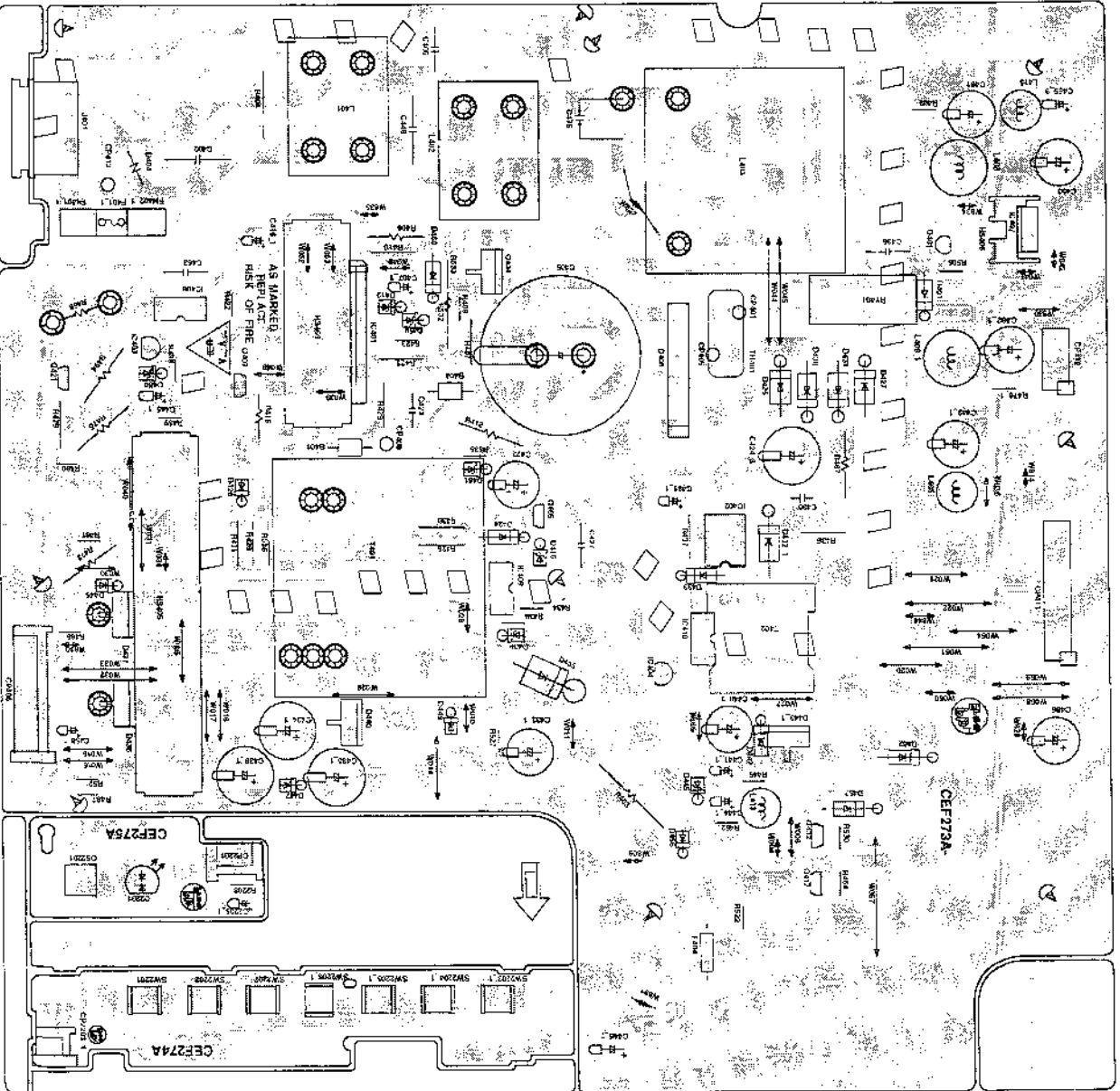
PRINTED CIRCUIT BOARDS
MAIN (TOP SIDE)



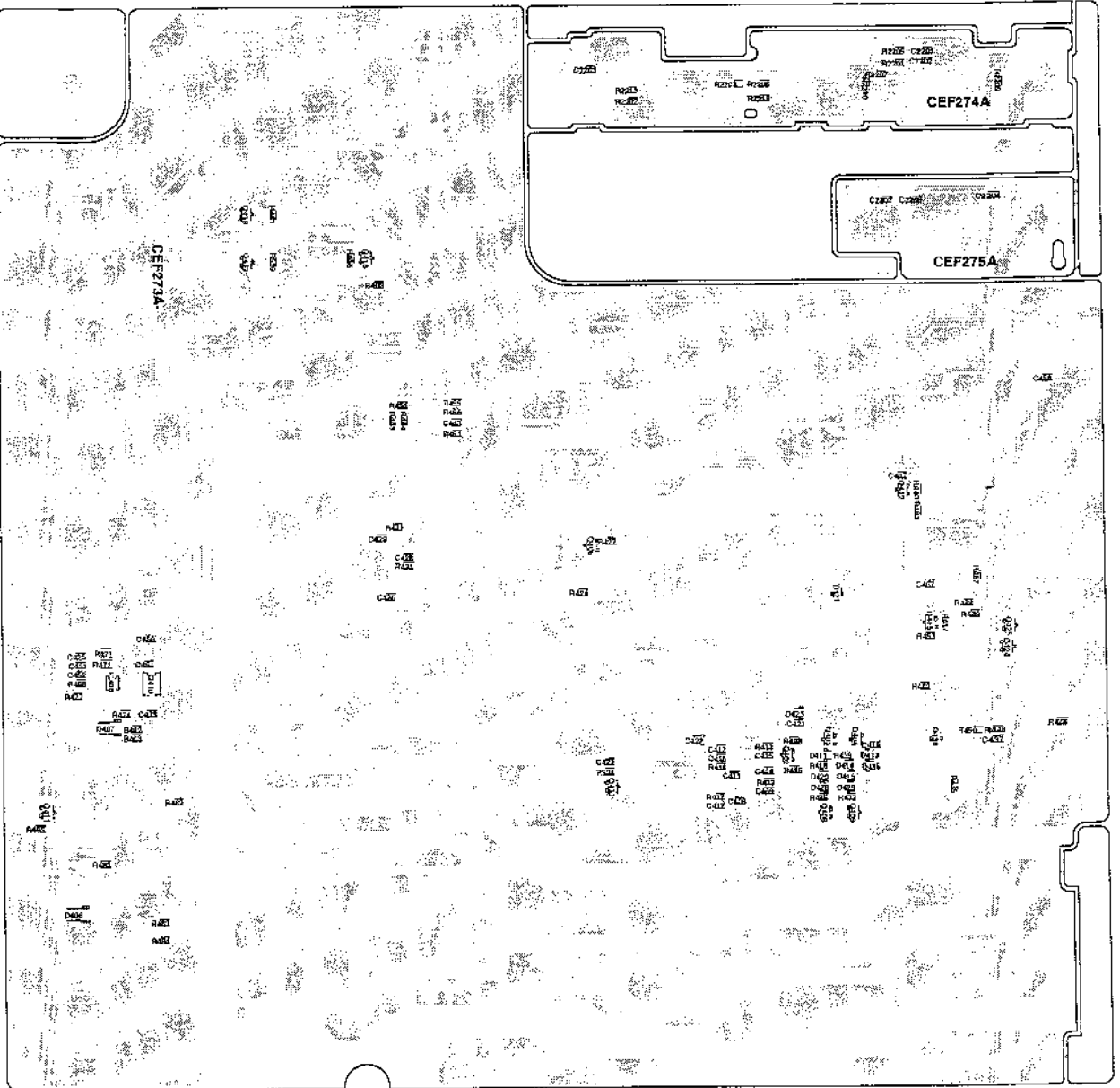
PRINTED CIRCUIT BOARDS
MAIN (BOTTOM SIDE)



PRINTED CIRCUIT BOARDS
 POWER/OPERATION/REMOCON (INSERTED PARTS)
 SOLDER SIDE

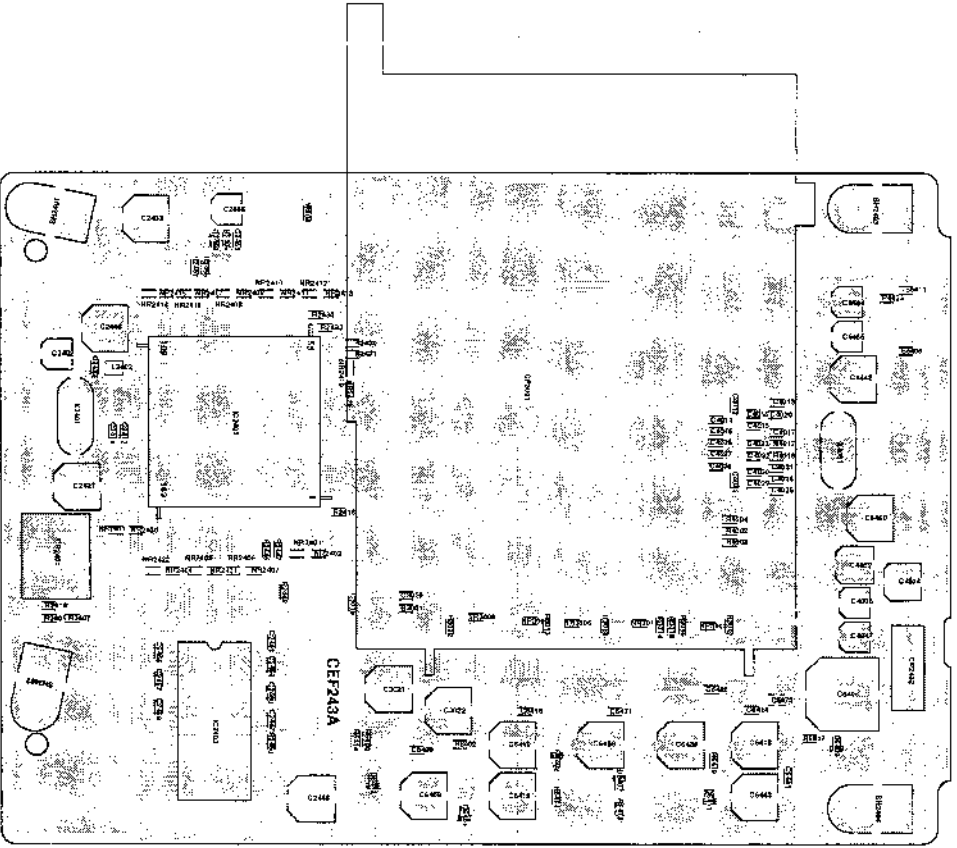


PRINTED CIRCUIT BOARDS
POWER/OPERATION/REMOCON (CHIP MOUNTED PARTS)
SOLDER SIDE

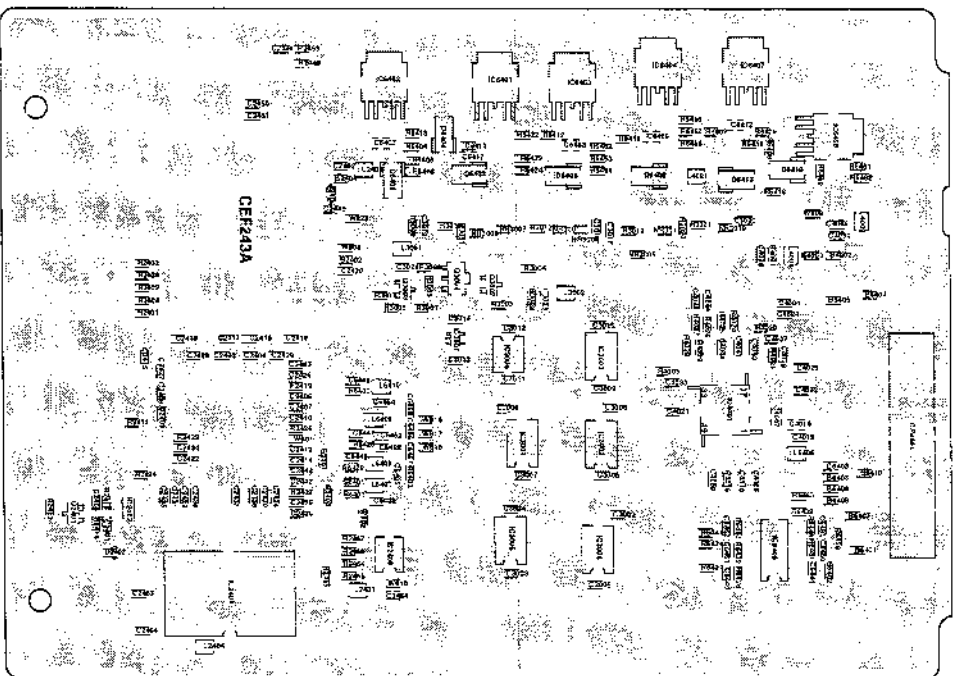


PRINTED CIRCUIT BOARDS

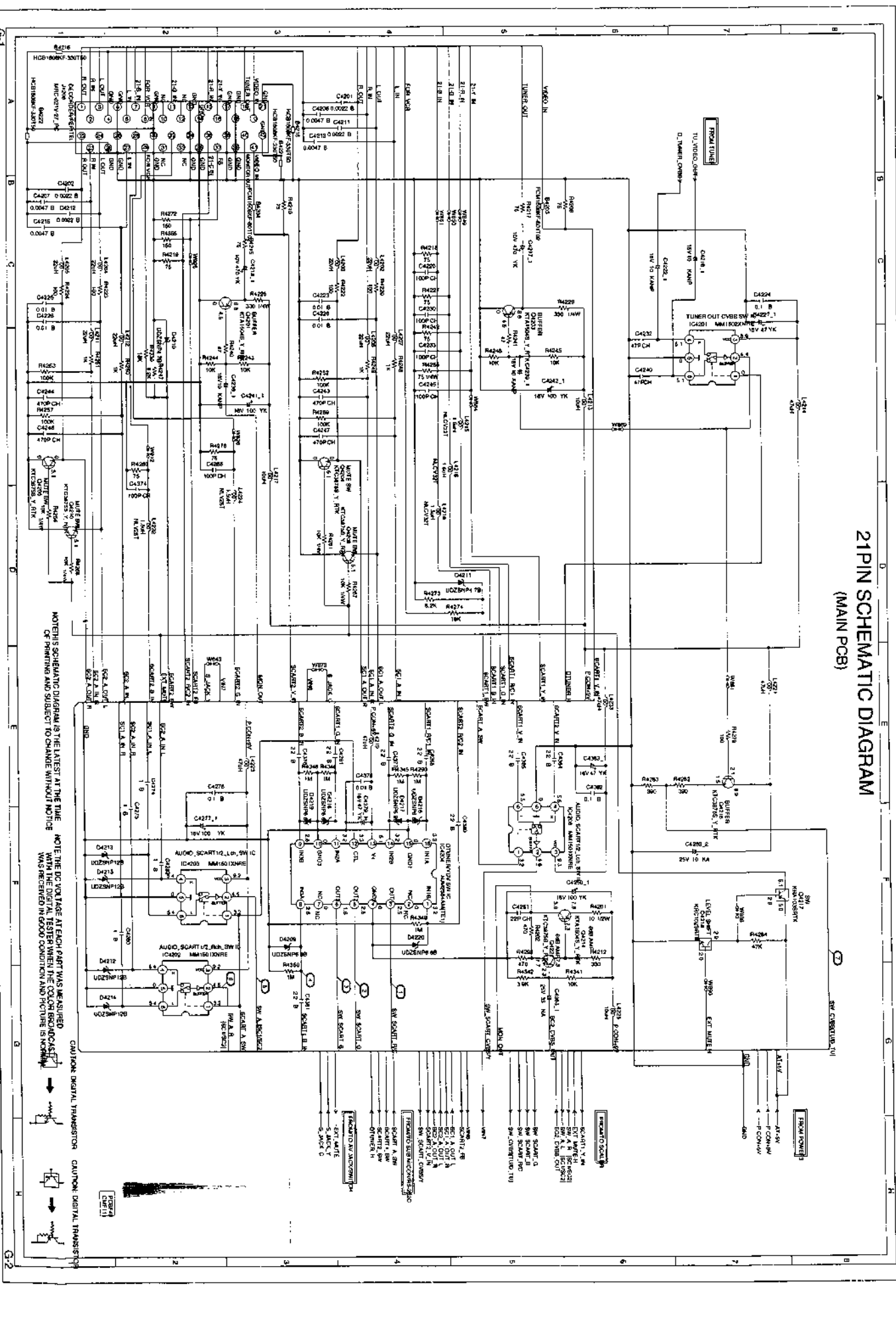
DIGITAL (TOP SIDE)



DIGITAL (BOTTOM SIDE)



21PIN SCHEMATIC DIAGRAM (MAIN PCB)



NOTE: 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 BRODCASTING WAS RECEIVED IN GOOD CONDITION AND HICTURE IS NORMAL

CAUTION: DIGITAL TRANSMITTER CAUTION: DIGITAL TRANSMITTER

FROM POWER

TO GND

FROM GND

TO POWER

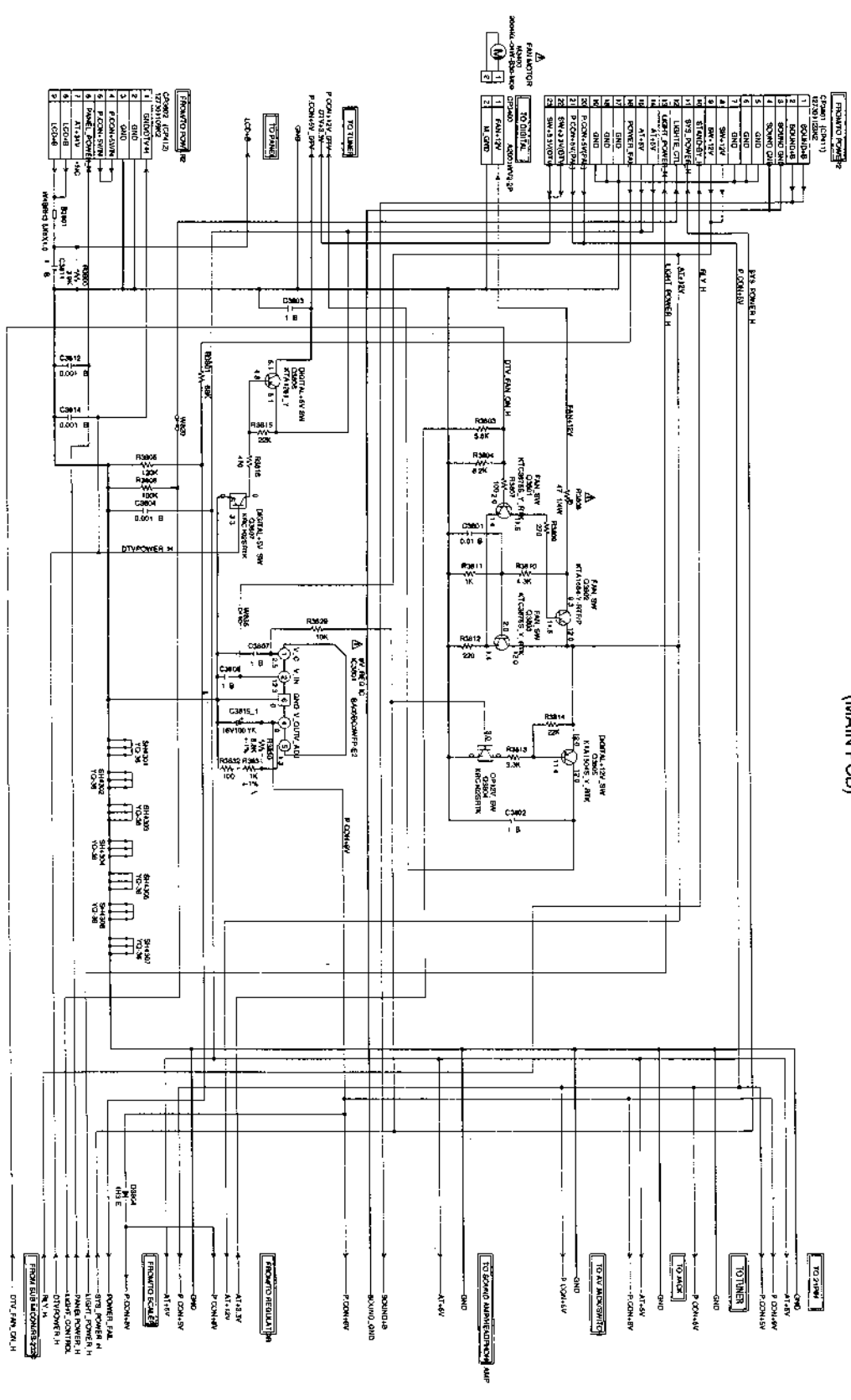
FROM POWER

TO GND

FROM GND

TO POWER

POWER3 SCHEMATIC DIAGRAM (MAIN PCB)



NOTES: SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SHOULD BE USED AS SUCH. NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED. THE ALUMINUM ELECTROLYTIC CAPACITOR MARKED 'A' WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL. IS NON POLAR ONE.

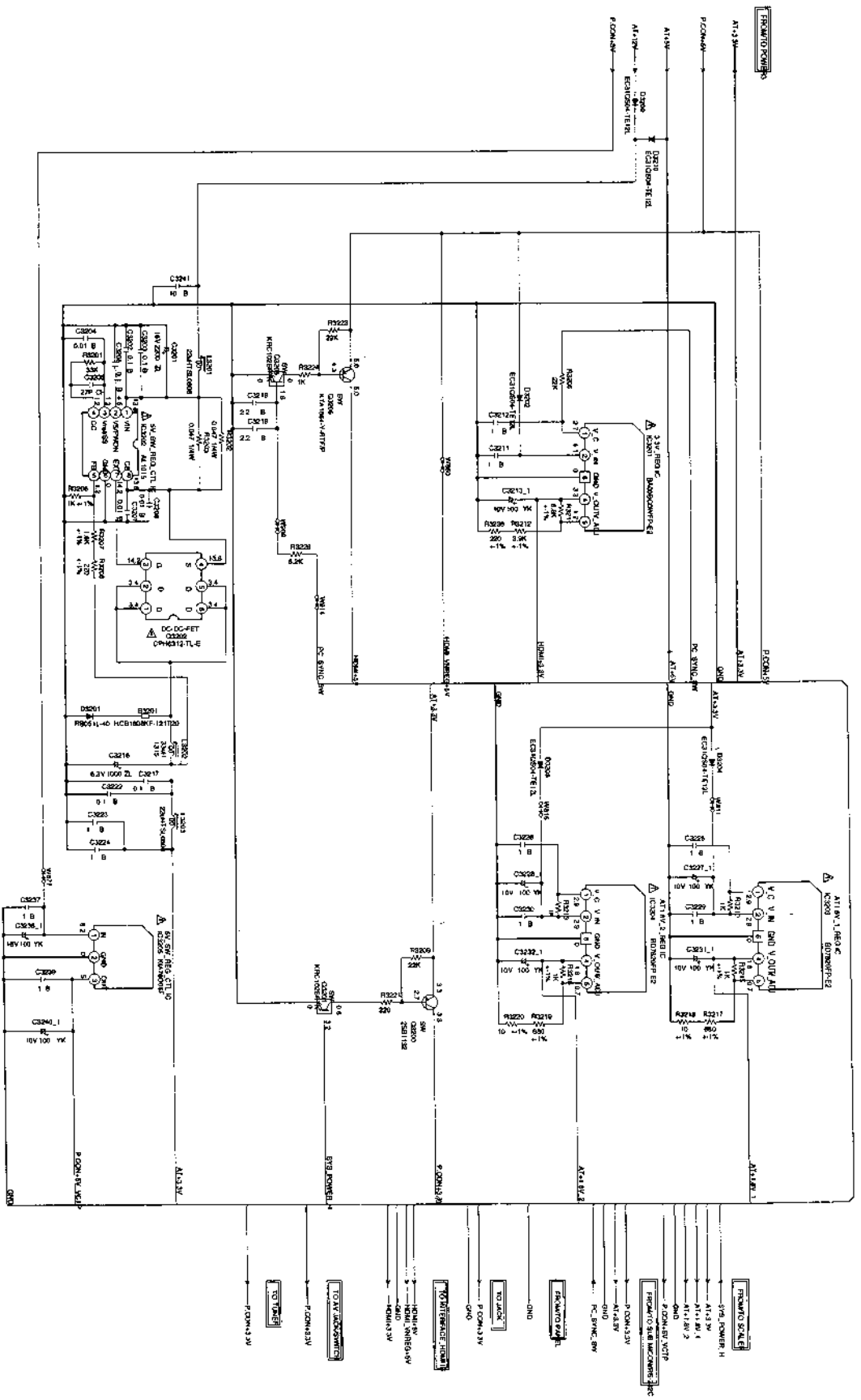
ATTENTION: DES PIÈCES RÉPARÉES PAR LAIANT. NE PAS UTILISER LES PIÈCES DÉCRITES DANS LA NOMÉNCLEATURE DES PIÈCES.

CAUTION: DIGITAL TRANSISTOR



PIÈCE DÉCRITE

REGULATOR SCHEMATIC DIAGRAM (MAIN PCB)



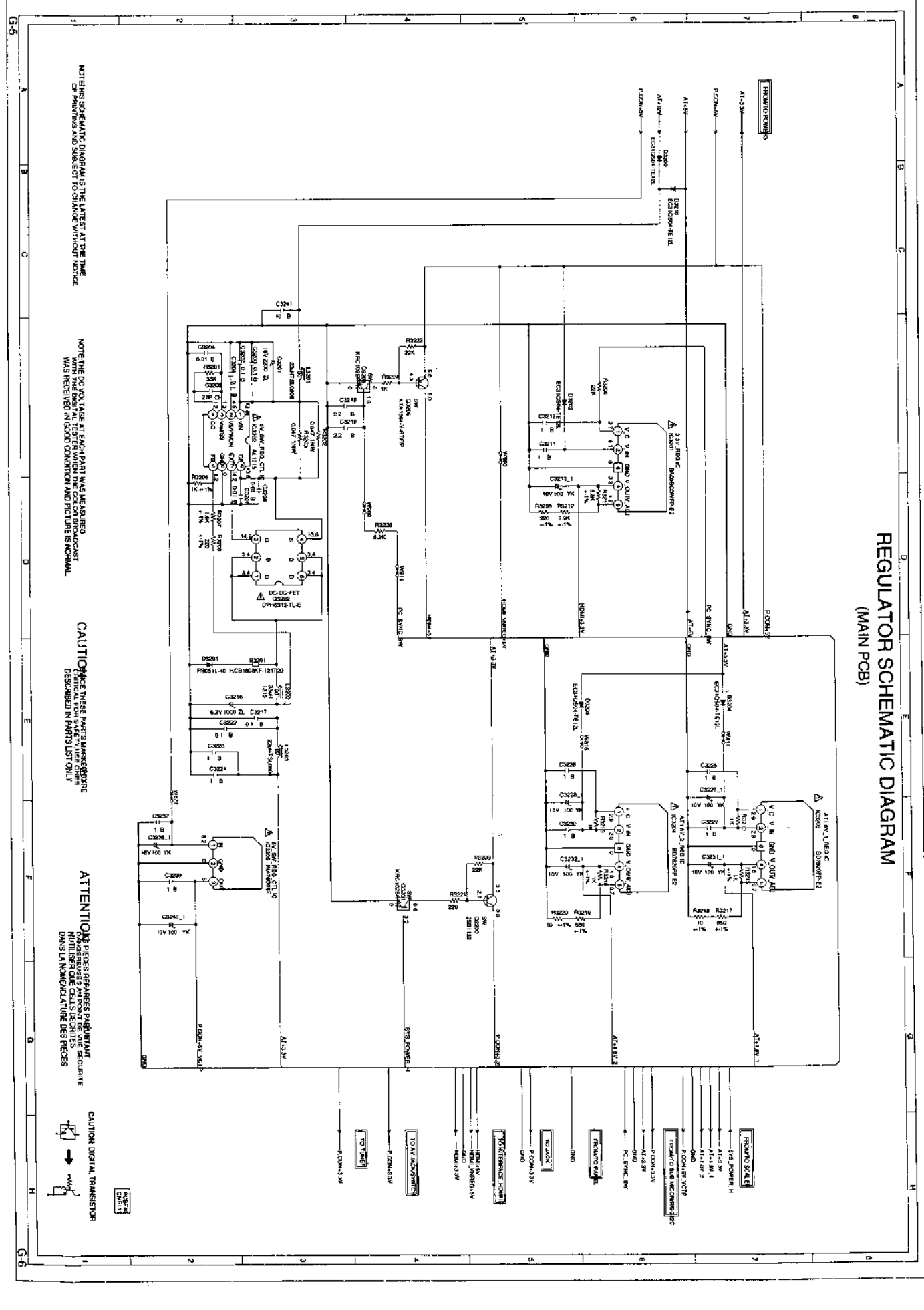
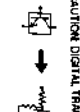
NOTES SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TEST METER AND CALIBRATION WAS RECEIVED IN SHOP CONVENTION AND INCLUDES TOLERANCE

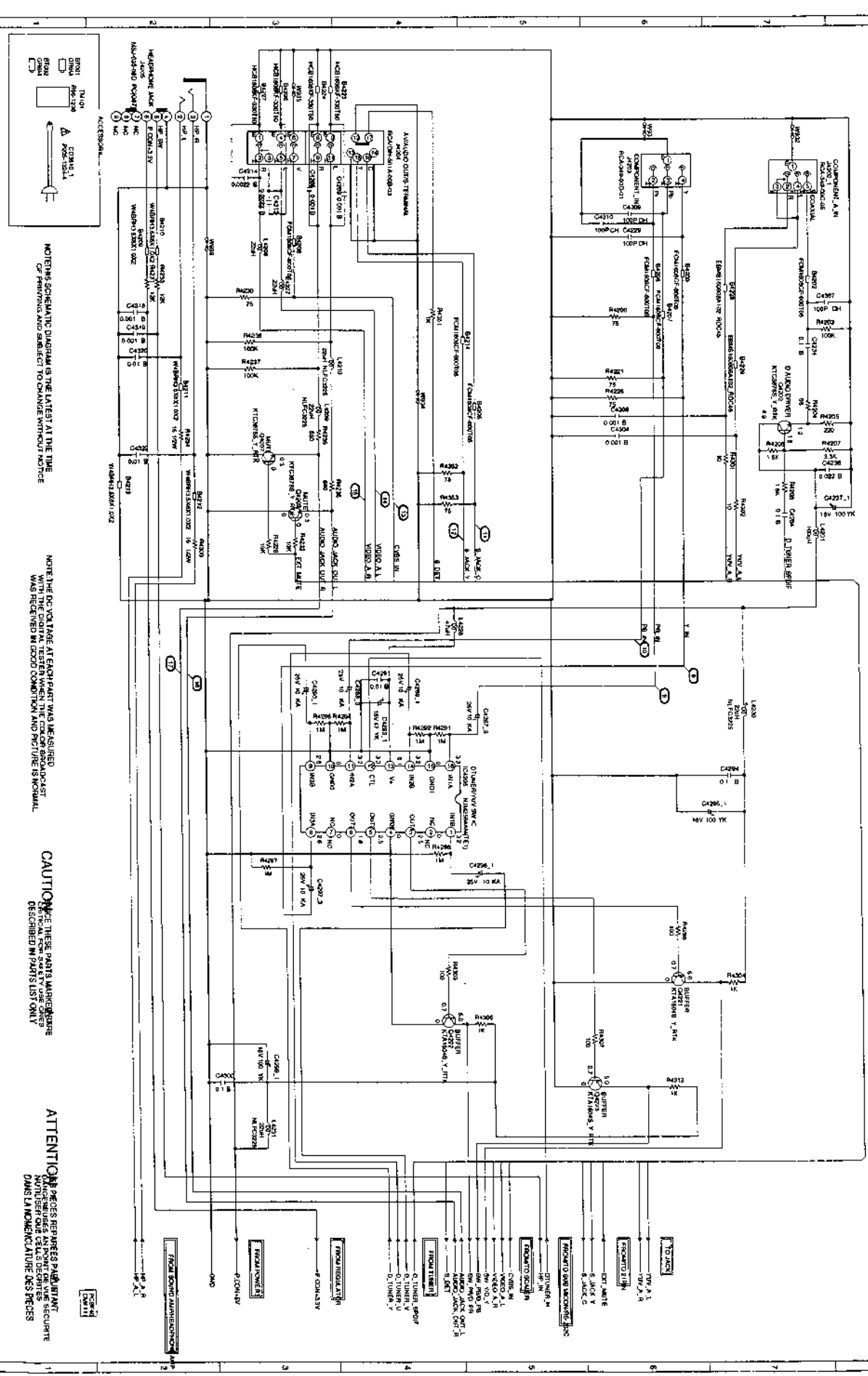
CAUTION THESE PARTS WERE REVERSE DESCRIBED IN PARTS LIST ONLY

ATTENTION CESSEZ SEPARER ENSEMBLE UTILISER CES CELLES SECURITES DANS LA NOMENCLATURE DES PIECES

CAUTION DIGITAL TRANSDUCER



AV JACK/SWITCH SCHEMATIC DIAGRAM (MAIN PCB)



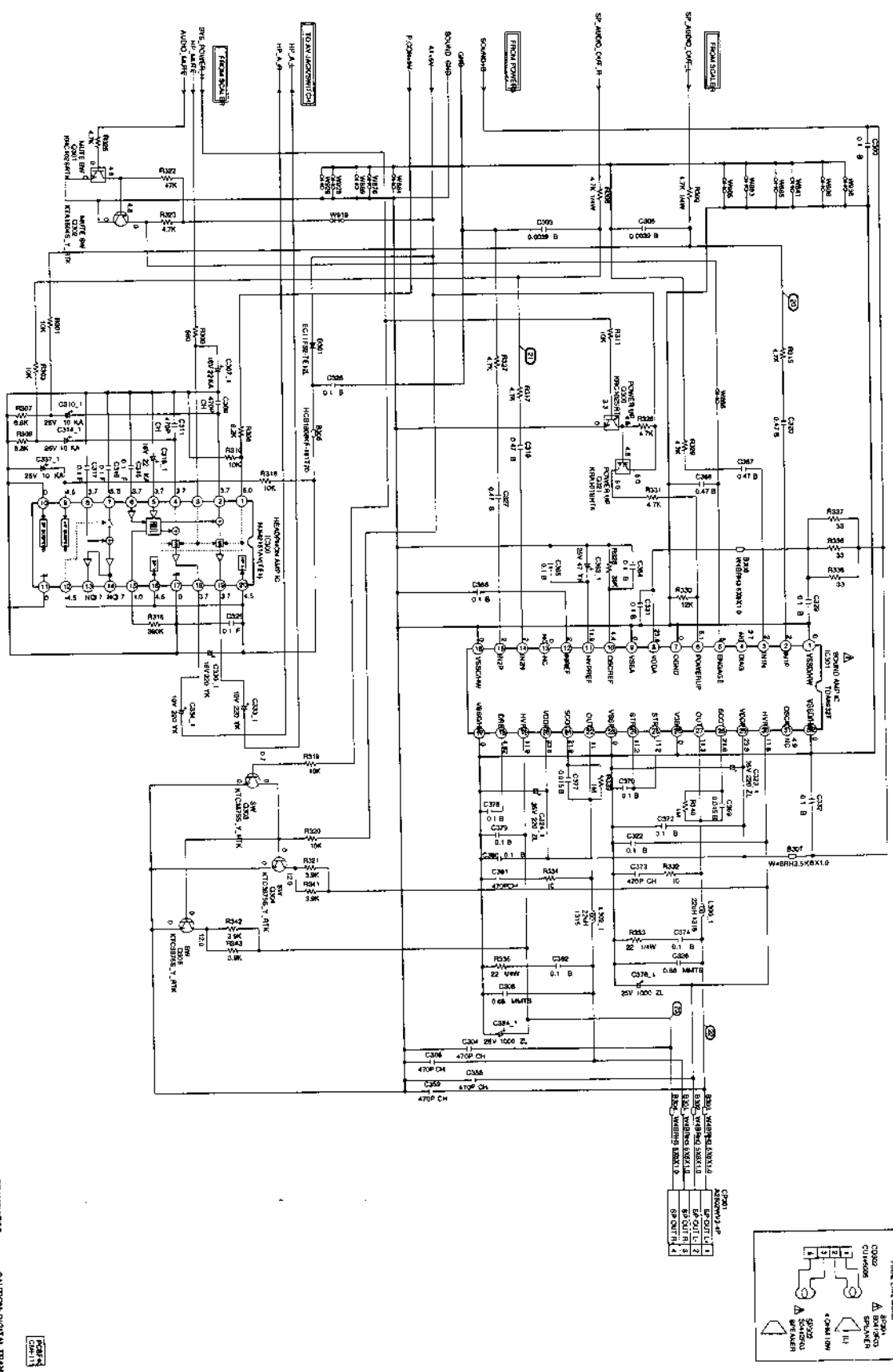
NOTES SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE THE BOARD TAGS AT EACH POINT WAS MEASURED WITH THE CONT. TESTER WHEN THE CHECK BOARD/TEST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: THESE PARTS AND PROCEDURE DESCRIBED IN PARTS LIST ONLY

ATTENTION: PRESS REPAIRS MUST BE MADE AT THE POINT OF THE SECURITE DANS LA MANOEUVRE DES PRECS

SOUND AMP/HEADPHONE AMP SCHEMATIC DIAGRAM (MAIN PCB)



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

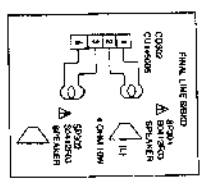
NOTE: THE DC VOLTAGE AT EACH POINT WAS MEASURED. NOTE THE DC VOLTAGE AT EACH POINT WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: THESE PARTS MAY BE DANGEROUS. PLEASE READ THE SAFETY USE INSTRUCTIONS CAREFULLY.

ATTENTION: LES PARTIES PEUVENT ÊTRE DANGEREUSES. LIRE ATTENTIVEMENT LES INSTRUCTIONS D'UTILISATION EN FRANÇAIS.

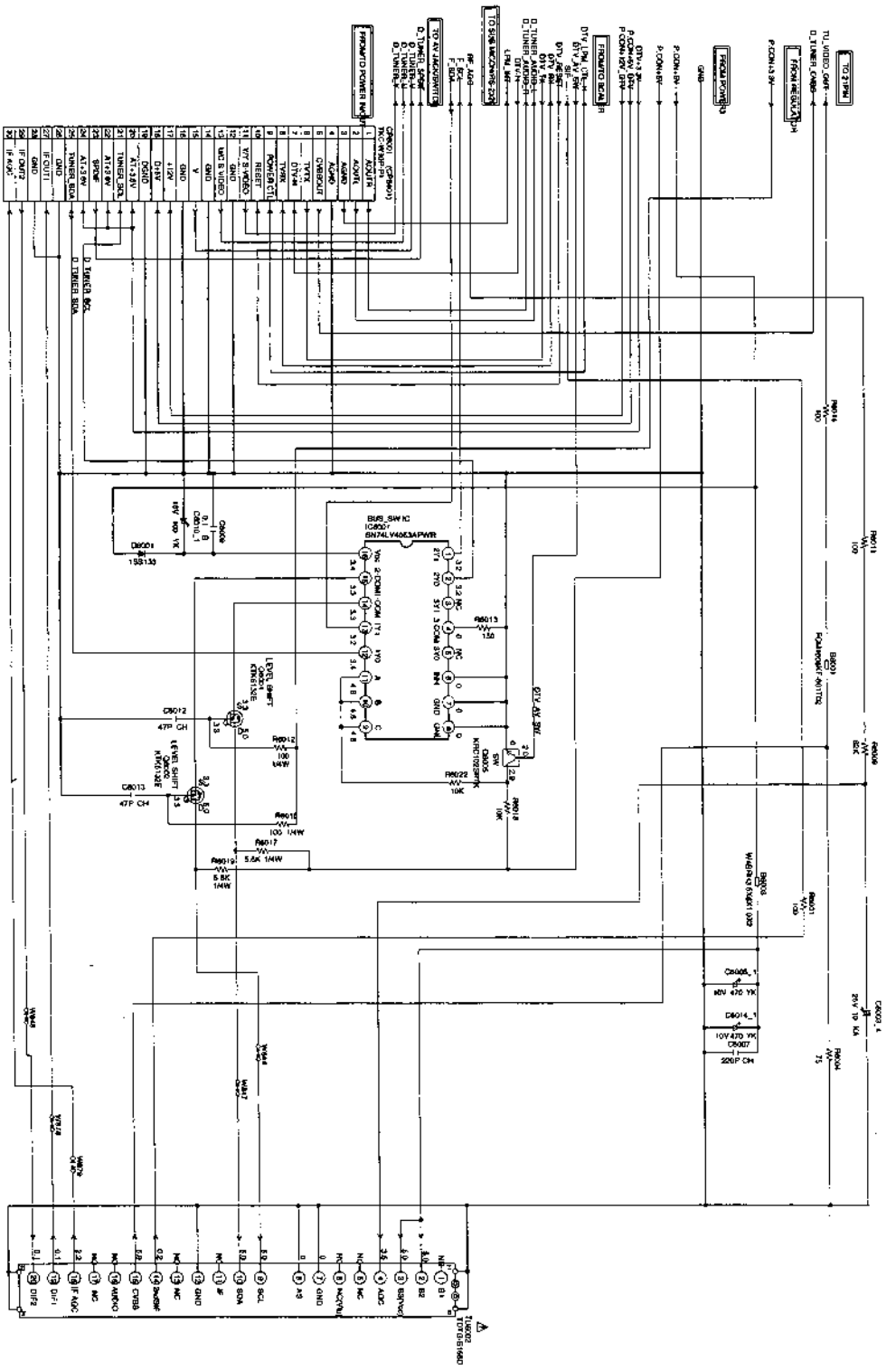
CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR



REF.	DESCRIPTION	VALUE
R1	RESISTOR	10K
R2	RESISTOR	10K
R3	RESISTOR	10K
R4	RESISTOR	10K
R5	RESISTOR	10K
R6	RESISTOR	10K
R7	RESISTOR	10K
R8	RESISTOR	10K
R9	RESISTOR	10K
R10	RESISTOR	10K
R11	RESISTOR	10K
R12	RESISTOR	10K
R13	RESISTOR	10K
R14	RESISTOR	10K
R15	RESISTOR	10K
R16	RESISTOR	10K
R17	RESISTOR	10K
R18	RESISTOR	10K
R19	RESISTOR	10K
R20	RESISTOR	10K
R21	RESISTOR	10K
R22	RESISTOR	10K
R23	RESISTOR	10K
R24	RESISTOR	10K
R25	RESISTOR	10K
R26	RESISTOR	10K
R27	RESISTOR	10K
R28	RESISTOR	10K
R29	RESISTOR	10K
R30	RESISTOR	10K
R31	RESISTOR	10K
R32	RESISTOR	10K
R33	RESISTOR	10K
R34	RESISTOR	10K
R35	RESISTOR	10K
R36	RESISTOR	10K
R37	RESISTOR	10K
R38	RESISTOR	10K
R39	RESISTOR	10K
R40	RESISTOR	10K

TUNER SCHEMATIC DIAGRAM (MAIN PCB)



NOTE THE DC VOLTAGE AT EACH POINT WAS MEASURED
WITH THE TUNER IN THE NORMAL MODE.
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

CAUTION: THESE PARTS ARE REPAIRABLE
UNLESS OTHERWISE SPECIFIED IN PARTS LIST ONLY.

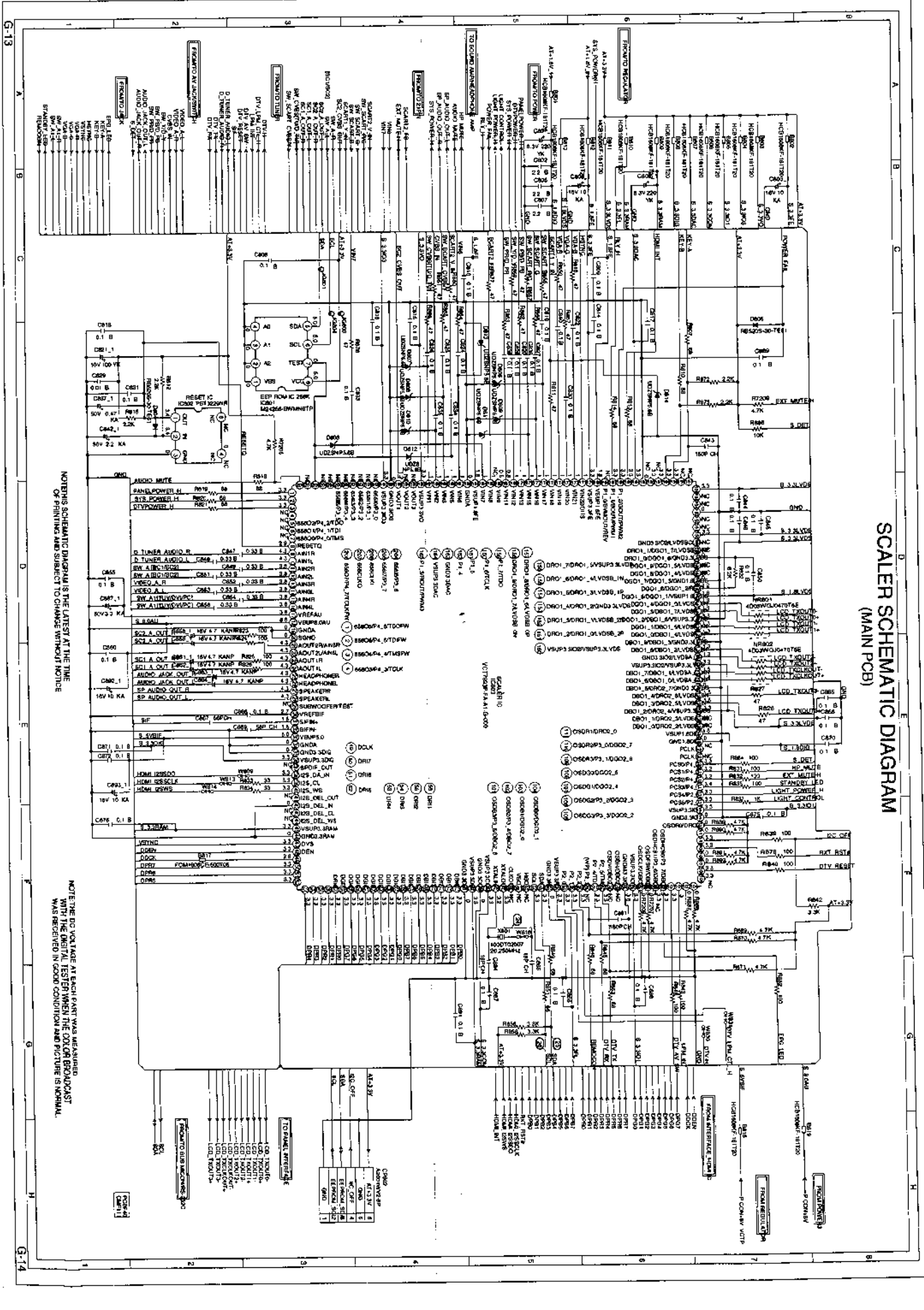
ATTENTION: DES PIÈCES RÉPARABLES
SAUF INDICATION CONTRAIRE DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: DIGITAL TRANSISTOR



G-11 A B C D E F G H G-12

SCALER SCHEMATIC DIAGRAM (MAIN PCB)

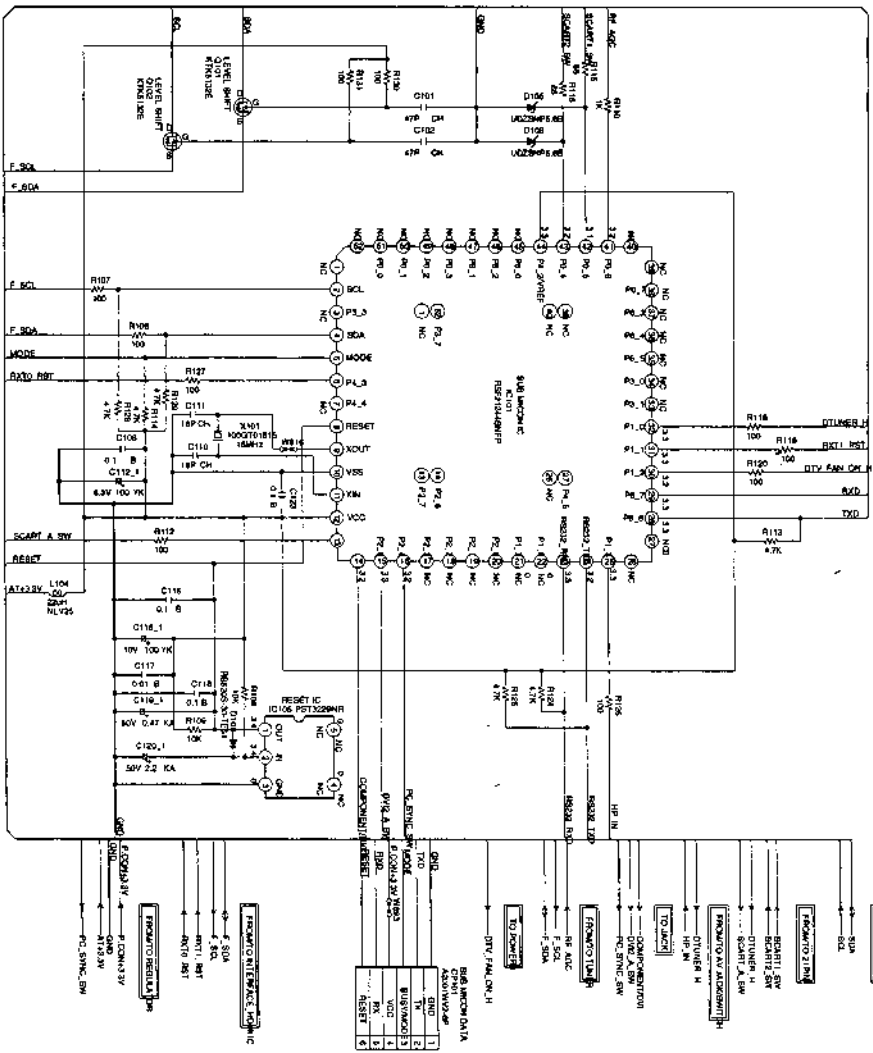


NOTE: SCHEMATIC DIAGRAM IS SUBJECT TO CHANGE WITHOUT NOTICE OF FINISHING AND SUBJECT TO CHANGE WITHOUT NOTICE

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

G-13 A B C D E F G H G-14

SUB MICON/RS-232C SCHEMATIC DIAGRAM (MAIN PCB)

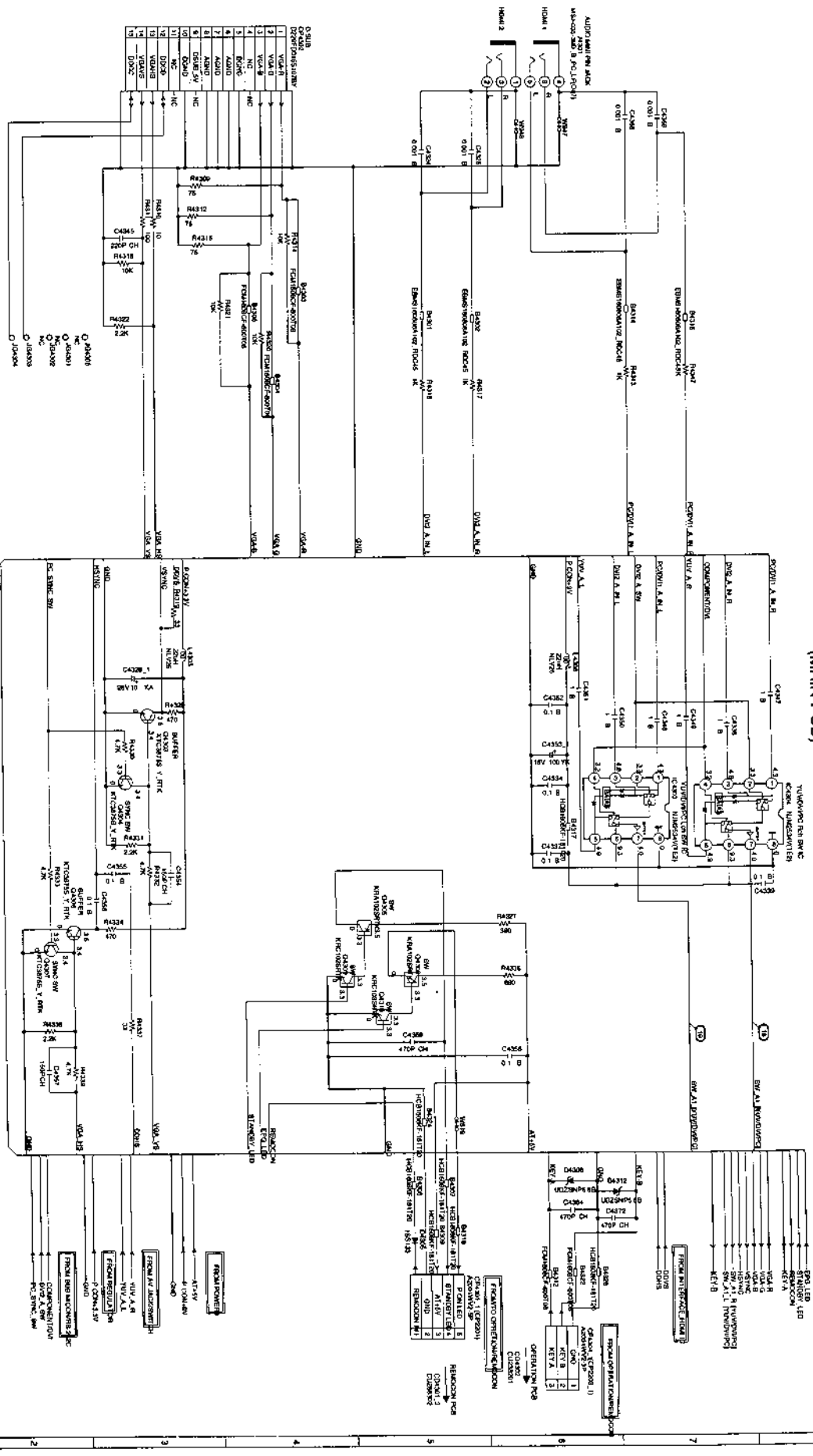


NOTES: SCHEMATIC DIAGRAMS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DISPLAY TESTER WHEN THE SIGNAL BOARD WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL

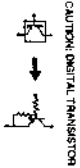


JACK SCHEMATIC DIAGRAM (MAIN PCB)



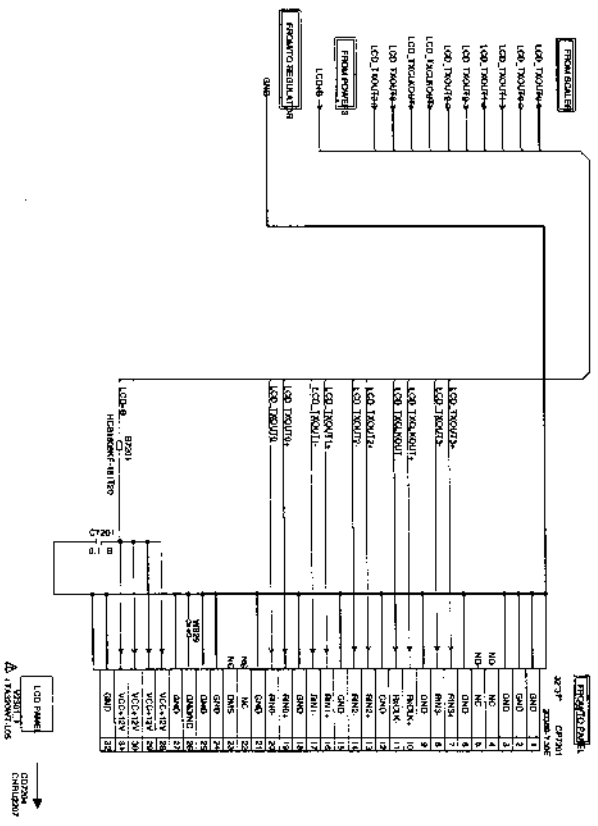
NOTES SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE THE DC VOLTAGE AT EACH POINT WAS MEASURED IN THE FOLLOWING MANNER: POSITIVE WAS REFERRED IN GOOD CONDITION AND MEASURED IN NORMAL



FORM 10

PANEL INTERFACE DIAGRAM (MAIN PCB)



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

NOTE: THE DC VOLTAGE AT EACH POINT WAS MEASURED WITH AN OSCILLOSCOPE. THE DC VOLTAGE IS NORMAL. THE DC VOLTAGE AT EACH POINT WAS MEASURED WITH AN OSCILLOSCOPE. THE DC VOLTAGE IS NORMAL.

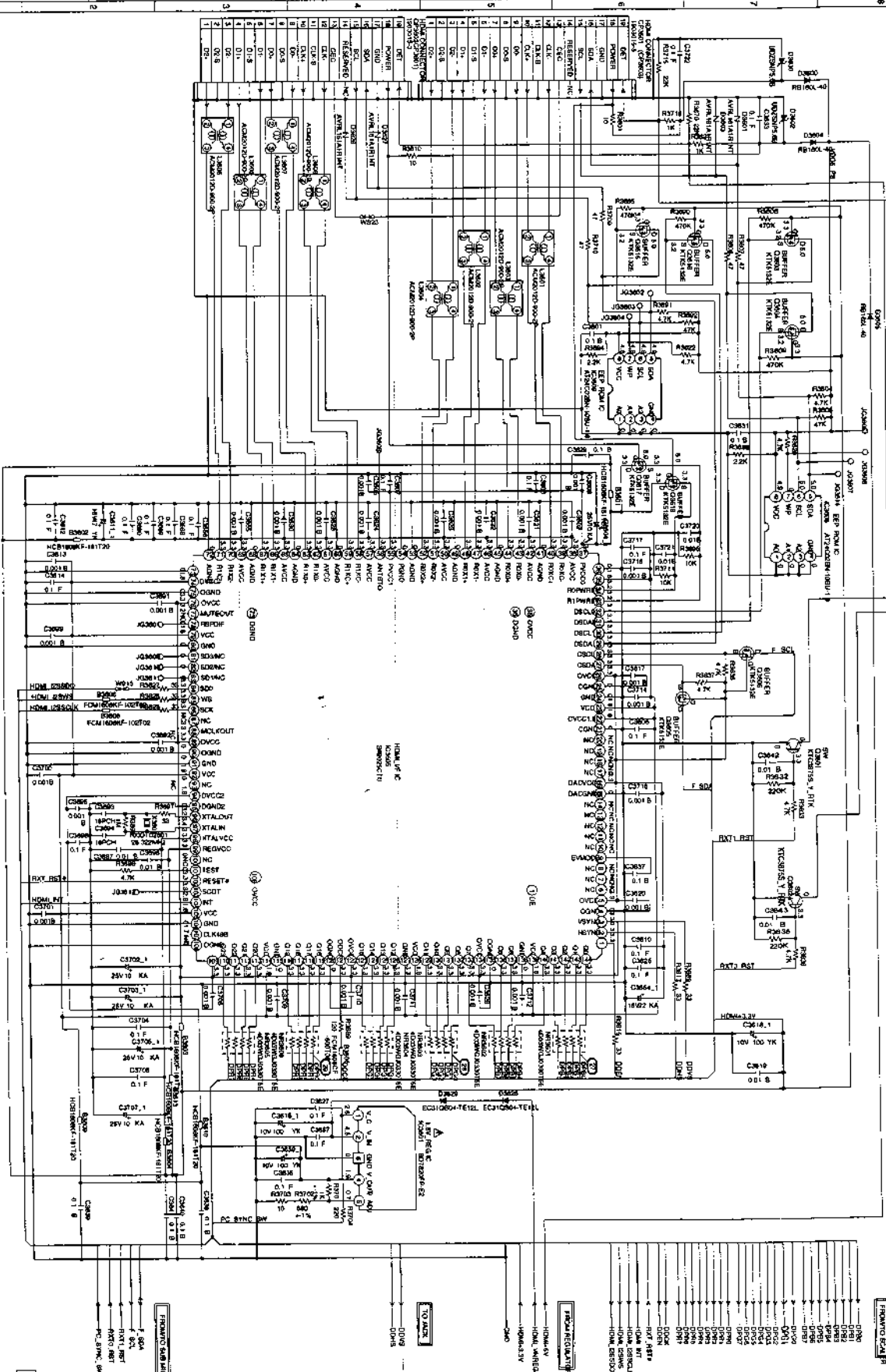
CAUTION: THESE PARTS ARE NOT TO BE REUSED IN OTHER DEVICES. USE ONLY THE PARTS LISTED IN THIS DOCUMENT.

ATTENTION: NE PAS REUTILISER CES PIÈCES DANS D'AUTRES APPAREILS. SEULEMENT LES PIÈCES ÉNUMÉRÉES DANS LA LISTE DES PIÈCES.

REVISED 1971

G-19 A B C D E F G H G-20

INTERFACE_HDMI IC SCHEMATIC DIAGRAM (MAIN PCB)



FRONT SIDE
D888
D893
D895
D896
D905
D907
D911
D912
D913
D914
D915
D916
D917
D918
D919
D920

FRONT REGULATORS
HDM3V
HDM1V
HDM5V
HDM3V
HDM5V

BACK SIDE
D893
D895
D896
D905
D907
D911
D912
D913
D914
D915
D916
D917
D918
D919
D920

FRONT SIDE
D893
D895
D896
D905
D907
D911
D912
D913
D914
D915
D916
D917
D918
D919
D920

NOTING 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 CCOR PROLOGRAM WAS REBORN IN GOOD CONDITION AND PICTURE IS NORMAL

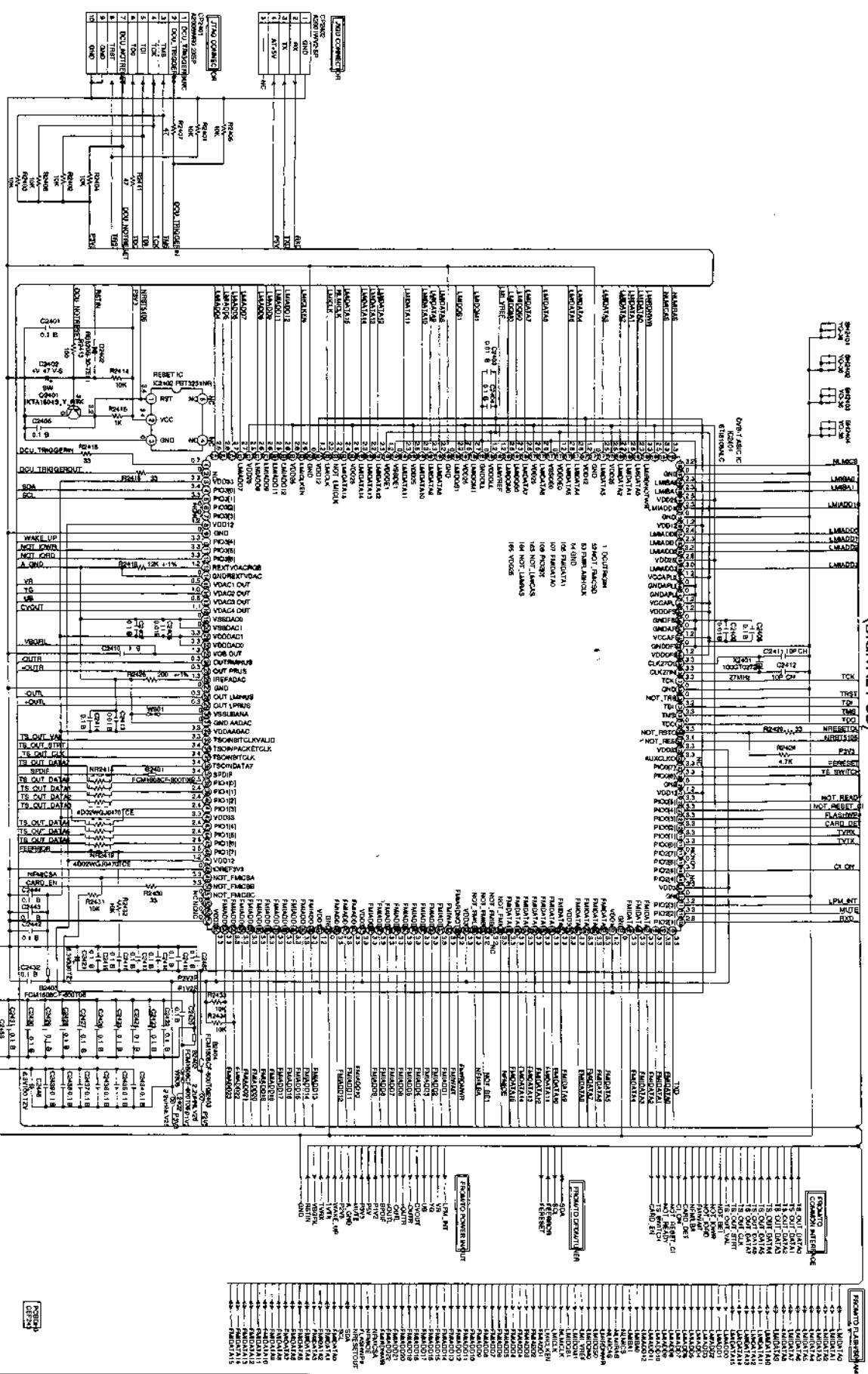
CAUTION THESE PARTS VARIATIONS DESCRIBED IN PARTS LIST ONLY

ATTENTION THESE PARTS VARIATIONS DESCRIBED IN PARTS LIST ONLY

G-21

G-22

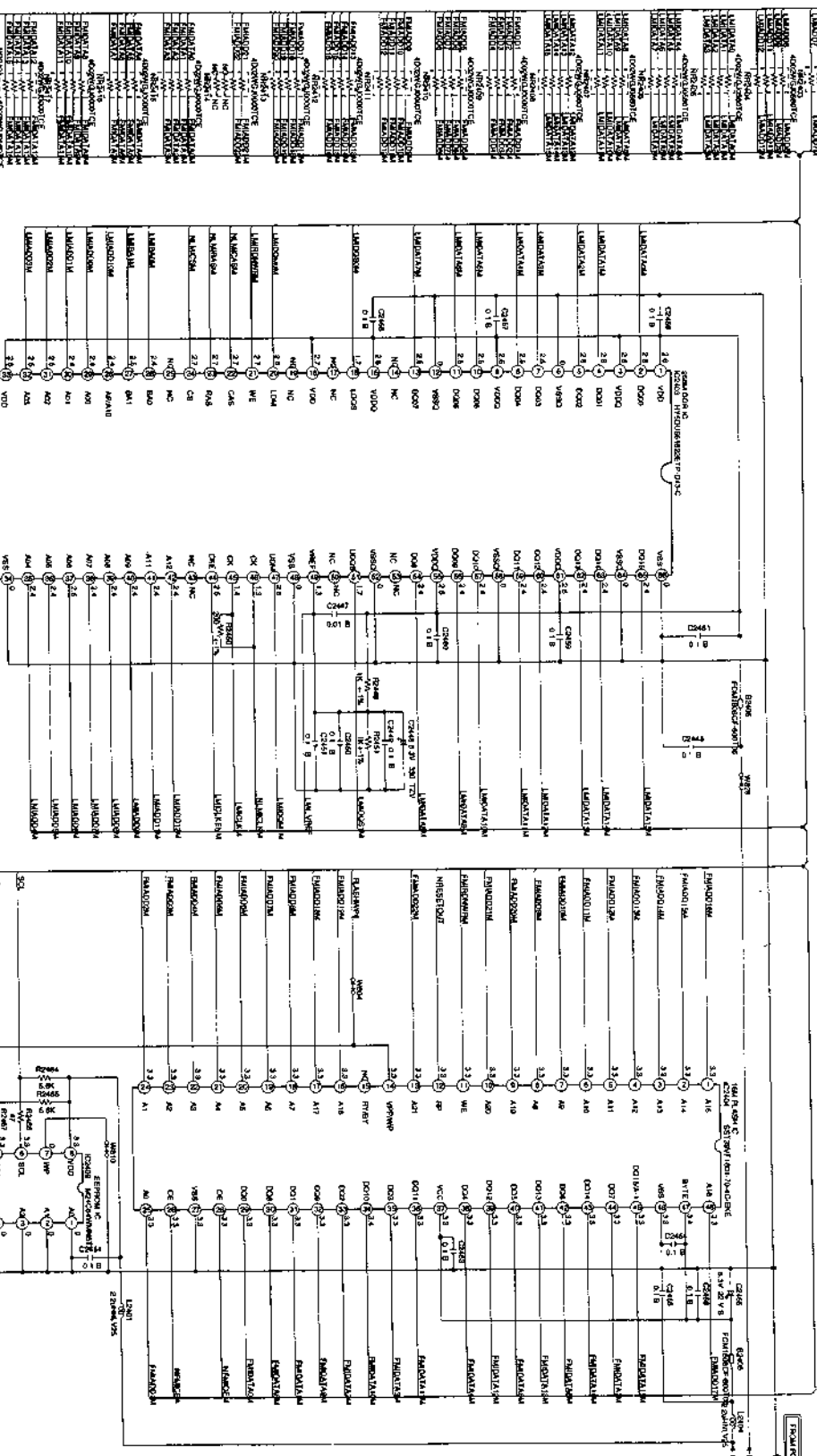
ASIC SCHEMATIC DIAGRAM (DIGITAL PCB)



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 BROUCCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

FLASHDRAM SCHEMATIC DIAGRAM (DIGITAL PCB)

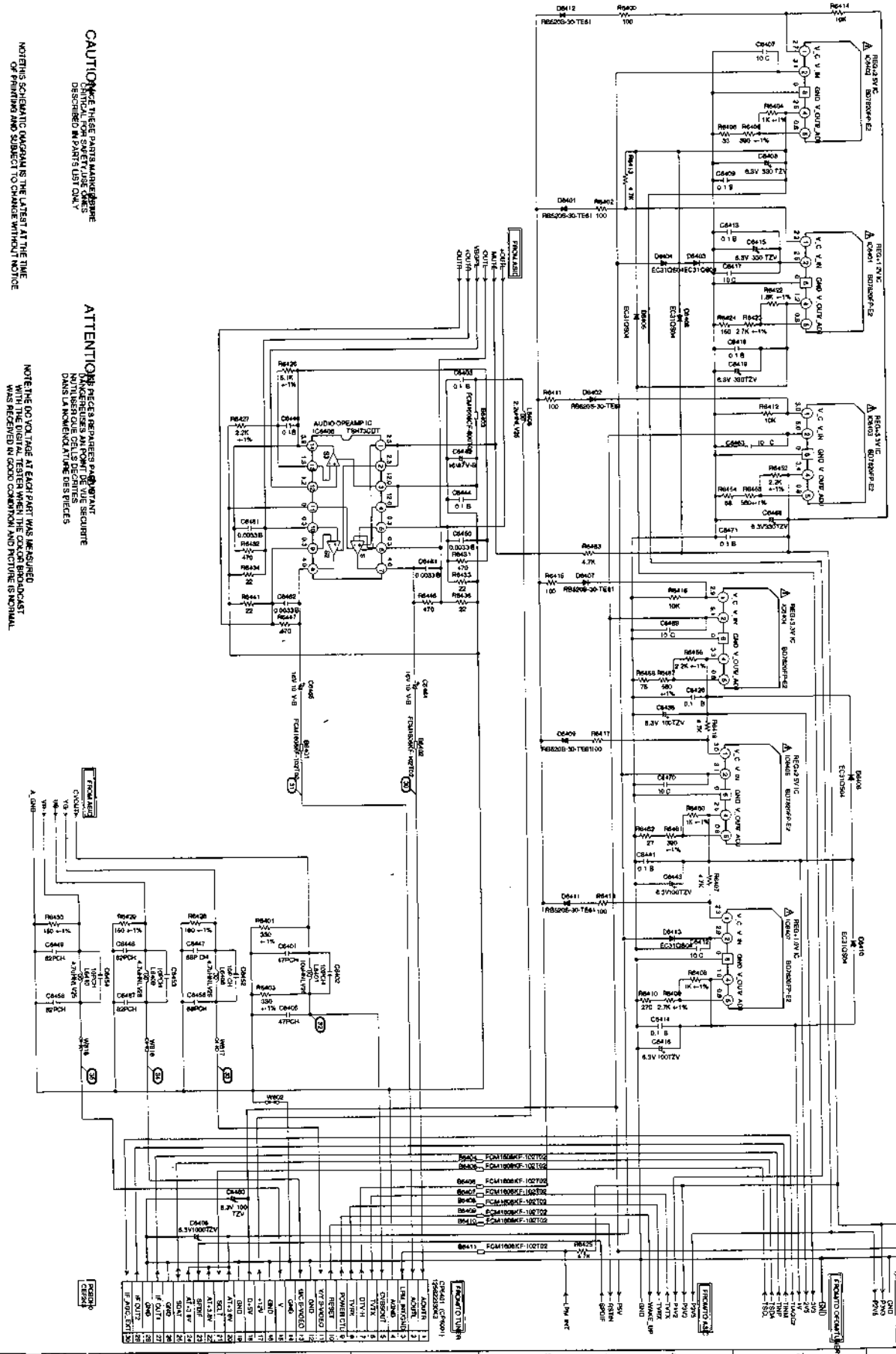


NOTES: SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTES: DO NOT USE ATTACHMENT WAS MEASURED WITH THE DIGITAL TESTER WHEN THE BOARD BROUCCAS WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL

FORM 2000
G-25

POWER IN/OUT SCHEMATIC DIAGRAM (DIGITAL PCB)



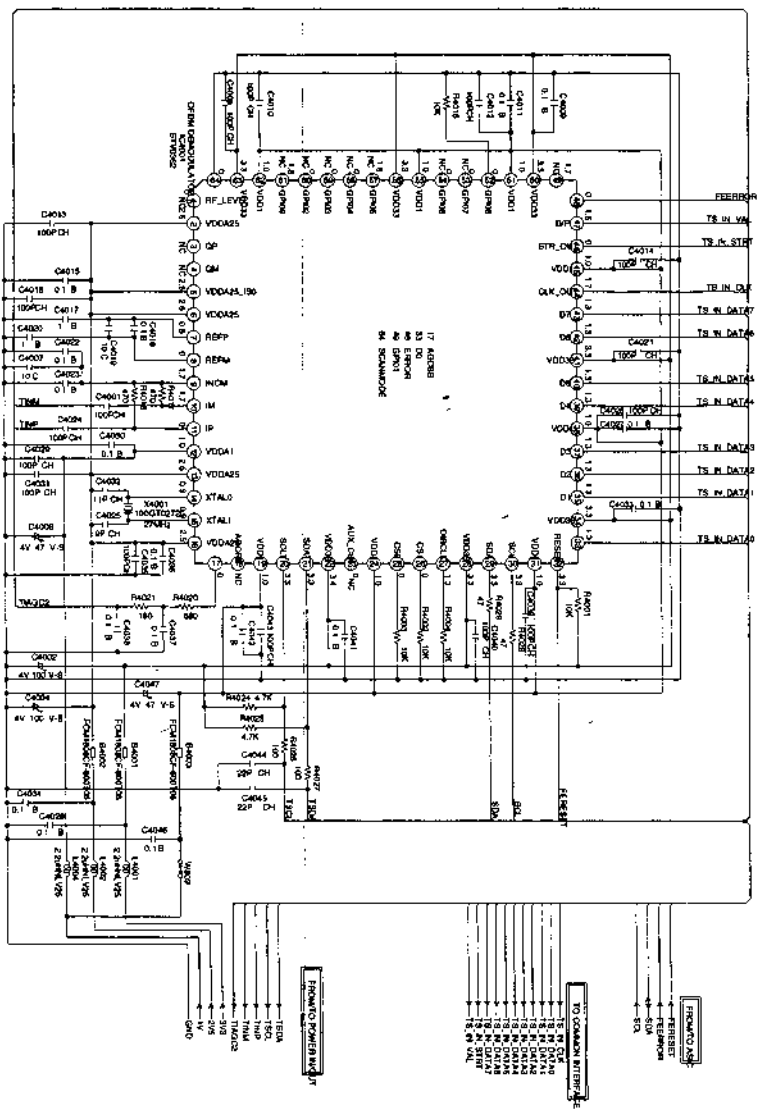
CAUTION: THESE PARTS MANUFACTURE
CRITICAL FOR SAFETY USE ONLY
DESCRIBED IN PARTS LIST ONLY

ATTENTION: THESE PARTS MANUFACTURE
CRITICAL FOR SAFETY USE ONLY
DESCRIBED IN PARTS LIST ONLY

NOTE THE DC VOLTAGE AT EACH POINT WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE BOARD BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL

IC	DESCRIPTION	MANUFACTURER
IC1	DIGITAL IC	PCMT1608KF-102T02
IC2	DIGITAL IC	PCMT1608KF-102T02
IC3	DIGITAL IC	PCMT1608KF-102T02
IC4	DIGITAL IC	PCMT1608KF-102T02
IC5	DIGITAL IC	PCMT1608KF-102T02
IC6	DIGITAL IC	PCMT1608KF-102T02
IC7	DIGITAL IC	PCMT1608KF-102T02
IC8	DIGITAL IC	PCMT1608KF-102T02
IC9	DIGITAL IC	PCMT1608KF-102T02
IC10	DIGITAL IC	PCMT1608KF-102T02
IC11	DIGITAL IC	PCMT1608KF-102T02
IC12	DIGITAL IC	PCMT1608KF-102T02
IC13	DIGITAL IC	PCMT1608KF-102T02
IC14	DIGITAL IC	PCMT1608KF-102T02
IC15	DIGITAL IC	PCMT1608KF-102T02
IC16	DIGITAL IC	PCMT1608KF-102T02
IC17	DIGITAL IC	PCMT1608KF-102T02
IC18	DIGITAL IC	PCMT1608KF-102T02
IC19	DIGITAL IC	PCMT1608KF-102T02
IC20	DIGITAL IC	PCMT1608KF-102T02
IC21	DIGITAL IC	PCMT1608KF-102T02
IC22	DIGITAL IC	PCMT1608KF-102T02
IC23	DIGITAL IC	PCMT1608KF-102T02
IC24	DIGITAL IC	PCMT1608KF-102T02
IC25	DIGITAL IC	PCMT1608KF-102T02
IC26	DIGITAL IC	PCMT1608KF-102T02
IC27	DIGITAL IC	PCMT1608KF-102T02
IC28	DIGITAL IC	PCMT1608KF-102T02
IC29	DIGITAL IC	PCMT1608KF-102T02
IC30	DIGITAL IC	PCMT1608KF-102T02
IC31	DIGITAL IC	PCMT1608KF-102T02
IC32	DIGITAL IC	PCMT1608KF-102T02
IC33	DIGITAL IC	PCMT1608KF-102T02
IC34	DIGITAL IC	PCMT1608KF-102T02
IC35	DIGITAL IC	PCMT1608KF-102T02
IC36	DIGITAL IC	PCMT1608KF-102T02
IC37	DIGITAL IC	PCMT1608KF-102T02
IC38	DIGITAL IC	PCMT1608KF-102T02
IC39	DIGITAL IC	PCMT1608KF-102T02
IC40	DIGITAL IC	PCMT1608KF-102T02
IC41	DIGITAL IC	PCMT1608KF-102T02
IC42	DIGITAL IC	PCMT1608KF-102T02
IC43	DIGITAL IC	PCMT1608KF-102T02
IC44	DIGITAL IC	PCMT1608KF-102T02
IC45	DIGITAL IC	PCMT1608KF-102T02
IC46	DIGITAL IC	PCMT1608KF-102T02
IC47	DIGITAL IC	PCMT1608KF-102T02
IC48	DIGITAL IC	PCMT1608KF-102T02
IC49	DIGITAL IC	PCMT1608KF-102T02
IC50	DIGITAL IC	PCMT1608KF-102T02
IC51	DIGITAL IC	PCMT1608KF-102T02
IC52	DIGITAL IC	PCMT1608KF-102T02
IC53	DIGITAL IC	PCMT1608KF-102T02
IC54	DIGITAL IC	PCMT1608KF-102T02
IC55	DIGITAL IC	PCMT1608KF-102T02
IC56	DIGITAL IC	PCMT1608KF-102T02
IC57	DIGITAL IC	PCMT1608KF-102T02
IC58	DIGITAL IC	PCMT1608KF-102T02
IC59	DIGITAL IC	PCMT1608KF-102T02
IC60	DIGITAL IC	PCMT1608KF-102T02
IC61	DIGITAL IC	PCMT1608KF-102T02
IC62	DIGITAL IC	PCMT1608KF-102T02
IC63	DIGITAL IC	PCMT1608KF-102T02
IC64	DIGITAL IC	PCMT1608KF-102T02
IC65	DIGITAL IC	PCMT1608KF-102T02
IC66	DIGITAL IC	PCMT1608KF-102T02
IC67	DIGITAL IC	PCMT1608KF-102T02
IC68	DIGITAL IC	PCMT1608KF-102T02
IC69	DIGITAL IC	PCMT1608KF-102T02
IC70	DIGITAL IC	PCMT1608KF-102T02
IC71	DIGITAL IC	PCMT1608KF-102T02
IC72	DIGITAL IC	PCMT1608KF-102T02
IC73	DIGITAL IC	PCMT1608KF-102T02
IC74	DIGITAL IC	PCMT1608KF-102T02
IC75	DIGITAL IC	PCMT1608KF-102T02
IC76	DIGITAL IC	PCMT1608KF-102T02
IC77	DIGITAL IC	PCMT1608KF-102T02
IC78	DIGITAL IC	PCMT1608KF-102T02
IC79	DIGITAL IC	PCMT1608KF-102T02
IC80	DIGITAL IC	PCMT1608KF-102T02
IC81	DIGITAL IC	PCMT1608KF-102T02
IC82	DIGITAL IC	PCMT1608KF-102T02
IC83	DIGITAL IC	PCMT1608KF-102T02
IC84	DIGITAL IC	PCMT1608KF-102T02
IC85	DIGITAL IC	PCMT1608KF-102T02
IC86	DIGITAL IC	PCMT1608KF-102T02
IC87	DIGITAL IC	PCMT1608KF-102T02
IC88	DIGITAL IC	PCMT1608KF-102T02
IC89	DIGITAL IC	PCMT1608KF-102T02
IC90	DIGITAL IC	PCMT1608KF-102T02
IC91	DIGITAL IC	PCMT1608KF-102T02
IC92	DIGITAL IC	PCMT1608KF-102T02
IC93	DIGITAL IC	PCMT1608KF-102T02
IC94	DIGITAL IC	PCMT1608KF-102T02
IC95	DIGITAL IC	PCMT1608KF-102T02
IC96	DIGITAL IC	PCMT1608KF-102T02
IC97	DIGITAL IC	PCMT1608KF-102T02
IC98	DIGITAL IC	PCMT1608KF-102T02
IC99	DIGITAL IC	PCMT1608KF-102T02
IC100	DIGITAL IC	PCMT1608KF-102T02

OFDM TUNER SCHEMATIC DIAGRAM (DIGITAL PCB)



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

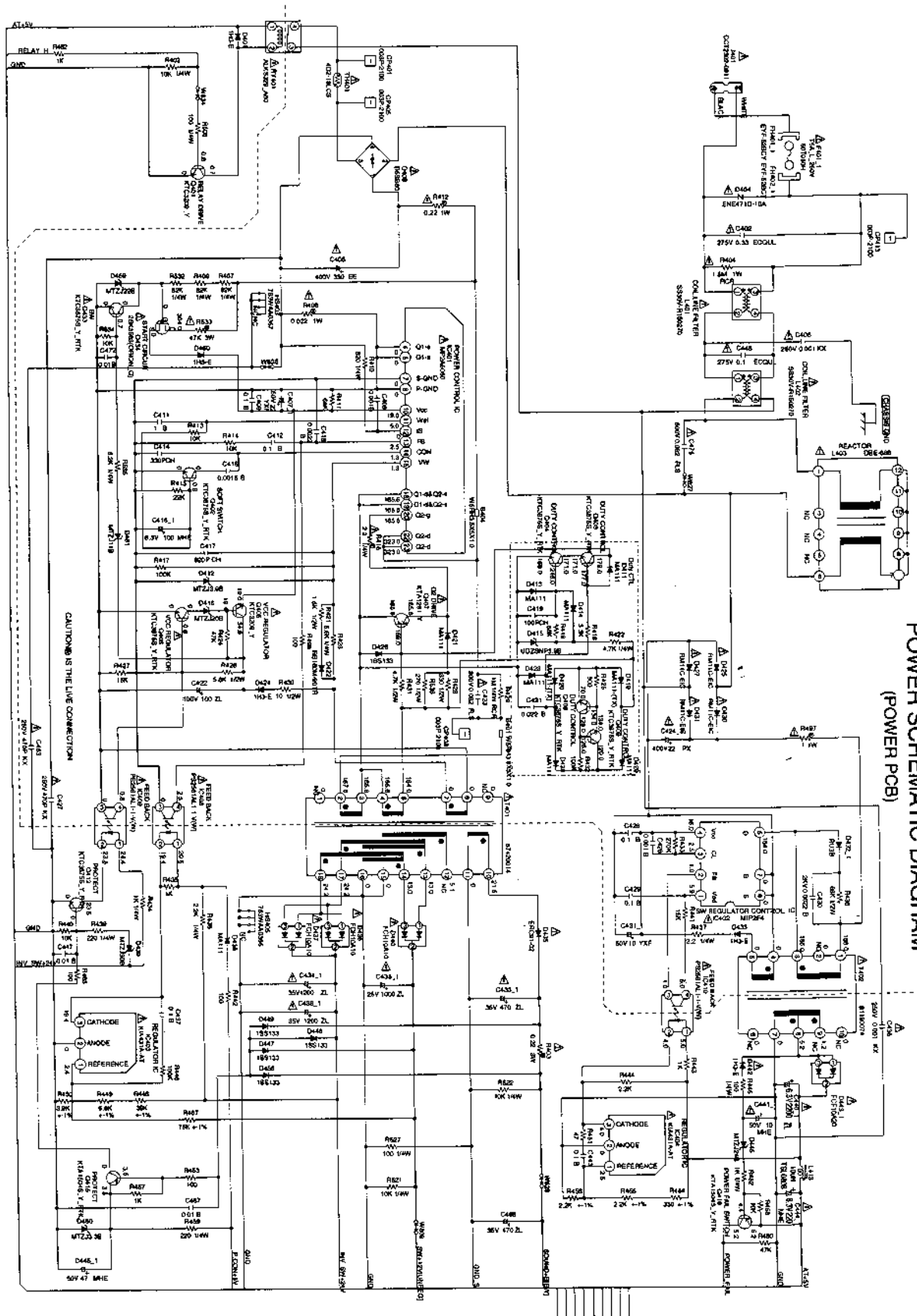
NOTE THE DC VOLTAGE AT EACH POINT WAS MEASURED WITH THE DIGITAL CENTER WHEN THE TUNER POWER IS NORMAL. THIS RECEIVED IN GOOD CONDITION AND NOTHING IS NORMAL.

PCB 40

G-31

G-32

POWER SCHEMATIC DIAGRAM (POWER PCB)



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

NOTE THE DC VOLTAGE AT EACH POINT WAS MEASURED WITH THE DIGITAL TESTER WHEN THE EQUIPMENT WAS RECEIVED IN GOOD CONDITION AND IS THE NOMINAL.

CAUTION THESE PARTS MARRIAGE ARE CRITICAL FOR SAFETY USE ONLY DESCRIBED IN PART 10 LIST ONLY

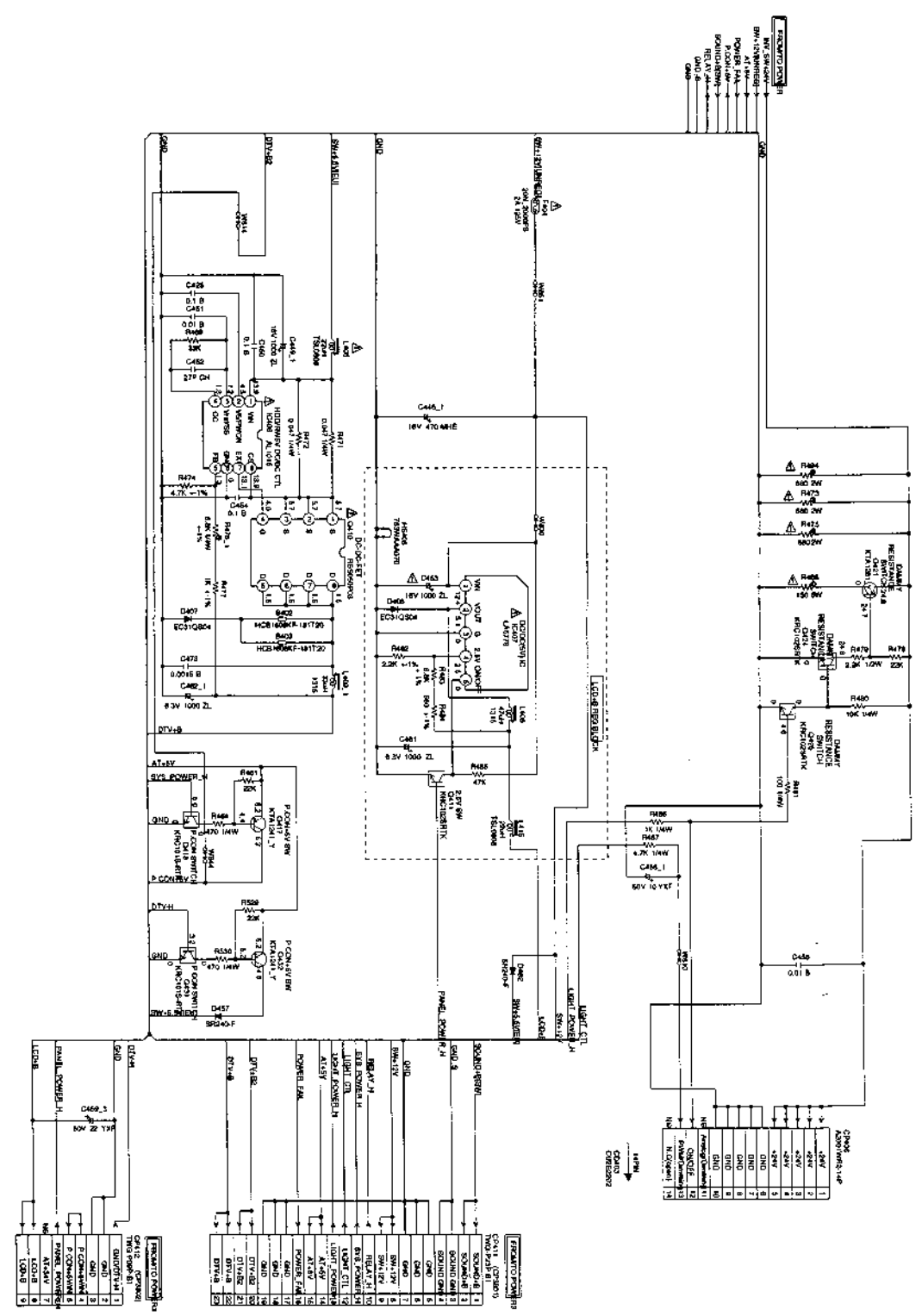
ATTENTION PRESSER DÉPENSES PARQUANT INTÉRIEURS ANNONCE DE VUE REQUIRE DANS LA NOMENCLATURE DES PIÈCES

G-33 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 G-34

SCALE
1:1

FRONT PANEL
1-POWER FAIL
2-FAN ON
3-FAN OFF
4-RELAY ON
5-RELAY OFF
6-SOUND-BURN
7-RELAY ON
8-RELAY OFF
9-SOUND-BURN
10-RELAY ON
11-RELAY OFF
12-SOUND-BURN

POWER2 SCHEMATIC DIAGRAM (POWER PCB)



NOTES SCHEMATIC SHOWN 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 BOARD WAS IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION THESE PARTS MARKING ARE IDENTICAL FOR SAFETY USE ONLY DESCRIBED IN PARTS LIST ONLY

ATTENTION DESER REPARER PARQUANT LES RESSOURCES ANCIENNES EN VISI SECURITE MULTISER QUE CELLES RECHITES DANS LA NORME LAURE DES PIRES

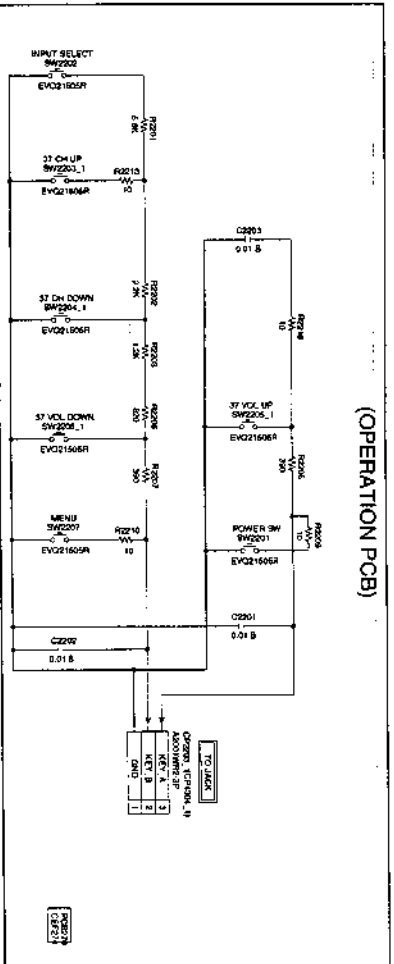
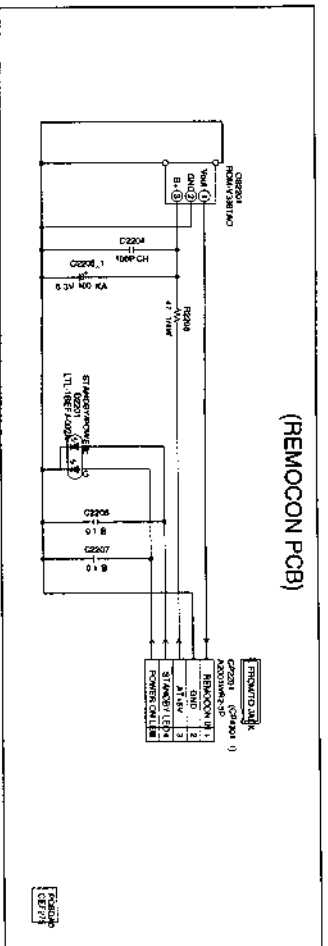
CAUTION DIGITAL TRANSDUCER

REV 004

Grid lines: 1-9 (vertical), A-H (horizontal)

Grid lines: G-35, G-36

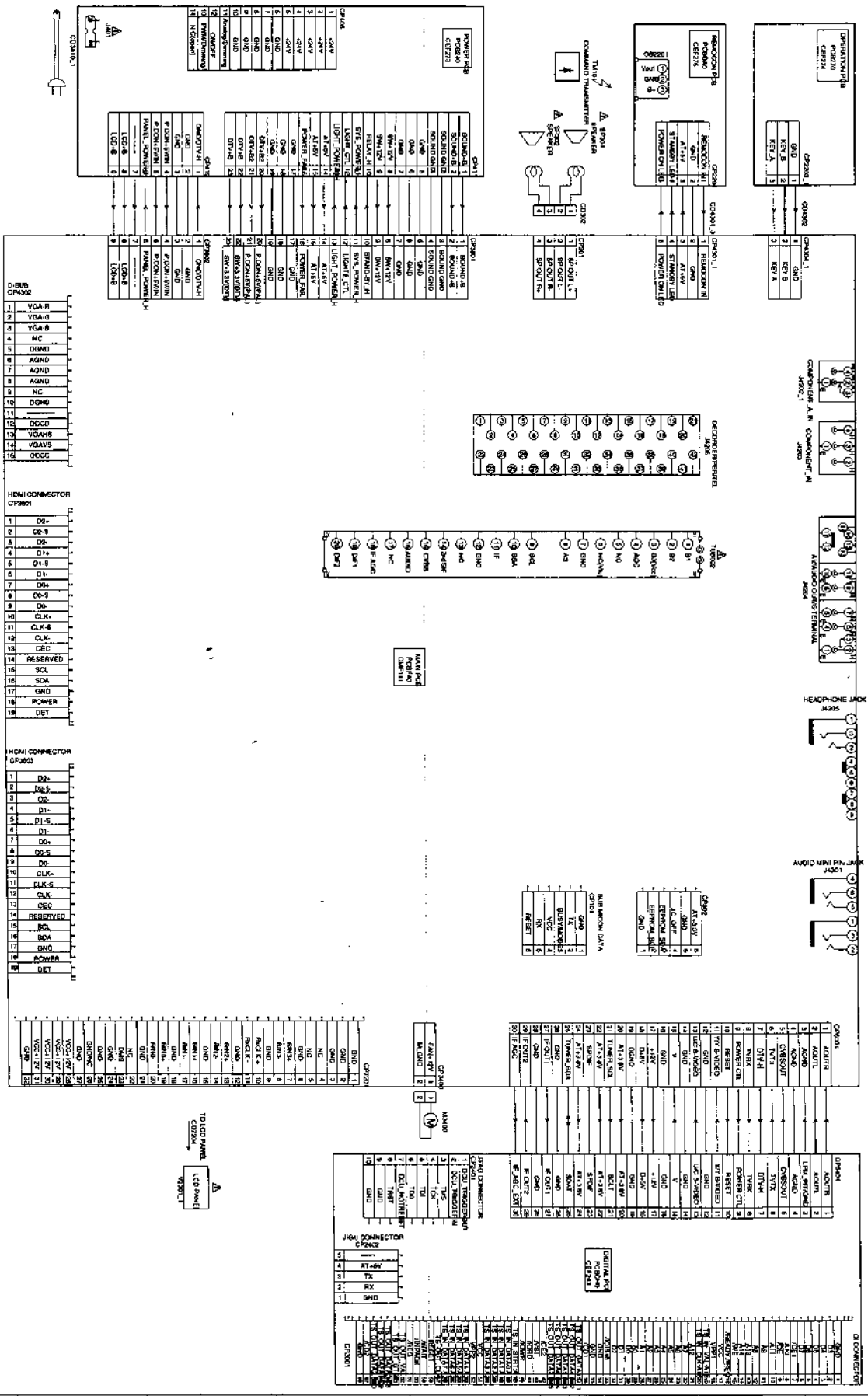
OPERATION/REMOCON SCHEMATIC DIAGRAM



NOTES: 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 ACCORDING TO THE CIRCUIT SCHEMATIC AND THE PICTURE IS NORMAL.

INTERCONNECTION DIAGRAM



NOTES: THIS INTERCONNECTION DIAGRAM IS THE LATEST ISSUE OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

ATTENTION: DES PREPARERES EN PRESENCE D'UNE MARQUE DE LA NECESSITE D'UN CHANGEMENT DE PIÈCES DANS LA NOMENCLATURE DES PIÈCES

CAUTION: THESE PARTS MARKINGS ARE CRITICAL FOR SAFETY USE ONLY. DESCRIBED PARTS LIST ONLY.

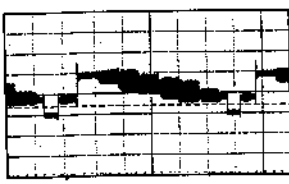
G-39

G-40

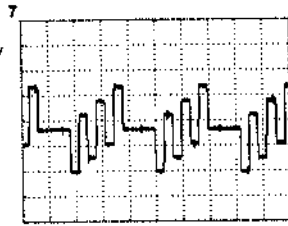
WAVEFORMS

21PIN

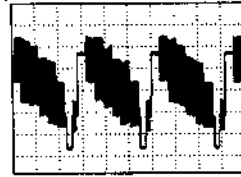
10us
0.5V



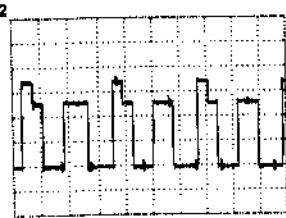
20us
200mV



20us
200mV

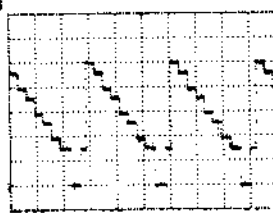


20us
200mV

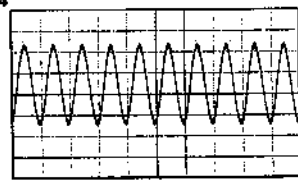


AV JACK/SWITCH

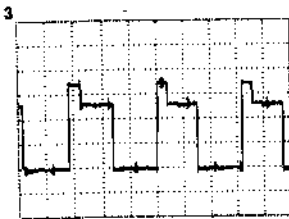
10us
200mV



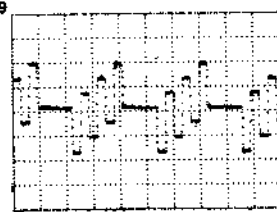
1.0ms
1.0V



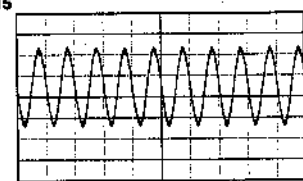
20us
200mV



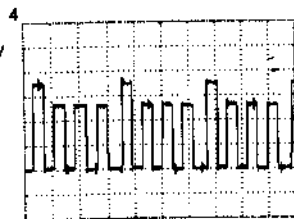
10us
200mV



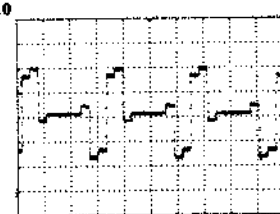
1.0ms
1.0V



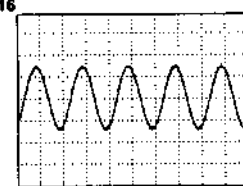
20us
200mV



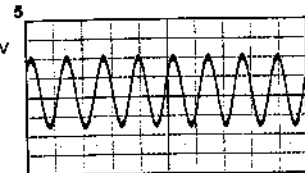
10us
200mV



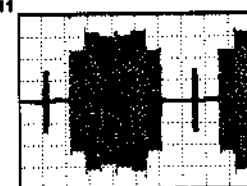
500us
2V



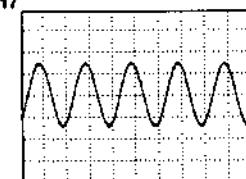
2ms
500mV



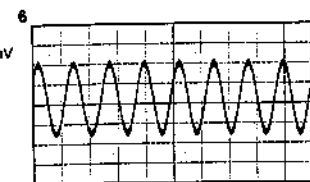
10us
100mV



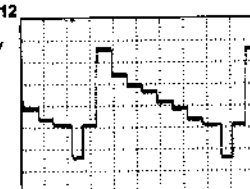
500us
2V



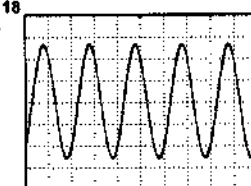
2ms
500mV



10us
200mV



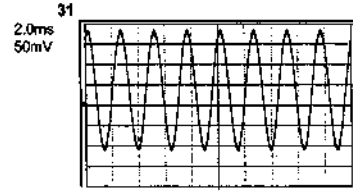
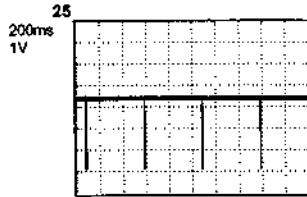
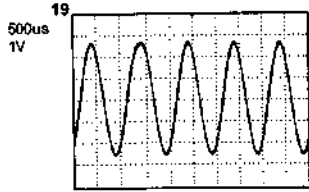
JACK
500us
1V



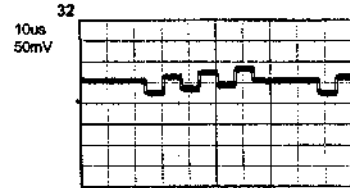
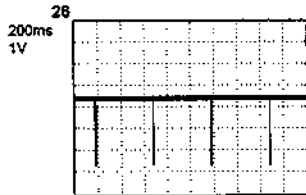
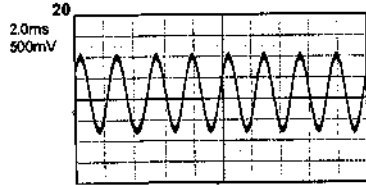
NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

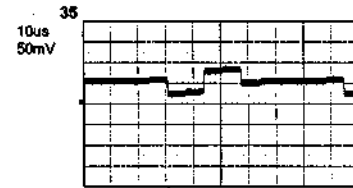
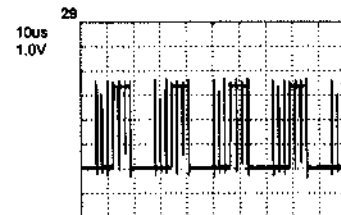
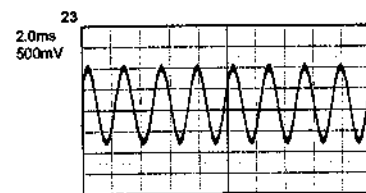
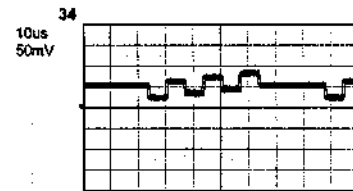
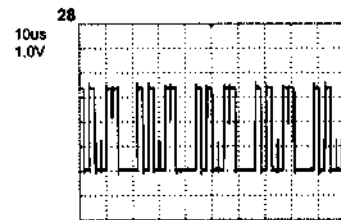
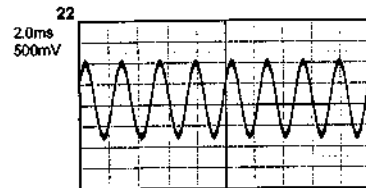
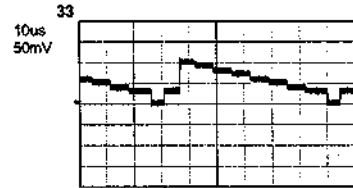
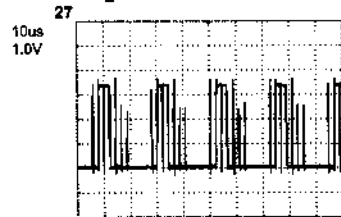
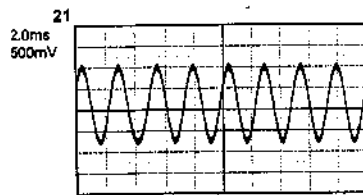
JACK



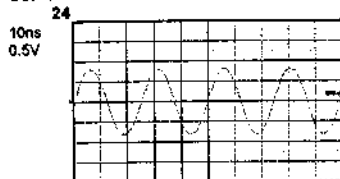
SOUND AMP/HEADPHONE AMP



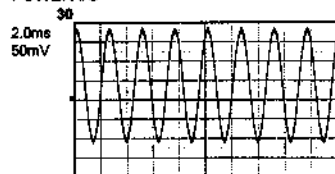
INTERFACE_HDMI IC



SCALER

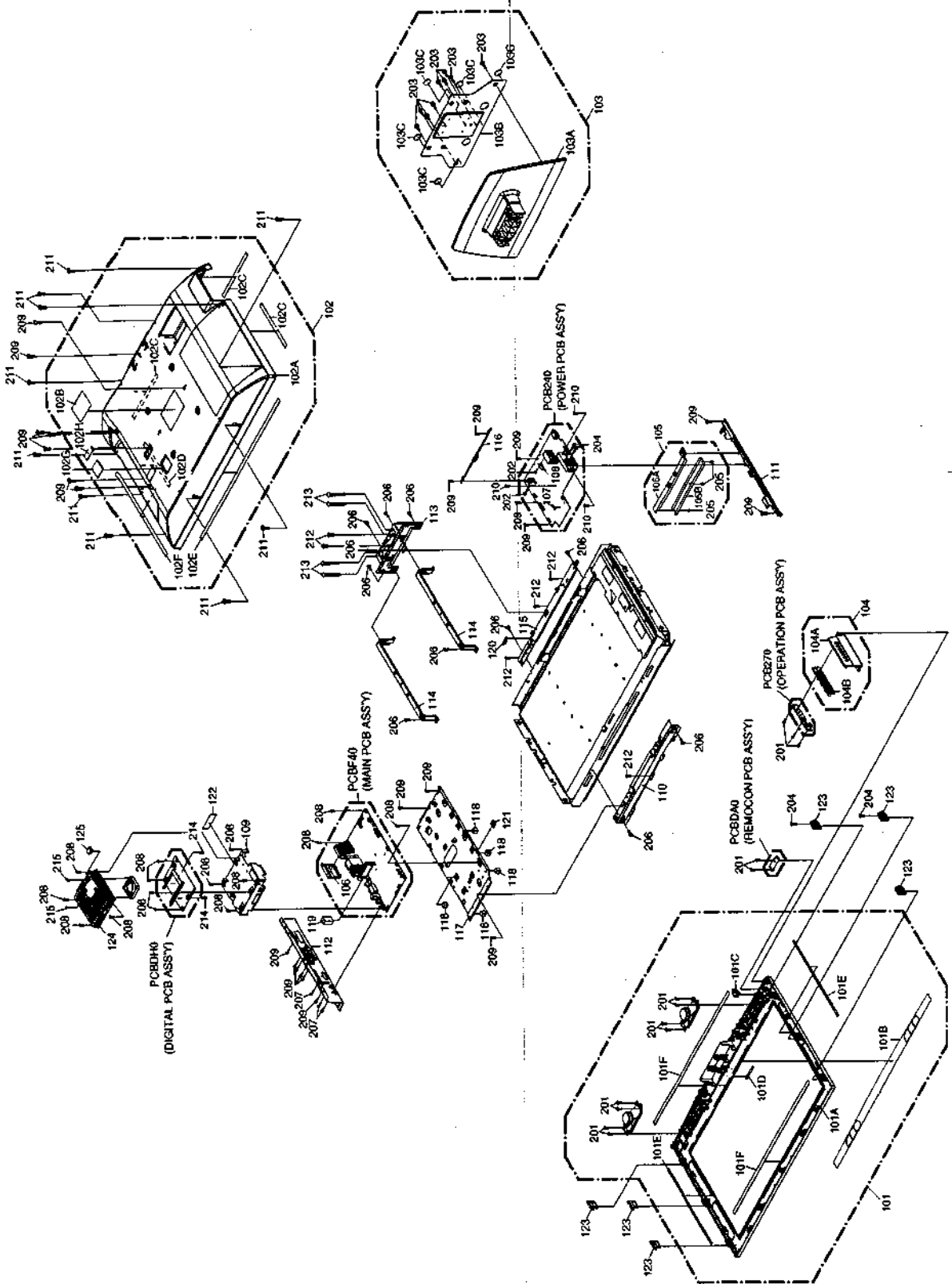


POWER VO



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	REF. NO.	PART NO.	DESCRIPTION
101	7A701B003A	FRONT CAB ASS'Y	201	8110630A0U	SCREW TAP TITE(P) BRAZIER 3x10
101A	701WPDA034	CABINET FRONT	202	810763080U	SCREW TAP TITE(S) BRAZIER 3x8
101B	702WNBA010	SHEET SPEAKER	203	811063080U	SCREW TAP TITE(P) BRAZIER 3x8
101C	713WPA0407	GLASS LED	204	8109130A0U	SCREW TAP TITE(B) WH7 3x10
101D	7232020799	BADGE BRAND	205	8110K3080U	SCREW TAP TITE(P) LAMI HEAD 3x8
101E	800WQ0A092	FELT SHEET 9x390xT=0.5	206	810A14080U	SCREW WASHER(A) M4x8
101F	800WQ00102	FELT SHEET 9x730xT=0.5	207	810213080U	SCREW PAN M3x8
102	7A7020249A	BACK CAB ASS'Y	208	810923060U	SCREW TAP TITE(B) BIND 3x6
102A	702WPAB081	CABINET BACK	209	810923080U	SCREW TAP TITE(B) BIND 3x8
102B	722202B030	SHEET RATING	210	8171130A0U	SCREW TAP TITE(B) WASHER 12 3x10
102C	800WQ0A049	FELT SHEET 9x220xT=0.3	211	8110230B0U	SCREW TAP TITE(P) BIND 3x20
102D	800WQ0A106	FELT SHEET 9x400xT=0.3	212	8117540A0U	SCREW TAPPING(B0) TRUSS 4x10
102E	800WQ0A140	FELT SHEET 700x10 T=0.3	213	8167160E5U	SCREW WASHER(B) 6x55
102F	800WQ00106	FELT SHEET 150x9xT=1.0	214	8102220A0U	SCREW BIND M2x10
102G	706WPA0025	COVER CONNECTOR	215	811022680U	SCREW TAP TITE(P) BIND 2.6x8
102H	706WPA007	COVER CONNECTOR			
103	7A704A060A	STAND ASS'Y		723000D692	SHEET CARTON
103A	704WPBA050	STAND		791WHAA046	LAMIFILM BAG
103B	761WSA0581	ANGLE STAND		792UHAA077	PACKAGE TOP
103C	800WFA0121	CUSHION LEG		792UHAA078	PACKAGE BOTTOM
104	7A735A005A	PLATE BUTTON ASS'Y		793PCDA027	GIFT BOX
104A	711WPDA744	PLATE BUTTON		J32M0301A	INSTRUCTION BOOK(G)
104B	735WPA0947	BUTTON FRAME-TV		J32M0307A	QUICK SET-UP SHEET
105	7A7050006A	HOLDER PCB ASS'Y		J32M0310A	INSTRUCTION BOOK(F)
105A	761WPA0475	HOLDER PCB		J32M0311A	INSTRUCTION BOOK(H)
105B	761WSA0556	ANGLE PCB-4		J32M0314A	INSTRUCTION BOOK(CZ)
106	761WSA0432	SHIELD 21PIN		J32M0325A	INSTRUCTION BOOK(S)
107	724000A014	SHEET FUSE		J32M0346A	INSTRUCTION BOOK(E)
108	761WSA0459	SHIELD IC		J32M0352A	INSTRUCTION BOOK(I)
109	752WSA0653	SHIELD SCALER		JB5PD800	POLYBAG, INSTRUCTION
110	761WSAA086	ANGLE LCD TOP			
111	761WSAA088	ANGLE PCB-1			
112	761WSAA089	PLATE JACK			
113	761WSA0466	ANGLE HINGE			
114	761WSA0472	ANGLE MAIN			
115	761WSA0488	ANGLE LCD BOTTOM			
116	761WSA0538	ANGLE PCB-3			
117	761WSA0603	ANGLE PCB-2			
118	8965TS1210	CUSHION W10/H12/L10			
119	8965TS1010	CUSHION 65TS10-10(10x10x25)			
120	899RFC21V0	HOLDER CORD			
121	899RLWC2SV	HOLDER WIRE			
122	7250000607	SHEET PE			
123	761WPAA160	HOLDER PANEL			
124	752WSA0677	SHIELD DIGITAL			
125	8965TS2010	CUSHION W8/H20/L10			

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS					
△R403	R3X28BR22J	R,METAL OXIDE	D446	D1VT001330	DIODE,SILICON
△R404	RC31X1155J	RC	D447	D1VT001330	DIODE,SILICON
△R406	R3K681S22J	R,METAL OXIDE	D449	D1VT001330	DIODE,SILICON
△R412	R63881R22J	R,FUSE	D450	D97U03R31B	DIODE,ZENER
△R416	R65584R2R2J	R,FUSE	D456	D1VT001330	DIODE,SILICON
△R466	R5X2AD151J	R,CEMENT	D457	D2LXSR2400	DIODE SCHOTTKY
△R473	R3K78A681J	R,METAL OXIDE	D459	D97U02201B	DIODE ZENER
△R475	R3K78A681J	R,METAL OXIDE	D460	D4AT01H3E0	DIODE RECTIFIER
△R494	R3K78A681J	R,METAL OXIDE	D461	D97U01101B	DIODE,ZENER
△R497	R65581010J	R,FUSE	D462	D2LXSR2400	DIODE SCHOTTKY
△R533	R3K78B473J	R,METAL OXIDE	D803	DE7RB5R62B	DIODE ZENER
△R3808	R65584470J	R,FUSE	D804	DD7R20S300	DIODE SCHOTTKY
CAPACITORS					
C376	E7EYF3102M	CE	D805	DD7R20S300	DIODE SCHOTTKY
C384	E7EYF3102M	CE	D806	DE7RB5R62B	DIODE ZENER
△C402	P2122B334M	CMP	D807	DE7RB5R62B	DIODE ZENER
△C405	E71LHH931D	CE	D808	DE7RB5R62B	DIODE ZENER
△C406	CD39E0M13M	CC	D809	DE7RB5R62B	DIODE ZENER
C422	E7EY78101D	CE	D810	DE7RB5R62B	DIODE ZENER
△C423	P4NAE6823H	CMPP	D811	DE7RB5R62B	DIODE ZENER
△C424	E8E6FH220M	CE	D812	DE7RB5R62B	DIODE ZENER
△C427	CD39B0MQ2K	CC	D813	DE7RB5R62B	DIODE ZENER
△C433	E7EYF4471M	CE	D814	DE7RB5R62B	DIODE ZENER
△C434	E7EYF4122M	CE	D2201	0021E9Q010	LED
△C435	E7EYF3102M	CE	D2402	DD7R20S300	DIODE SCHOTTKY
△C436	CD39E0M13M	CC	D3201	DD7R8051L0	DIODE SCHOTTKY
△C438	E7EYF4122M	CE	D3202	D28R1QS040	DIODE
△C440	E7EYF0222M	CE	D3204	D28R1QS040	DIODE
△C441	E7ESU5100M	CE	D3205	D28R1QS040	DIODE
△C444	E7ESU0221M	CE	D3209	D28R1QS040	DIODE
△C448	P2122B104M	CMP	D3210	D28R1QS040	DIODE
C449	E7EYF2102M	CE	D3600	DD7R60L400	DIODE SCHOTTKY
△C453	E7EYF2102M	CE	D3601	D77R1A1R10	DIODE VARISTA
△C463	CD39B0MQ2K	CC	D3602	DE7RB5R62B	DIODE ZENER
C466	E7EYF4471M	CE	D3603	D77R1A1R10	DIODE VARISTA
△C475	P4NAE6823H	CMPP	D3604	DD7R60L400	DIODE SCHOTTKY
C3201	E7EYF2222M	CE	D3605	DD7R60L400	DIODE SCHOTTKY
DIODES					
D105	DE7RB5R62B	DIODE ZENER	D3622	D77R1A1R10	DIODE VARISTA
D107	DD7R20S300	DIODE SCHOTTKY	D3627	D77R1A1R10	DIODE VARISTA
D108	DE7RB5R62B	DIODE ZENER	D3628	D28R1QS040	DIODE
D301	D28R11FS20	DIODE	D3629	D28R1QS040	DIODE
D401	D4AT01H3E0	DIODE RECTIFIER	D3630	DE7RB5R62B	DIODE ZENER
△D404	D8C047110A	DIODE VARISTA	D3804	D4AT01H3E0	DIODE RECTIFIER
D406	D28R1QS040	DIODE	D4209	DE7RB6R82B	DIODE ZENER
D407	D28R1QS040	DIODE	D4210	DE7RB4R72B	DIODE ZENER
△D408	D2Z05SB800	DIODE BRIDGE	D4211	DE7RB4R72B	DIODE ZENER
D411	DGERMA1110	DIODE SILICON	D4212	DE7RB1202B	DIODE ZENER
D412	D97U03R91B	DIODE,ZENER	D4213	DE7RB1202B	DIODE ZENER
D413	DGERMA1110	DIODE SILICON	D4214	DE7RB1202B	DIODE ZENER
D414	DGERMA1110	DIODE SILICON	D4215	DE7RB1202B	DIODE ZENER
D415	DE7RB3R92B	DIODE ZENER	D4216	DE7RB6R82B	DIODE ZENER
D416	D97U02001B	DIODE,ZENER	D4217	DE7RB6R82B	DIODE ZENER
D419	DGERMA1110	DIODE SILICON	D4218	DE7RB6R82B	DIODE ZENER
D420	DGERMA1110	DIODE SILICON	D4219	DE7RB6R82B	DIODE ZENER
D421	DGERMA1110	DIODE SILICON	D4220	DE7RB6R82B	DIODE ZENER
D422	DD7R60M900	DIODE SCHOTTKY	D4305	D1VT001330	DIODE,SILICON
D423	DGERMA1110	DIODE SILICON	D4306	DE7RB5R62B	DIODE ZENER
D424	D4AT01H3E0	DIODE RECTIFIER	D4312	DE7RB5R62B	DIODE ZENER
△D425	D2WTRM11C0	DIODE SILICON	D6001	D1VT001330	DIODE,SILICON
D426	D1VT001330	DIODE,SILICON	D6401	DD7R20S300	DIODE SCHOTTKY
△D427	D2WTRM11C0	DIODE SILICON	D6402	DD7R20S300	DIODE SCHOTTKY
D428	DGERMA1110	DIODE SILICON	D6403	D28R1QS040	DIODE
D429	DGERMA1110	DIODE SILICON	D6404	D28R1QS040	DIODE
△D430	D2WTRM11C0	DIODE SILICON	D6405	D28R1QS040	DIODE
△D431	D2WTRM11C0	DIODE SILICON	D6406	D28R1QS040	DIODE
D432	D2BE0RU3B0	DIODE SILICON	D6407	DD7R20S300	DIODE SCHOTTKY
D433	D4AT01H3E0	DIODE RECTIFIER	D6408	D28R1QS040	DIODE
△D435	D2CF931020	DIODE SCHOTTKY	D6409	DD7R20S300	DIODE SCHOTTKY
△D436	D28A10A100	DIODE SCHOTTKY	D6410	D28R1QS040	DIODE
△D437	D28A10A100	DIODE SCHOTTKY	D6411	DD7R20S300	DIODE SCHOTTKY
D438	DGERMA1110	DIODE SILICON	D6412	DD7R20S300	DIODE SCHOTTKY
D439	D97U03001B	DIODE,ZENER	D6413	D28R1QS040	DIODE
△D440	D28A10A100	DIODE SCHOTTKY	ICS		
△D442	D4AT01H3E0	DIODE RECTIFIER	IC101	S30F011M04	MEMORY DATA
△D443	D28A10A200	DIODE SILICON	IC105	I9UF032290	IC
D445	D97U02401B	DIODE,ZENER	IC300	IKQP21510	IC
			△IC301	IKQP89320	IC
			△IC401	I2GT050600	IC

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
ICS			TRANSISTORS		
△IC402	I5SD0P2F40	IC MIP2F4	Q421	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
△IC403	I1KJ9A431A	IC KIA431A-AT	Q424	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC404	I1KJ9A431A	IC KIA431A-AT	Q425	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC406	I1LF010150	IC AL1015	Q431	TNAAA05001	COMPOUND TRANSISTOR KRC101S-RTK
△IC407	X03T057790	IC LA5779-E	Q432	TAAT01241Y	TRANSISTOR SILICON KTA1241_Y-AT
△IC408	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	△Q433	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC409	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	△Q434	T25F035630	FET 25K3583(ORION_Q)
△IC410	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	Q2401	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC801	S32M09SE01	MEMORY DATA M24256-BWMN6TP	Q3002	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC802	I9UF032290	IC PST3229NR	Q3003	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC803	S32M09SM01	MEMORY DATA VCT7993P-FA-A1-G-000	Q3004	TAAA01664Y	TRANSISTOR SILICON KTA1664-Y-RTF/P
IC2401	I5PK05ALC0	IC STI5105ALC	Q3200	T77J011320	TRANSISTOR SILICON 2SB1132T100(Q,R)
IC2402	I9UF032310	IC PST3231NR	Q3201	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC2403	ICLJ022EC5	IC HY5DU561622ETP-D43-C	△Q3202	TS3M000044	COMPOUND TRANSISTOR CPH6312-TL-E
	ICLJ022ETS	IC HY5DU561622ETP-D43	Q3205	TAAA01664Y	TRANSISTOR SILICON KTA1664-Y-RTF/P
IC2404	S30F011F01	MEMORY DATA SST39VF1601-70-4C-EKE	Q3206	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC2409	I5PJ0064W0	IC M24C64WMMN6TP	Q3601	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC3001	I55F045FT0	IC TC74LCX245FT(EL)	Q3602	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC3002	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3603	T2AA5132E0	FET KTK5132E-RTK/P
IC3003	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3604	T2AA5132E0	FET KTK5132E-RTK/P
IC3004	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3605	T2AA5132E0	FET KTK5132E-RTK/P
IC3005	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3606	T2AA5132E0	FET KTK5132E-RTK/P
IC3006	I55J0X020	IC TC74LCX02FT(EL)	Q3615	T2AA5132E0	FET KTK5132E-RTK/P
IC3007	I55F0125F0	IC TC7SH125FU(TE85L,F	Q3616	T2AA5132E0	FET KTK5132E-RTK/P
△IC3201	I07F0C0WF0	IC BA00BC0WFP-E2	Q3617	T2AA5132E0	FET KTK5132E-RTK/P
△IC3202	I1LF010150	IC AL1015	Q3618	T2AA5132E0	FET KTK5132E-RTK/P
△IC3203	I07F078200	IC BD7820FP-E2	Q3801	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC3204	I07F078200	IC BD7820FP-E2	Q3802	TAAA01664Y	TRANSISTOR SILICON KTA1664-Y-RTF/P
△IC3205	I1KF98D050	IC KIA78D05F	Q3803	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC3601	I07F078200	IC BD7820FP-E2	Q3804	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC3605	IG1F090250	IC SI9025CTU	Q3805	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC3606	S32M09SE02	MEMORY DATA AT24C02BN-10SU-1.8	Q3806	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
IC3609	S32M09SE03	MEMORY DATA AT24C02BN-10SU-1.8	Q3807	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC3801	I07F0C0WF0	IC BA00BC0WFP-E2	Q4201	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC4001	I5PK003620	IC STV0362	Q4202	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4201	I0UF015020	IC MM1502XNRE	Q4203	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC4202	I0UF015010	IC MM1501XNRE	Q4204	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4203	I0UF015010	IC MM1501XNRE	Q4205	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4204	I0QF025840	IC NJM2584AM(Te1)	Q4207	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4205	I0QF025840	IC NJM2584AM(Te1)	Q4208	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4206	I0UF015010	IC MM1501XNRE	Q4209	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4303	I0QF02534V	IC NJM2534V(Te2)	Q4210	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4304	I0QF02534V	IC NJM2534V(Te2)	Q4214	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC6001	I0CJ040530	IC SN74LV4053APWR	Q4216	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC6401	I07F078200	IC BD7820FP-E2	Q4217	TPAAC05002	COMPOUND TRANSISTOR KRA103SRTK
△IC6402	I07F078200	IC BD7820FP-E2	Q4218	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC6403	I07F078200	IC BD7820FP-E2	Q4221	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
△IC6404	I07F078200	IC BD7820FP-E2	Q4222	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
△IC6405	I07F078200	IC BD7820FP-E2	Q4223	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC6406	I0WF0H73C0	IC TSH73CDT	Q4224	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC6407	I07F078200	IC BD7820FP-E2	Q4303	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
TRANSISTORS			COILS & TRANSFORMERS		
Q101	T2AA5132E0	FET KTK5132E-RTK/P	L104	0216SD220J	COIL 22 UH
Q102	T2AA5132E0	FET KTK5132E-RTK/P	L300	021U0L220M	COIL 22 UH
Q300	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK	L302	021U0L220M	COIL 22 UH
Q301	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK	△L401	029X000135	COIL,LINE FILTER SS30V-R150270
Q302	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK	△L402	029X000135	COIL,LINE FILTER SS30V-R150270
Q303	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	△L403	02F1000001	COIL CHOKE DBE-688
Q304	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	△L405	02167E220K	COIL 22 UH
Q305	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L408	021U0L470M	COIL 47 UH
Q321	TPAA05001	COMPOUND TRANSISTOR KRA101SRTK	L409	021U0L330M	COIL 33 UH
Q401	TCAT03209Y	TRANSISTOR SILICON KTC3209_Y-AT	L413	02167E100K	COIL 10 UH
Q402	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L415	02167E220K	COIL 22 UH
Q403	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L2401	0216SD2R2J	COIL 2.2 UH
Q404	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L2402	0216SD2R2J	COIL 2.2 UH
△Q405	TCAT03209Y	TRANSISTOR SILICON KTC3209_Y-AT	L2403	0216SD2R2J	COIL 2.2 UH
△Q406	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L2404	0216SD2R2J	COIL 2.2 UH
△Q407	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y			
Q408	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK			
Q409	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK			
△Q410	TJ7M50P030	FET RSS050P03_TB			
Q411	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK			
Q412	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK			
Q415	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK			
Q416	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK			
Q417	TAAT01241Y	TRANSISTOR SILICON KTA1241_Y-AT			
Q418	TNAAA05001	COMPOUND TRANSISTOR KRC101S-RTK			

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
COILS & TRANSFORMERS			MISCELLANEOUS		
L3001	0216SD2R2J	COIL 2.2 UH	B301	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L3002	0216SD2R2J	COIL 2.2 UH	B302	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L3201	02167E220K	COIL 22 UH	B303	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L3202	021UOL330M	COIL 33 UH	B304	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L3203	02167E220K	COIL 22 UH	B305	024HC51816	CORE,BEADS HCB1608KF-181T20
L3601	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B306	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L3602	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B307	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L3603	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B401	024HT03553	CORE,BEADS W5RH3.5X5X1.0
L3604	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B402	024HC51816	CORE,BEADS HCB1608KF-181T20
L3605	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B403	024HC51816	CORE,BEADS HCB1608KF-181T20
L3606	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B404	024HT03553	CORE,BEADS W5RH3.5X5X1.0
L3607	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B801	024HC51816	CORE,BEADS HCB1608KF-181T20
L3608	02D6000068	COIL CHOKE ACM2012D-900-2P-T00	B802	024HC51816	CORE,BEADS HCB1608KF-181T20
L4001	0216SD2R2J	COIL 2.2 UH	B803	024HC51816	CORE,BEADS HCB1608KF-181T20
L4002	0216SD2R2J	COIL 2.2 UH	B804	024HC51816	CORE,BEADS HCB1608KF-181T20
L4004	0216SD2R2J	COIL 2.2 UH	B805	024HC51816	CORE,BEADS HCB1608KF-181T20
L4201	021LA6101J	COIL 100 UH	B806	024HC51816	CORE,BEADS HCB1608KF-181T20
L4202	021LA6220J	COIL 22 UH	B807	024HC51816	CORE,BEADS HCB1608KF-181T20
L4203	021LA6220J	COIL 22 UH	B808	024HC51816	CORE,BEADS HCB1608KF-181T20
L4204	021LA6220J	COIL 22 UH	B809	024HC51816	CORE,BEADS HCB1608KF-181T20
L4206	021LA6220J	COIL 22 UH	B810	024HC51816	CORE,BEADS HCB1608KF-181T20
L4206	021LA6220J	COIL 22 UH	B811	024HC51816	CORE,BEADS HCB1608KF-181T20
L4207	021LA6220J	COIL 22 UH	B812	024HC51816	CORE,BEADS HCB1608KF-181T20
L4208	021LA6220J	COIL 22 UH	B813	024HC51816	CORE,BEADS HCB1608KF-181T20
L4209	0216MA220K	COIL 22 UH	B817	024HC56005	CORE,BEADS FCM1608CF-600T06
L4210	0216MA220K	COIL 22 UH	B818	024HC51816	CORE,BEADS HCB1608KF-181T20
L4211	021LA6220J	COIL 22 UH	B819	024HC51816	CORE,BEADS HCB1608KF-181T20
L4212	021LA6220J	COIL 22 UH	B2401	024HC56005	CORE,BEADS FCM1608CF-600T06
L4213	021LA6100J	COIL 10 UH	B2402	024HC56005	CORE,BEADS FCM1608CF-600T06
L4214	021LA6470J	COIL 47 UH	B2403	024HC56005	CORE,BEADS FCM1608CF-600T06
L4215	0216S81R5M	COIL 1.5 UH	B2404	024HC56005	CORE,BEADS FCM1608CF-600T06
L4216	0216S81R5M	COIL 1.5 UH	B2405	024HC56005	CORE,BEADS FCM1608CF-600T06
L4217	021LA6100J	COIL 10 UH	B2406	024HC56005	CORE,BEADS FCM1608CF-600T06
L4218	0216S81R5M	COIL 1.5 UH	B3001	024HC56005	CORE,BEADS FCM1608CF-600T06
L4219	021LA6470J	COIL 47 UH	B3002	024HC56005	CORE,BEADS FCM1608CF-600T06
L4221	021LA6470J	COIL 47 UH	B3201	024HC51216	CORE,BEADS HCB1608KF-121T20
L4223	021LA6470J	COIL 47 UH	B3601	024HC51816	CORE,BEADS HCB1608KF-181T20
L4224	0216S91R5M	COIL 1.5 UH	B3602	024HC51816	CORE,BEADS HCB1608KF-181T20
L4225	021LA6100J	COIL 10 UH	B3603	024HC51816	CORE,BEADS HCB1608KF-181T20
L4226	021LA6470J	COIL 47 UH	B3604	024HC51816	CORE,BEADS HCB1608KF-181T20
L4227	021LA6220J	COIL 22 UH	B3605	024HC56005	CORE,BEADS FCM1608CF-600T06
L4230	0216MA220K	COIL 22 UH	B3606	024HC51023	CORE,BEADS FCM1608KF-102T02
L4231	0216MA220K	COIL 22 UH	B3608	024HC51023	CORE,BEADS FCM1608KF-102T02
L4232	0216S91R5M	COIL 1.5 UH	B3609	024HC51816	CORE,BEADS HCB1608KF-181T20
L4233	021LA6470J	COIL 47 UH	B3610	024HC51816	CORE,BEADS HCB1608KF-181T20
L4305	0216SD220J	COIL 22 UH	B3613	024HC51816	CORE,BEADS HCB1608KF-181T20
L4306	0216SD220J	COIL 22 UH	B3801	024HT03564	CORE,BEADS W4BRH3.5X6X1.0
L6401	0216SD100J	COIL 10 UH	B4001	024HC56005	CORE,BEADS FCM1608CF-600T06
L6406	0216SD2R2J	COIL 2.2 UH	B4002	024HC56005	CORE,BEADS FCM1608CF-600T06
L6408	0216SD4R7J	COIL 4.7 UH	B4003	024HC56005	CORE,BEADS FCM1608CF-600T06
L6409	0216SD4R7J	COIL 4.7 UH	B4200	024HC56005	CORE,BEADS FCM1608CF-600T06
L6410	0216SD4R7J	COIL 4.7 UH	B4202	024HC56005	CORE,BEADS FCM1608CF-600T06
△T402	0487420014	TRANSFORMER,SWITCHING 87420014	B4203	024HC56013	CORE,BEADS FCM1608KF-601T02
△T402	0481190074	TRANSFORMER,SWITCHING 81190074	B4204	024HC56013	CORE,BEADS FCM1608KF-601T02
JACKS					
△J401	064Q1A0003	JACK,AC OCT2302-0911	B4205	024HC56005	CORE,BEADS FCM1608CF-600T06
J4202	060R431037	RCA JACK RCA-349-00C-05	B4206	024HC56005	CORE,BEADS FCM1608CF-600T06
J4203	060R411054	RCA JACK RCA-349-00D-01	B4207	024HC56005	CORE,BEADS FCM1608CF-600T06
J4204	063Y000089	JACK PLATE RCA/DIN-501A-00B-03	B4208	024HC56005	CORE,BEADS FCM1608CF-600T06
J4205	060J131021	HEADPHONE JACK MSJ-035-08D_PC(O87)	B4209	024HT03563	CORE,BEADS W4BRH3.5X6X1.0X2
J4206	063D000077	SOCKET,21PIN MRC-Q21V-27_PC	B4210	024HT03563	CORE,BEADS W4BRH3.5X6X1.0X2
J4301	060J151001	HEADPHONE JACK MSJ-035-39D_B_PC_LF(O87)	B4211	024HT03563	CORE,BEADS W4BRH3.5X6X1.0X2
SWITCHES					
SW2201	0504101T34	SWITCH,TACT EVQ21505R	B4212	024HT03563	CORE,BEADS W4BRH3.5X6X1.0X2
SW2202	0504101T34	SWITCH,TACT EVQ21505R	B4213	024HT03563	CORE,BEADS W4BRH3.5X6X1.0X2
SW2203	0504101T34	SWITCH,TACT EVQ21505R	B4214	024HC56005	CORE,BEADS FCM1608CF-600T06
SW2204	0504101T34	SWITCH,TACT EVQ21505R	B4215	024HC53306	CORE,BEADS HCB1608KF-330T50
SW2205	0504101T34	SWITCH,TACT EVQ21505R	B4216	024HC53306	CORE,BEADS HCB1608KF-330T50
SW2206	0504101T34	SWITCH,TACT EVQ21505R	B4221	024HC53306	CORE,BEADS HCB1608KF-330T50
SW2207	0504101T34	SWITCH,TACT EVQ21505R	B4222	024HC53306	CORE,BEADS HCB1608KF-330T50
SW2208	0504101T34	SWITCH,TACT EVQ21505R	B4223	024HC53306	CORE,BEADS HCB1608KF-330T50
P.C. BOARD ASSEMBLIES					
PCB240	A32M09S240L	POWER PCB ASSY CEF273A	B4224	024HC53306	CORE,BEADS HCB1608KF-330T50
PCB270	A32M09S270L	OPERATION PCB ASSY CEF274A	B4227	024HC53306	CORE,BEADS HCB1608KF-330T50
PCBD40	A32M09SDA0L	REMOCON PCB ASSY CEF275A	B4228	024NC51021	CORE,BEADS EBMS160808A102_RDC45
PCBDH0	A32M09SDH0L	DIGITAL PCB ASSY CEF243A	B4229	024NC51021	CORE,BEADS EBMS160808A102_RDC45
PCBF40	A32M09SF40L	MAIN PCB ASSY CMF111B	B4301	024NC51021	CORE,BEADS EBMS160808A102_RDC45
			B4302	024NC51021	CORE,BEADS EBMS160808A102_RDC45
			B4303	024HC56005	CORE,BEADS FCM1608CF-600T06

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
MISCELLANEOUS			MISCELLANEOUS		
B4304	024HC56005	CORE,BEADS FCM1608CF-600T06	NR2407	110P4560M5	R.NETWORK 4D02WVGJ0560TCE
B4305	024HC56005	CORE,BEADS FCM1608CF-600T06	NR2408	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4306	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2409	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4307	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2410	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4309	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2411	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4312	024HC56005	CORE,BEADS FCM1608CF-600T06	NR2412	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4314	024NC51021	CORE,BEADS EBMS160808A102_RDC45	NR2413	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4315	024NC51021	CORE,BEADS EBMS160808A102_RDC45	NR2414	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4317	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2415	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4318	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2416	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4322	024HC56005	CORE,BEADS FCM1608CF-600T06	NR2417	110P4000M5	R.NETWORK 4D02WVGJ0000TCE
B4324	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2418	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B4326	024HC51816	CORE,BEADS HCB1608KF-181T20	NR2419	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6001	024HC56013	CORE,BEADS FCM1608KF-601T02	NR2420	110P4560M5	R.NETWORK 4D02WVGJ0560TCE
B6003	024HT03563	CORE,BEADS W4BRH3.5X6X1.0X2	NR2421	110P4560M5	R.NETWORK 4D02WVGJ0560TCE
B6401	024HC51023	CORE,BEADS FCM1608KF-102T02	NR2422	110P4560M5	R.NETWORK 4D02WVGJ0560TCE
B6402	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3001	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6403	024HC56005	CORE,BEADS FCM1608CF-600T06	NR3002	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6404	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3003	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6405	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3004	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6406	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3005	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6407	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3006	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6408	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3007	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6409	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3008	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6410	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3009	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B6411	024HC51023	CORE,BEADS FCM1608KF-102T02	NR3010	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
B7201	024HC51816	CORE,BEADS HCB1608KF-181T20	NR3011	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
BT001	141R003018	BATTERY,MANGAN GR6M	NR3012	110P4470M5	R.NETWORK 4D02WVGJ0470TCE
BT002	141R003018	BATTERY,MANGAN GR6M	NR3601	110P4330M4	R.NETWORK 4D03WVGJ0330T5E
CD302	08CU145005	CORD CONNECTOR CU145005	NR3602	110P4330M4	R.NETWORK 4D03WVGJ0330T5E
CD403	06CU2E2202	CORD CONNECTOR CU2E2202	NR3603	110P4330M4	R.NETWORK 4D03WVGJ0330T5E
CP101	069S260629	CONNECTOR PCB SIDE A2001VV2-6P	NR3604	110P4330M4	R.NETWORK 4D03WVGJ0330T5E
CP301	069S140419	CONNECTOR PCB SIDE A2502VV2-4P	NR3605	110P4330M4	R.NETWORK 4D03WVGJ0330T5E
CP401	069D01001A	CONNECTOR PCB SIDE 003P-2100	NR3606	110P4330M4	R.NETWORK 4D03WVGJ0330T5E
CP405	069D01001A	CONNECTOR PCB SIDE 003P-2100	OS2201	077A033001	REMOTE RECEIVER RQM-V338TA0
CP406	069S2E0639	CONNECTOR PCB SIDE A2001WR2-14P	△RY401	0560V50119	RELAY KLM-S329 A60
CP408	069D01001A	CONNECTOR PCB SIDE 003P-2100	△SP301	070Y056003	SPEAKER S0412F03
CP411	06977N001B	CONNECTOR PCB SIDE TWG-P23P-B1	△SP302	070Y056003	SPEAKER S0412F03
CP412	069779001B	CONNECTOR PCB SIDE TWG-P05P-B1	SH2401	126D000044	TERMINAL PIN YQ-36
CP413	069D01001A	CONNECTOR PCB SIDE 003P-2100	SH2402	126D000044	TERMINAL PIN YQ-36
CP802	069S260629	CONNECTOR PCB SIDE A2001VV2-6P	SH2403	126D000044	TERMINAL PIN YQ-36
CD3810	120Q155804	CORD AC P205-1324-4	SH2404	126D000044	TERMINAL PIN YQ-36
CD4301	06CU258302	CORD CONNECTOR CU258302	SH4301	126D000044	TERMINAL PIN YQ-36
CD4302	06CU238201	CORD CONNECTOR CU238201	SH4302	126D000044	TERMINAL PIN YQ-36
CD7204	06CHRU2207	CORD CONNECTOR CHRU2207	SH4303	126D000044	TERMINAL PIN YQ-36
CP2201	069S250639	CONNECTOR PCB SIDE A2001WR2-5P	SH4304	126D000044	TERMINAL PIN YQ-36
CP2203	069S230639	CONNECTOR PCB SIDE A2001WR2-3P	SH4305	126D000044	TERMINAL PIN YQ-36
CP2401	069S250679	CONNECTOR PCB SIDE A2008WR0-2X5P	SH4306	126D000044	TERMINAL PIN YQ-36
CP2402	069S250629	CONNECTOR PCB SIDE A2001VV2-5P	SH4307	126D000044	TERMINAL PIN YQ-36
CP3001	069EN68020	CONNECTOR PCB SIDE 36_5027_068_190_931+	△TH401	DSQ0VE4R0L	THERMISTOR 4D2-18LCS
CP3002	063M800002	HOLDER,IC 30_5027_000_102_000+	TM101	076RQNV010	TRANSMITTER R56-1236
CP3400	069S220629	CONNECTOR PCB SIDE A2001VV2-2P	△TU8002	0164Y03002	DIGITAL TUNER TDTG-S156D
CP3601	0694YJ3018	CONNECTOR PCB SIDE 1903015-3	△V2301	09EB132021	LCD LTA320WT-L05
CP3603	0694YJ3018	CONNECTOR PCB SIDE 1903015-3	X101	100GT01615	CRYSTAL B16000E007
CP3801	06977NM020	CONNECTOR PCB SIDE 127301123K2	X801	100DT02007	CRYSTAL DSX840GA
CP3802	069779M020	CONNECTOR PCB SIDE 127301109K2	X2401	100GT02720	CRYSTAL B27000C005
CP4301	069S250629	CONNECTOR PCB SIDE A2001VV2-5P	X3602	100DT02801	CRYSTAL SMD-49
CP4302	06G2521502	CONNECTOR PCB SIDE D229FD015S107BY	X4001	100GT02720	CRYSTAL B27000C005
CP4304	069S230629	CONNECTOR PCB SIDE A2001VV2-3P	RESISTOR		
CP6001	06972UM018	CONNECTOR PCB SIDE TKC-W30P-P1	RC.....	CARBON RESISTOR	
CP6401	06972UT018	CONNECTOR PCB SIDE 125622330K3	CAPACITORS		
CP7201	06G3VVT01A	CONNECTOR PCB SIDE 20389-Y30E	CC.....	CERAMIC CAPACITOR	
EL2401	124116281A	EYE LET XRY16X28BD	CE.....	ALUMI ELECTROLYTIC CAPACITOR	
EL2402	124120301A	EYE LET XRY20X30BD	CP.....	POLYESTER CAPACITOR	
F401	080NT05004	FUSE 50T050H	CPP.....	POLYPROPYLENE CAPACITOR	
F404	0835C02003	MICRO FUSE 20N_2000FS	CPL.....	PLASTIC CAPACITOR	
FH401	06710T0009	HOLDER,FUSE EYF-52BCY	CM.....	METAL POLYESTER CAPACITOR	
FH402	06710T0009	HOLDER,FUSE EYF-52BCY	CMPL.....	METAL PLASTIC CAPACITOR	
M3400	1519Y55L01	FAN MOTOR 2004KL-04W-B30-M09	CMPP.....	METAL POLYPROPYLENE CAPACITOR	
NR801	110P4470M4	R.NETWORK 4D03WVGJ0470T5E			
NR802	110P4470M4	R.NETWORK 4D03WVGJ0470T5E			
NR2401	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			
NR2402	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			
NR2403	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			
NR2404	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			
NR2405	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			
NR2406	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			
NR2406	110P4560M5	R.NETWORK 4D02WVGJ0560TCE			

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