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LCD TV

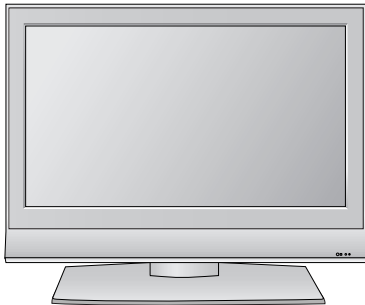
SERVICE MANUAL

CHASSIS : LP78A

MODEL : 32LC7R 32LC7R-ZA
32LC51 32LC51-ZA
32LC52 32LC52-ZC

CAUTION

BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



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SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the *SAFETY PRECAUTIONS* on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
 - a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
 - b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
 - c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".
3. Do not spray chemicals on or near this receiver or any of its assemblies.
4. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
CAUTION: This is a flammable mixture.
Unless specified otherwise in this service manual, lubrication of contacts is not required.
5. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
6. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
7. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
Always remove the test receiver ground lead last.
8. *Use with this receiver only the test fixtures specified in this service manual.*
CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices*. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the

unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500°F to 600°F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
 - a. Allow the soldering iron tip to reach normal temperature. (500°F to 600°F)
 - b. Heat the component lead until the solder melts.
 - c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
CAUTION: Work quickly to avoid overheating the circuit board printed foil.
6. Use the following soldering technique.
 - a. Allow the soldering iron tip to reach a normal temperature (500°F to 600°F)
 - b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
 - c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
CAUTION: Work quickly to avoid overheating the circuit board printed foil.
 - d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor

Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device

Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor

Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.

CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

SPECIFICATION

NOTE : Specifications and others are subject to change without notice for improvement.

1. Application range

This specification is applied to LP78A chassis.

2. Requirement for Test

Testing for standard of each part must be followed in below condition.

- (1) Temperature : $25 \pm 5^{\circ}\text{C}$ ($77 \pm 9^{\circ}\text{F}$), CST : $40 \pm 5^{\circ}\text{C}$
- (2) Humidity : $65\% \pm 10\%$
- (3) Power : Standard input voltage (100-240V~, 50/60Hz)
*Standard Voltage of each products is marked by models

(4) Specification and performance of each parts are followed each drawing and specification by part number in accordance with BOM.

(5) The receiver must be operated for about 20 minutes prior to the adjustment.

3. Test method

3.1 Performance : LGE TV test method followed

3.2 Demanded other specification

Safety : CE, IEC Specification

EMC : CE, IEC

4. General Specification(LCD Module)

Item	Specification		Measurement	Result	Remark				
Display Screen Device	26/27/32/37/42" wide Color Display Module				LCD				
Aspect Ratio	16:9								
LCD Module	26/27/32/37/42" TFT WXGA LCD				MAKER : AUO/CMO/LPL/CPT				
Operating Environment	Temp. : 0 ~ 40 deg, Humidity : 0 ~ 85%				LGE SPEC				
Storage Environment	Temp. : -20 ~ 60 deg, Humidity : 0 ~ 85 %								
Input Voltage	100-240V~, 50/60Hz								
Power Consumption	Power on (Green) ≤ TBD (42") ≤ max (26", 27", 32", 37")				Volume: 1/8 volume of sound distortion point				
	St-By (Red) : 1.0 W								
LCD Module	AUO	Outline Dimension	26"	626.0 x 373.0 x 47.5	mm	(H) x (V) x (D) [with inverter]			
			32"	760.0 x 450.0 x 45	mm				
			37"	877.0 x 514.6 x 54.7	mm				
		Pixel Pitch	26"	0.4215	mm				
			32"	0.51075					
			37"	0.6 x 0.6			(H) x (W)		
		Back Light	26",32"	8 U-lamp					
			37"	10 U-lamp					
		CMO	Outline Dimension	27"	637.55 x 379.8 x 40.7		mm	(H) x (V) x (D) [with inverter]	
				32"	760 x 450 x 47.53				
			Pixel Pitch	27"	0.1455 x 0.4365		mm		(H) x (V)
				32"	0.1730 x 0.5190				
	Back Light		27"	14 CCFL					
			32"	16 CCFL					
	LPL	Outline Dimension	26"	626 x 373 x 44.1	mm	(H) x (V) x (D) [with inverter] (H) x (V)			
			32"	760.0 x 450.0 x 48.0					
			37"	877.0 x 516.8 x 55.5					
			42"	1006 x 610 x 56					
		Pixel Pitch	26"	0.1405 x 0.4215	mm				
			32"	0.17025 x 0.51075					
			37"	0.200 x 0.600					
			42"	0.227 x 0.681					
		Back Light	26"	18 EEFL (17 EEFL)			(LC260WX2-SLB3)		
			32"	18 EEFL					
37"			20 EEFL						
42"			20 CCFL						
Display Colors			16.7M (16,777,216)		(LPL 26")				
Coating			3H, AG						

5. Model Specification(EU)

Item	Specification	Remark	
Market	EU		
Broadcasting system	PAL BG/DK, PAL I/II, SECAM L/L'		
Available Channel	BAND	PAL	
	VHF/UHF	C1_C69	
	CATV	S1_S47	
Receiving system	Upper Heterodyne		
SCART Input(2EA)	PAL, SECAM, NTSC	Full Scart 1EA, Harf 1EA	
Video Input (1EA)	PAL, SECAM, NTSC	Side AV	
S-Video Input (1EA)	PAL, SECAM, NTSC	Side AV	S-Video Priority
Component Input (1EA)	Y/Cb/Cr, Y/ Pb/Pr		
RGB Input (1EA)	RGB-PC		
HDMI Input (2EA)	HDMI-DTV		
Audio Input (4EA)	PC Audio, AV (3A), Component (1EA)	L/R Input(PC 1EA, SCART 2EA, SIDE AV 1EA, Component 1EA)	
Variable Audio out(1EA)			

6. Component Video Input (Y, P_B, P_R)

Resolution	H-freq(kHz)	V-freq(kHz)	Pixel clock(MHz)	Proposed
720*480	15.73	59.94	13.500	SDTV, DVD 480I(525I)
720*480	15.75	60.00	13.514	SDTV, DVD 480I(525I)
720*576	15.625	50.00	13.500	SDTV, DVD 576I(625I) 50Hz
720*480	31.47	59.94	27.000	SDTV 480P
720*480	31.50	60.00	27.027	SDTV 480P
720*576	31.25	50.00	27.000	SDTV 576P 50Hz
1280*720	44.96	59.94	74.176	HDTV 720P
1280*720	45.00	60.00	74.250	HDTV 720P
1280*720	37.50	50.00	74.25	HDTV 720P 50Hz
1920*1080	33.72	59.94	74.176	HDTV 1080I
1920*1080	33.75	60.00	74.250	HDTV 1080I
1920*1080	28.125	50.00	74.250	HDTV 1080I 50Hz

7. RGB Input (Analog PC)

Resolution	H-freq(kHz)	V-freq(kHz)	Pixel clock(MHz)	Proposed	Remark
640*350	31.468	70.80	25.17	EGA	
720*400	31.469	70.80	28.321	DOS	
640*480	31.469	59.94	25.17	VESA(VGA)	
800*600	37.879	60.31	40.00	VESA(SVGA)	
1024*768	48.363	60.00	65.00	VESA(XGA)	
1280*768	47.776	59.87	79.50	WXGA	XGA only
1360*768	47.720	59.799	84.75	WXGA	XGA only
1366*768	47.720	59.799	84.75	WXGA	XGA only

8. HDMI input (DTV)

Resolution	H-freq(kHz)	V-freq(kHz)	Pixel clock(MHz)	Proposed
720*480	15.75	60.00	13.514	SDTV, DVD 480I(525I)
720*480	15.73	59.94	13.500	SDTV, DVD 480I(525I)
720*576	15.625	50.00	13.500	SDTV, DVD 576I(625I) 50Hz
720*480	31.47	59.94	27.000	SDTV 480P
720*480	31.50	60.00	27.027	SDTV 480P
720*576	31.25	50.00	27.000	SDTV 576P 50Hz
1280*720	44.96	59.94	74.176	HDTV 720P
1280*720	45.00	60.00	74.250	HDTV 720P
1280*720	37.50	50.00	74.25	HDTV 720P 50Hz
1920*1080	33.72	59.94	74.176	HDTV 1080I
1920*1080	33.75	60.00	74.250	HDTV 1080I
1920*1080	28.125	50.00	74.250	HDTV 1080I 50Hz
1920*1080	67.432	59.94	148.350	HDTV 1080P
1920*1080	67.5	60	148.5	HDTV 1080P
1920*1080	56.250	50	148.5	HDTV 1080P 50Hz

ADJUSTMENT INSTRUCTION

1. Application Range

This spec sheet is applied all of the 26/32/37/42" LCD TV(LP78A) by manufacturing LG TV Plant all over the world.

2. Specification

- 1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test instrument.
- 2) Adjustment must be done in the correct order.
- 3) The adjustment must be performed in the circumstance of 25±5°C of temperature and 65±10% of relative humidity if there is no specific designation.
- 4) The input voltage of the receiver must keep 100~220V, 50/60Hz.
- 5) Before adjustment, execute Heat-Run for 30 minutes at RF no signal.

3. Adjustment items

3.1. PCB assembly adjustment items

- 1) Download the VCTP main software (IC500,VCT_Pro)
- 2) Channel memory (IC501,EEPROM)
- 3) Color carrier Adjustment

3.2. SET assembly adjustment items

- 1) DDC Data input.
- 2) Adjustment of White Balance.
- 3) Factoring Option Data input.

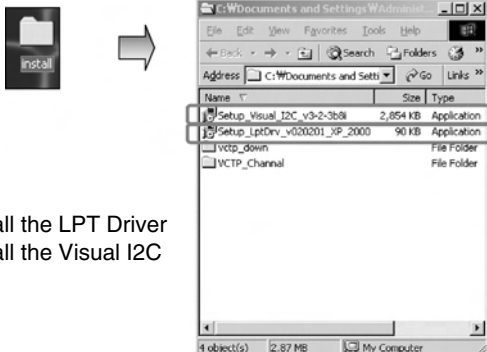
4. PCB assembly adjustment method (Using VCTP Download program)

4.1. Download program installation

(1) Extract a Zip file



(2) Visual I2C & LPT Driver Installation



Install the LPT Driver
Install the Visual I2C

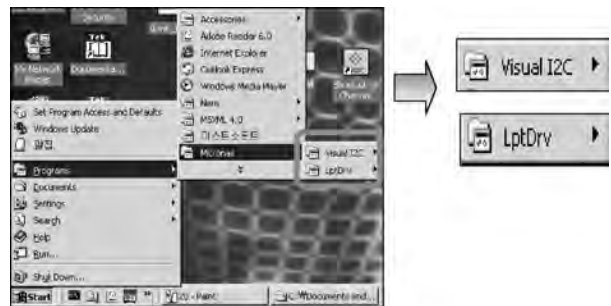
LPT Port Driver (LptDrv) Setups : Program Files > Micronas > Visual I2C > Port_Driver

*Use for Windows 95/98 : Setup_LptDrv_v0104_9x.exe

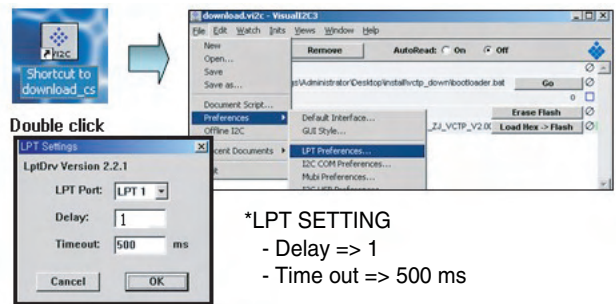
*Use for Windows 2000/XP : Setup_LptDrv_v0202_XP_2000.exe

*Use for Windows NT : Setup_LptDrv_v0104_NT.exe

(3) Verification (Start > Programs > Micronas > Visual I2C or LptDrv)



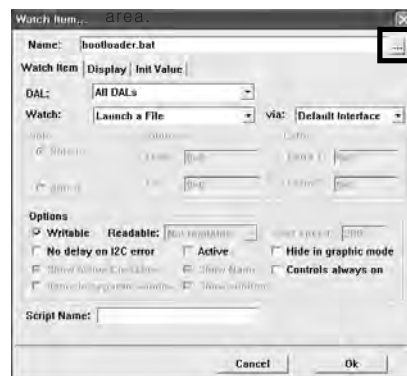
(4) LPT delay setting (File > Preference > LPT preferences)



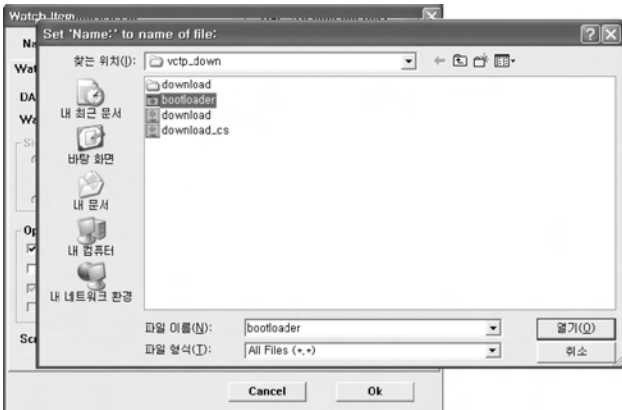
(5) Exchange the bootloader.bat file.



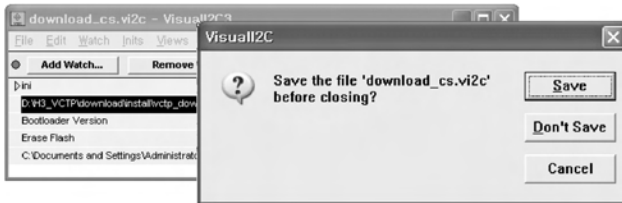
▶ Double click the Red



▶ Double click the Red area.



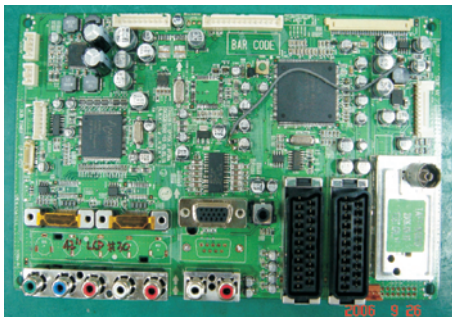
- => Select the "Bootloader.bat" file(install > VCTP_download > Bootloader)
- => Push "OK"



- => Finish the program, after saving the file "download_cs.vi2c" (if you click [X], the message appears automatically)

4.2. S/W program download

(1) Download method 1 (PCB Ass'y)



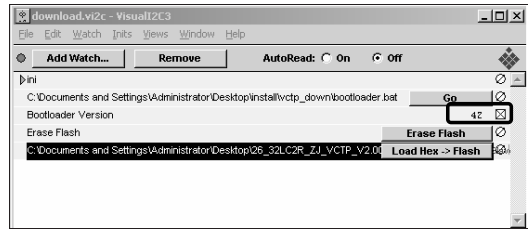
- 1) Connect the download jig to D-sub jack
- 2) Execute 'Download.vi2c' program in PC, then a main window will be opened



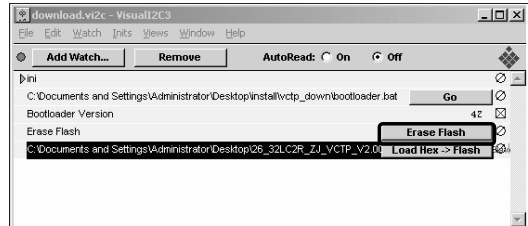
Double click



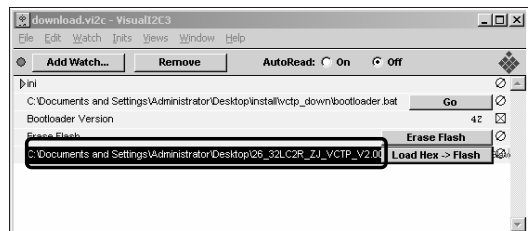
- 3) Double click the blue box and confirm "Bootloader Version" as 42.



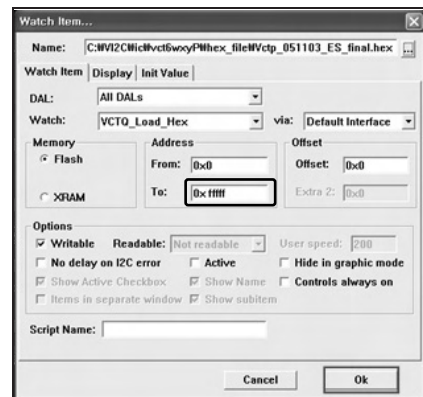
- 4) Click the "Erase Flash" button



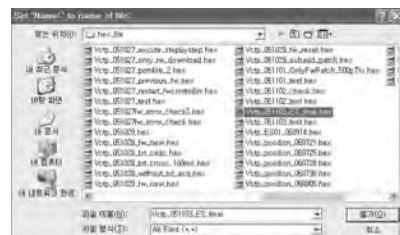
- 5) Double click the download file low, then "edit" window will be opened



- 6) Click the choice button in the "edit window", then "file choice window" will be opened.



- 7) Choose the Hex file in folder and execute downloading with click " open" button.

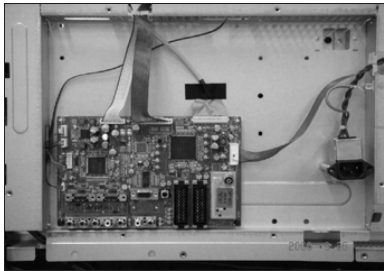


- 8) Click OK button at the "edit window".
- 9) Under Downloading process

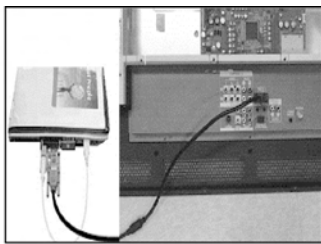
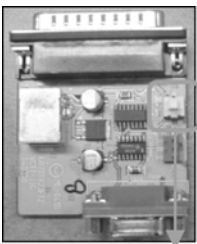


- 10) If download is failed, for example "No acknowledge from slave". Execute download again from(1).

(2) Download method 2 (AV Plate Ass'y)

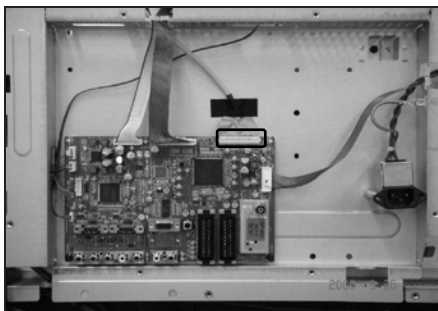


- 1) Push S/W 'ON' (connect SCL to GND using switch at Jig) and connect the download jig to D-sub jack.

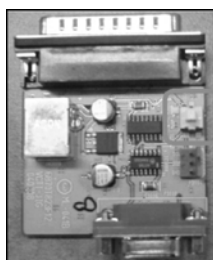


Push S/W

- 2) Supply the power (Stand-by 5V) and wait for 3 seconds.



- 3) Push the S/W off (Disconnect SCL to GND using switch at jig).

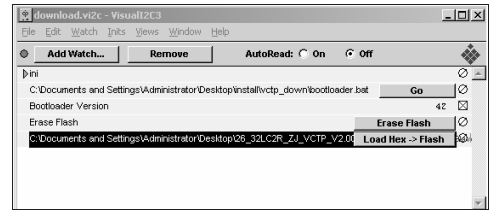


Push S/W

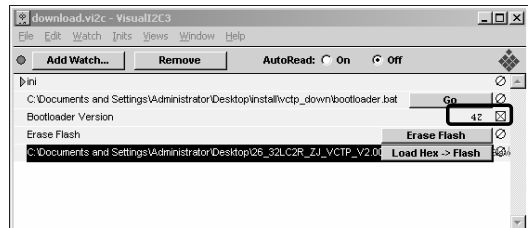
- 4) Execute 'Download.vi2c' program in PC, then a main widow will be opened.



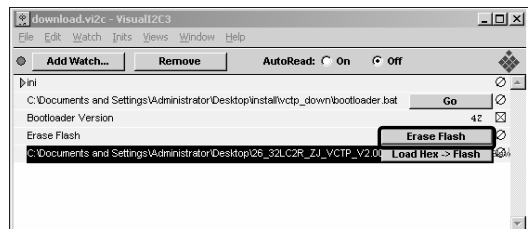
Double click



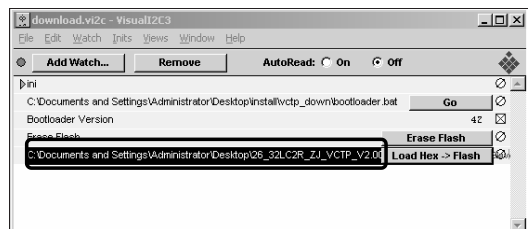
- 5) Double click the blue box and confirm "Bootloader Version" as 42.



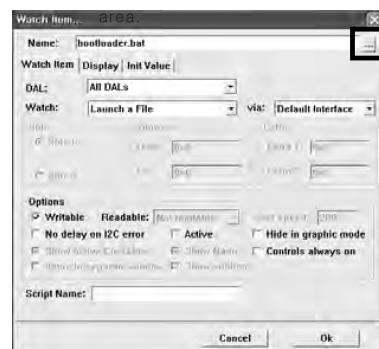
- 6) Click the "Erase Flash" button.



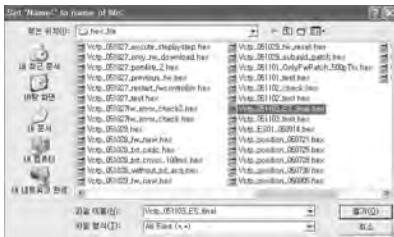
- 7) Double click the download file low then, "edit" window will be opened.



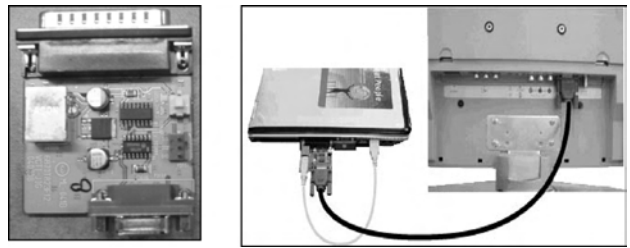
- 8) Chck the choice button I n the "edit window", then "file choice window' will be opened.



9) Choose the Hex file in folder and execute downloading with click "open button".



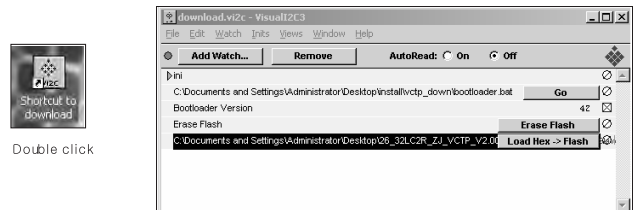
2) Connect Zig to TV using a D-sub cable.



10) Click OK button at the "edit window"



3) Execute 'Download_CS.vi2c' program in PC, then a main window will be opened.



4) Click "GO" button.

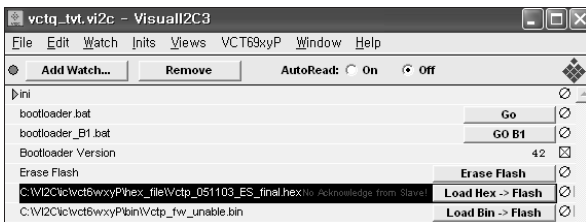


11) Under Downloading progress.

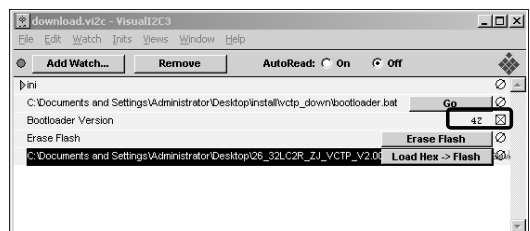


If you don't push the "go", the Hex file would not be downloaded although the download proceeds normally at first glance.

12) If download is failed, for example "No acknowledge from slave", execute download again from (1).



5) Double click the blue box and confirm "Bootloader Version" as 42.



(3) Download method 3 (SET)

1) Push the "Tilt" button in an Adjust Remocon Then the LCD TV will change a "slave mode".



6) Click the "Erase Flash" button



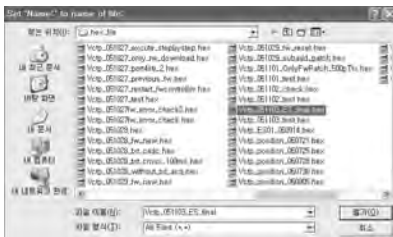
7) Double click the download file low then, "edit" window will be opened.



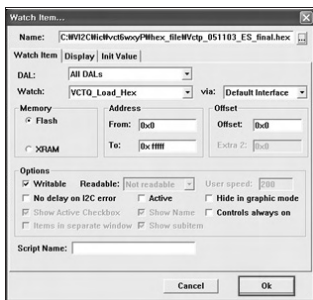
8) Click the choice button I n the "edit window", then "file choice window" will be opened



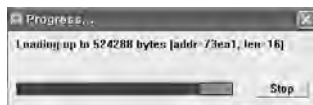
9) Choose the Hex file in folder and execute downloading with click "open button"



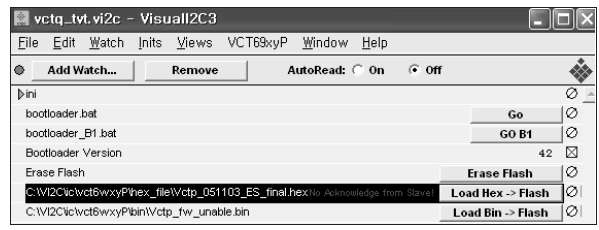
10) Click OK button at the "edit window"



11) Downloading

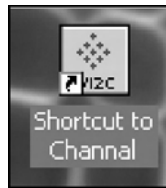


12) If download is failed, for example "No acknowledge from slave", execute download again from (1).

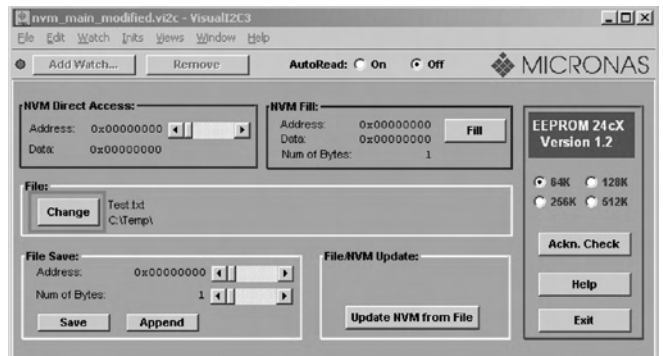


4.3. Channel memory download

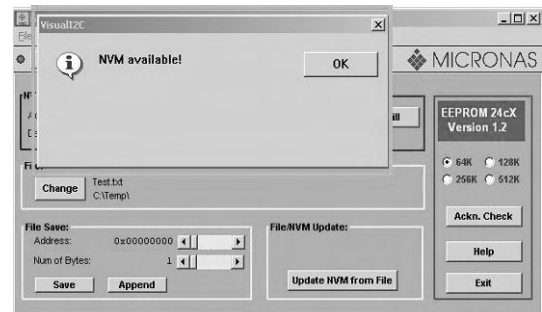
- (1) Connect the download jig to D-sub jack.
- (2) Execute 'Channel.vi2c' program in PC, then a main window will be opened.



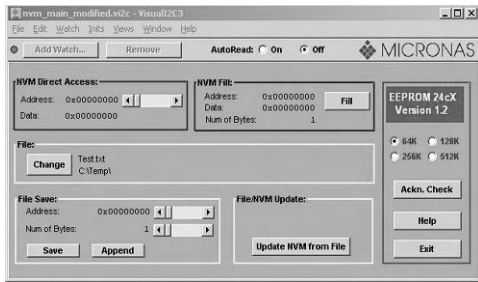
- (3) Push the button change and select the Channel memory data.



- (4) Check the communication is OK or not.
=> Push the Read area (Ackn. Check) and check Cyan area is OK message.



(5) Push the Update NVM from File



4.4. Tool Option Area Option Change

Before PCB check, have to change the Tool option and Area option

Option values are below

(If on changed the option, the input menu can differ the model spec.)

The input methods are same as other chassis(Use adj Key on the Adjust Remocon)

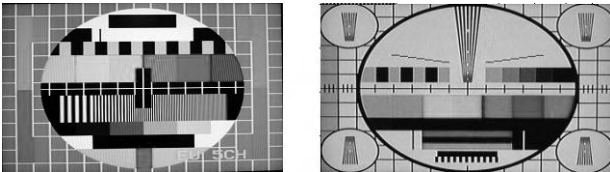
Tool Option		
Inch	ZA	TA
26	02240	04288
32	02256	04304
37	02264	04312
42	02272	04320
Area Option	Depend on PR	

4.5. Color carrier Adjustment (Inspection process)

(1) Tuning the RF signal

ZA, TA : PAL Philips Pattern(with color Bar)

MA : NTSC Digital Pattern(with color Bar)

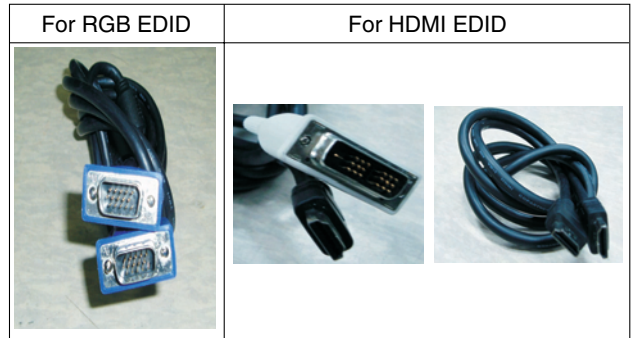


(2) push the "adj" key in the adjustment remocon.

5. EDID(The Extended Display Identification Data) /DDC(Display Data Channel) download

* Caution

- Use the proper signal cable for EDID Download.
- Never connect HDMI & D-SUB Cable at the same time.
- Use the proper cables below for EDID Writing.



* EDID Data

Item	Condition	Data
Manufacturer ID	GSM	1E6D
Version	Digital : 1	01
Revision	Digital :3	03

<EDID DATA Analog Set : 128bytes>

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D						
0010																
0020	11	49	4B	A1	08	00	31	40	01	01	01	01	45	40	01	01
0030	61	40	01	01	01	01	1B	21	50	A0	51	00	1E	30	48	88
0040	35	00	BC	88	21	00	00	1C	4E	1F	00	80	51	00	1E	30
0050	40	80	37	0	BC	88	21	00	00	18	00	00	00	FD	00	3A
0060	3F	1F	32	09	00	0A	20	20	20	20	20	20				
0070																

< EDID DATA HDMI Set : 256bytes>

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D						
0010																
0020	0F	48	4C	00	00	00	01	01	01	01	01	01	01	01	01	01
0030	01	01	01	01	01	01	8C	0A	D0	8A	20	E0	2D	10	10	3E
0040	96	00	C4	8E	21	00	00	18								
0050																
0060	41	19	32	8	00	0A	20	20	20	20	20	20	00	00	00	00
0070	00	00	00	00	00	00	00	00	00	00	00	00	00	00	01	
0080	02	03	1E	72	23	09	07	02	4B	10	1F	07	16	81	03	05
0090	14	13	12	04	83	01	00	00	65	03	0C	00	10	00	01	1D
00A0	80	18	71	1C	16	20	58	2C	25	00	C4	8E	21	00	00	9E
00B0	01	1D	80	D0	72	1C	16	20	10	2C	25	80	C4	8E	21	00
00C0	00	9E	01	1D	00	BC	52	D0	1E	20	B8	28	55	40	C4	8E
00D0	21	00	00	1E	8C	0A	D0	90	20	40	31	20	0C	40	55	00
00E0	C4	8E	21	00	00	18	01	1D	00	72	51	D0	1E	20	6E	28
00F0	55	00	C4	8E	21	00	00	1E	00	00	00	00	00	00	00	

=> Detail EDID Options are below(a, b, c, d, e)

a. Product ID

Model Name	Product ID		
	DEC	HEX	EDID table
32LC4R	30113(A)	75A1	A175
	30114(D)	75A2	A275
32LC7R	30115 (A)	75A3	A375
	30116 (D)	75A4	A475
42LC4R	40075 (A)	9C8B	8B9C
	40076 (D)	9C8C	8C9C
42LC7R	40077(A)	9C8D	8D9C
	40078(D)	9C8E	8E9C

- b. Serial No : Controlled on production line
- c. Month, Year : Controlled on production line
ex) Monthly: '03' => '03'
Year: '2005' => '0F'
- d. Model Name(Hex):

Model Name	Model Name(HEX)																
32LC4R-ZA	00	00	00	FC	00	33	32	4C	43	34	52	2D	5A	41	0A	20	20
42LC4R-ZA	00	00	00	FC	00	34	32	4C	43	34	52	2D	5A	41	0A	20	20

- e. Checksum (7EH) : Changeable by total EDID data

5.1. Sequence of Adjustment

- (1) DDC data of Analog-RGB
- 1) Init the data

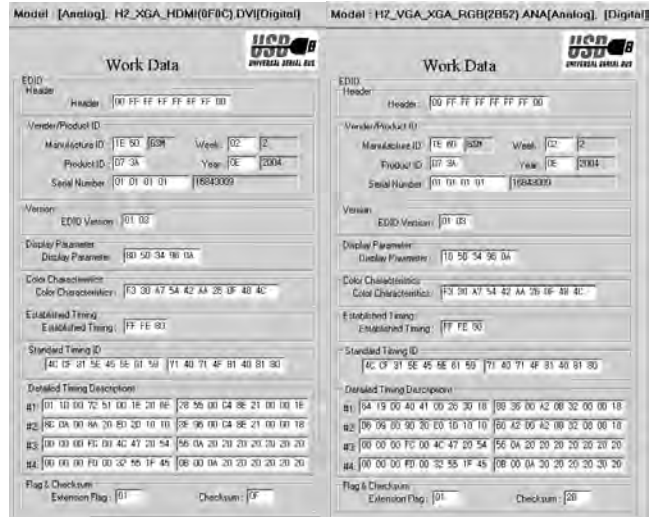


- 2) Load the EDID data. (Open file)
[Analog - RGB : LP78A_RGB.ANA]
[Digital - HDMI : LP78A_HDMI.DVI]

- 3) Set the S/W as below



- 4) Push the "Write Data & Verify" button. And confirm "Yes".
- 5) If the writing is finished, you will see the "OK" message.



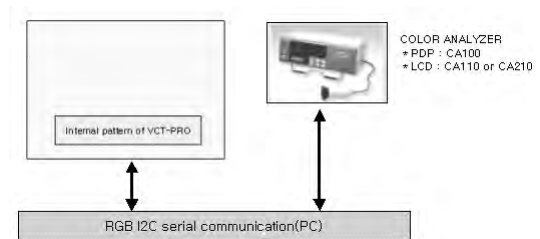
<EDID DATA>

6. Adjustment of White Balance

6.1. Required Equipment

- (1) Remote control for adjustment
- (2) Color Analyzer (CA-110 or CA-210 or same product)
- (3) Auto W/B adjustment instrument(only for Auto adjustment)

6.2. Connecting diagram of equipment for measuring (For Automatic Adjustment)



- (1) Enter the DDC adjust mode
 - Enter the DDC adjust mode at the same time heat-run mode when pushing the power on by power only key
 - Enter the adjust mode and change the input mode to AV (ZA : AV3, TA,MA : AV2)when pushing the Front av key
 - Maintain the DDC adjust mode with same condition of Heat-run -> Maintain after AC off/on in status of Heat-run pattern display
- (2) Release the DDC adjust mode
 - Release the adjust mode after AC off/on or std-by off/on in status of finishing the Hear-run mode
 - Release the Adjust mode when receiving the aging off command(F3 00 00) from adjustment equipment
 - Need to transmit the aging off command to TV set after finishing the adjustment.)

(3) DDC adjustment support command set

Adjustment	CMD(HEX)	ADR	
Aging On/Off	F3	00	FF : ON / OO : OFF
Input select	F4	00	0x10 : TV
			0x20 : AV1(SCART1)
			0x21 : AV2(SCART2)
			0x23 : AV3(Side AV)
			0x40 : Component1
			0x50 : RGB DTV
			0x60 : RGB PC
			0x90 : HDMI1 DTV
R GAIN	16	00	GAIN adjustment
G GAIN	18	00	
B GAIN	1A	00	

6.3. Adjustment of White Balance

(For Manual adjustment)

- Operate the zero-calibration of the CA-110 or CA-210, then stick sensor to LCD module when you adjust.
- For manual adjustment, it is also possible by the following sequence

- 1) Select RF no signal by pressing "POWER ON" key on remote control for adjustment then operate heat run more than 15 minutes.

(If not executed this step, the condition for W/B will be differ. The W/B condition is Picture Mode : Standard (MA : Optimum), Color Temp : Normal.)

- 2) Changing to the av mode by pushing the input or front av key.
- 3) Display the internal pattern of the VCT-Pro IC by pushing the IN-START.
- 4) Stick sensor to center of the screen and select each items (Red/Green/Blue Gain and Offset) using ▲/▼ (CH+/-) key on R/C.
- 5) Adjust R Gain / B Gain using ◀/▶ (VOL+/-) key on R/C.
- 6) Adjust it until color coordination becomes as below.

(Initially, R/G/B gain and R/G/B offset values are fixed as below)

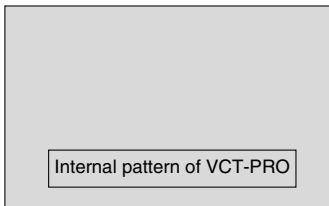
Red Gain : 80 , Green Gain : 80 , Blue Gain : 80
 Red Offset : 80 , Green Offset : 80 , Blue Offset : 80

* Target Value [Picture Mode : Standard (ZA, TA), Optimum(MA), Color Temp: Normal]

- Normal (9300K) x ; 0.283±0.003 y ; 0.298±0.003
- Luminance(Y) AV : upper 150 cd/m² (Typ : 350 cd/m²≥)

=> Reference Value(Automatically fixed)

- Cool(11000K): x:0.274±0.003, y: 0.286±0.003
- Warm(7200K) : x:0.303±0.003, y: 0.319±0.003



<Pattern for Adjustment of White Balance>

- 7) When adjustment is completed, Exit adjustment mode using EXIT key on R/C

6.4. Input the Shipping Option Data

- 1) Push the ADJ key in a Adjust Remote control.
- 2) Input the Option Number that was specified in the BOM, into the Shipping area.
- 3) The work is finished, Push ■ Key.

7. Default Value in Adjustment mode

(Default values maybe modified the module condition)

7.1. White Balance

White Bdance		
RED	Gain	80
Green	Gain	80
Blue	Gain	80
Red	Offset	80
Green	Offset	80
Blue	Offset	80

<Default Value on OSD>

8. Internal press test

Item	Value	Unit	Remark
Dielectric Voltage (AC <-> FG)	1.5	kV	At 100mA for 1sec (Line)
			At 100mA for 1min (OQC)
Dielectric Voltage (Without FG)	3	kV	At 100mA for 1sec (Line)
			At 100mA for 1min (OQC)

9. Sound spec.

Item	Min	Typ	Max	Unit	Remark
Audio Practical Max Output, L(Mono)/R	6	7	9	W	LCD

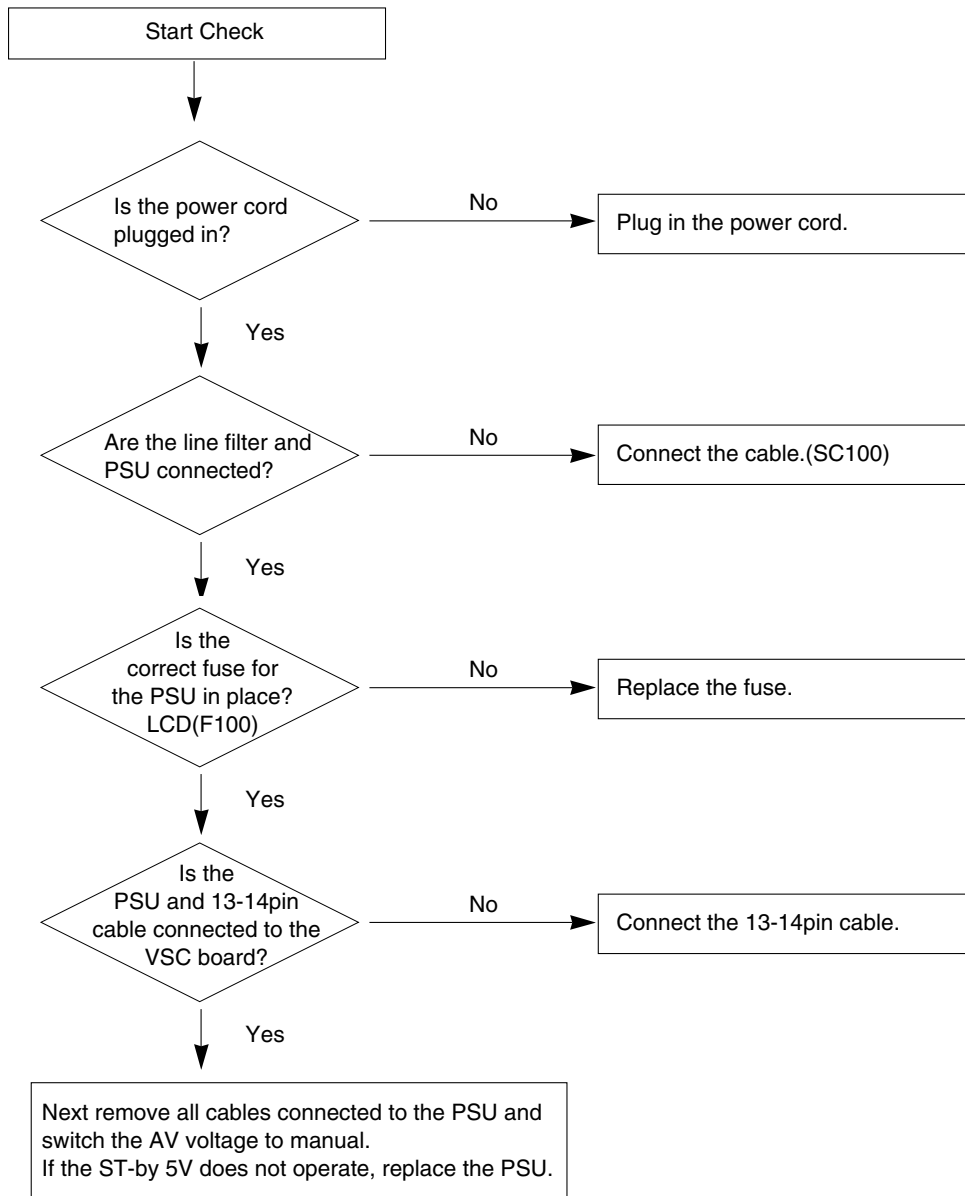
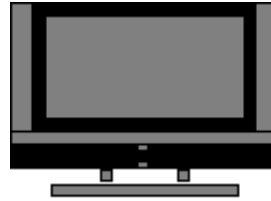
TROUBLESHOOTING

1. No power

(1) Symptom

- 1) Minute discharge does not occur at module.
- 2) Front LED does not activate.

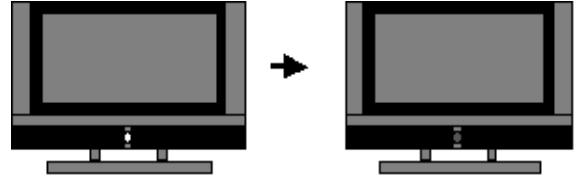
(2) Press check



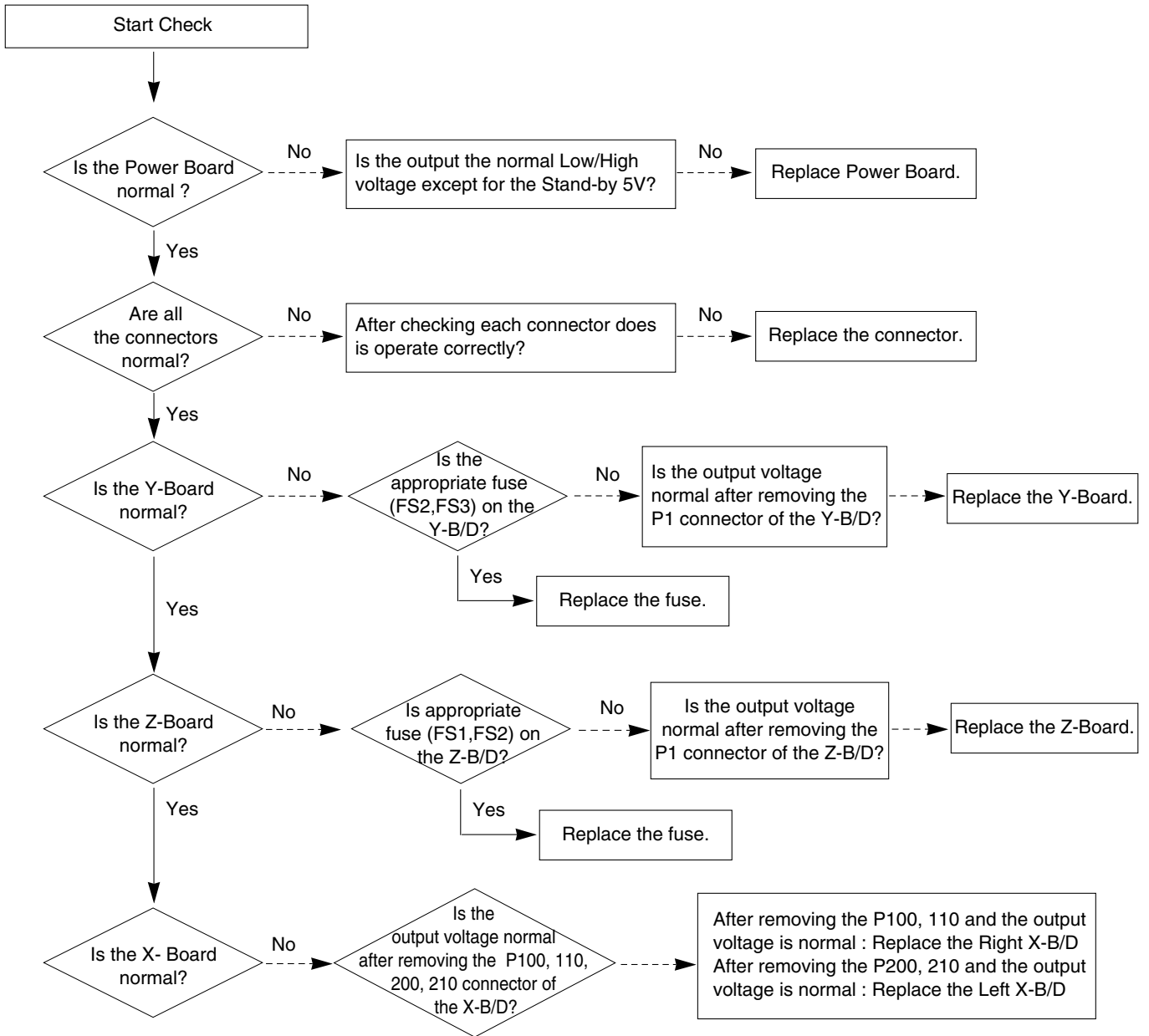
2. Protect mode

(1) Symptom

- 1) After lighting once it does not discharge minutely from the module.
- 2) The relay falls.(there is an audible "Click".)
- 3) The color of the front LED turns from green to red.



(2) Follow check



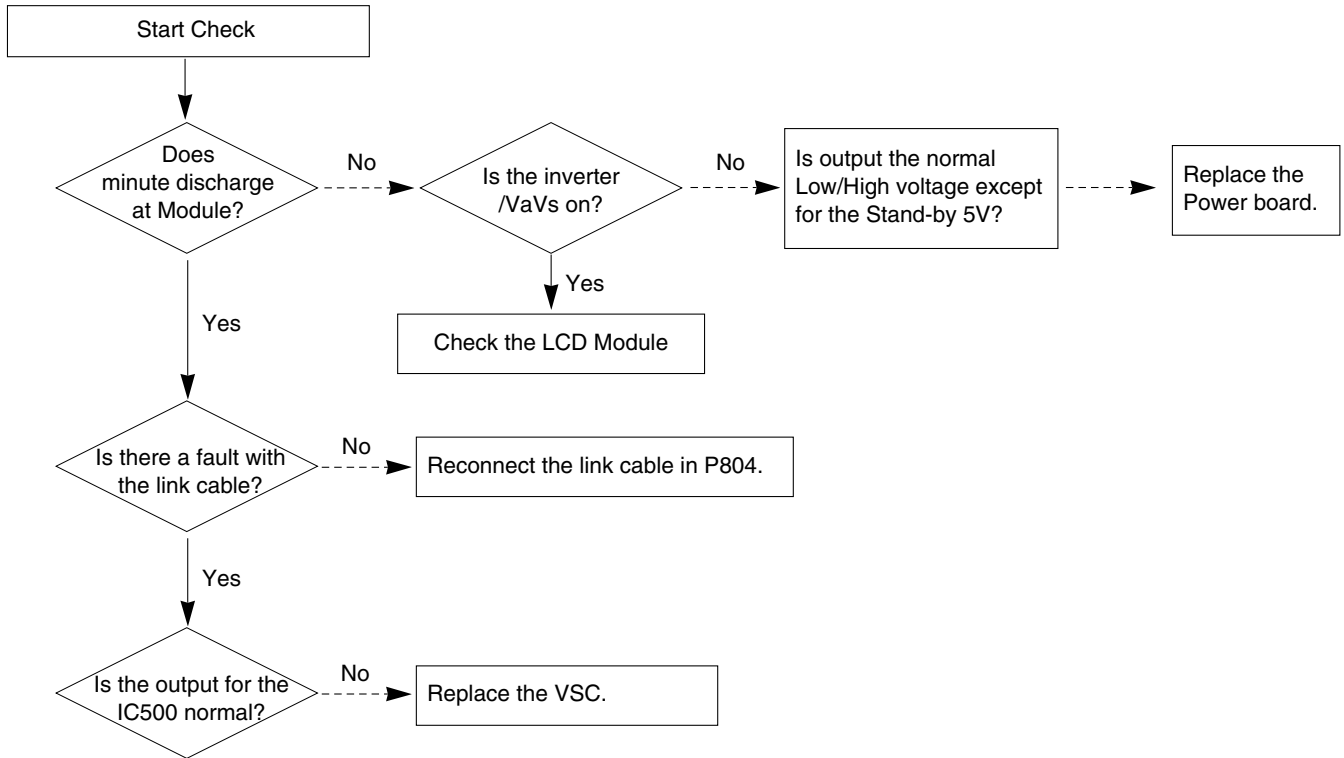
3. No Raster



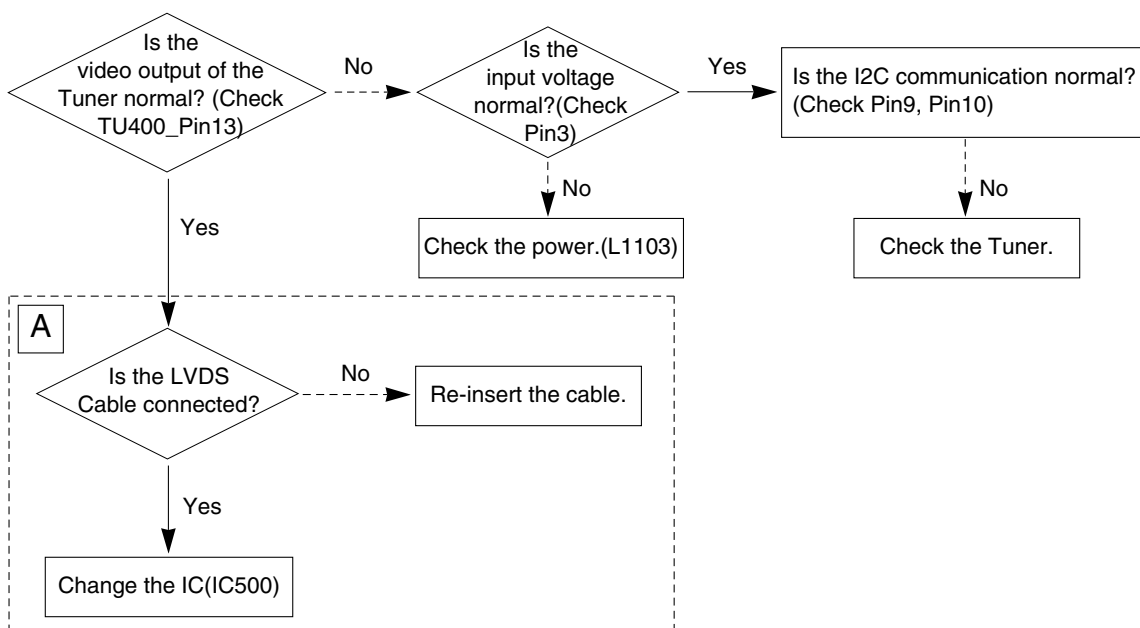
(1) Symptom

- 1) No OSD or image are displayed on the screen.
- 2) The front LED remains green.

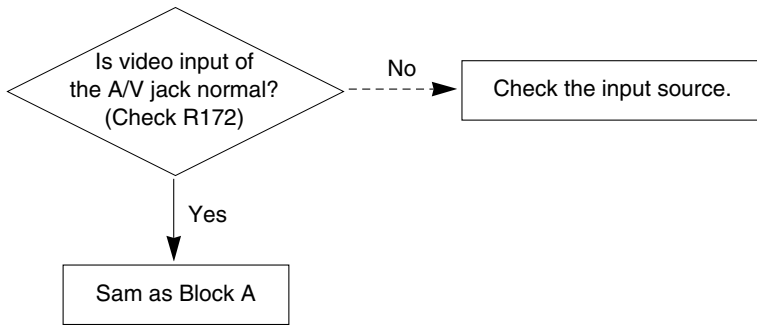
(2) Follow check



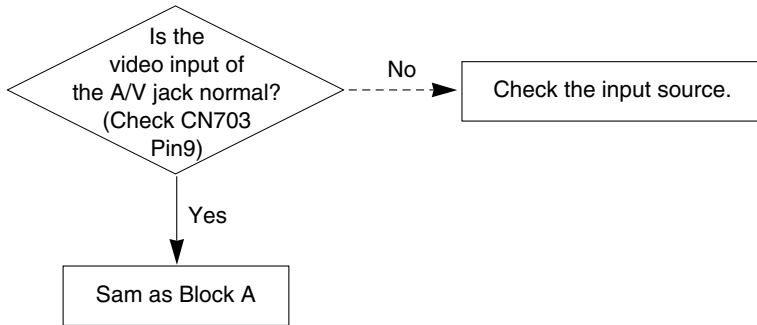
4. In the case an unusual display in RF mode.



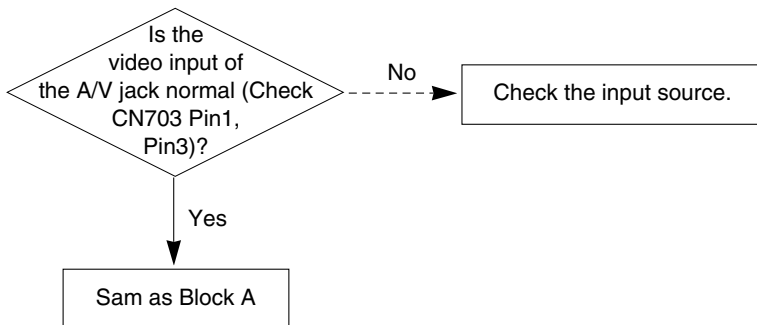
5. In the case of an unusual display in rear AV mode.



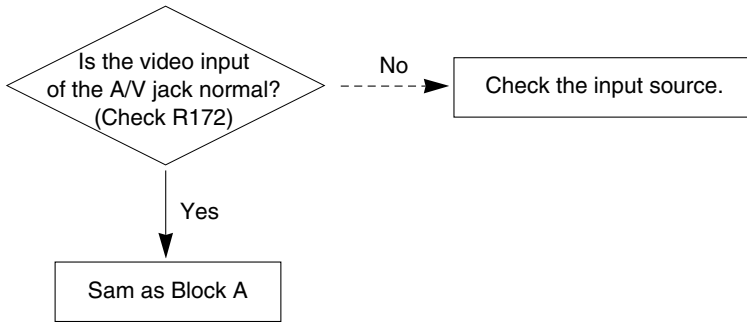
6. In the case of an unusual display in Side AV mode.



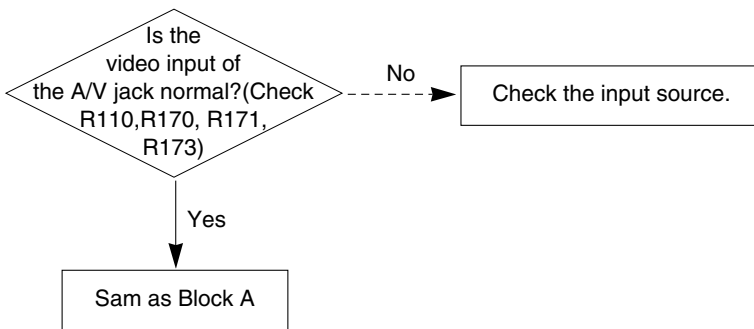
7. In the case of an unusual display in Side S-Video mode.



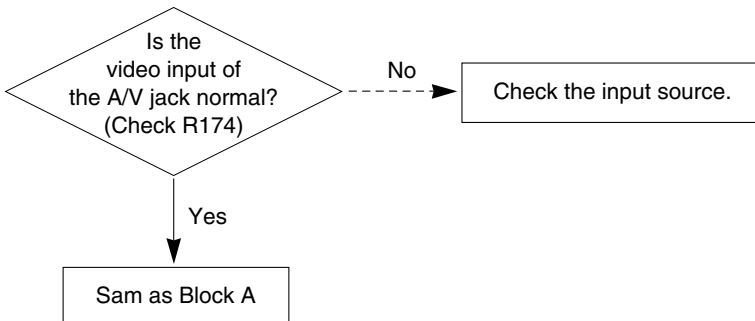
8. In the case of an unusual display in SCART 1 mode.



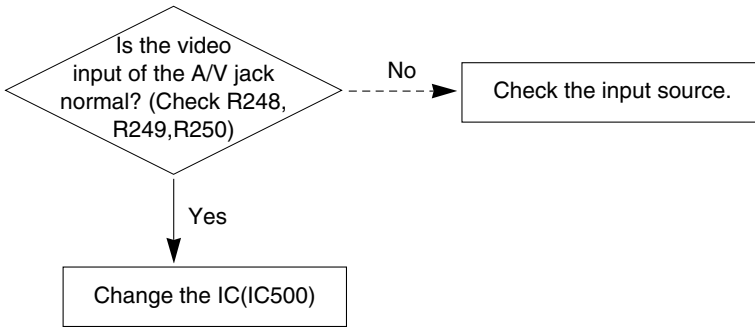
9. In the case of an unusual display in SCART 1_RGB mode.



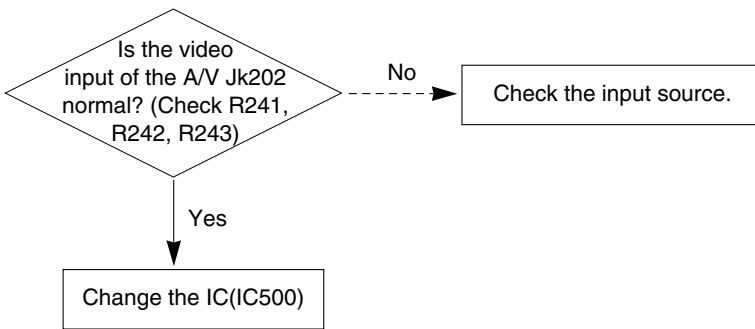
10. In the case of an unusual display in SCART 2 mode.



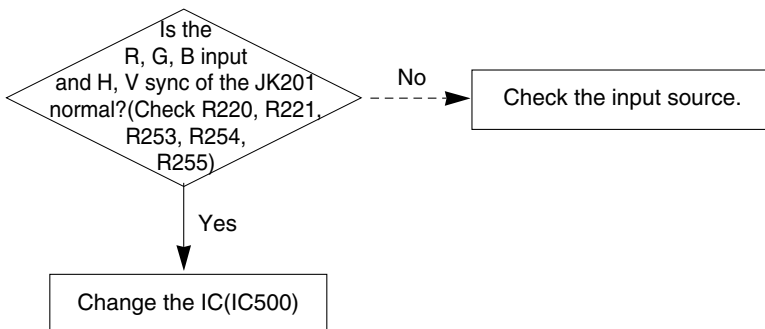
11. In the case of an unusual display in component 1 mode.



12. In the case of an unusual display in component 2 mode.



13. In the case of an unusual display in RGB mode.

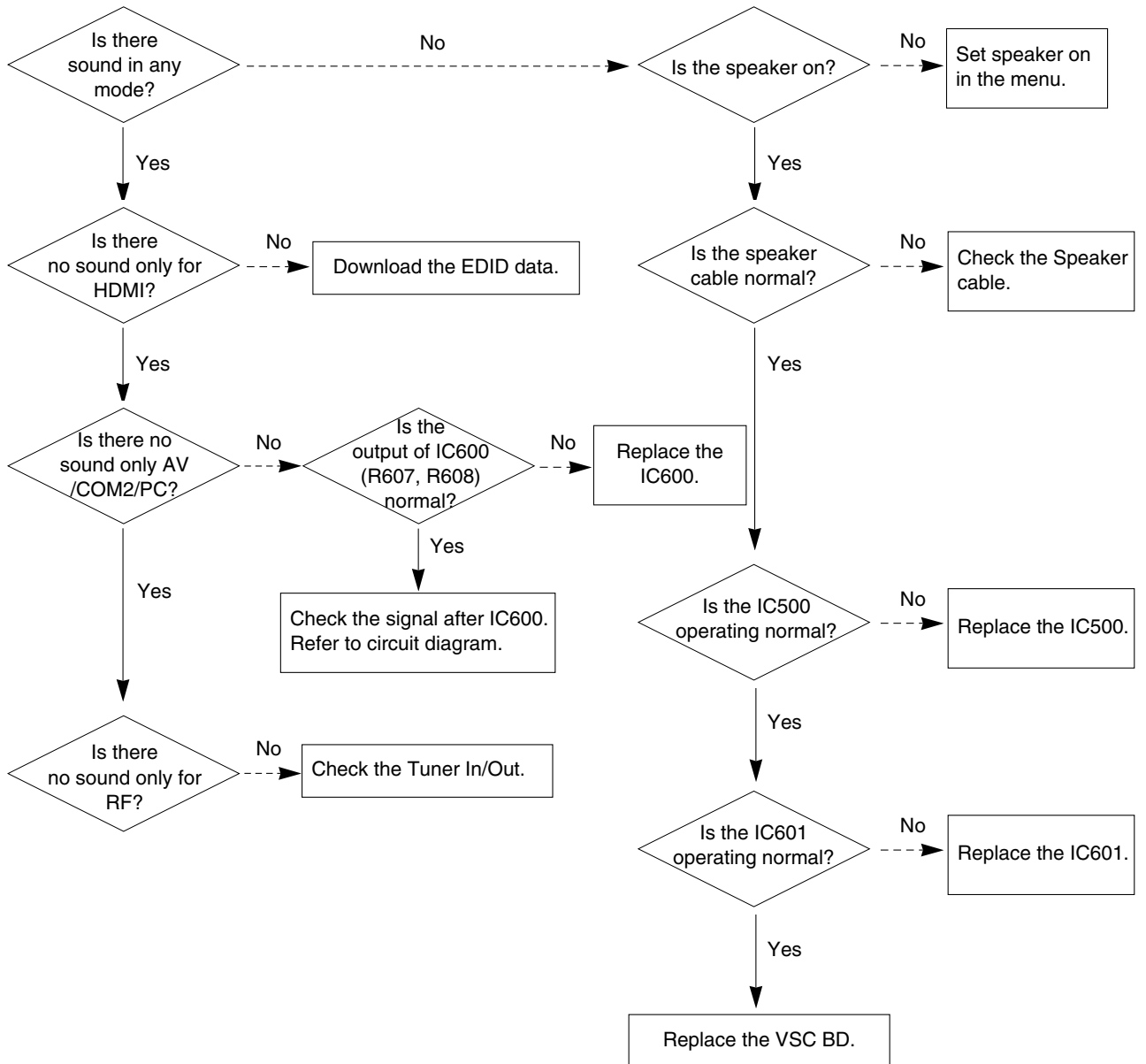


14. No Sound

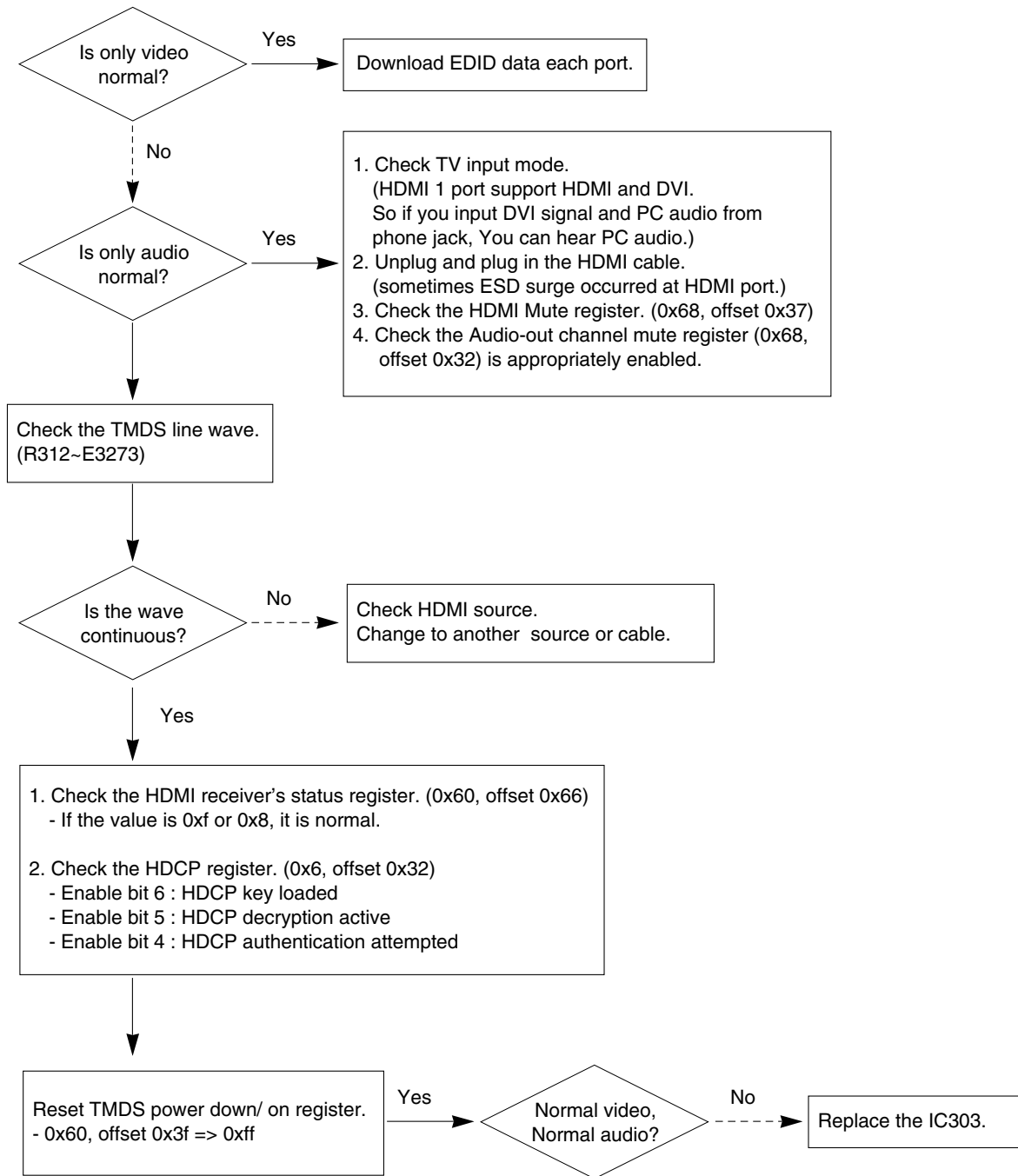
(1) Symptom

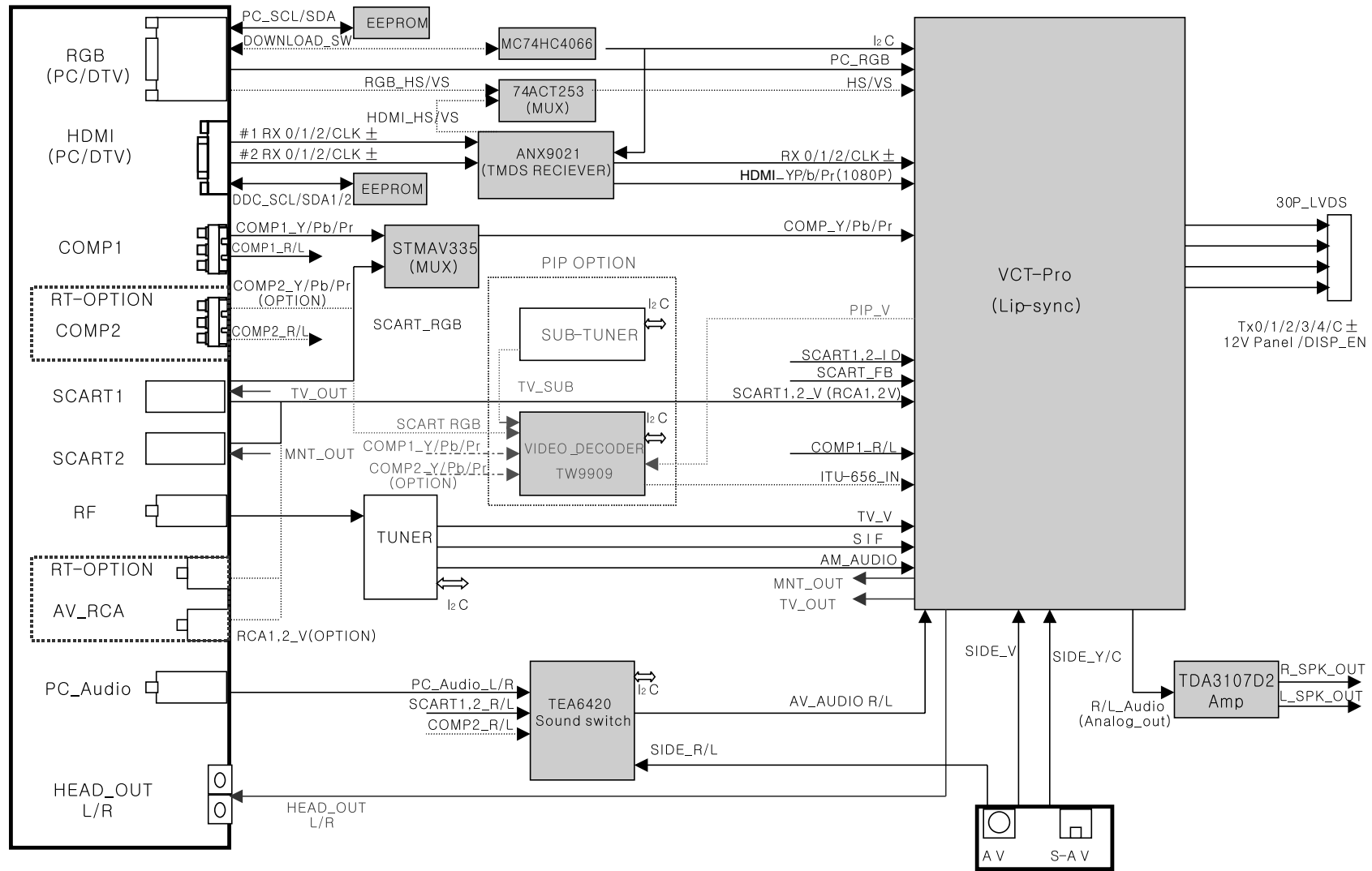
- 1) LED is green.
- 2) There is a picture but no sound.

(2) Follow check

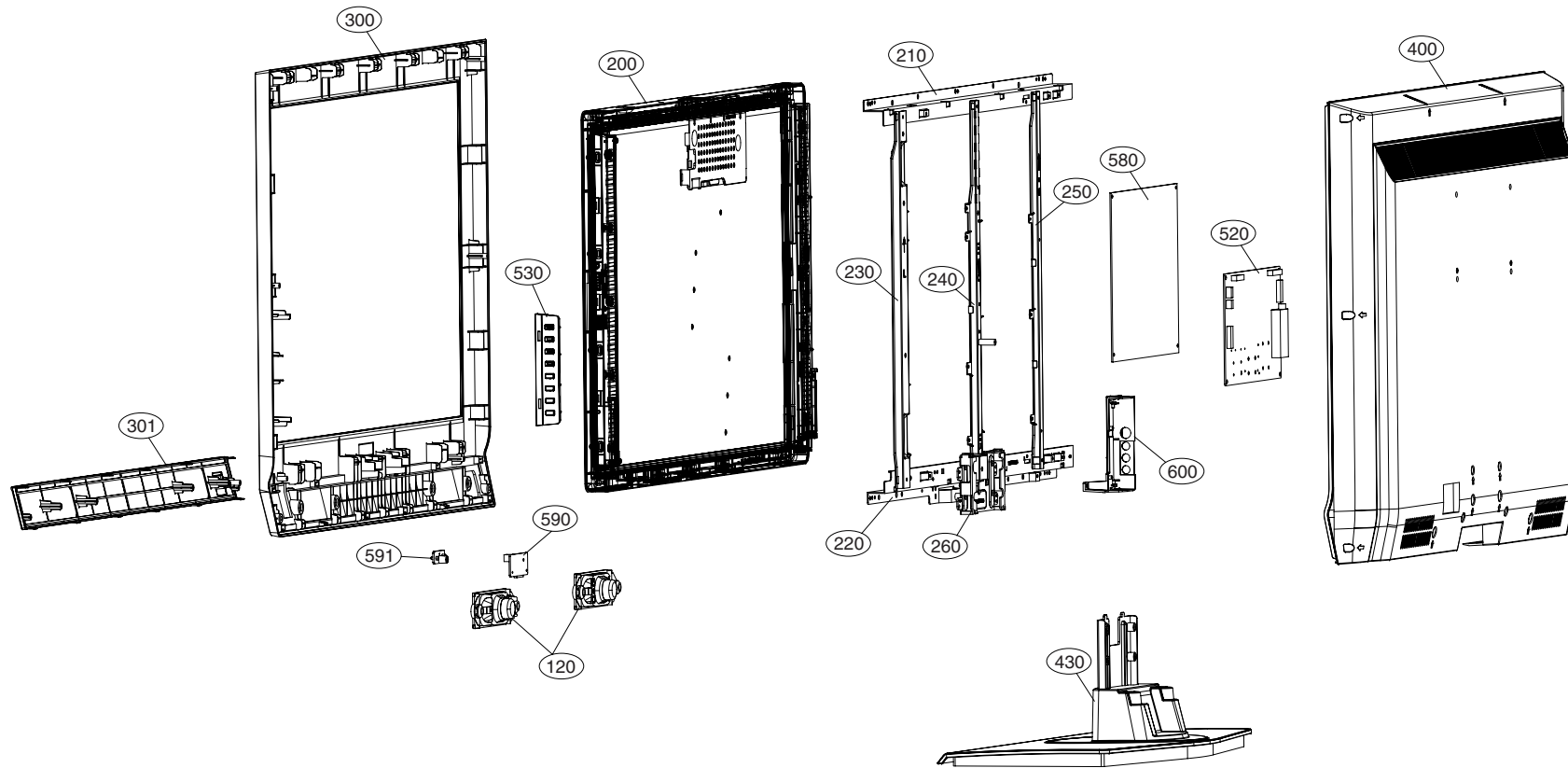


15. HDMI mode





BLOCK DIAGRAM



EXPLODED VIEW

EXPLODED VIEW PARTS LIST

* Note: Safety mark 

No.	PART NO.	DESCRIPTION
	120	EAB33496901 Speaker,Full Range 5B084 ND 10W 8OHM 82DB 120HZ 147 X 42 X 31 LUG
	200	EAJ37543301 LCD,Module-TFT LC320WX4-SLD2 WXGA 8ms(GTG),Zero RT Pol. 10000K LG PHILIPS LCD
	210	MJH32520201 Supporter PRESS EGI 1.2t GUIDE EGI METAL BAR, TOP (32LC4)
		MJH32520205 Supporter PRESS EGI 1.2t GUIDE EGI METAL BAR, TOP 32LC4R-ZA C/SKD
	220	MJH32520401 Supporter PRESS EGI 1.2t GUIDE EGI METAL BAR, BOTTOM (32LC4)
		MJH32520405 Supporter PRESS EGI 1.2t GUIDE EGI METAL BAR, BOTTOM 32LC4R-ZA C/SKD
	230	MJH32520501 Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, FOR POWER (32LC4)
		MJH32520503 Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, FOR POWER ,32LC4R-ZA C/SKD
	240	MJH32520602 Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, MIDDLE, V668, D2A
		MJH32520605 Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, MIDDLE, 32LC4 C/SKD
	250	MJH32520702 Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, FOR MAIN , D2A
		MJH32520703 Supporter PRESS EGI 1.0t GUIDE EGI .METAL BAR, 32LC4 C/SKD
	260	MGJ32973601 Plate PRESS SECC 1.6 SUPPORTER SBHG-A METAL JIG BOTTOM
	300	ABJ32467302 Cabinet Assembly 32LC7DA LT73A 32" CABINET ASSY FOR TAIWAN
		ABJ32885603 Cabinet Assembly 32LC52-ZC LP78A 32" H&C + DIRECT Hole, C/SKD
		ABJ32885604 Cabinet Assembly 32LC7R-ZA LP78A 32" H&C C/A + DIRECT HOLE
	301	ABA33223901 Bracket Assembly GRILLE 32LC7 LP78A
	400	ACQ32467601 Cover Assembly,Rear 32LC7R-ZA LP78A 32" BACK COVER ASSEMBLY
		ACQ32467606 Cover Assembly,Rear 32LC7R-ZA LP78A 32" BACK COVER ASSEMBLY FOR C/SKD
		ACQ32467612 Cover Assembly,Rear 32LC7R-ZA LP78A 32" BACK COVER ASSEMBLY PHANTOM FOR EU
		ACQ32467620 Cover Assembly,Rear 32LC51/7R-ZA LP78A - PHANTOM 32" BACK COVER ASSEMBLY
	430	AAN31752702 Base Assembly STAND 32LC4D-NF LA64F STAND ASSY HEAT&COOL
		AAN31752703 Base Assembly STAND 32LC4 TOOL LA64F STAND ASSY C/SKD
		AAN31752704 Base Assembly STAND 32LC4 TOOL LA64F STAND ASSY C/SKD H&
	520	EBR35512904 Hand Insert PCB Assembly MAIN M.I LP78A H4 EU MAIN . HAND INSERT For LGEWR
		EBR35512905 Hand Insert PCB Assembly MAIN M.I LP78A H4 EU MAIN FOR CKD From China To WR
		EBR35843501 PCB Assembly MAIN T.T LP78A 32LC4R-ZA . Total
		EBR35843504 PCB Assembly MAIN T.T LP78A 32LC4R-ZA . Main Total For CKD . China
	530	EBR36204701 PCB Assembly,Sub SUB T.T LP78A H4 26LCD Model . CONTROL
		EBR36204702 PCB Assembly,Sub SUB T.T LP78A H4 LCD Model CONTROL . FOR CKD
	580	EAY34795001 Power Supply Assembly LGIT_32inch FREE Tornado 32inch LCD LGIT LCD Tornado 32inch
	590	EBR35685301 PCB Assembly,Sub SUB T.T LP78A 32LC7R . PRE-AMP IR
		EBR35685302 PCB Assembly,Sub SUB T.T LP78A 32LC7R . PRE-AMP IR For CKD
	591	MES36332301 Indicator MOLD ABS LED&PRE AMP 47LC7 PMMA 7 PHY NONE
		MKC34384901 Window MOLD PMMA WINDOW 32/37/42/47LC7 PMMA LED & PRE AMP
	600	EBR35705201 PCB Assembly SUB T.T LP78A 32LC7R . SIDE
		EBR35705202 PCB Assembly SUB T.T LP78A 32LC7R . EU SIDE For CKD

REPLACEMENT PARTS LIST

DATE: 2007. 02. 07.

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
CAPACITORS					
C100	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C311	0CE106SH6DC	VMV106M025S0ANB010 10uF 20% 25V 20MA -40TO+85
C100	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125C 2	C312	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P -30TO+85C 160
C100	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125C 2	C316	0CE106SH6DC	VMV106M025S0ANB010 10uF 20% 25V 20MA -40TO+85
C101	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C316	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105C
C101	0CE476VF6DC	VG476M016S0ANE010 47uF 20% 16V 70MA -40TO+85	C317	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C101	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125C 2	C318	0CE106SH6DC	VMV106M025S0ANB010 10uF 20% 25V 20MA -40TO+85
C102	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130MA -40TO+85	C319	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C102	0CE476VF6DC	VG476M016S0ANE010 47uF 20% 16V 70MA -40TO+85	C320	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 16
C103	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V -40TO+85C G	C321	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 16
C103	0CE476VF6DC	VG476M016S0ANE010 47uF 20% 16V 70MA -40TO+85	C322	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 16
C104	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V -40TO+85C G	C400	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C104	0CH6330K416	C2012C0G1H330JT 33p 5% 50V C0G -55TO+125C 201	C401	0CC390CK41A	C1608C0G1H390JT 39pF 5% 50V C0G -55TO+125C 16
C105	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C402	0CC390CK41A	C1608C0G1H390JT 39pF 5% 50V C0G -55TO+125C 16
C106	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C403	0CE107SF6DC	VMV107M016S0ANE010 100uF 20% 16V 91A -40TO+85
C110	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1	C404	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C111	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1	C405	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C112	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1	C406	0CK273CK56A	0603B273K500CT 27nF 10% 50V X7R -55TO+125C 16
C113	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1	C408	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130MA -40TO+85
C114	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C409	0CK273CK56A	0603B273K500CT 27nF 10% 50V X7R -55TO+125C 16
C115	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C410	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 16
C116	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130MA -40TO+85	C411	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C117	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V -40TO+85C G	C412	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C118	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C500	0CK225DD66A	LMK212JB225MG-T 2.2uF 20% 10V X7R -55TO+125C
C119	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C501	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C120	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V -40TO+85C G	C502	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C200	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C503	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C201	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C504	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C204	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C505	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C205	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C506	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C206	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V -40TO+85C G	C507	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C206	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105C	C508	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C213	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C509	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C214	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160	C510	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C215	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85	C511	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C216	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85	C512	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C217	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85	C513	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C218	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85	C514	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C219	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85	C515	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C220	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85	C516	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V -40TO+85C G
C221	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R -55TO+125C 1	C516	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105C
C225	EAE32755801	CL31A106K5HNNNE 10uF 10% 16V X5R -55TO+85C 32	C517	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C226	EAE32755801	CL31A106K5HNNNE 10uF 10% 16V X5R -55TO+85C 32	C518	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C227	EAE32755801	CL31A106K5HNNNE 10uF 10% 16V X5R -55TO+85C 32	C519	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C302	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C520	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C303	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C521	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C307	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C522	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C308	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -55TO+125C 16	C525	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C309	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C526	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C310	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -55TO+125C 16	C527	0CE335WK6D8	MVK4.0TP50VC3.3M 3.3uF 20% 50V 14MA -40TO+105
			C528	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C529	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R -55TO+125C	C612	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -55TO+125C 1
C530	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R -55TO+125C	C613	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -55TO+125C 1
C531	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R -55TO+125C	C614	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3
C532	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R -55TO+125C	C615	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3
C533	0CE106WH6DC	MVK5.0TP25VC10M 10uF 20% 25V 25MA -40TO+105C	C617	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3
C534	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C618	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3
C535	0CC560CK41A	C1608C0G1H560JT 56pF 5% 50V C0G -55TO+125C 16	C619	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -55TO+125C 160
C536	0CC560CK41A	C1608C0G1H560JT 56pF 5% 50V C0G -55TO+125C 16	C620	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -55TO+125C 160
C537	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 16	C621	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1
C538	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C 16	C622	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1
C539	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C623	0CC270CK41A	C1608C0G1H270JT 27pF 5% 50V C0G -55TO+125C 16
C540	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C624	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C541	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C625	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C542	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C626	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C543	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C627	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C544	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C628	0CE106WH6DC	MVK5.0TP25VC10M 10uF 20% 25V 25MA -40TO+105C
C545	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C628	JCE8106J691	MVK5.0TP35VC10M 10uF 20% 35V 25MA -40TO+105C
C546	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C629	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85
C547	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C629	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C548	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C630	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C549	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C631	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO+85
C550	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C632	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X7R -55TO+12
C551	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C633	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X7R -55TO+12
C552	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C634	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X7R -55TO+12
C553	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C635	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X7R -55TO+12
C554	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C636	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C555	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C 3	C637	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C556	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C 3	C638	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C557	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C 3	C639	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C558	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C640	0CE477BJ618	ESM477M035T1G5H20G 470uF 20% 35V 610MA -55TO+
C559	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C641	0CE477BJ618	ESM477M035T1G5H20G 470uF 20% 35V 610MA -55TO+
C563	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C642	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C564	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C643	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C568	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C644	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C569	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C645	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y5V -30TO+85
C570	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C646	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C571	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C647	0CE107WJ6DC	MVK10TP35VC100M 100uF 20% 35V 310MA -40TO+85C
C572	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C648	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C573	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C649	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C573	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C650	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C574	0CE475WJ6DC	MVK4.0TP35VC4.7M 4.7uF 20% 35V 15MA -40TO+85C	C651	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C575	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C652	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C575	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1	C653	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C576	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C700	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 160
C600	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1	C701	0CE107WH6DC	MVK8.0TP25VC100M 100uF 20% 25V 180MA -40TO+85
C601	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105	C702	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C602	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16	C703	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C603	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P -30TO+85C 1	C704	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C604	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3	C708	0CE226SF6DC	VMV226M016S0ANB010 22uF 20% 16V -40TO+85C G
C605	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3	C709	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C607	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3	C710	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C608	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3	C711	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C609	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105C	C712	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C610	0CE475WJ6DC	MVK4.0TP35VC4.7M 4.7uF 20% 35V 15MA -40TO+85C	C713	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C611	0CE475WJ6DC	MVK4.0TP35VC4.7M 4.7uF 20% 35V 15MA -40TO+85C	C714	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C801	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80MA -40TO+105
C804	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C805	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V Y5V -30TO+
C807	0CE107WH6DC	MVK8.0TP25VC100M 100uF 20% 25V 180MA -40TO+85
C808	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C809	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C810	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C811	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C812	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C813	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C814	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C815	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C816	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C818	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C819	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C820	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C820	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130MA -40TO+85
C821	0CE477WF6DC	MVK10TP16VC470M 470uF 20% 16V 80MA -40TO+105C
C822	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C823	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C824	0CE476SF6DC	VMV476M016S0ANC010 47uF 20% 16V -40TO+85C G
C825	0CE107SF6DC	VMV107M016S0ANE010 100uF 20% 16V 91A -40TO+85
C825	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C826	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C827	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C828	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C828	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80MA -40TO+105
C829	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C830	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+105
C831	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C832	0CE107SF6DC	VMV107M016S0ANE010 100uF 20% 16V 91A -40TO+85
C833	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125C 1
C834	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3
C835	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85C 3
C836	0CK226FF67A	EMK325BJ226MM-T 22uF 20% 16V X5R -55TO+85C 32
C837	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C837	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C838	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C 3
C839	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C839	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C 16
C840	0CK272CK46A	0603B272J500CT 2.7nF 10% 50V X7R -55TO+125C 1
DIODES		
D100	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D101	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D101	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D101	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D102	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D102	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D102	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D103	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D103	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D104	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D104	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP

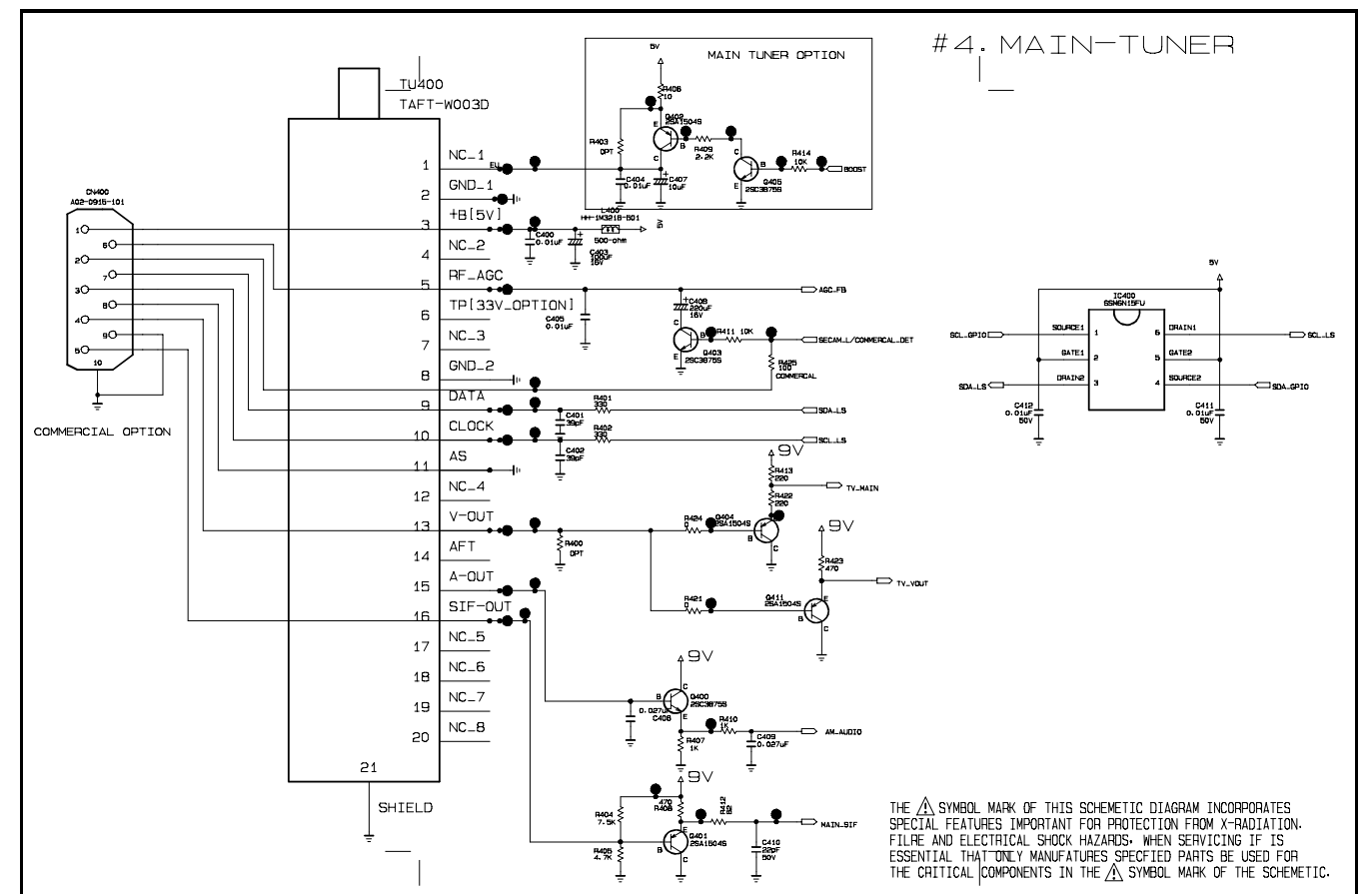
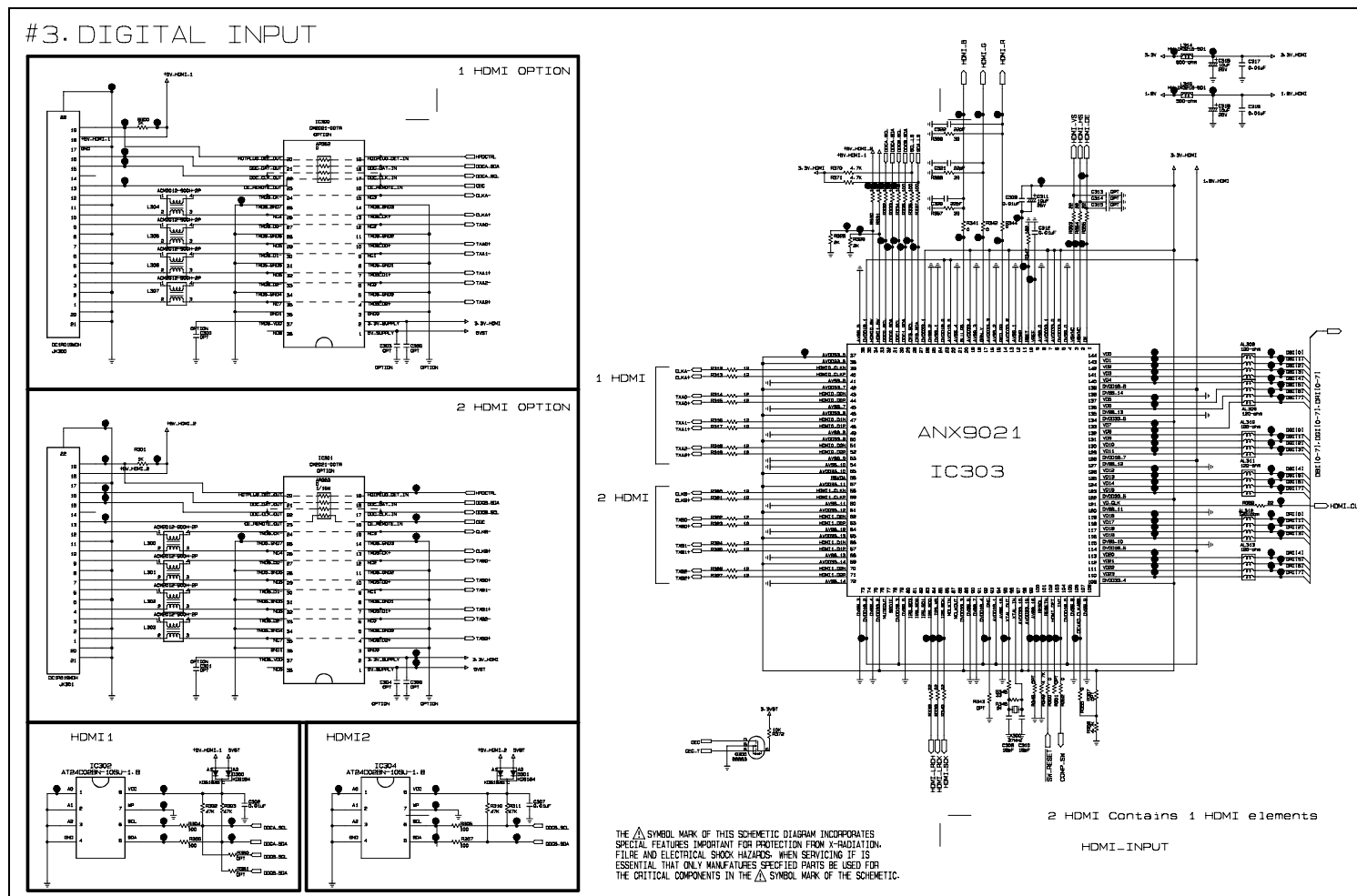
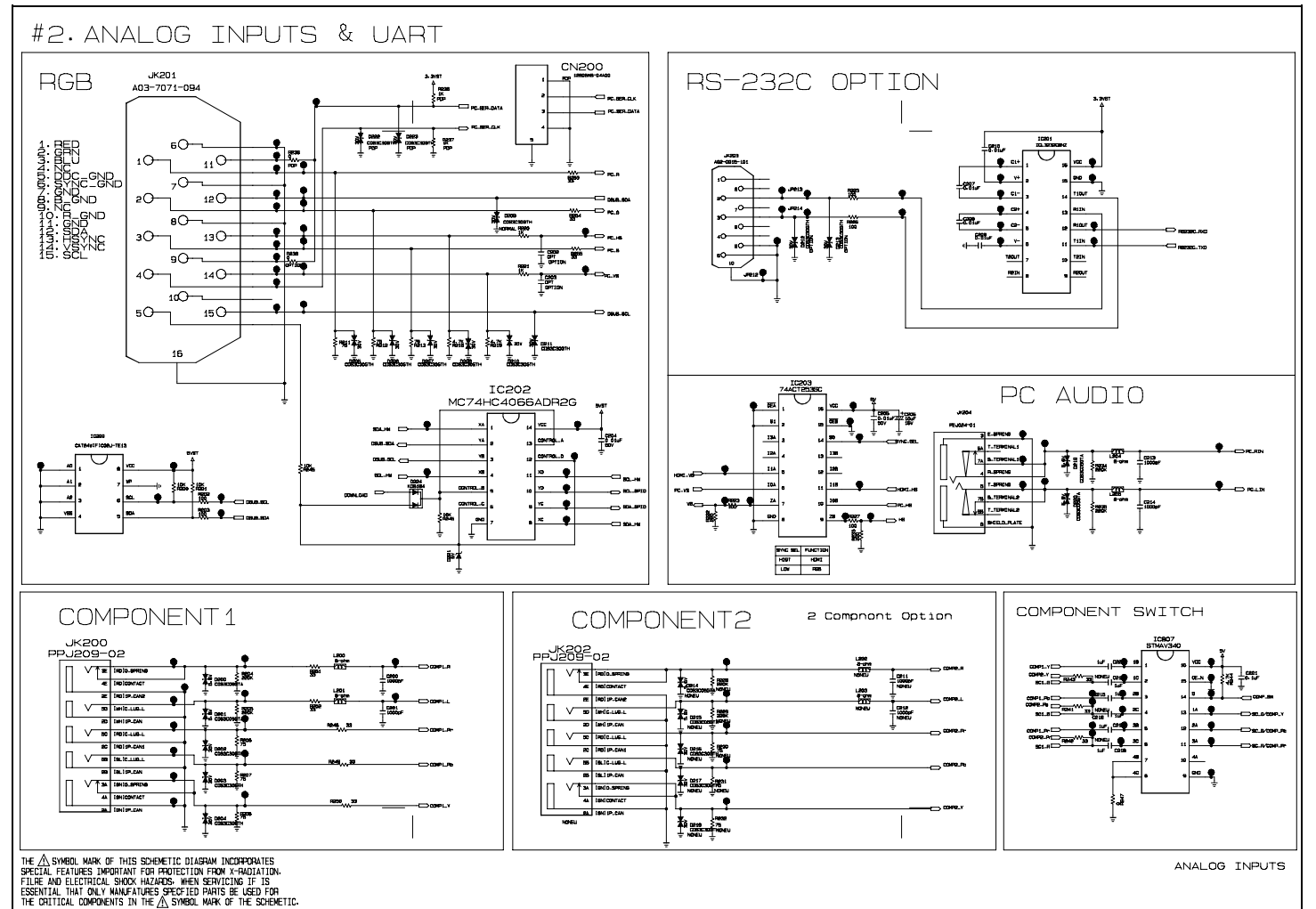
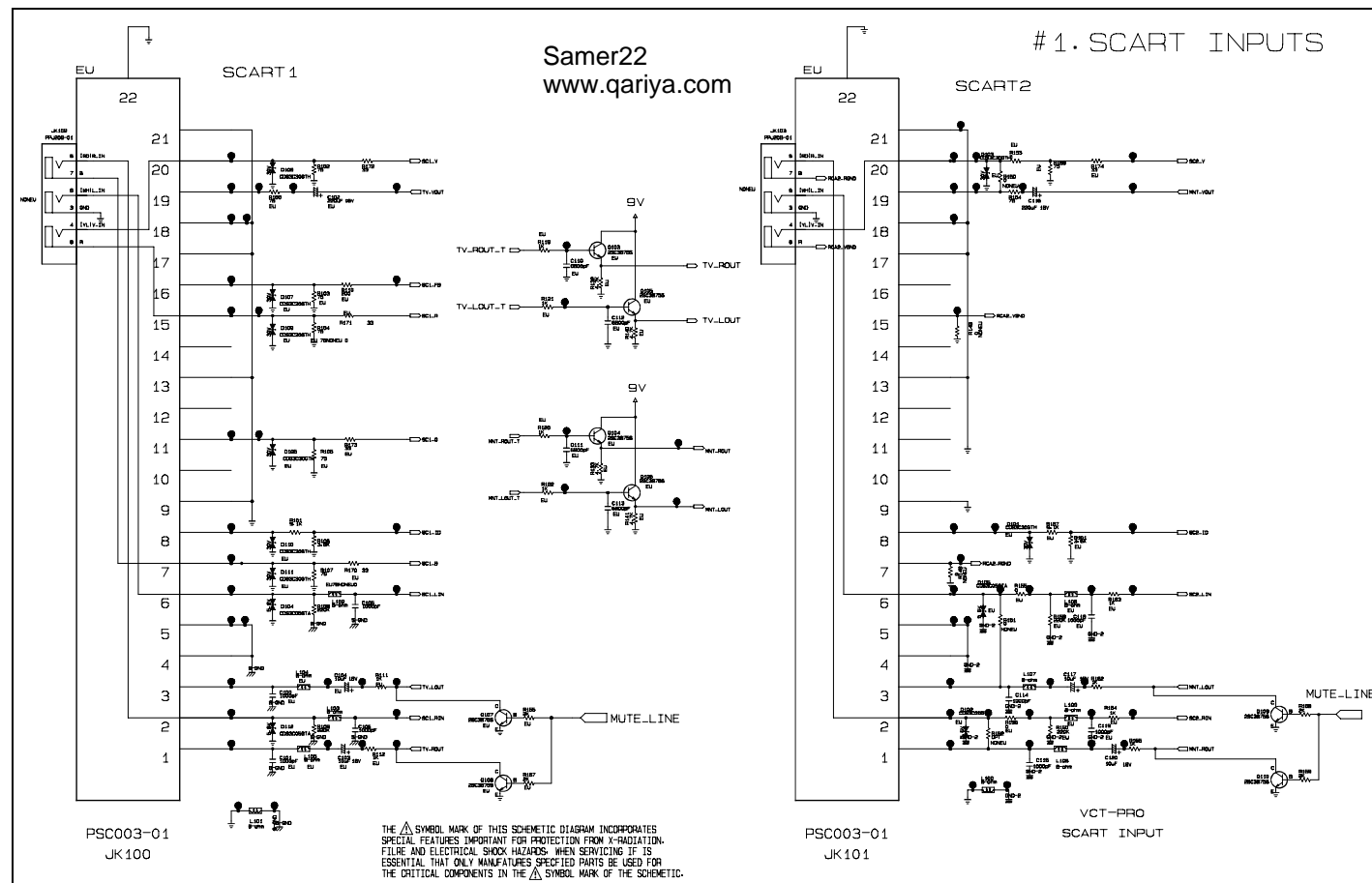
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
D105	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D106	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D107	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D108	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D109	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D110	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D111	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D112	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D200	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D201	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D202	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D203	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D204	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D205	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D206	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D207	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D208	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D208	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D209	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D209	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D210	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D210	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D211	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D211	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D219	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D220	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W SOD123 R/TP
D221	ODR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323 R/TP 2P 1
D224	ODSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3NSEC 150MW S
D300	ODSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3NSEC 150MW S
D301	ODSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3NSEC 150MW S
D302	ODSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3NSEC 150MW S
D600	ODSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3NSEC 150MW S
D700	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D701	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SOD123 R/TP 2
D801	ODZKE00048A	KDZ8.2V 8.2V 7.7TO8.7V 20OHM 200MW USC R/TP 2
D803	ODR340009AA	MBSRS340 525MV 40V 4A 0SEC 0F 0W DO214 R/TP 2P
ICs		
IC200	OIMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT 1.8VTO5.5V
IC202	OISTL00031A	MC74HC4066ADR2G MC74HC4066ADR2G,LF ON SEMI
IC203	OIFA742530B	74ACT253SC 4.5TO5.5V 0.004mA MULTIPLEXER SOIC
IC302	OIMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT 1.8VTO5.5V
IC303	OIPRP00735A	ANX9021 3.3V 60u 17MHZ TQFP TR 144P ARKIAN
IC304	OIMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT 1.8VTO5.5V
IC500	EAN35336801	VCT7993P- FA-A1-H-000 1.71VTO1.89V,3.15VTO3.4
IC501	OIMMRAL025A	AT24C32AN-10SU-2.7 32KBIT 4096X8BIT 2.7VTO5.5
IC502	OIFA752700A	KA75270Z 2.55TO2.85V 0 200MW TO92 R/TP 92P F
IC600	OIPRP00665A	TEA6420D 8TO10.2V 8mA 0 SO R/TP 28P ST MICRO
IC601	EAN35502001	TPA3107D2 10TO26V 50mV 0.1% 15W 0W 70dB 2 HTQ
IC800	EAN32662801	KA7809ERTM 35V to 40V 9V 1W DPAK R/TP 3P FAI
IC801	EAN35520901	MP2355DN-LF-Z 4.75V ~ 23V 2.5V ~ 12V 0W SOIC
IC802	OIPMG78341A	AZ1085S-3.3TR/E1,LF 12V 3.3V 0W TO263 R/TP 3P
IC803	OIPMG78341A	AZ1085S-3.3TR/E1,LF 12V 3.3V 0W TO263 R/TP 3P
IC805	EAN34140401	AZ1085S-1.8TR/E1 1.238V to 12V 1.8V 2W TO-263

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
IC807	EAN32724702	STMAV340 4.0TO5.5V 5NSEC 5NSEC 0W TSSOP R/TP	R101	0RH0752D622	MCR10EZHJ750 75OHM 5% 1/8W 2012 R/TP ROHM
IC809	0IPMG00049A	AZ1117H-1.8TR/E[1H13A] 3.2TO10V 1.8V 0W SOT22	R101	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012 R/TP ROHM
TRANSISTORS & FETs					
IC301	0TFTH80001A	SSM6N15FU N-CHANNEL MOSFET 30V +-20V 100MA 0.	R101	0RJ9101D677	MCR03EZPJ912 9.1KOHM 5% 1/10W 1608 R/TP ROHM
IC305	0TFTH80001A	SSM6N15FU N-CHANNEL MOSFET 30V +-20V 100MA 0.	R102	0RH1002D622	MCR10EZHJ103 10KOHM 5% 1/8W 2012 R/TP . ROHM
IC306	0TFTH80001A	SSM6N15FU N-CHANNEL MOSFET 30V +-20V 100MA 0.	R102	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012 R/TP ROHM
IC400	0TFTH80001A	SSM6N15FU N-CHANNEL MOSFET 30V +-20V 100MA 0.	R102	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012 R/TP ROHM
Q100	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R102	0RH4700D622	MCR10EZHJ471 470OHM 5% 1/8W 2012 R/TP ROHM
Q101	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R102	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
Q103	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R103	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
Q104	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R103	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012 R/TP ROHM
Q105	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R103	0RH2203D622	MCR10EZHJ224 220KOHM 5% 1/8W 2012 R/TP ROHM
Q106	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R103	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012 R/TP ROHM
Q107	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R103	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
Q108	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R104	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
Q109	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R104	0RH1002D622	MCR10EZHJ103 10KOHM 5% 1/8W 2012 R/TP . ROHM
Q110	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R104	0RH4700D622	MCR10EZHJ471 470OHM 5% 1/8W 2012 R/TP ROHM
Q200	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R104	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012 R/TP ROHM
Q204	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R104	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
Q205	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R105	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
Q206	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R105	0RH2203D622	MCR10EZHJ224 220KOHM 5% 1/8W 2012 R/TP ROHM
Q400	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R105	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012 R/TP ROHM
Q401	0TR1H80002A	2SA1530A-T112-1R PNP -6V -60V -50V -0.15A -0.	R105	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
Q403	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R106	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
Q404	0TR1H80002A	2SA1530A-T112-1R PNP -6V -60V -50V -0.15A -0.	R106	0RH0332D622	MCR10EZHJ330 330OHM 5% 1/8W 2012 R/TP ROHM
Q411	0TR1H80002A	2SA1530A-T112-1R PNP -6V -60V -50V -0.15A -0.	R106	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012 R/TP ROHM
Q500	0TR102009AM	KRA102S PNP -30V 0V -50V -0.1A -0.0000005A 50	R106	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012 R/TP ROHM
Q501	0TR1H80002A	2SA1530A-T112-1R PNP -6V -60V -50V -0.15A -0.	R106	0RJ3601D677	MCR03EZPJ362 3.6KOHM 5% 1/10W 1608 R/TP ROHM
Q502	0TR1H80002A	2SA1530A-T112-1R PNP -6V -60V -50V -0.15A -0.	R107	0RH0752D622	MCR10EZHJ750 75OHM 5% 1/8W 2012 R/TP ROHM
Q503	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R107	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012 R/TP ROHM
Q504	0TR1H80002A	2SA1530A-T112-1R PNP -6V -60V -50V -0.15A -0.	R107	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012 R/TP ROHM
Q600	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R107	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
Q601	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R108	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
Q602	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R108	0RH0332D622	MCR10EZHJ330 330OHM 5% 1/8W 2012 R/TP ROHM
Q603	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R108	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012 R/TP ROHM
Q700	EBK32753101	SI4925BDY P-CHANNEL MOSFET -30V +-20 -7.1A 0.	R108	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608 R/TP ROHM
Q701	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R109	0RH0752D622	MCR10EZHJ750 75OHM 5% 1/8W 2012 R/TP ROHM
Q800	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R109	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608 R/TP ROHM
Q801	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R110	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
Q803	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R110	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W 1608 R/TP ROHM
Q804	0TR1Y80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 1	R111	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
RESISTORS					
L402	0RJ0000G676	MCR18EZHJ000_0OHM 5% 1/4W 3216 R/TP-T ROHM	R111	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
L710	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R112	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R1	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R112	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R1	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R114	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
R100	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R115	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
R100	0RH0332D622	MCR10EZHJ330 330OHM 5% 1/8W 2012 R/TP ROHM	R116	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
R100	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM	R117	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R119	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R120	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R121	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R122	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R132	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R133	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R140	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R141	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R153	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM

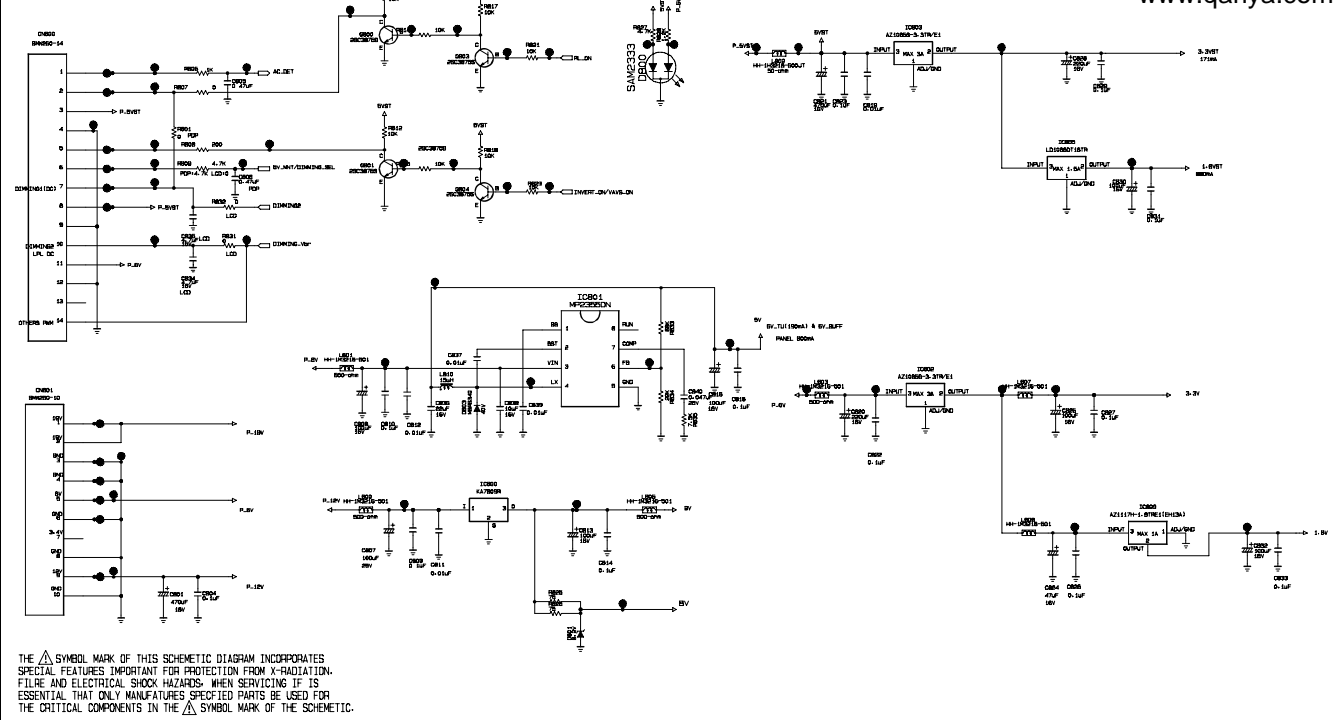
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R340	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R/TP ROHM	R512	0RJ1802D677	MCR03EZPJ183 18KOHM 5% 1/10W 1608 R/TP ROHM
R341	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R513	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R342	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R514	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R344	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R515	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R345	0RJ0332D677	MCR03EZPJ330 330OHM 5% 1/10W 1608 R/TP ROHM	R516	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R346	0RJ1004D677	MCR03EZPJ105 1MOHM 5% 1/10W 1608 R/TP ROHM	R517	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R347	0RJ0332D677	MCR03EZPJ330 330OHM 5% 1/10W 1608 R/TP ROHM	R518	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R347	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608 R/TP ROHM	R519	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R349	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R520	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R350	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R521	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R352	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R522	0RJ6201D677	MCR03EZPJ622 6.2KOHM 5% 1/10W 1608 R/TP ROHM
R353	0RJ0222D677	MCR03EZPJ220 220OHM 5% 1/10W 1608 R/TP ROHM	R523	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R354	0RJ0222D677	MCR03EZPJ220 220OHM 5% 1/10W 1608 R/TP ROHM	R524	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R355	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R527	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R356	0RJ0222D677	MCR03EZPJ220 220OHM 5% 1/10W 1608 R/TP ROHM	R528	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R358	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R529	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R359	0RJ0222D677	MCR03EZPJ220 220OHM 5% 1/10W 1608 R/TP ROHM	R530	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R361	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	R531	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R362	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R532	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R363	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R533	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R364	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	R534	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R365	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R535	0RJ0222D677	MCR03EZPJ220 220OHM 5% 1/10W 1608 R/TP ROHM
R366	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R536	0RJ0222D677	MCR03EZPJ220 220OHM 5% 1/10W 1608 R/TP ROHM
R367	0RJ0392D677	MCR03EZPJ390 390OHM 5% 1/10W 1608 R/TP ROHM	R537	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R368	0RJ0392D677	MCR03EZPJ390 390OHM 5% 1/10W 1608 R/TP ROHM	R538	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R369	0RJ0392D677	MCR03EZPJ390 390OHM 5% 1/10W 1608 R/TP ROHM	R540	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R370	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R541	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R371	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R542	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R4	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R543	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R401	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608 R/TP ROHM	R544	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R402	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608 R/TP ROHM	R545	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R404	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10W 1608 R/TP ROHM	R546	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R405	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R547	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM
R407	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM	R548	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R408	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608 R/TP ROHM	R549	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R410	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM	R550	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R411	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	R551	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R412	0RJ0822D677	MCR03EZPJ820 820OHM 5% 1/10W 1608 R/TP ROHM	R552	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R413	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROHM	R554	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R421	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R554	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R422	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROHM	R555	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP ROHM
R423	0RJ1800D677	MCR03EZPJ181 180OHM 5% 1/10W 1608 R/TP ROHM	R556	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R423	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W 1608 R/TP ROHM	R557	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R423	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608 R/TP ROHM	R558	0RJ8201D677	MCR03EZPJ822 8.2KOHM 5% 1/10W 1608 R/TP ROHM
R424	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R559	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R5	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	R560	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R503	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM	R561	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM
R503	0RJ2000D477	MCR03EZPF201 200OHM 1% 1/10W 1608 R/TP ROHM	R563	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R/TP ROHM
R504	0RJ1500D677	MCR03EZPJ151 150OHM 5% 1/10W 1608 R/TP ROHM	R564	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R/TP ROHM
R505	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608 R/TP ROHM	R567	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM
R506	0RJ1500D677	MCR03EZPJ151 150OHM 5% 1/10W 1608 R/TP ROHM	R570	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R508	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM	R573	0RJ2702D677	MCR03EZPJ273 27KOHM 5% 1/10W 1608 R/TP ROHM
R509	0RJ2000D477	MCR03EZPF201 200OHM 1% 1/10W 1608 R/TP ROHM	R574	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM
R510	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM	R6	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM
R511	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM	R600	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R601	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM	R823	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM
R602	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	R825	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
R603	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	R826	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R/TP ROHM
R605	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	R827	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM
R606	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	R828	0RJ1201D677	MCR03EZPJ122 1.2KOHM 5% 1/10W 1608 R/TP ROHM
R607	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	R831	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R608	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	R832	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R609	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R833	0RJ6802D677	MCR03EZPJ683 68KOHM 5% 1/10W 1608 R/TP ROHM
R610	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	R834	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W 1608 R/TP ROHM
R611	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	R835	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10W 1608 R/TP ROHM
R612	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	COILS & FILTERS & INDUCTORS		
R613	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP ROHM	L704	6200J00005N	Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM
R614	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP ROHM	L705	6200J00005N	Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM
R615	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L706	6200J00005N	Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM
R616	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	L100	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R617	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	L101	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R618	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	L102	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R619	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	L103	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R621	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	L104	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R622	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608 R/TP ROHM	L105	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R623	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	L106	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R624	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	L107	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R625	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	L108	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R626	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	L109	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R627	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R/TP ROHM	L200	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R628	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R/TP ROHM	L201	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R629	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM	L204	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R631	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L205	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R633	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L707	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R634	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP ROHM	L708	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R635	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	L709	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
R636	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	L508	6210TCE001B	Filter,Bead HH-1H3216-500JT 50OHM
R7	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	L509	6210TCE001B	Filter,Bead HH-1H3216-500JT 50OHM
R705	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	L510	6210TCE001B	Filter,Bead HH-1H3216-500JT 50OHM
R706	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	L802	6210TCE001B	Filter,Bead HH-1H3216-500JT 50OHM
R718	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP ROHM	L314	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R719	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM	L315	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R720	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L400	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R720	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L501	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R722	0RJ2002D677	MCR03EZPJ203. 20KOHM 5% 1/10W 1608 R/TP ROHM	L503	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R723	0RJ2002D677	MCR03EZPJ203. 20KOHM 5% 1/10W 1608 R/TP ROHM	L511	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R725	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM	L512	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R726	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROHM	L602	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R8	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM	L603	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R806	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM	L608	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R807	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	L609	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R808	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W 1608 R/TP ROHM	L618	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R809	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	L701	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R811	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM	L703	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R812	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L800	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R814	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L801	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R815	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L803	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R817	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM	L806	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
R818	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM			
R821	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROHM			

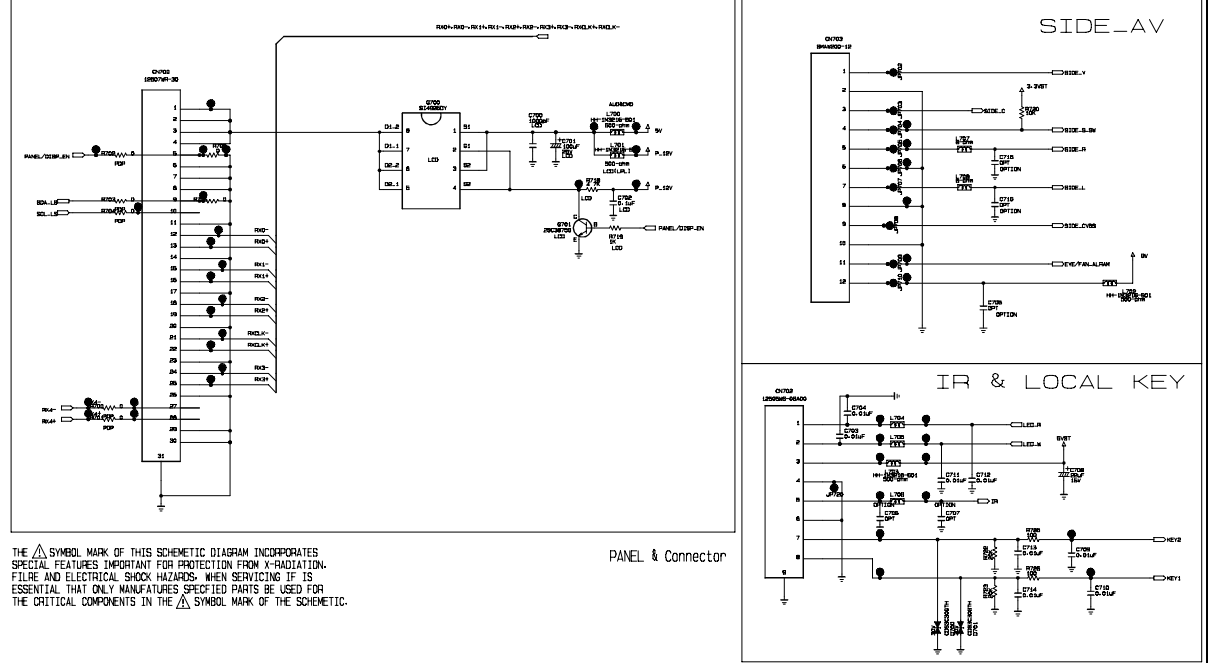
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
L806	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM		EAD35683003	LVDS LPL STD_300MM FI-X30HL(JAE) 12507HS-30(Y
L807	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM			
L808	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM			
L610	6210TCE001P	Filter,Bead HB-1S2012-121JT(H:1mm) 120OHM			
L612	6210TCE001P	Filter,Bead HB-1S2012-121JT(H:1mm) 120OHM			
L615	6210TCE001P	Filter,Bead HB-1S2012-121JT(H:1mm) 120OHM			
L617	6210TCE001P	Filter,Bead HB-1S2012-121JT(H:1mm) 120OHM			
AL308	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM			
AL309	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM			
AL310	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM			
AL311	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM			
AL312	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM			
AL313	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM			
L707	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF			
L708	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF			
L709	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF			
L713	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF			
L711	EAM33010402	Filter,LCR MEM2012P101R EMI 100MHZ 15pF			
L712	EAM33010402	Filter,LCR MEM2012P101R EMI 100MHZ 15pF			
L714	EAM33010402	Filter,LCR MEM2012P101R EMI 100MHZ 15pF			
L100	0LC1032101A	Inductor,Multilayer,Chip FI-C3216-103KJT 10UH			
L600	0LCML00020C	Inductor,Multilayer,Chip MLI-201212-100K 10UH			
L601	0LCML00020C	Inductor,Multilayer,Chip MLI-201212-100K 10UH			
L810	0LCTO00019A	Inductor,Wire Wound,Chip D75C-646CY-220M=P3 22UH			
L605	EAP32842807	Inductor,Wire Wound,Chip NR8040T330M 33UH 20%			
L606	EAP32842807	Inductor,Wire Wound,Chip NR8040T330M 33UH 20%			
L613	EAP32842807	Inductor,Wire Wound,Chip NR8040T330M 33UH 20%			
L614	EAP32842807	Inductor,Wire Wound,Chip NR8040T330M 33UH 20%			
CONNECTOR					
CN501	366-932B	GIL-G-03P-S3T2-E(TYPOE) 3P 2.50MM 1R STRAIGHT			
CN600	6602T25008B	SMW250-03P 3P 2.50MM 1R STRAIGHT DIP ST			
CN601	6602T25008C	SMW250-04P 4P 2.50MM 1R STRAIGHT DIP ST			
CN700	6630VF00530	12507WR-30A00 30P 1.25MM 1R ANGLE SMD TP			
CN702	6602T12004G	12505WS-08A00 8P 1.25MM 1R STRAIGHT SMD TP			
CN703	6602T20009L	SMAW200-12P 12P 2.00MM 1R ANGLE DIP ST			
CN800	6602T25008N	SMW250-14P 14P 2.50MM 1R STRAIGHT DIP ST			
CN801	6602T25008J	SMW250-10P 10P 2.50MM 1R ANGLE DIP BK BLACK			
JK201	6630TGA004K	KCN-DS-1-0089 D-SUB 15P 2.29MM STRAIGHT FEMAL			
P100	6602T12005G	12505WR-08A00 8P 1.25MM 1R ANGLE SMD TP			
P100	6602T20009C	SMAW200-04P 4P 2.00MM 1R ANGLE DIP ST			
P101	6602T20009C	SMAW200-04P 4P 2.00MM 1R ANGLE DIP ST			
P101	6602T20009L	SMAW200-12P 12P 2.00MM 1R ANGLE DIP ST			
P2	366-932B	GIL-G-03P-S3T2-E(TYPOE) 3P 2.50MM 1R STRAIGHT			
	EAD35862901	SMH250-13 SMH250-14 300MM 2.50MM 13P-14P UL10			
	6631900018K	3P(2.5MM) SMH250 TERMINAL 600mM 2.50MM 3P UL1			
	6631T25026C	6631T25026C SMH250 35098 900mM 2.50MM 4P UL10			
	6631900012D	6631900012D SMH250 SMH250 250mM 2.50MM 10P UL			
	6631900048B	SMH200 SMH200 150mM 2.00MM 4P UL1061 AWG26			
	EAD35862601	12505HS] 12505HS] 850MM] 1.25MM 8] UL1061 AWG			
	EAD35907901	BDMR-02VS-2 35001HS-02L 850MM 3.50MM 2P UL323			
	EAD35907801	BDMR-02VS-2 35001HS-02L 250MM 3.50MM 2P UL323			
	6631900013C	SMH200 SMH200 200mM 2.00MM 12P UL1061 AWG26 T			
	EAD35982901	12507HS-04L SMH200 350MM 1.25/2.0MM 4P UL1061			
					JACKS
			J100	6612J10033A	PMJ016-13 13P DIN/RCA 14MM ANGLE DIP TR DIN(1
			JK100	6612M00010A	PSC003-01 21P 21P/1C 3.81MM STRAIGHT DIP TR B
			JK101	6612M00010A	PSC003-01 21P 21P/1C 3.81MM STRAIGHT DIP TR B
			JK200	6612J10031A	PPJ209-02 14.0MM 1RX5C STRAIGHT TR 5PORTS_GR/
			JK204	6612F00099A	PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DIP,
			JK300	6612B00015C	DC1R019WDH. SOCKET 21P STRAIGHT SMD R/T/P 33.7
			JK301	6612B00015C	DC1R019WDH. SOCKET 21P STRAIGHT SMD R/T/P 33.7
			JK600	6612J10043A	PPJ200-07 15MM 1RX4C ANGLE BK 3P DONGGUAN
					SWITCHEs
			SW101	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW102	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW103	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW104	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW105	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW106	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW107	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW108	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160GF
			SW500	6600VR1004A	SKHMPWE010 1C1P 12VDC 0.05A HORIZONTAL 160.2G
					OTHERs
			D100	0DLBE0138AA	LED,DIP BL-BUBGE301 ROUND 3MM
			D800	0DL233309AC	LED,Chip SAM2333 RED/Y-GREEN 2.7V
			IC100	6712000013A	Receiver Module TSOP4438SO1 4.5T05.5V 1.5MA
			TU400	EBL35311207	Tuner,Tuner/Modulator TAFT-W005D PAL-B/G++D/K
			X300	6202TST001H	Crystal SX-1 27MHZ 30PPM 27MHZ
			X500	6202VDT002P	Crystal HC-49/SM 20.25000MHZ 20.25MHZ
				SAA30632013	S/W,Firmware V3.05 1209 EUROPE FLASH
					ACCESSORY
			A1	MFL37396701	Manual,Owners USER LP78A H4n EU all 26lan H4
			A1	MFL37396702	Manual,Owners USER LP78A H4 CIS 4lang H4 si
			A2	SAC30653101	Title LP78A H4 26lan EU all CD MANUAL
			A3	EAD36223101	Power Cord LP34A+LS60L LP-34A LS-60L 1.87M
			A4	MKJ32022825	Remote Controller COMPLEX PA71A 50PC5R-ZA H4
			A5	MCK32795001	Cover MOLD ABS 380 CABLE MANAGEME
			A6	341-746B	Holder MOLD ABS CABLE Holder
			A7	49519K0002A	Plate Assembly SUPPORTER UPPER 26INCH
			A8	FAB30006504	Screw,Machine FAB30006504 BH + 4MM 10MM
			A9	FAB30016415	Screw Assembly FAB30016415 MACHINE TYPE



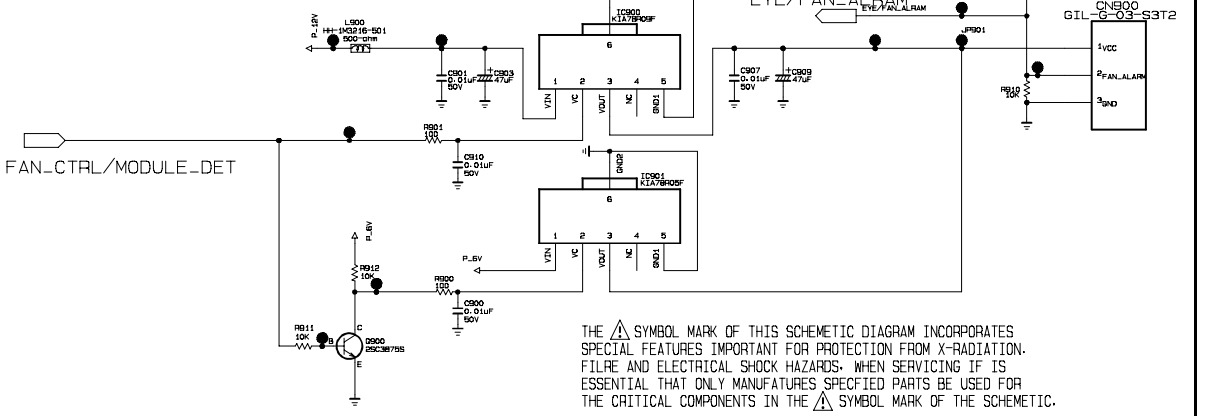
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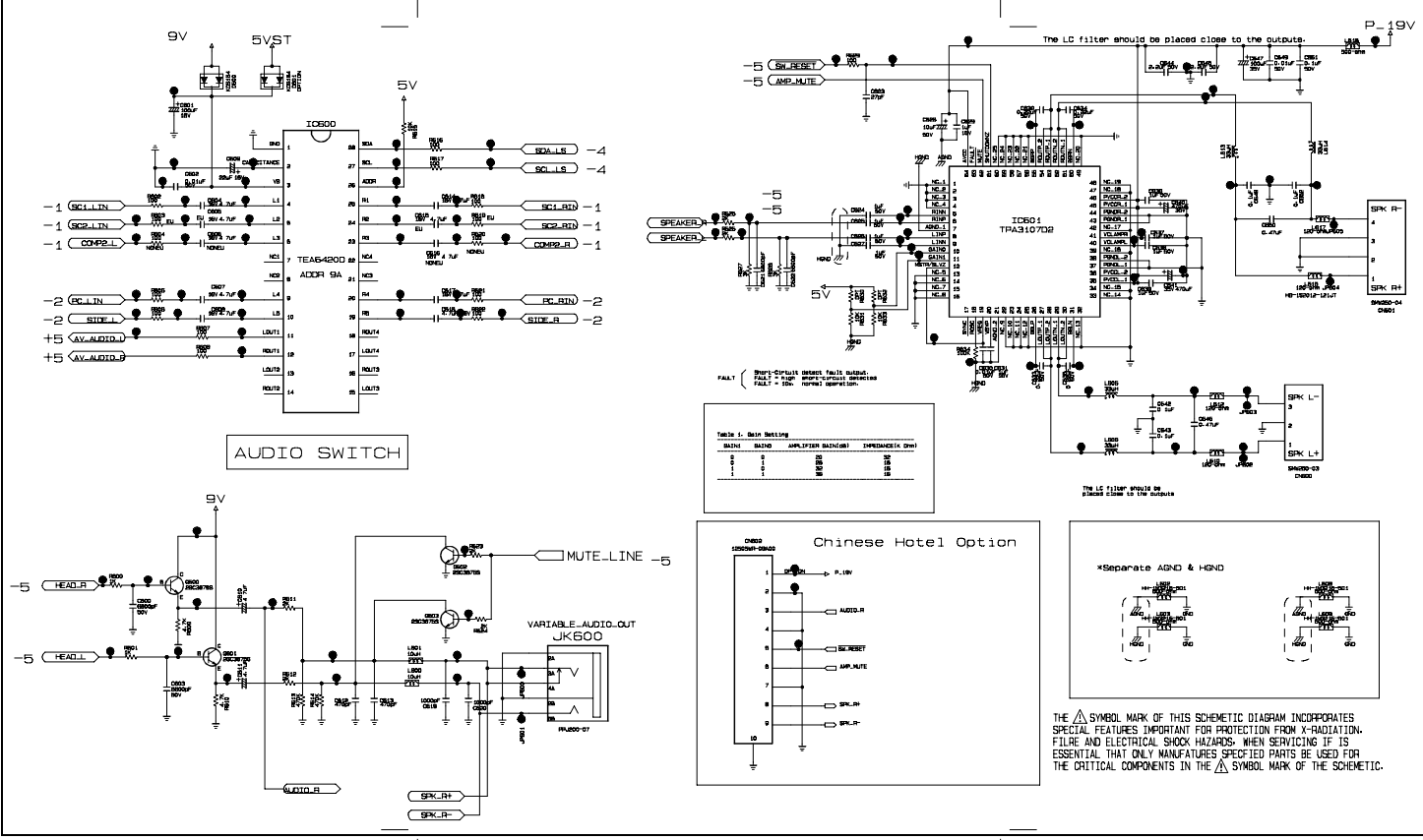
#7. PANEL LVDS



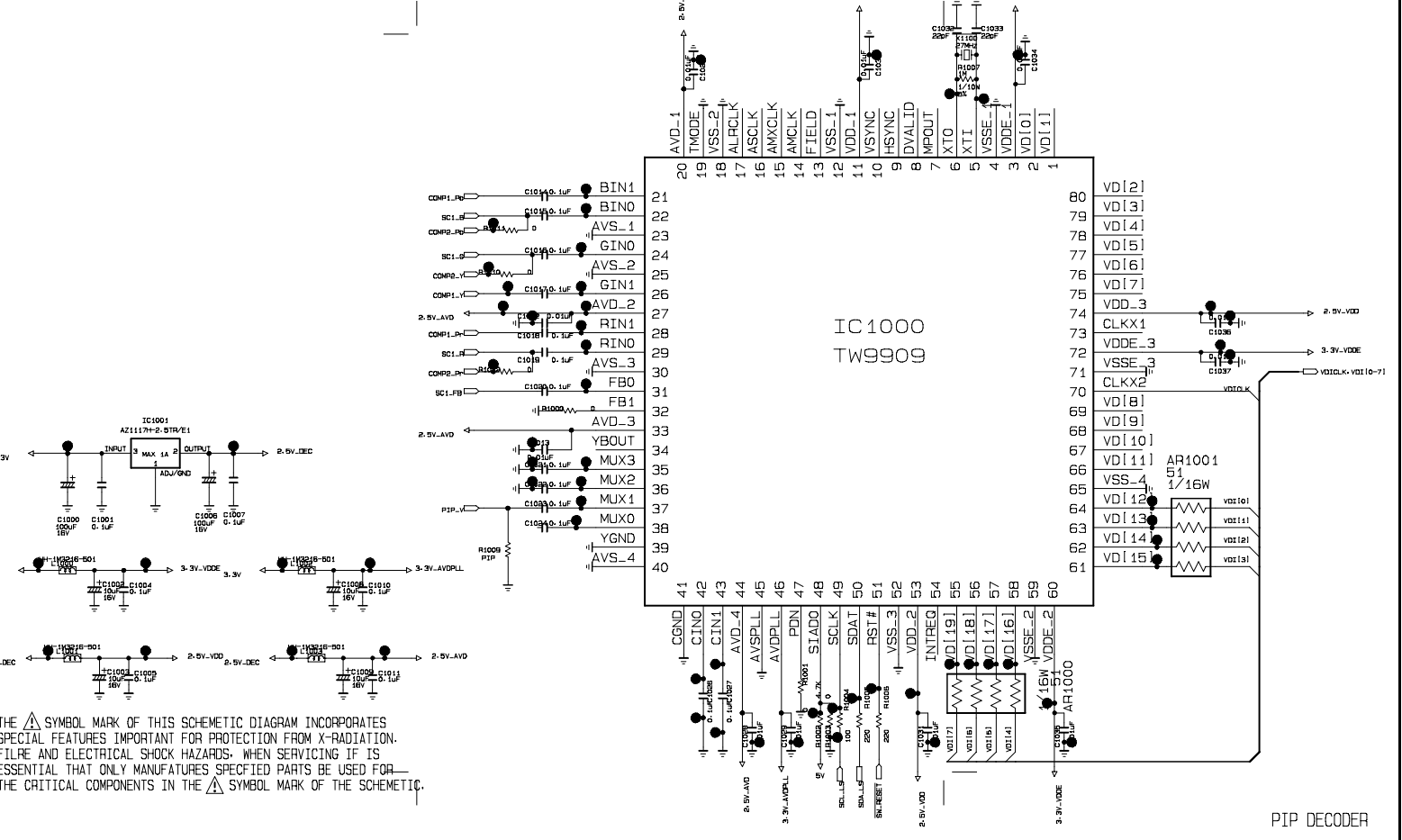
#9. TEMP&FAN SENSORS



#6. AUDIO

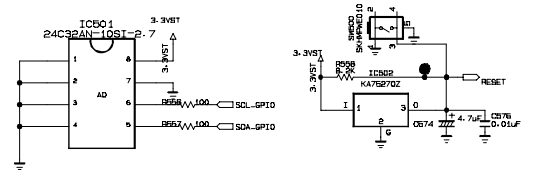
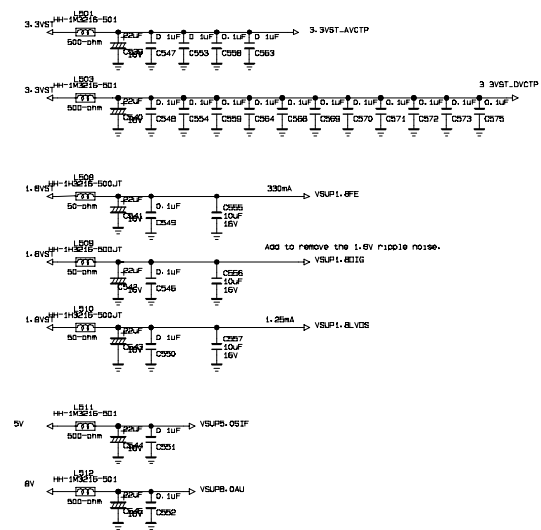
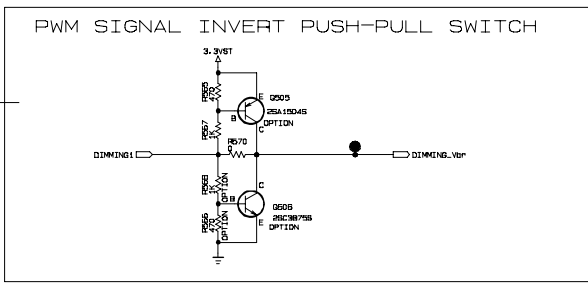
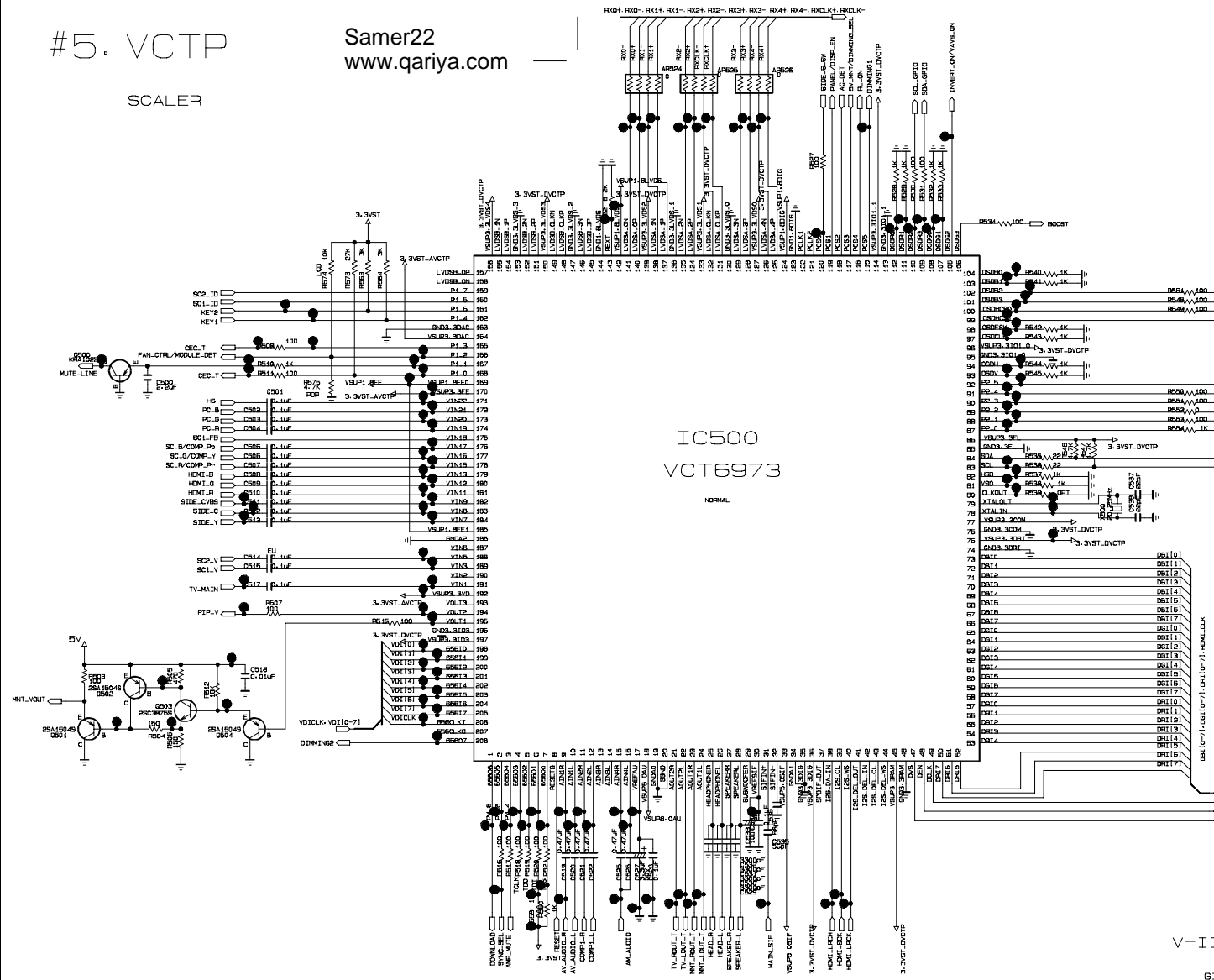


#10. VIDEO DECODER

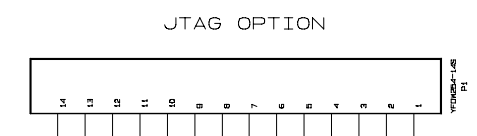
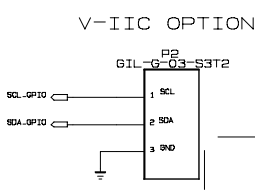


#5. VCTP
SCALER

Samer22
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THE Δ SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILTRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE Δ SYMBOL MARK OF THE SCHEMATIC.





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