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DLP Projection TV

SERVICE MANUAL

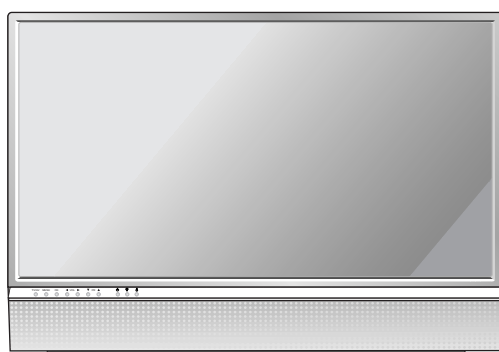
CHASSIS : MB-05DA

MODEL : 44/52SZ8R

44/52SZ8R-ZA

CAUTION

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



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SVC. SHEET	
PRINTED CIRCUIT BOARD	

SAFETY PRECAUTIONS

IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by Δ in the Schematic Diagram and Replacement Parts List.

It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.

Do not modify the original design without permission of manufacturer.

General Guidance

An **isolation Transformer should always be used** during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and its components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in **handling the Picture Tube**. Do not lift the Picture tube by its Neck.

Before returning the receiver to the customer,

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

Leakage Current Cold Check(Antenna Cold Check)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.

If the exposed metallic part has a return path to the chassis, the measured resistance should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal has no return path to the chassis the reading must be infinite.

An other abnormality exists that must be corrected before the receiver is returned to the customer.

Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.

Do not use a line Isolation Transformer during this check.

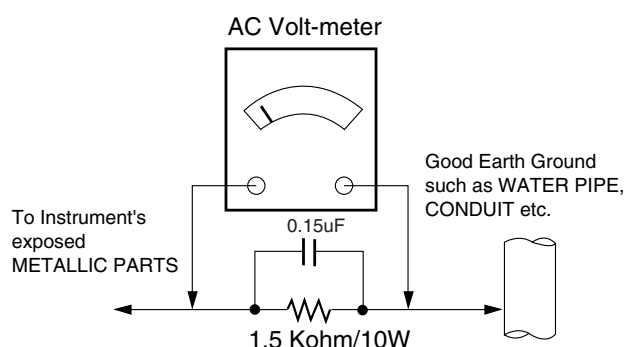
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.

Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which corresponds to 0.5mA.

In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit



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.
 - d. Discharging the picture tube anode.
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. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kind aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. 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 nonabrasive 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.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. 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.
8. 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.
9. Use with this receiver only the test fixtures specified in this service manual.

CAUTION: Do not connect the test fixture ground strap to any heatsink 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 of 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 heatsink 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 heatsink.

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.

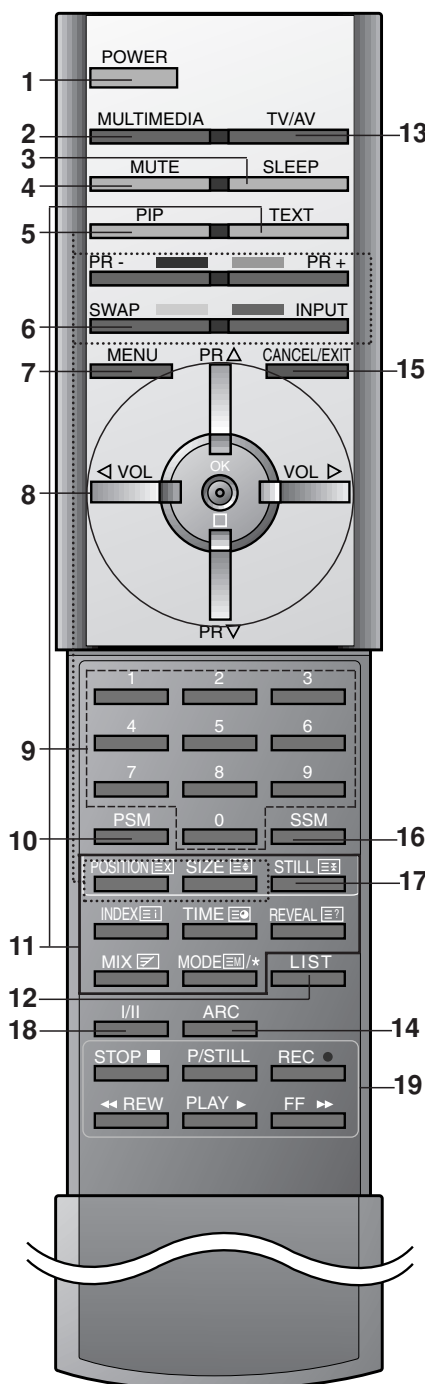
CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

CONTROL DESCRIPTIONS

All the functions can be controlled with the remote control handset. Some functions can also be adjusted with the buttons on the front panel of the set.

Remote control handset

Before you use the remote control handset, please install the batteries. See the next page.



(With TELETEXT)

1. **POWER**
switches the set on from standby or off to standby.
2. **MULTIMEDIA**
selects Component 1/2, RGB or HDMI modes.
3. **SLEEP**
sets the sleep timer.
4. **MUTE**
switches the sound on or off.
5. **PIP BUTTONS**
PIP
switches the sub picture on or off.
PR +/-
selects a programme for the sub picture.
SWAP
alternates between main and sub picture.
INPUT
selects the input mode for the sub picture.
SIZE
adjusts the sub picture size.
POSITION
Moves the sub picture to ▲ / ▼ or ◀ / ▶ direction.
6. **SWAP**
returns to the previously viewed programme.
selects a favorite programme.
7. **MENU**
selects a menu.
8. **▲ / ▼ (Programme Up/Down)**
selects a programme or a menu item.
switches the set on from standby.
◀ / ▶ (Volume Down/Up)
adjusts the volume.
adjusts menu settings.
OK
accepts your selection or displays the current mode.
9. **NUMBER BUTTONS**
switches the set on from standby or directly select a number.
10. **PSM (Picture Status Memory)**
recalls your preferred picture setting.
11. **TELETEXT BUTTONS (option)**
These buttons are used for teletext.
For further details, see the 'Teletext' section.
12. **LIST**
displays the programme table.

13. TV/AV

selects the remote operating mode.
switches the set on from standby.

14. ARC (Aspect Ratio Control)

changes the picture format.

15. CANCEL/EXIT

Clears all on-screen displays and returns to TV viewing from any menu.

16. SSM (Sound Status Memory)

recalls your preferred sound setting.

17. STILL

freezes motion of the picture.

18. I/II

selects the language during dual language broadcast.
selects the sound output.

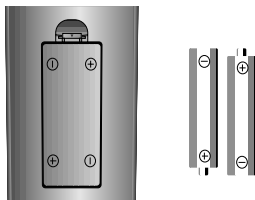
19. VCR BUTTONS

control a video cassette recorder.

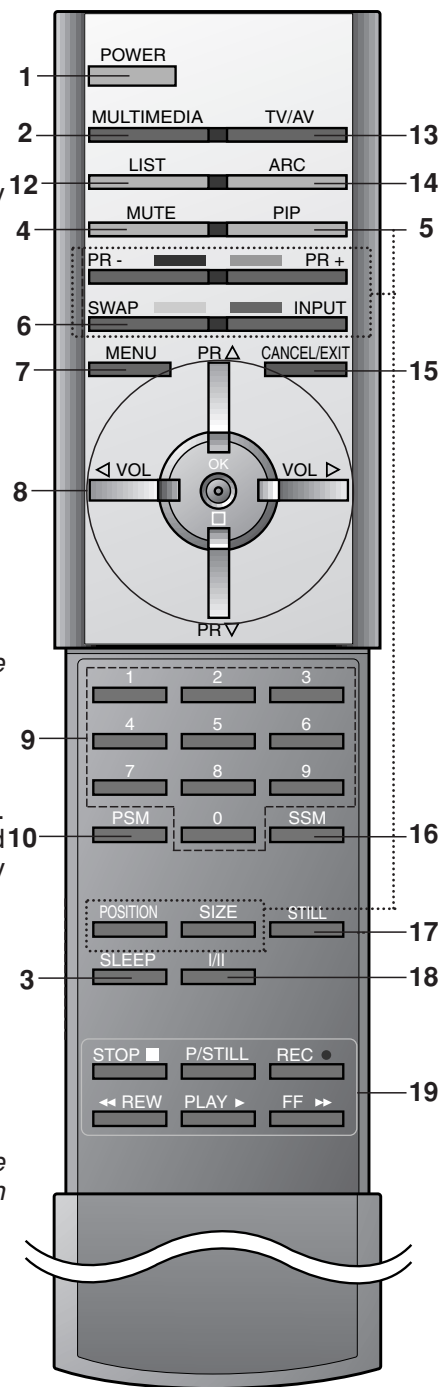
Note : In teletext mode, the **PR + / -**, **SWAP** and **INPUT** buttons are used for teletext function.

Battery installation

The remote control handset is powered by two AAA type batteries. To load the batteries, turn the remote control handset over and open the battery compartment. Install two batteries as indicated by the polarity symbols (+ and -) marked inside the compartment.



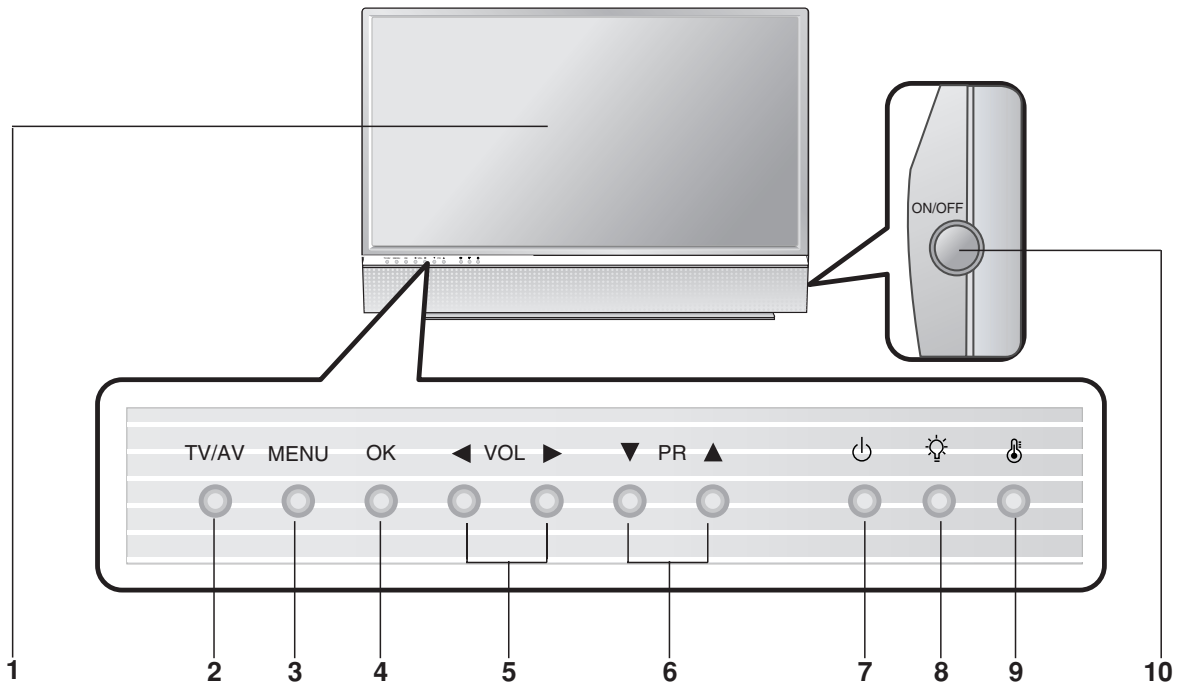
Note : To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the remote control handset for an extended period of time.



(Without TELETEXT)

Front panel

Lamp indicator, operation indicator, and temperature indicator, located side the front panel controls reveal the operating status of the DLP(Digital Light Processing) projection TV.



1. REMOTE CONTROL SENSOR

2. TV/AV

selects the remote operating mode.
switches the set on from standby.

3. MENU

selects a menu.

4. OK

accepts your selection or displays the current mode.

5. ◀ / ▶ (Volume Down/Up)

adjusts the volume.
adjusts menu settings.

6. ▲ / ▼ (Programme Up/Down)

selects a programme or a menu item.
switches the set on from standby.

7. OPERATION INDICATOR (Refer to p.7)

8. LAMP INDICATOR (Refer to p.7)

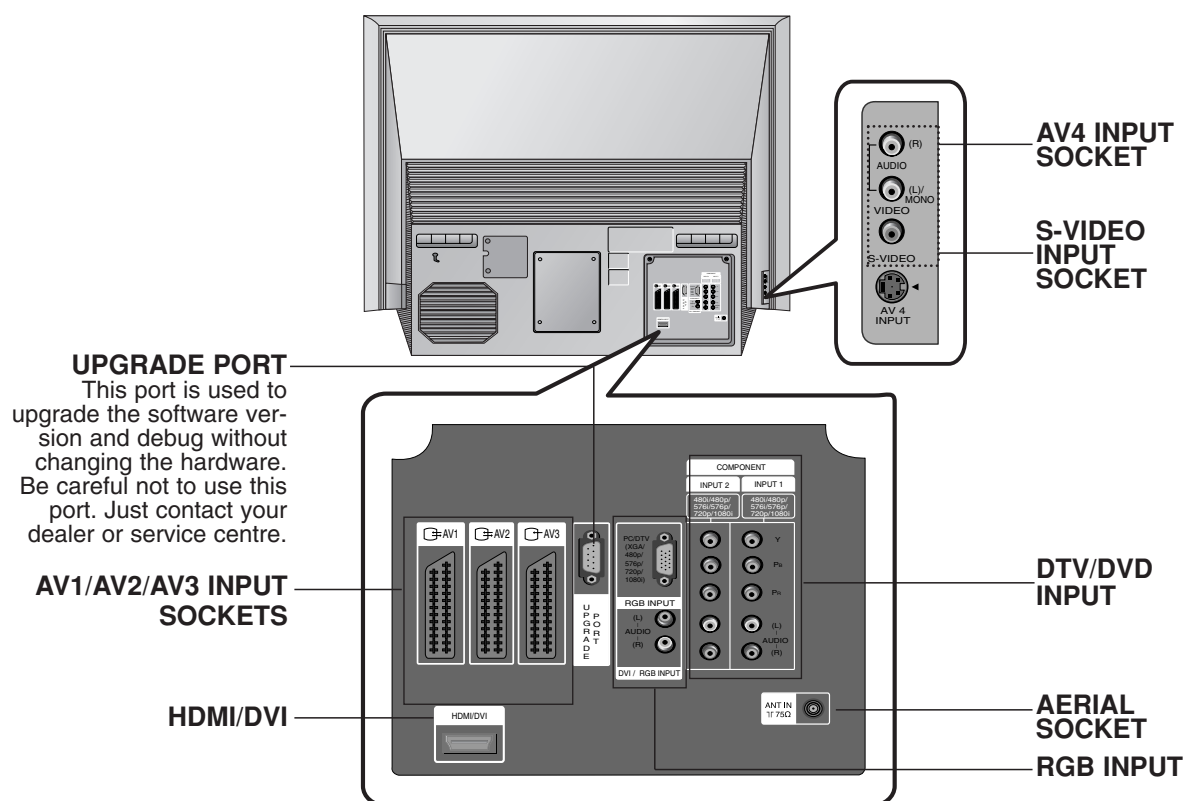
9. TEMPERATURE INDICATOR (Refer to p.7)

10. MAIN POWER (ON/OFF)

switches the set on or off.

Note : There might be a faint white trace on the center of the screen according to the position. This is normal and is a characteristic of the screen.

Rear panel



•Status Indicators

Operation Indicator	Off	Power cord is not connected or power switch is off
	Red	Power Cord is connected, unit is on standby.
	Green	On
	Orange (flashing)	Preparing operation in standby.
Lamp Indicator	Orange	Projection lamp is reaching the end of its life and needs to be replaced with a new lamp.
	Red (flashing)	There is a problem with the lamp or around it. Contact an authorized service center.
	Red	Lamp life over.
	Green (flashing)	The lamp cover is not closed.
Temperature Indicator	Red	The set has shut down due to overheating. After viewing the phrase "Thermal High Error"
	Red (flashing)	The set has shut down, check the cooling fan.
	Orange	Thermal warning.

SPECIFICATIONS

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

■ Application Range

This spec sheet is applied to the 44/52" DLP TV used MB-05DA chassis.

Chassis	Model Name	Market Place	Brand	Remark
MB-05DA	44/52SZ8R-ZA (RZ-44/52SZ84DB)	United Kingdom	LG	

■ Specification

Each part is tested as below without special appointment.

- 1) Temperature : $25\pm 5^{\circ}\text{C}$ (CST : $40^{\circ}\text{C}\pm 2^{\circ}\text{C}$)
- 2) Relative Humidity : $65\pm 10\%$
- 3) Power Voltage : Standard input voltage(AC 230V $\pm 10\%$, 50Hz)
* Standard Voltage of each products is marked by model.
- 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.

■ Test Method

- 1) performance : LGE TV test method followed.
- 2) Demanded other specification.
Safety : CB specification
EMC : CE specification

Model Name	Market	Remark	Appliance
44/52SZ8R-ZA RZ-44/52SZ84DB	United Kingdom	Safety : EN55013, EMI : EN55020	TEST

■ General Specification

No	Item	Specification	Remark
1	Aspect Ratio	16:9(wide)	
2	Operating Environment	1) Temp : 0~40 deg 2) Humidity : 0~85%	LGE SPEC
3	Storage Environment	3) Temp : -20~60 deg 4) Humidity : 0~85%	
4	Input Voltage	AC 230V, 50Hz	

■ Model Specification

No	Item	Specification		Remark
1	Market	EU		
2	Broadcasting system	RF	PAL/ SECAM - B/ G PAL/ SECAM - D/ K PAL - I/ I	Except PAL-M/N
		AV	PAL/ SECAM NTSC - 3.58/ 4.43	
3	Available Channel	BAND	PAL	
		VHF	E02~E12	
		UHF	E21~E69	
		CATV	S01~ S20	
		HYPER	S21~S41	
4	Receiving system	Upper Heterodyne		
5	AV Input(4EA)	PAL, SECAM, NTSC SCART1(Full) : AV1, TV out SCART2(Half) : AV2, Monitor out SCART3(Half) : AV3 Side AV : AV4, S-Video1		S-Video 1 first
6	Monitor Out(1EA)	PAL, SECAM, NTSC		D-sub 15 pin
7	S-Video Input(1EA)	PAL, SECAM, NTSC		
8	Component Input(2EA)	Y/ Pb / Pr		L/ R Input
9	RGB Input	RGB-PC/ DTV		
10	HDMI Input	HDMI-PC/ DTV		
11	Audio Input(4EA)	PC Audio (1EA), Component (2EA), AV (1EA)		
12	Wired Control	Discrete IR		

■ Feature and Function

No	Item		Specification		Remark
1	44/52SZ 8R-ZA	RF Input	1	2 Tuner (PAL-BG/ I/ DK, SECAM-BG/ DK)	Rear
		AV Input	4	CVBS/ L/ R / S-VHS(S-VHS Priority)	Rear 3 Side 1
		Monitor Out	1	CVBS/ L / R	Rear
		Component Input	2	480i/ 576i/ 480p/ 576p/ 720p/ 1080i	Rear
		RGB Input	1	RGB-PC : Up to XGA 85Hz RGB-DTV : 480p/ 576p/ 720p/ 1080i	Rear
		HDMI Input	1	HDMI-TV : Up to XGA 85Hz HDMI-DTV : 480p/ 576p/ 720p/ 1080i	Rear
		RS-232C	1	Remote Control, S/W Download	Rear
		IR Input	1	Discrete IR	Rear
2	Remocon Code		NEC Code		
3	Remote control		Wireless Remote Control		
4	Local Key		TV / AV, MENU, OK, ◀VOL▶, ▲PR▼		
5	Menu (Channel / Station)	Auto programme (Auto program)	System, Storage(0~99), Start		
		Manual programme (Manual program)	Storage, System, Band, Channel, Fine, Search, Name, Booster		
		Programme edit (Program edit)	Del, Copy, Move, Skip		
		Favorite programme (Favorite program)	8 Channel		
6	Menu (Picture)	PSM(Picture Status Mode)	Dynamic, Standard, Mild, User		
		CSM(Color Status Mode)	Cool, Normal, Warm, User(Red, Green, Blue)		
		XD	On / Off		
		ACM	Freshtone, Greentone, Bluetone		
		SRGB	On / Off		
		User	Contrast, Brightness, Colour, Sharpness, Tint		
7	Menu (Sound)	SSM(Sound Status Mode)	SRS TSXT, Flat, Music, Movie, Speech		
			User	Balance, Treble, Bass	
		BBE	On / Off		
		AVL(Auto Volume Limit)	On / Off		
		Balance			
		Equalizer	120/ 200/ 500/ 1.2K/ 3K/ 7.5K/ 12KHz		
8	Menu (Time)	Clock	User Setting		
		Off Time	On / Off (Time : User Setting)		
		On Time	On / Off (Time/ Volume/ Programme :User Setting)		
		Auto Sleep	On / Off		
9	Menu (Special)	Child lock(Key lock)	On / Off		
		XD Demo	On : Left arrow(Vol+) Key Off : Exit Key		
10	Menu (Screen)	Auto config	RGB PC		Auto Position and Auto Clock&Phase
		ARC	RF/ AV/ Component 480i/ 480p/ 576i/ 576p : Spectacle, Full, Original, 4:3, 16:9, 14:9, Zoom Component-DTV/ RGB-DTV : 4:3, 16:9, Zoom RGB-PC/ HDMI : 4:3, 16:9		

No	Item		Specification		Remark
10	Menu (Screen)	Manual config	Phase : 0 ~ 63 Clock : -127 ~ +128		Available for only RGB PC
		Cinema (Film Mode)	On/ Off		RF, AV1/2, Component 480i,576i
		NR (Luma Noise Reduction)	3D NR : 0~ 2 MPEG NR : 0~15		Except RGB-PC / HDMI-PC
		Reset			Initialize user data
11	Menu (PIP/DW)	Input(Main)	TV-> AV1-> AV2->SAV2-> AV3->AV4-> COMPONENT1->COMPONENT2-> RGB-> HDMI/ DVI		
		DW	DW1, DW2, OFF		
		PIP	On/ Off		
		PIP Input(Sub Input)	Main Input	Sub Input	
			All Input	All (Except Main Input)	
		Win. Size	Variable(1/16~ 1/4 of Display size)		PIP Mode Only
		Win. Position	Variable		PIP Mode Only
		PIP transparency	0~10		PIP Mode Only
12	Hot Key (Remote)	Input Select	Mute-media	COMPONENT1->COMPONENT2->RGB->HDMI	
			TV/ AV (TV/ Video)	TV-> AV1-> AV2-> SAV2->AV3->AV4-> COMPONENT1->COMPONENT2-> RGB-> HDMI/ DVI	
		PIP/ DW		PIP-> DW1-> DW2-> Off	
		ZOOM+/ ZOOM-		100~ 300%	
		MUTE		Audio Mute	
		Text			
		SLEEP		Sleep Time 10~ 240 Min	
		LIST		Channel List	
		I/ II(RZ/ RT)		SIF Control	
		SWAP		O Text mode : Yellow Key Favorite : Favorite Favorite off : Q.view Pip/ Twin : Main/ Sub Swap	
		PIP INPUT		TV-> AV1-> AV2-> SAV2-> AV3->AV4-> COMPONENT1-> COMPONENT2-> RGB-> HDMI/ DVI	
		SSM		SRS TSXT->Flat->Music->Movie->Speech->User	
		PSM		Dynamic-> Standard-> Mild-> User	
		FAVORITE			
		SIZE			
		POSITION			
		HOLD			
		TIME			
		ETC.		POWER, Numeric(0~9), PR+/-, ARC, PR▲,▼, VOL◀,▶,Mute,PIP Input, PIP PR▲,▼	
13	Adaptive	3D Comb Filter		O	
		DCDI(MADI)		O	
		Motion Detection		O	
		Noise Reduction		O	

■ Power

No	Item	Specification				Remark
		Min	Typ	Max	Unit	
1	Power ON/OFF operation	10000			times	
2	Starting Voltage	-20		20	%	Normal 220V
3	Starting Voltage, -10 Degree	-15		15	%	Normal 220V
4	DC Voltage, Ballast	370	390	410	V	
5	DC Voltage, 5V-STBY	4.5	5	5.5	V	
6	DC Voltage, 3.3V-STBY	3.135	3.3	3.465	V	
7	DC Voltage, 2.5V-STBY	2.375	2.5	2.625	V	
8	DC Voltage, 1.8V-STBY	1.71	1.8	1.89	V	
9	DC Voltage, Tuning Voltage	29	31	33	V	
10	DC Voltage, DLP Driver, 3.5V	3.135	3.3	3.465	V	
11	DC Voltage, DLP Driver, 2.5V	2.375	2.5	2.625	V	
12	DC Voltage, DLP Driver, 5V	4.5	5	5.5	V	
13	DC Voltage, DLP Driver, 12V	11.4	12	12.6	V	
14	DC Voltage, Fan	5.7	5.9	6.15	V	
15	Audio Amp	24	26	28	V	

■ External Interface

No	Item		Specification				Remark
			Min	Typ	Max	Unit	
1	Video Input Level		0.9	1	1.1	Vpp	
2	Video Input Frequency Response		3.0			MHz	At AV output
3	Video output S/N		40			dB	At AV output
4	S-Video Input Level (Y)		0.85	1	1.15	Vpp	
5	S-Video Input Level (C-Burst)		0.143		0.286	Vpp	
6	Component Video Input Level (Y, C _B / P _B , C _R / P _R)		0.6	0.7	0.8	Vpp	
7	R/G/B Video Input Level		0.6	0.7	0.8	Vpp	
8	Audio Input S/N		40			dB	
9	Audio Input Distortion				2	%	
10	Audio Input Level		0.3	0.4	0.5	Vrms	NTSC
			0.4	0.5	0.6	Vrms	PAL, SECAM
11	Audio Output Level		0.4	0.5	0.6	Vrms	
12	Audio Input Frequency Range	Low			0.05	kHz	
		High	7				

■ Component Video Input (Y, P_B, P_R)

No	Specification				Proposed
	Resolution	H-freq(kHz)	V-freq(Hz)	Pixel clock	
1	720*480	15.73	59.94	13.500	SDTV, DVD 480I(525I)
2	720*480	15.75	60.00	13.514	SDTV, DVD 480I(525I)
3	720x576	15.625	50.00	13.500	SDTV, DVD 576I(625I)
4	720*480	31.47	59.94	27.000	SDTV 480P
5	720*480	31.50	60.00	27.027	SDTV 480P
6	720x576	31.25	50.00	27.000	SDTV 576P
7	1280x720	44.96	59.94	74.176	HDTV 720P
8	1280x720	45.00	60.00	74.250	HDTV 720P
9	1280*720	37.50	50.00	74.250	HDTV 720P 50Hz
10	1920x1080	33.72	59.94	74.176	HDTV 1080I
11	1920x1080	33.75	60.00	74.250	HDTV 1080I
12	1920*1080	28.125	50.00	74.250	HDTV 1080I 50Hz

■ HDMI Input(DTV)

No	Specification				Proposed
	Resolution	H-freq(kHz)	V-freq(Hz)	Pixel clock	
1	720*480	31.47	59.94	27.000	SDTV 480P
2	720*480	31.50	60.00	27.027	SDTV 480P
3	720x576	31.25	50.00	27.000	SDTV 576P
4	1280x720	44.96	59.94	74.176	HDTV 720P
5	1280x720	45.00	60.00	74.250	HDTV 720P
6	1280x720	37.50	50.00	74.250	HDTV 720P 50Hz
7	1920*1080	33.72	59.94	74.176	HDTV 1080I
8	1920*1080	33.75	60.00	74.250	HDTV 1080I
9	1920*1080	28.125	50.00	74.250	HDTV 1080I 50Hz

■ Option

No	Item	Specification	Description	Remark
1	Area Code	4		
2	OPTION1 (Tuner opt)	200PR	0 : 100 PR Memory 1 : 200PR Memory	
		ACMS	0 : CH Memory On 1 : CH Memory Off	
		TEXT	TOP : A patent right payment nation FLOP : Basic Off : Text Off	
		CH+AU	0 : Others 1 : China/ Australia Frequency Table	
		BOOTS	Booster On/ Off control for 2 Tuner sys	
		AGC-Reference	AGC Threshold point	
3	OPTION2 (Audio opt)	SYS	BGIDKM : NTSC for N-EU BGIDKL : Secam for EU	
		A2 ST	0 : Acting FM-ST after checking Nicam 1 : Acting Nicam & FM-ST	
		I II SAVE	0 : Acting FM-ST after checking Nicam 1 : Acting Nicam & FM-ST	
		HDEV	0 : Off 1 : Audio High deviation on after checking over-Mod	
		V-Curve0	0 : Slow LGE Vo.1 Curve 1 : Fast Vol Curve	
		MONO	0 : ACting followed SIF & I/ II 1 : Always Meno 1 : TTX	
		Audio Delay	0~150	
4	OPTION3 (Board opt)	Scart	0 : Phone Jack 1 : Scart Jack	
5	OPTION4 (Lang opt)	Default Lang	English, France, German, Spanish, Italian, Chinese, Russian	
		LANG	EU5 : Default Lang. 5 Non-EU7 : Default Lang. 7	
		T LANG	0 : West Europe 1 : East EU1 2 : Turkey 3 : East-EU2(Czecho/ Hungary) 4 : Cyrillic1 5 : Cyrillic2 6 : Cyrillic3	

No	Item	Specification	Description	Remark
			7 : Turkey/ Greek1 8 : Turkey/ Greek2 9 : Turkey/ Greek3 10 : Arabic/ French 11 : Arabic/ English 12 : Arabic/ Hebrew1 13 : Arabic/ Hebrew2 14 : Farsi/ English 15 : Farsi/ French 16 : Farsi All	
6	OPTION5 (ETC opt)	INDEX	0 : Index Off 1 : Index On	
		Navigation Key	On : Only work Navigation Key Off : Work both Navigation and Vol/ CH Key	
		Favorite Key	On : Only work Favorite Key Off : Work both Favorite and Pip Swap Key	

■ Lamp & Temp

IN-START for adjustment Remote Controller -> Lamp & Temp

No.	Item	Market Place	Remark
1	Lamp Life Time[khr]	The length of time that lamp is alive to capacity	
2	Lamp use Time[hr]	The length of time that lamp is used up to now	
3	Lamp Current Temp		For Engineering
4	Lamp Warn Temp	Warm below Warn Temp	Not real Temp
5	Lamp Error Temp	Power off below Warn Temp	
6	Off-On Waiting[sec]	Waiting time when reoperation	

ADJUSTMENT INSTRUCTIONS

1. Application Object

This instruction is for the application to the DLP Projection

2. Notes

- 1) The power source insulation of this DLP Projection is not charging type and you may not use the transformer for insulation. But you'd better adjust the set after operating it with insulation transformer between power supply cable and input part of the set for protecting the adjusting equipment.
- 2) The adjustment must be performed under the correct sequence.
- 3) The adjustment must be performed in the circumstance of $25\pm5^{\circ}\text{C}$ of temperature and $65\pm10\%$ of relative humidity if there is no specific designation.
- 4) The input voltage of the receiver must keep 220V, 60Hz in adjusting.
- 5) The set must be operated for 5 minutes preliminary before adjustment if there is no specific designation. The preliminary operation must be performed after receiving 100% white pattern, but reception of the moving picture may also be possible in unavoidable case.

3. Composition of Adjustment Mode

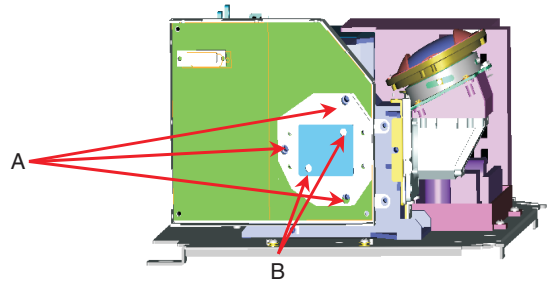
- 1) All adjustment mode by pressing down ADJ key of a adjustment remote controller, after adjustment as they also come out by pressing down ADJ key.
- 2) Adjustment mode component : When early ADJ presses presented screen component.



<Fig 1. Adjustment Mode OSD>

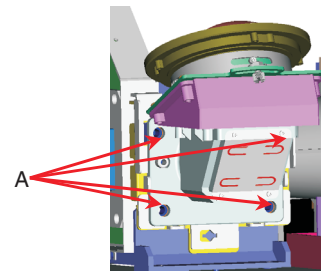
- 3) Select menu to adjust with using (CH+(▲), CH-(▼)) key above screen and press Enter key <Fig 1>.
- 4) After entering into ADJ Mode list, using CH+(▲), CH-(▼) key, after choosing an adjustment list one more time, adjustment value is changed by using ENTER Key.
- 5) Press the ADJ key to come out after adjustment.
- 6) Preparation for Adjustment
 - (1) Connect the power to TV Set and set the status of "Power on".
 - (2) Heat-Run must operate over 5 minute before adjustment.

4. Adjustment the optical engine

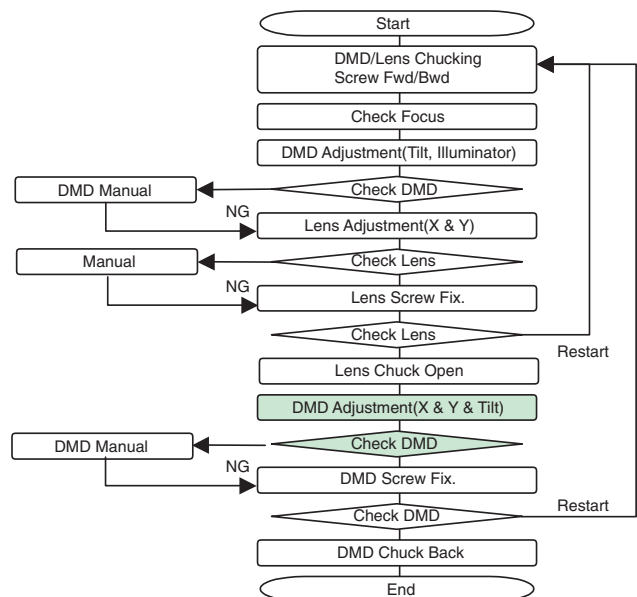


<Fig 2>

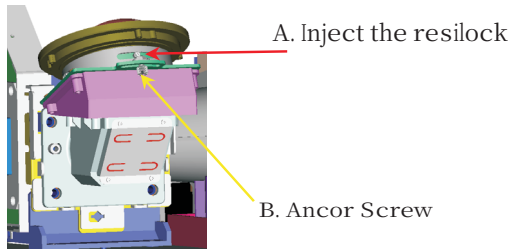
- 1) After placing the optical engine on the JIG, adjust illuminator by adjusting with automatic adjustment the B as shown <Fig 2>.
 - (1) When adjust illuminator, search the scope does not fall in illuminator and Tilt adjustment complete with automation equipment in that scope.
 - (2) After adjusting, A fix with Screw using automation equipment.
- 2) In order to move the Optical system adjusted the Tilt to center of the screen, adjust with automatic device. After automatically adjusting the illuminator in <Fig 3> adjust the position. (Refer to Automatic Adjustment Sequence)



<Fig 3>



<Reference> Automatic Adjustment Sequence

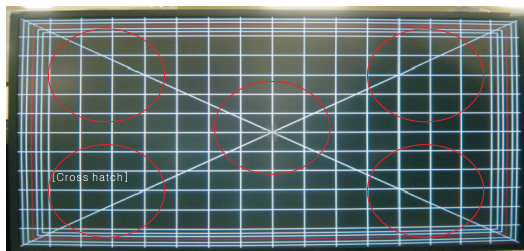


<Fig 4>

- 3) After adjusting the illuminator, adjust the focus by using the focus adjustment screw of projection lens. After adjusting, fasten the screw tightly and secure with sealer <Fig 4>.

* Note: The focus check point is not the screen center but the upper/ lower screen.

* The pattern When Focus adjustment



<Fig 5>

- 1) Come to Cross Hatch in the adjustment T/X Adj>Pattern.
- 2) Adjustment to the most adequate Focus being changed Focus adjustment Knob.
- 3) Adjustment /Check for Focus of mark part to be same.
 - a. Focus : Center Best
 - b. Flare : 1.5pixel
- 4) After finishing adjustment, adjustment Knob is made to be Fix.

5. Check the CWI/ NDC adjustment movement and Default data

(Base value --> CWI: 160, NDC: 12)

1) Required Test Equipment

: Remote control

2) Preparation for Adjustment

- (1) Connect power and turn Power on.
- (2) Using the Remote Control, enter from ADJ to CWI/ NDC.
- (3) Check the Variable and base value(CWI:160, NDC:12)

6. Check the Actuator adjustment movement and Default data

1) Required Test Equipment

: Remote control

2) Preparation for Adjustment

- (1) Connect power and turn Power on.
- (2) Using the Remote Control, enter from ADJ to Actuator_60.
- (3) Check the Variable and base value ACT Gain and Phase
 - Phase(Base value : 200)
 - Gain(Base value : 60)

7. Caution for DMD(Digital Micro-mirror Device)

1) Caution for DMD ESD

- (1) You connect the grounding to prevent ESD (Electrostatic Discharge) when handling the DMD.
- (2) The worker have to wear wrist strap that connect to ground.
- (3) Electric workshop and an electric conductor surface connect to ground.
- (4) Save the DMD after removal a static electricity. Keep it at an exclusive case when moving it. When grounding, open the case.
- (5) Put on gloves that to prevent static electricity. If it's old, replace it.
- (6) The work is done at the electro static-free location. Attach the tape or remove dust on the front or back pin of DMD glass.

2) Caution

- (1) Keep the procedure and caution to prevent the screen strange phenomenon. Don't make a scratch.
- (2) When DMD stains with dust, polish the front and back DMD with soft wiper. Then, polish the front and back DMD after rotating 180 degree the DMD. If necessary, take a inspection.
- (3) Don't clean the DMD with the high pressure. Because the electric static and pollution influence to DMD.

* TI Reference : DMD Handling Specification, DMD Cleaning.

8. EDID Data Input

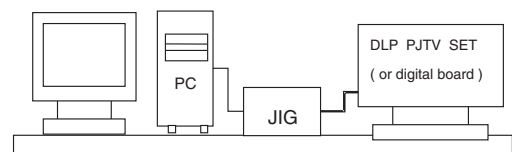
1) Required Test Equipment

- (1) PC, S/W for writing DDC(S/W : EDID TESTER Ver. 2.5)
- (2) A JIG for adjusting.
- (3) Serial(9Pin or USB) to D-sub 15Pin cable, D-sub 15 Pin cable. DVI to HDMI cable

2) Preparation for Adjustment & Setting of Device

- (1) Set devices as above Fig 6 and turn the PC,JIG on.
- (2) Put S/W for writing DDC (EDID data Write & Read) into operation.

3) Sequence of Adjustment



<Fig 6. Composition diagram for EDID Data Input>

- (1) Put the set on the table and turn the power on.
- (2) Operate EDID Write command by pressing Function Key F8.
- (3) When "OK" letter appear, completed the Write.

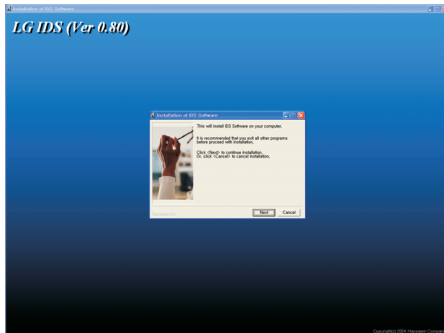
*EDID Check Sum

```
00000000h: 00 FF FF FF FF FF FF 00 1E 6D D7 3A 01 01 01 01
00000010h: 05 0E 01 03 80 61 36 96 0A F3 30 A7 54 42 AA 26
00000020h: 0F 48 4C AF CE 00 31 19 31 59 45 59 61 59 81 80
00000030h: 01 01 01 01 01 01 1D 00 72 51 D0 1E 20 6E 28
00000040h: 55 00 C4 8E 21 00 00 1E 01 1D 00 BC 52 D0 1E 20
00000050h: B8 28 55 40 C4 8E 21 00 00 1E 00 00 FC 00 4C
00000060h: 47 20 54 56 0A 20 20 20 20 20 20 20 00 00 00
00000070h: 00 32 55 1F 45 0B 00 0A 20 20 20 20 20 00 69
00000080h: 02 03 19 72 23 09 07 02 46 84 93 05 14 03 12
00000090h: 01 00 00 65 03 0C 00 10 00 01 1D 80 18 71 1C 16
000000a0h: 20 58 2C 25 00 C4 8E 21 00 00 9E 01 1D 80 D0 72
000000b0h: 1C 16 20 10 2C 25 00 C4 8E 21 00 00 9E 8C 0A D0
000000c0h: 8A 20 E0 2D 10 10 3E 96 00 C4 8E 21 00 00 18 8C
000000d0h: 0A D0 90 2D 40 31 20 0C 40 55 00 C4 8E 21 00 00
000000e0h: 18 00 00 00 00 00 00 00 00 00 00 00 00 00 00
000000f0h: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
```

9. Channel Memory

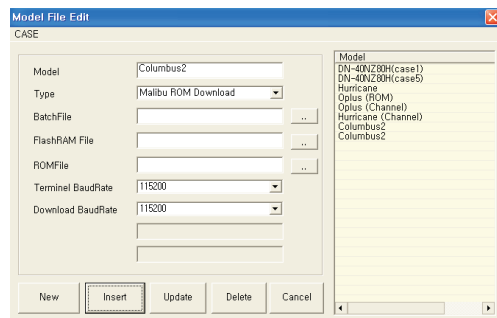
1) Setting up the LGIDS

- (1) In [C:\LGEIS] folder, you release the compress of [IDS.zip], [CH_Memory.zip].
- (2) Install the LGIDS. (Refer to Fig 7)



<Fig 7>

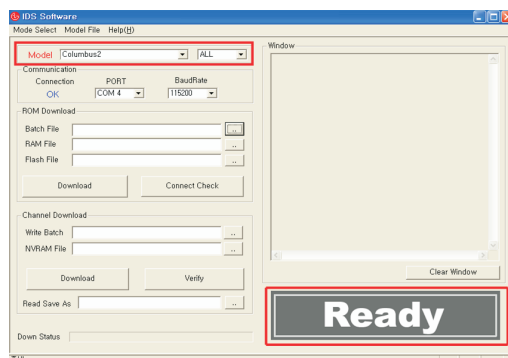
- (3) After installing, you restarts the PC.
- (4) Set the LGIDS.
- (5) In IDS menu, input the PASSWORD "1111" at the edit of the Model file.
- (6) Input the columbus2 as model name and 115200 as Type.BaudRate. Then press the Insert.(refer to Fig 8)



<Fig 8>

2) Method of the Channel memory

- (1) Select the columbus2 as Model name, check that connection of the communication Box is "OK". (If "NG", you can change PORT to com 1,2,3)
- (2) Connect the RS232 cable and the turn on the power of the set.(use a normal RS232C cable) After connecting the cable, check the [Ready] refer to Fig 9.



<Fig 9>

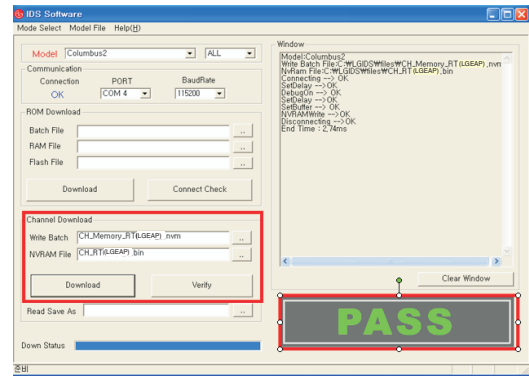
- (3) Set the

Write Batch : [c:\LGIDS\files\CH_Memory_RT(LGEAP).nvm]

NVRAM File : [c:\LGIDS\files\CH_RT(LGEAP).bin]

and then press the Download button.

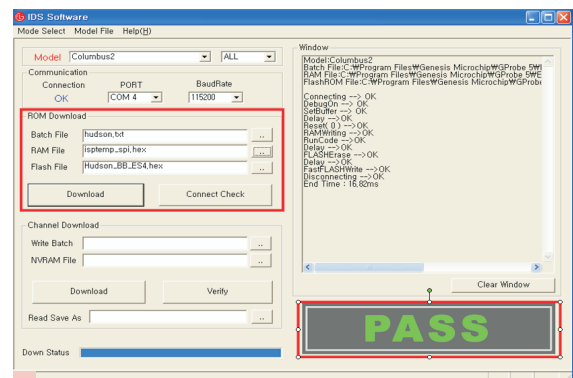
- (4) After finishing the channel memory, check the [PASS] refer to Fig10.



<Fig 10>

3) Hudson Down-load

- (1) Select the columbus2 as Model name, check that connection of the communication Box is "OK". (If "NG", you can change PORT to com 1,2,3)
- (2) Connect the RS232 cable and the turn on the power of the set.(use a normal RS232C cable) After connecting the cable, check the [Ready] refer to Fig 10.
- (3) Batch File : hudson.txt
Ram File : isptemp_spi.hex
Flash File : Hudson_BB_ES4.hex
and then press the Download button.
- (4) After finishing the channel memory, check the [PASS] refer to Fig11.



<Fig 11>

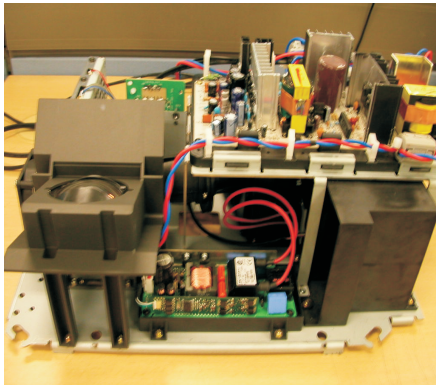
* Set the Area code *

Adj button on the adjustment remote

-> Change the Area code to Area code written the BOM.

10. HD3(DLP) Engine Tilt / Adjustment the Keystone

: When adjusting the Tilt or Keystone, the V-Position data range is ± 4 as basis 168.

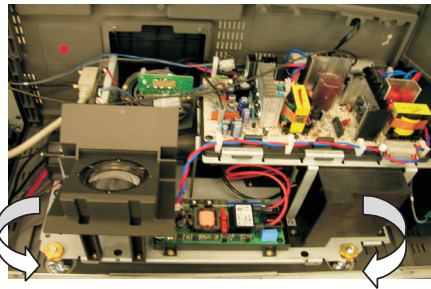
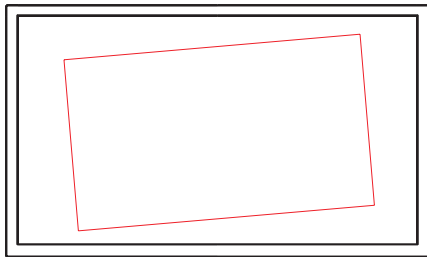


1) Geometry

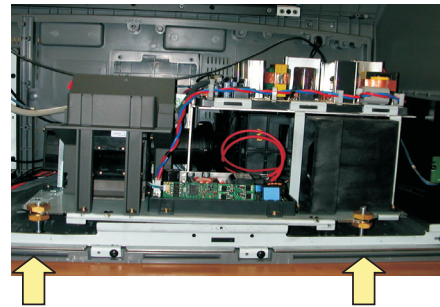
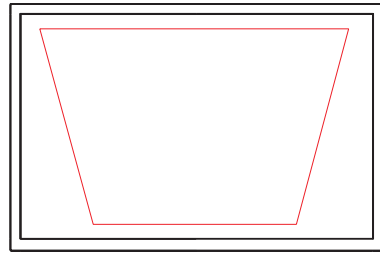
- (1) When the upper portion of the screen is larger than the bottom : Projection lens may be upward.
- (2) When the upper portion of screen is smaller than the bottom : Projection lens may be downward.
- (3) When the horizontal line is tilting in the Cross pattern : Engine Base may be rotating with the left/ right.

2) Geometry, Adjustment

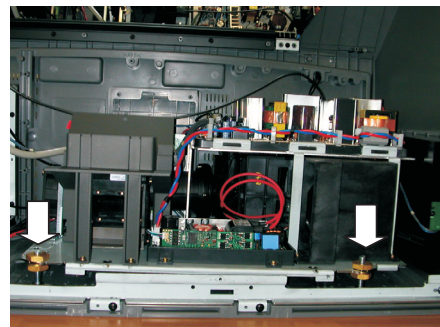
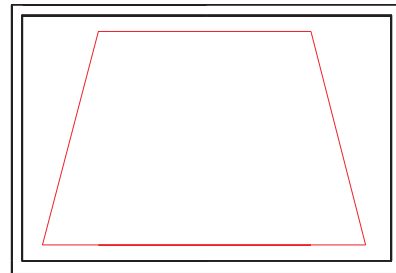
- (1) When the screen is rotated : Rotate all Engine.



- a. Distortion Type : Tilt
- b. Adjustment Method : Rotate the Engine Base on the right or left side so line of the Cross pattern will be level.



- (2) In case of the upper screen size is large bottom screen size than : upward projector.
 - a. Distortion Type : Keystone
 - b. Adjustment Method : Raise the front panel as looking downward the projection lens and then bottom screen size is large so the image will be level.



- (3) In case of the upper screen size is smaller bottom screen size than : downward projector.
 - a. Distortion Type : Keystone
 - b. Adjustment Method : Lower the front panel as looking upward the projection lens and then upper screen size is large so the image will be level.

11. Screen Position Adjustment

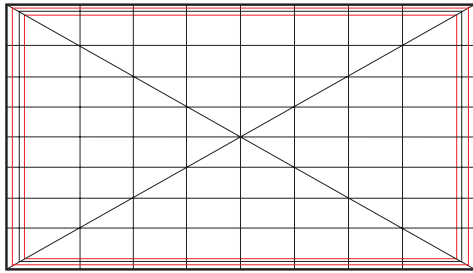
: Base value (H : 0, V : 0)

1) Required Test Equipment

A remote control of adjustment

2) Horizontal Position Adjustment

- (1) Press ADJ key on the remote control to enter the adjustment mode
- (2) Select the POSITION of the adjustment menu.

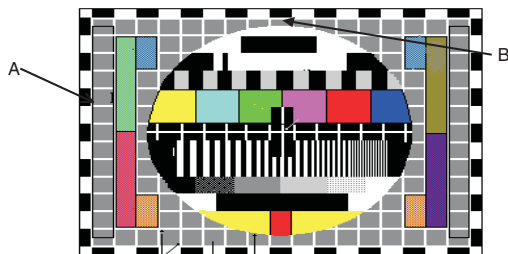


<Fig 12>

- (3) As shown this , adjustment Pattern is displayed.
- (4) Adjust data with using the left/right key on the remote control in order to be left/right symmetry screen<Fig 12>.
- (5) When the changeable range is escaped, you do NG.

3) Vertical Position Adjustment

- (1) Change the data to symmetrized upper and down of screen (refer to Fig 13) and then press the Volume key on Remote control to get out of adjustment mode.
 - (2) When the changeable range is escaped, you do NG.
- * After finishing the adjustment, input the EU 0.5ch to check the adjustment level.

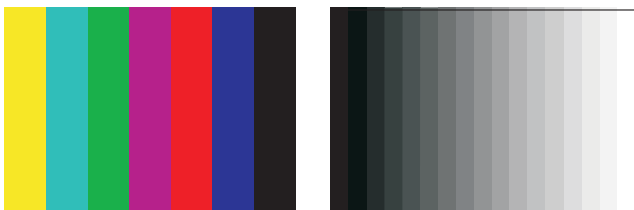


<Fig 13>EU 05ch

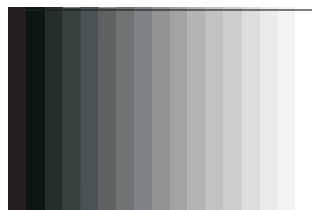
12. Adjusting the Auto Color Balance

1) Required Test Equipment

: Remote Control, MSPG-925FS Pattern Generator
(NTSC 720p YpbPr output & PC 1024*768@60Hz with Standard(0.7Vpp) Vertical 100% Color Bar Pattern & Vertical16 Gray Pattern)



<Fig 14. COLOR BAR Pattern> <Fig 15. Vertical16 Gray Pattern>



2) Preparation for Adjustment

- (1) Connect power and turn Power on.
- (2) Do Heat-Run for 5 minutes and over before adjustment.
- (3) Receive the component1.
- (4) Receive the NTSC, COLOR Bar Pattern of MSPG-925FS <Fig 14>.

3) Adjusting the Auto Color Balance

- (1) Press Adjust key on the remote control to enter the adjustment mode after more than 10 seconds of receiving the signals.
- (2) Press Adjust key on the remote control to enter the adjustment mode after receive the 720/60Hz Pattern, COLOR Bar Pattern of MSPG-925FS <Fig 14>.
- (3) In adjustment items, enter the **Auto RGB(HEX)** and press the (▶)button to enter the adjustment items, auto,atonally In menus, enter the **Auto Color Balance ▶ To Set** and press the button to complete and then display the "OK" OSD message.
- (4) When Component1 adjustment is completed, turn to the RGB.
- (5) Press Adjust key on the remote control to enter the adjustment mode after receive the PC XGA/60Hz Pattern, Vertical 16 Gray Pattern of MSPG-925FS <Fig 15>.
- (6) In adjustment items, enter the **Auto RGB(HEX)** and press the (▶)button to enter the adjustment items, auto,atonally In menus, enter the **Auto Color Balance ▶ To Set** and press the button to complete and then display the "OK" OSD message.

** Passively, correct the Sub Picture(HUDSON)**

If Vertical 16 Gray Pattern is shaken. after finishing the adjustment.

- When green color is appear, severely.
 - a. In menu, press the to enter the Hudson at the Device.
 - b. In menu, passively correct, coming down the ADC G-Offset2.
 - c. Press the ADJ button to exit the adjustment mode.
- When green color is appear, lightly.
 - a. In menu, press the to enter the Hudson at the Device.
 - b. In menu, passively correct, coming up the ADC G-Offset2.
 - c. Press the ADJ button to exit the adjustment mode.

13. Adjusting the Actuator

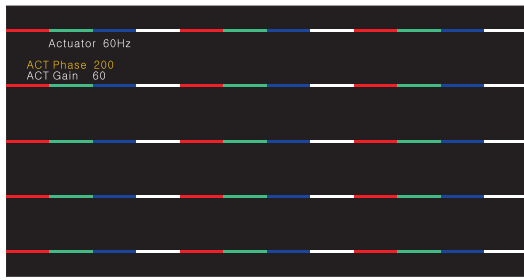
1) Required Test Equipment

: Remote Control

2) Preparation for Adjustment

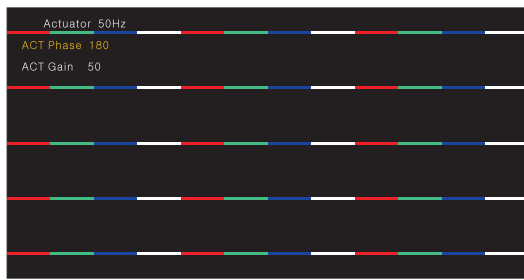
- (1) Connect a power source with TV Set and turn TV set on.
- (2) Using the Service Remote Control, enter from ADJ to Actuator_60Hz.
- (3) ACT Gain and Phase is variable and the Tartan plaid of R, G, B, W Horizontal Line adjust not distinguished not to be.
 - a. The Phase(Base value : 200) variable adjust Mutation point of Actuator.
 - b. The Gain(Base value : 60) adjust mutation quantity of Actuator.

* The Tartan plaid of R, G, and B adjust not visible not to be. But, when the R, G and B will not agree, adjust with point R and G agree.



Before Actuator Adjustment After Actuator Adjustment
<Fig 16. Test Pattern>

- (4) Using the Service Remote Control, enter from ADJ to Actuator_50Hz.
- (5) ACT Gain and Phase is variable and the Tartan plaid of R, G, B, W Horizontal Line adjust not distinguished not to be.
 - a. The Phase(Base value : 180) variable adjust Mutation point of Actuator.
 - b. The Gain(Base value : 50) adjust mutation quantity of Actuator.



Before Actuator Adjustment After Actuator Adjustment
<Fig 17. Test Pattern>

- * The Tartan plaid of R, G, and B adjust not visible not to be. But, when the R, G and B will not agree, adjust with point R and G agree.

14. CWI / NDC Adjustment

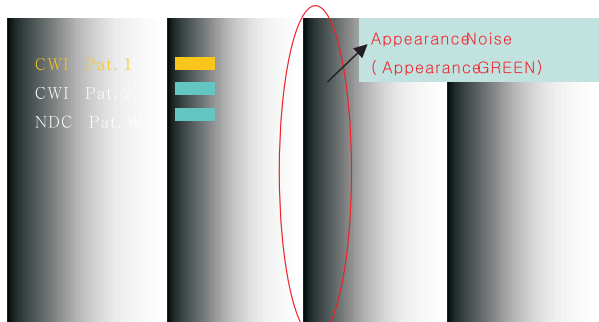
(Base value --> CWI: 160, NDC: 12)

1) Required Test Equipment

: Remote control

2) Preparation for Adjustment

- (1) Connect power and turn Power on.
- (2) Using the Remote Control, enter from ADJ to CWI/ NDC.



<Fig 18. Test Pattern>

3) Adjustment

- (1) Using the Channel key, adjust CWI-Pat.1 to the LEFT/ RIGHT

- (2) As adjustment, check the appearance noise in the TEST Pattern<Fig 18>.

Setting the value reduced (3)~(4) step at a GREEN noise disappearing spot.

- * Intermediate value the point Green color disappears from the Ramp Pattern and the point bottom color purity comes to be uniform from the RED Pattern is same (3)~(4)-step with value Green color disappears from the Ramp Pattern.

- (3) Using CH UP/DOWN key of the Remote Control, enter the RED PATTERN.

- (4) Check the RED Pattern<Fig 19> to uniform. After checking unless abnormality do OK.



<Fig 19. RED Test Pattern>

4) NDC Adjustment

For compensation deviation of each Lamp uses NDC Mode. Sees the Pattern and adjust left/right value using Channel Key on Remote Control for Adjustment to be uniform color of the White. (Lamp life compensation)

- * As temperature is different sensitivity, change angle of the color wheel. At this time, the adjustment is done because color may be changed.



<Fig 20. Test Pattern>

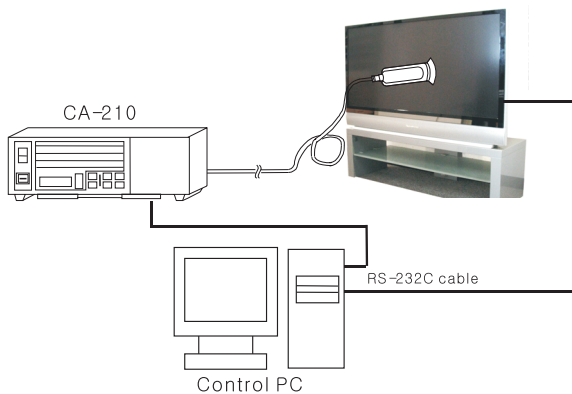
15. Adjusting the Auto CCA

1) Required Test Equipment

: CA-210

2) Adjustment Sequence

- (1) Install the equipment(CA210) be 5cm away from screen center.
- (2) RS-232C cable is connected from Control PC in the SET.
- (3) Measure is started in the statement that SET is done to Heat Run.

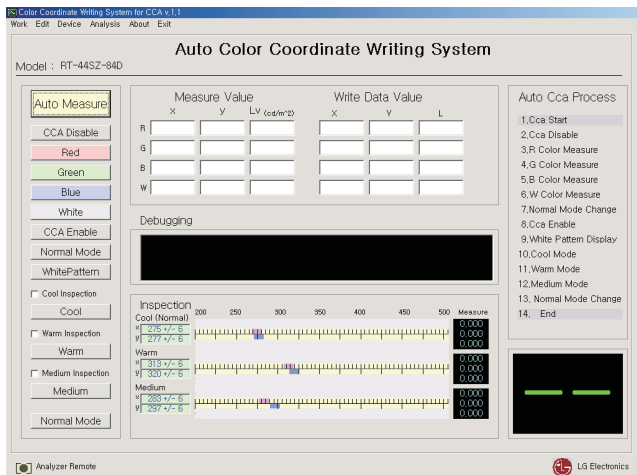


<Fig 21. CCA Automatic Adjustment Set-up>

3) Sequence of Adjustment

- (1) Auto adjustment program is practiced (ccws.exe)
- (2) Measure Model is chosen in Work->Select_Model(*cmf pile)
- (3) Check 'Cool Inspection', 'Warm Inspection', 'Medium Inspection' box of left column in the main screen come to be checked.

*If it was not checked, Inspection is not practiced after doing measure.



<Fig 22.CCA Automatic adjustment program main screen >

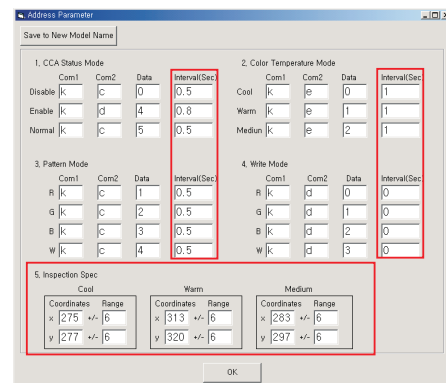
- (4) Click Auto Measure.
- >There is progress situation in the right Auto CCA Process.
(Start measure automatically to R->G->B->W order, practicing to inspection about White, OK, NG are judged in the right subpart and then being marked.)
- (5) Adjustment finishing in case OK.
- (6) In case NG, Auto Measure is again practiced in 1~2 times.
In cats NG, adjustment NG is managed to repractice of the 3 times.
- (7) Set CA-210 Sync type : Set Sync to univ.

4) 44/52SZ8R-ZA CCA Automatic Adjustment Target Value.

44/52SZ8R-ZA	X Coordinate	Y Coordinate	Tolerance	Color Temperature
Cool	275	277	±6	11600K
Warm	313	320	±6	6600K
Medium	287	289	±6	9300K

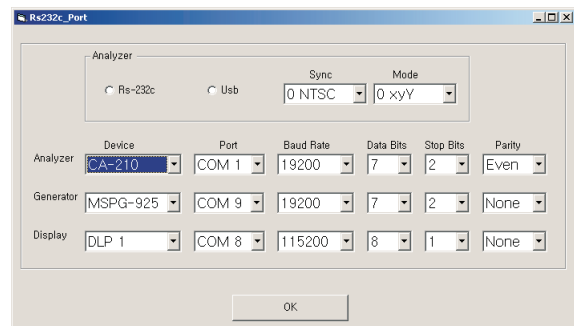
5) Program Edit.

- (1) Model Edit : Interval time and Target White coordinate that are between command words per Mode, being possible to correct a common difference.<Fig 17>



<Fig 23. CCA Automatic Adjustment program main Screen>

- (2) Port Edit : CA-210 and RS-232C Connection setting about SET < Fig 23>.



<Fig 24. CCA Automatic Adjustment program main Screen>

*** To be impossible auto adjustment manual adjustment***

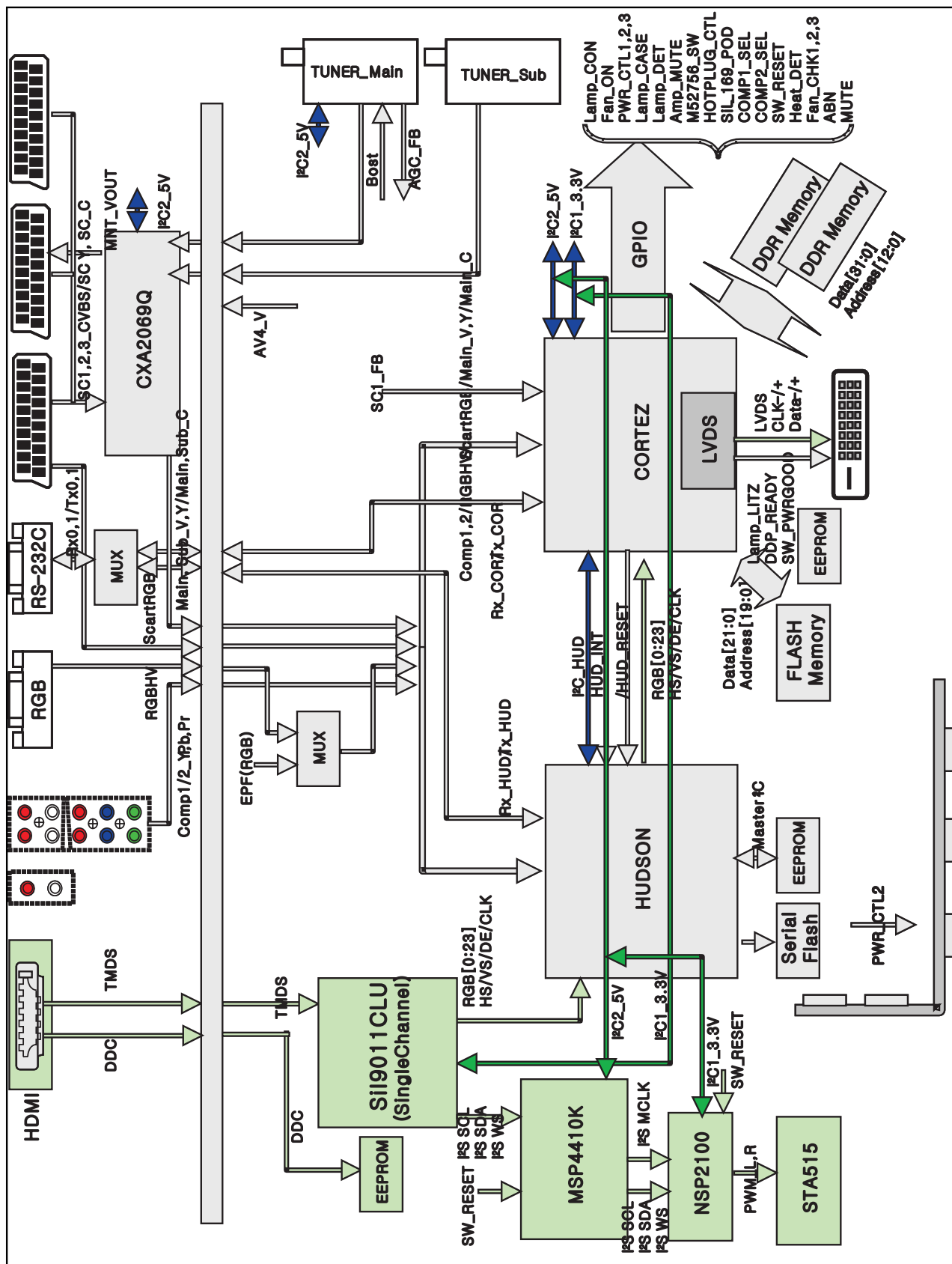
- (1) Entry become to IN-START-> Optics Check order using the adjustment remote controller.
- (2) Color coordinates (x, y, L) of White is measured choosing Full Color.
- (3) After Green, Red, Blue using CH-(▼) key, each color coordinates is measured.
- (4) Entry becomes to Manual CCA in the ADJ adjustment mode of adjustment remote controller.
- (5) After fitting Color Temp to Normal, measured color coordinates value of R, G, B, W are input.

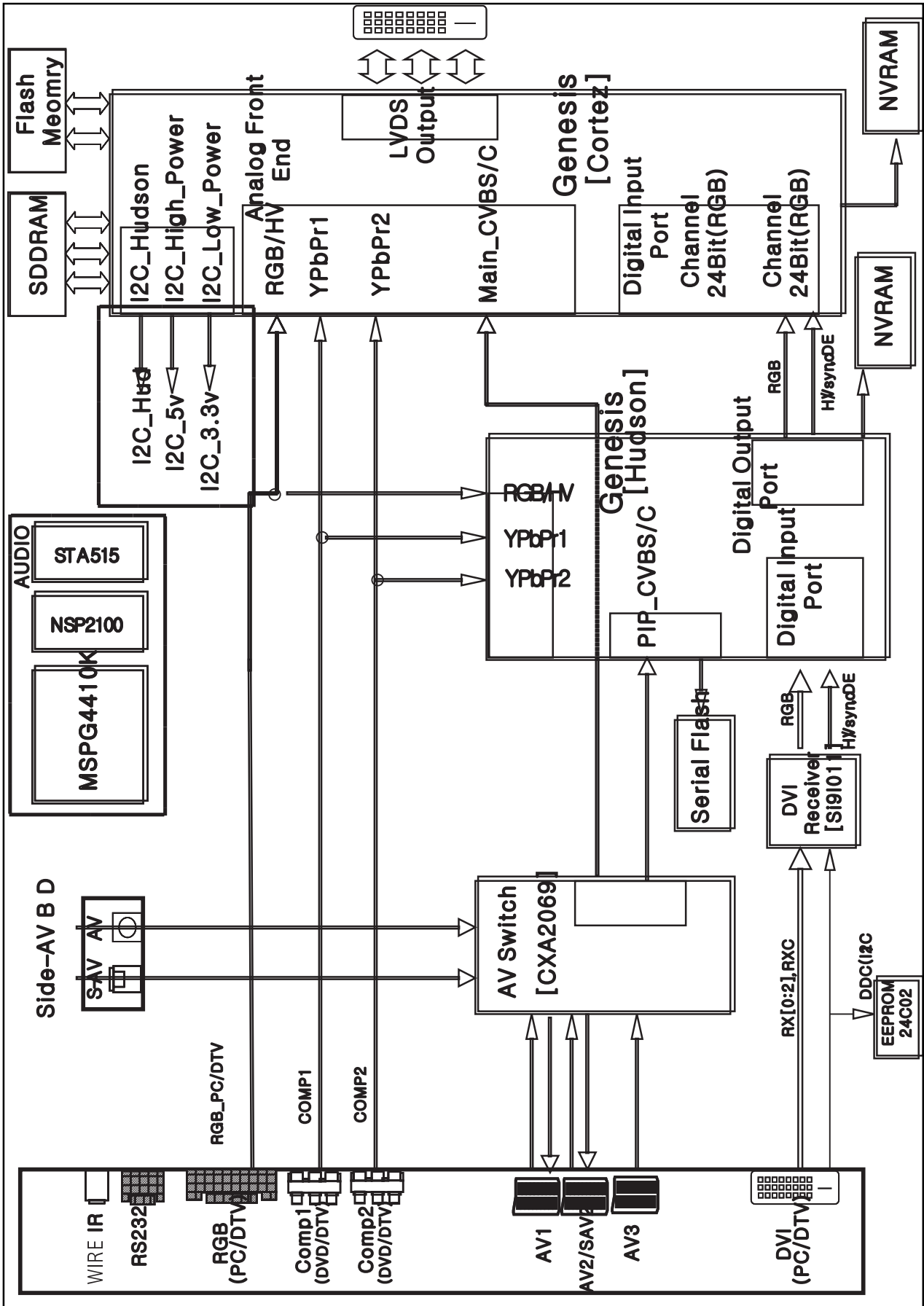
16. Check the adjustment of the plant shipping mode

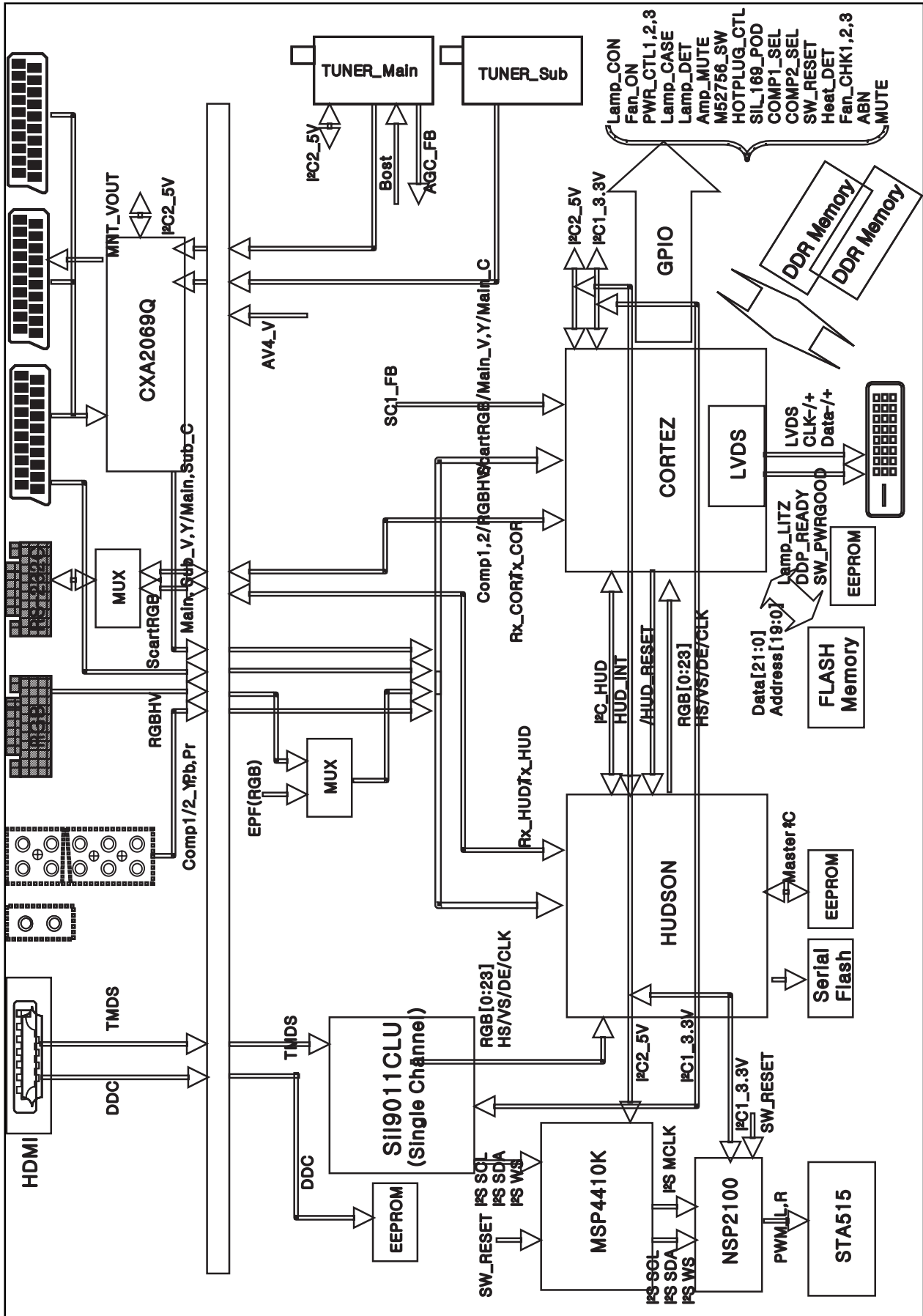
: This adjustment is checking the set state after take a adjustment of examination, check state of this model as shown below pressing the IN_STOP button on the adjustment Remote Controller.

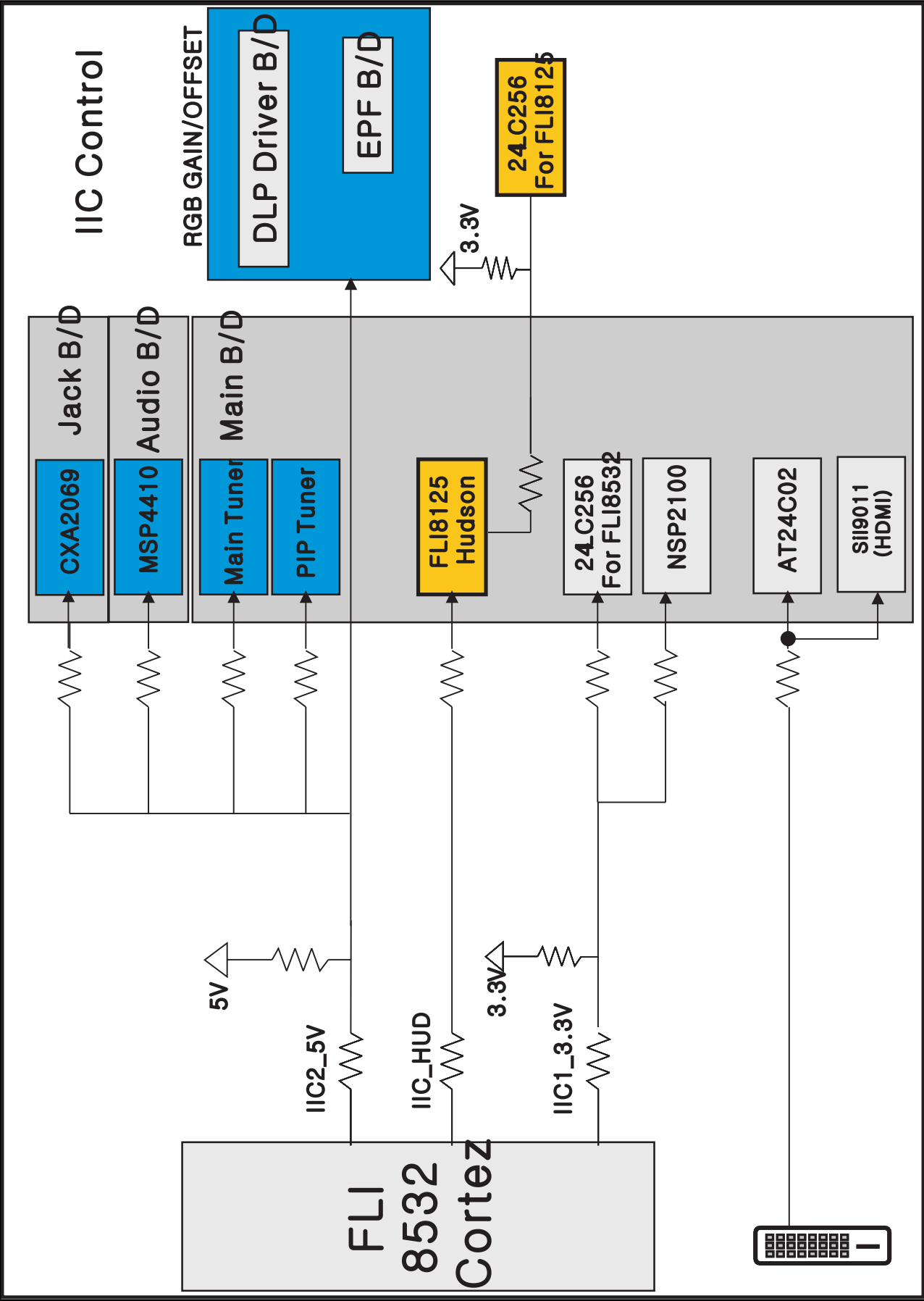
No	Item		Specification				Remark
			Min	Typ	Max	Unit	
1	Power		Off				
2	System		BG				
3	Band		V/UHF				
4	Channel		1				
5	Name		C1(45.25Mhz)				
6	Storage		1				
7	Booster		On				
8	Channel Memory		28EA Channel				
9	PICTURE	PSM	Dynamic				
10		Contrast	95				
11		Brightness	50				
12		Color	50				
13		Sharpness	50				
14		Tint	0				
15	Cinema		Off				
16	SSM		Flat				
17	AVL		Off				
18	Balance		Center				
19	Equalizer		Center				
20	Auto Sleep		Off				
21	Sleep Timer		Off				
22	Main Input		TV(On)				
23	PIP Input		TV(Off)				
24	Child Lock		Off				
25	ARC		16:9				
26	Volume		30				
27	PIP		Off				
28	PIP Position		Right-Bottom				
29	OSD Language		English				
30	PIP Size		Small(1/16)				
31	XD		ON				
32	COLOR TEMP		Normal				

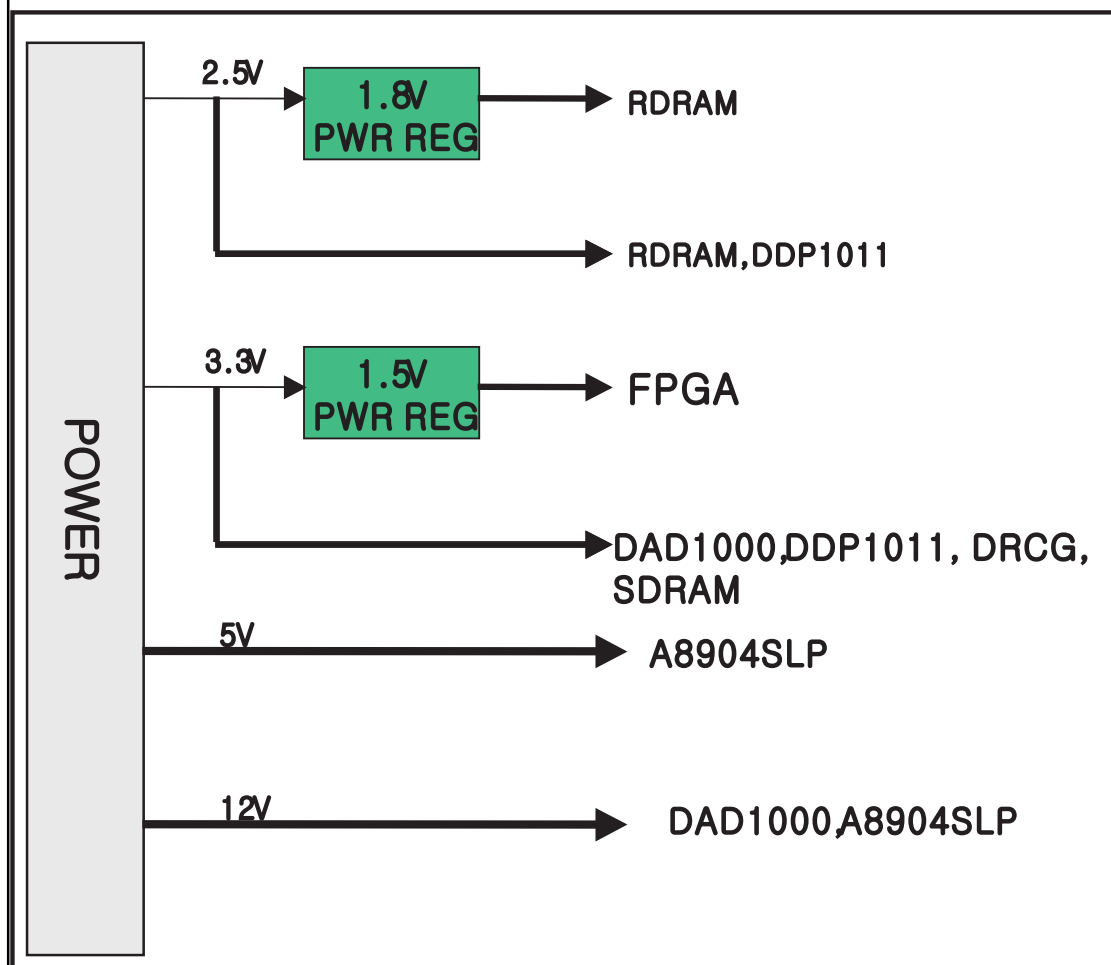
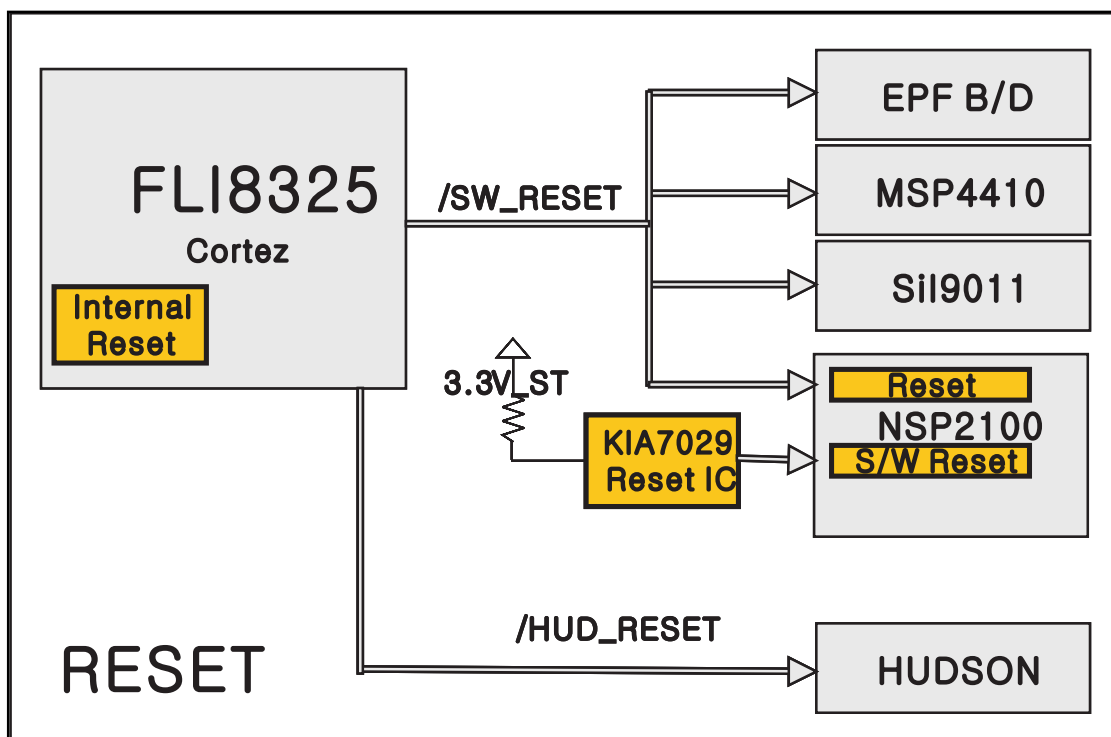
BLOCK DIAGRAM



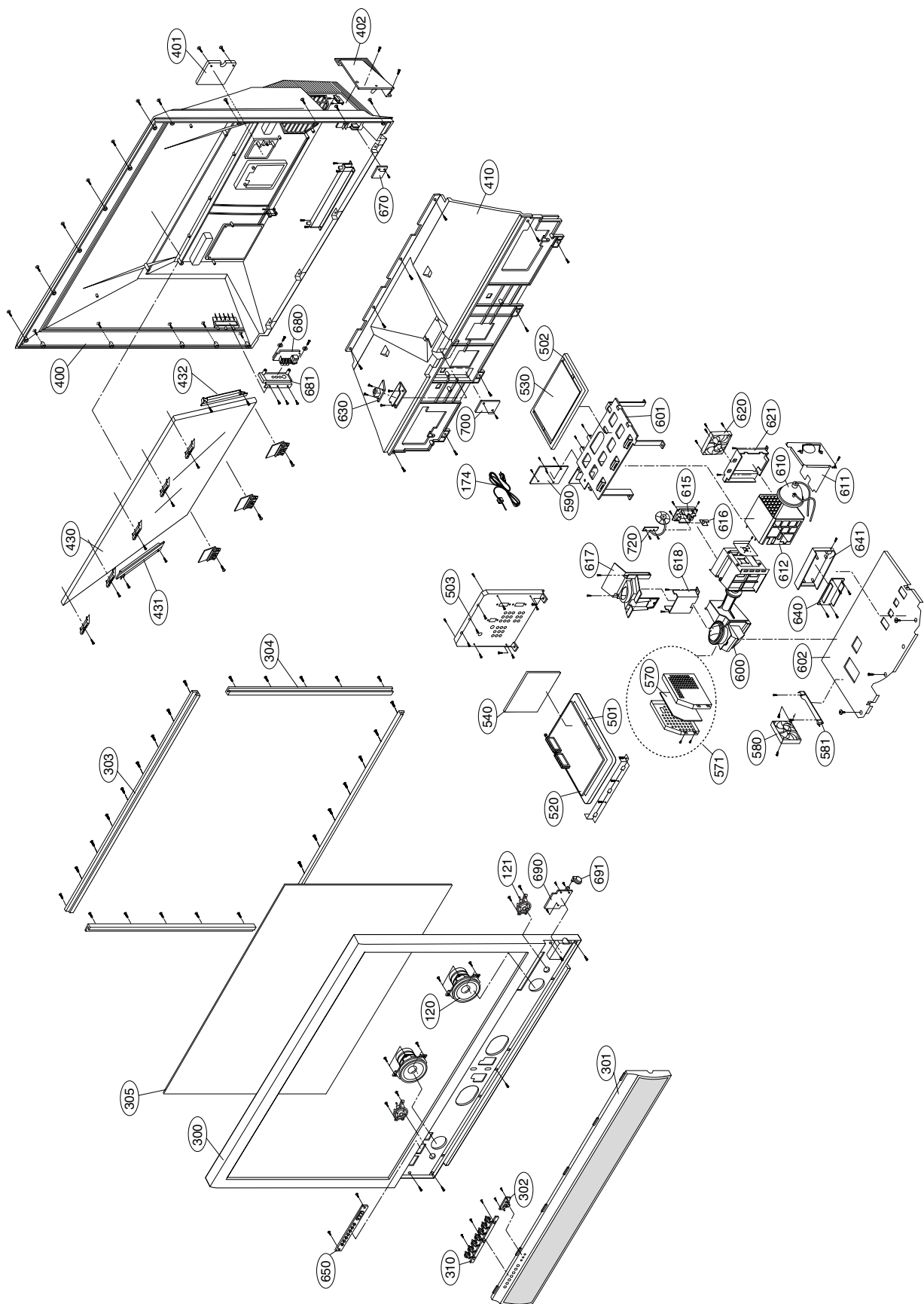








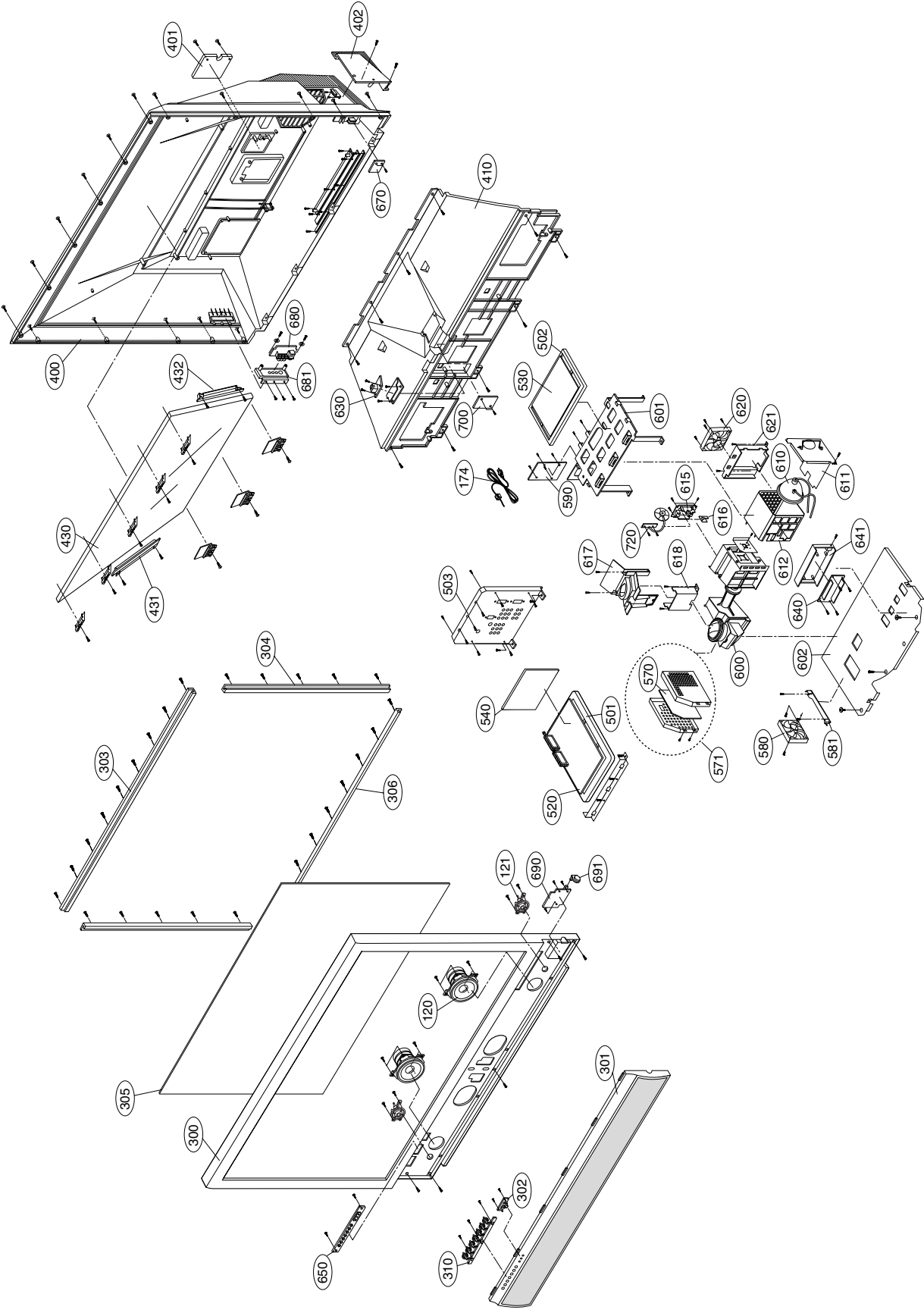
EXPLODED VIEW (44")



EXPLODED VIEW PARTS LIST

No.	Part No.		Description
	SET	SKD	
120	6400WESC01A	6400WESC01A	SPEAKER, WOOFER C080P23K1450 ESTEC WOOFER 8OHM 15/25W 84DB 80 NON
121	6400DESA01A	6400DESA01A	SPEAKER, TWEETER D016D01K1450 ESTEC TWEETER(DOME) 8HMOHM 15/25W 85DB 50 NON
174	174-225V	174-225V	POWER CORD ASSEMBLY, 6410VBH004B VOLEX VDE/SEMKO L4=550MM , BLACK
300	3091V00653M	3091V00784A	CABINET ASSEMBLY, 44SZ8R-ZA MB05EC FRONT PHANTOM FULL
301	4811V00099N	4811V00204B	BRACKET ASSEMBLY, GRILLE RZ-44SZ84DB MB05DA SPEAKER LG
302	3520V00401A	3520V00426A	INDICATOR, LED DN-44SZ80L ABS 3 PHY XCANVAS/ZENITH
303	4980V00A29G	4980V00A29G	SUPPORTER, SCREEN AL BAR U/L
304	4980V00A29H	4980V00A29H	SUPPORTER, SCREEN AL BAR R/L
305	3351V00020A	3351V00020B	SCREEN ASSEMBLY, SHIINSUNG LGE WLF DN-44SZ80L 991*564*3.4 .
310	5020V00903E	5020V00963B	BUTTON, CONTROL RU-44SZ80L ABS, AF-303S 7KEY SPRAY
400	3809V00450M	3809V00556B	BACK COVER ASSEMBLY, RZ-44SZ84DB LG(HD3)
401	3550V00424A	3550V00500A	COVER, DN-44SZ80L ABS POWER CODE
402	3550V00423B	3550V00499A	COVER, LAMP RU-44SZ80L HIPS 40AF .
410	3550V00425C	3550V00609A	COVER, RT-44SZ82DP HIPS 40AF HD3
430	5018V00039F	5018V00039F	MIRROR, REFLECTION AVATEC GLASS FRONTSIDE 940(H1)*500(H2)*498(V)*3.0(T) 1ST 44 DLP FRONT SURFACE MIRROR
431	4810V00819D	4810V00819J	BRACKET, DN-44SZ80L NB042A ABS MIRROR LEFT
432	4810V00818D	4810V00818J	BRACKET, DN-44SZ80L NB042A ABS MIRROR RIGHT
501	3210V00165B	3210V00165B	FRAME, FRAME ABS,AF-303 RN-48SZ40H MAIN CHASSIS
502	3210V00280A	3210V00280A	FRAME, CHASSIS HIPS 40AF DU-44SZ53D SMPS
503	4811V00125K	4811V00125K	BRACKET ASSEMBLY, REAR AV RZ-44SZ84DB MB05DA BOARD TERMINAL
520	6871VMMZQ2A	6871VMMZQ2A	PWB(PCB) ASSEMBLY, MAIN MAIN MB05DA RZ-44SZ84DB
530	6871VPMA44G	6871VPMA44G	PWB(PCB) ASSEMBLY, POWER SMPS MB-05DA RZ_44SZ84DB M/I Zenith SMPS
540	6871VSMACJA	6871VSMACJA	PWB(PCB) ASSEMBLY, SUB JACK MB05DA RZ-44SZ84DB
570	6871VSMANZN	6871VSMANZN	PWB(PCB) ASSEMBLY, SUB SUB M.I MB05DA 44SZ8R-ZA AEKLLA HD4 DRIVER M/I
571	3141VSNS77N	3141VSNS77N	CHASSIS ASSEMBLY, SUB MB05DA HD4 DMD BOARD ASSY FOR 44SZ8R-ZA
580	5900V09008F	5900V06007A	FAN, G9232S06B2-AA DONGYANG DC AXIAL 6V 90MM 1700RPM 3P 850MM IC-LA6583M
581	4980V00E80B	4980V00E80B	SUPPORTER, SECC(EGI) NEW DMD FAN SUPPORTER HD3 PRESS
590	68719PM008A	68719PM001A	PWB(PCB) ASSEMBLY, POWER POWER M.I 52SZ8R-ZA POWER HAND PLANNER AC-INPUT M/I
600	3141VSNH18W	3141VSNH18W	CHASSIS ASSEMBLY, SUB MB05DA HD4 SUB ENGINE ASSY 52SZ8R-ZA (APPLICATION OLD CONDENSING LENS)
601	4980V00C01C	4980V00C01D	SUPPORTER, SMPS EGI RU-44SZ63D
602	4980V00C58D	4980V00C58D	SUPPORTER, ENGINE SECC(EGI) HD3 BASE 44SZ80 PRESS
610	6912B22007B	6912B22007B	LAMP, HIGH PRESSURE MECURY UHP 120W 1.0 PH E22 PHILIPS 70V 1.6A 130MM/160MM XHD3
611	4814V00502D	4814V00502D	SHIELD, ASSY SHIEDL CASE LAMP ASSY(PRESS)
612	3110V00477A	3110V00477A	CASE, DU-62SY20D E-22 LAMP CASE
615	4980V00B42E	4980V00B42E	SUPPORTER, AL C/W SUPPORTER(WITH HEAT SINK,MC,ADD 1.5MM)
616	3300V00420A	3300V00420A	PLATE, LOCK AL . RT-52SZ60D HD3 PLATE UNAXIS C/W
617	3550V00547C	3550V00547C	COVER, TOP RT-44SZ82DP HIPS 40AF PROJECTION LENS
618	4980V01200A	4980V01200A	SUPPORTER, ENGINE EGI HD3 COSINA PROJECTION LENS
620	5900V09008E	5900V09008E	FAN, G9232S06B2-AA DONGYANG 92*92*32 6V 1700RPM DC5-8V 0.34CFM 200MM
621	4810V01111A	4810V01111A	BRACKET, DUCT DN-52SZ60D AB PC-ABS OUT
630	6871VSN221E	6871VSN221E	PWB(PCB) ASSEMBLY, SUB P/AMP NB042A DN-44SZ80L
640	6316000009B	6316000009B	BALLAST, EUC-120P/11 PHILIPS REV 0.2 120W DLP PJT
641	4930V00439B	4930V00439B	HOLDER, BALLAST ASSY , THANTOM , HD3 ADD BALLAST SHEET
650	6871VSME75A	6871VSME75A	PWB(PCB) ASSEMBLY, SUB CONT MB042A 80L CONTROL
670	6871VSME03M	6871VSME03P	PWB(PCB) ASSEMBLY, SUB SUB MB05DB CASE DET S/W, RT-44SZ84DB
680	6871VSN220G	6871VSN220G	PWB(PCB) ASSEMBLY, SUB SUB MB042C SIDE AV RZ-44SZ80LB
681	3500V00061U	4810V01074A	BOARD, ASSY RZ-44SZ80LB MB042C .
690	6871VSN222C	6871VSN222C	PWB(PCB) ASSEMBLY, SUB PSW MB042A DN-44SZ80L
691	5020V00904D	5020V00904D	BUTTON, POWER RZ-44SZ80DB ABS, AF-303S 1KEY NON
700	6871VSME82A	6871VSME82A	PWB(PCB) ASSEMBLY, SUB INTER MB042A DN-44SZ80L
720	6871VSMW40F	6871VSMW40F	PWB(PCB) ASSEMBLY, SUB SENSOR M.I NB03KA HD3 DLP 7SEGMENT COLOR WHEEL
721	5230V00028A	5230V00028A	FILTER(MECH), (HD3) RU-44SZ63D, COLOR WHEEL, NDF5, UNAXIS
722	7254V000008	7254V000008	ADHESIVE, UNILOCK LOCK SCREW LOCK

EXPLODED VIEW (52")



EXPLODED VIEW PARTS LIST

No.	Part No.		Description
	SET	SKD	
120	6400WESC01A	6400WESC01A	SPEAKER, WOOFER C080P23K1450 ESTEC WOOFER 8OHM 15/25W 84DB 80 NON
121	6400DESA01A	6400DESA01A	SPEAKER, TWEETER D016D01K1450 ESTEC TWEETER(DOME) 8HMOHM 15/25W 85DB 50 NON
174	174-225V	174-225V	POWER CORD ASSEMBLY, 6410VBH004B VOLEX VDE/SEMKO L4=550MM , BLACK
300	3091V00690M	3091V00690J	CABINET ASSEMBLY, 52SZ8R-ZA MB05DA HD3 ENGINE
301	4811V00122R	4811V00122M	BRACKET ASSEMBLY, SPEAKER RZ-52SZ84DB MB05DB NON
302	3520V00401A	3520V00426A	INDICATOR, LED DN-44SZ80L ABS 3 PHY XCANVAS/ZENITH
303	4980V00C04E	4980V00C04J	SUPPORTER, SCREEN AL RN-52SZ80
304	4980V00C04F	4980V00C04K	SUPPORTER, SCREEN AL RN-52SZ80
305	3351V00022A	3351V00022B	SCREEN ASSEMBLY, SHIINSUNG RN-52SZ30H 1178*670*3.9 NEW STRUCTURE
306	4980V00A29J	4980V00A29N	SUPPORTER, SCREEN AL BAR U/L
310	5020V00903E	5020V00963B	BUTTON, CONTROL RU-44SZ80L ABS, AF-303S 7KEY SPRAY
400	3809V00462H	3809V00555B	BACK COVER ASSEMBLY, RZ-52SZ80LB CIS
401	4980V00B64B	4980V00B64C	SUPPORTER, PLATE SECC(EGI) RN-52SZ80L
402	3550V00452D	3550V00452D	COVER, LAMP RN-52SZ80L HIPS 40AF SPRAY
410	3550V00451A	3550V00451A	COVER, RN-52SZ80L HIPS 40AF DUST
430	5018V00087B	5018V00087B	MIRROR, REFLECTION AVATEC GLASS FRONTSIDE 1108(H1)*561(H2)*589(V)*3.0(T) LCD/DLP 52 80 TOOL
431	4980V00C06C	4980V00C07D	SUPPORTER, MIRROR SECC(EGI) RIGHT RN-52SZ80L
432	4980V00C07C	4980V00C06D	SUPPORTER, MIRROR SECC(EGI) LEFT RN-52SZ80L
501	3210V00165B	3210V00165B	FRAME, FRAME ABS,AF-303 RN-48SZ40H MAIN CHASSIS
502	3210V00280A	3210V00280A	FRAME, CHASSIS HIPS 40AF DU-44SZ53D SMPS
503	4811V00125K	4811V00125K	BRACKET ASSEMBLY, REAR AV RZ-44SZ84DB MB05DA BOARD TERMINAL
520	6871VMMZQ2A	6871VMMZQ2A	PWB(PCB) ASSEMBLY, MAIN MAIN MB05DA RZ-44SZ84DB
530	6871VPM444G	6871VPM444G	PWB(PCB) ASSEMBLY, POWER SMPS MB-05DA RZ_44SZ84DB M/I Zenith SMPS
540	6871VSMACJA	6871VSMACJA	PWB(PCB) ASSEMBLY, SUB JACK MB05DA RZ-44SZ84DB
570	6871VSMANZN	6871VSMANZN	PWB(PCB) ASSEMBLY, SUB SUB M.I MB05DA 44SZ8R-ZA AEKLLA HD4 DRIVER M/I
571	3141VSN577N	3141VSN577N	CHASSIS ASSEMBLY, SUB MB05DA HD4 DMD BOARD ASSY FOR 44SZ8R-ZA
580	5900V09008F	5900V06007A	FAN, G9232S06B2-AA DONGYANG DC AXIAL 6V 90MM 1700RPM 3P 850MM IC-LA6583M
581	4980V00E80B	4980V00E80B	SUPPORTER, SECC(EGI) NEW DMD FAN SUPPORTER HD3 PRESS
590	68719PM008A	68719PM001A	PWB(PCB) ASSEMBLY, POWER POWER M.I 52SZ8R-ZA POWER HAND PLANNER AC-INPUT M/I
600	3141VSNH18W	3141VSNH18W	CHASSIS ASSEMBLY, SUB MB05DA HD4 SUB ENGINE ASSY 52SZ8R-ZA (APPLICATION OLD CONDENSING LENS)
601	4980V00C01C	4980V00C01D	SUPPORTER, SMPS EGI RU-44SZ63D
602	4980V00C58C	4980V00C58C	SUPPORTER, ENGINE SECC(EGI) HD3 BASE 52SZ80 PRESS
610	6912B22007B	6912B22007B	LAMP, HIGH PRESSURE MECURY UHP 120W 1.0 PH E22 PHILIPS 70V 1.6A 130MM/160MM XHD3
611	4814V00502D	4814V00502D	SHIELD, ASSY SHIEDL CASE LAMP ASSY(PRESS)
612	3110V00477A	3110V00477A	CASE, DU-62SY20D E-22 LAMP CASE
615	4980V00B42E	4980V00B42E	SUPPORTER, AL C/W SUPPORTER(WITH HEAT SINK,MC,ADD 1.5MM)
616	3300V00420A	3300V00420A	PLATE, LOCK AL . RT-52SZ60D HD3 PLATE UNAXIS C/W
617	3550V00547A	3550V00547C	COVER, TOP 44SZ80 TOOL HIPS 40AF PROJECTION LENS
618	4980V01200A	4980V01200A	SUPPORTER, ENGINE EGI HD3 COSINA PROJECTION LENS
620	5900V09008E	5900V09008E	FAN, G9232S06B2-AA DONGYANG 92*92*32 6V 1700RPM DC5-8V 0.34CFM 200MM
621	4810V01111A	4810V01111A	BRACKET, DUCT DN-52SZ60D AB PC-ABS OUT
630	6871VSN221H	6871VSN221H	PWB(PCB) ASSEMBLY, SUB P/AMP MB042A RN/RU-52SZ80L
640	6316000009B	6316000009B	BALLAST, EUC-120P/11 PHILIPS REV 0.2 120W DLP PJT
641	4930V00439B	4930V00439B	HOLDER, BALLAST ASSY , THANTOM , HD3 ADD BALLAST SHEET
650	6871VSME75A	6871VSME75A	PWB(PCB) ASSEMBLY, SUB CONT MB042A 80L CONTROL
670	6871VSME03N	6871VSME03Q	PWB(PCB) ASSEMBLY, SUB SUB MB05DB CASE DET S/W, 52SZ8R-AB
680	6871VSN220G	6871VSN220G	PWB(PCB) ASSEMBLY, SUB SUB MB042C SIDE AV RZ-44SZ80LB
681	3500V00061U	4810V01206A	BOARD, ASSY RZ-44SZ80LB MB042C .
690	6871VSN222C	6871VSN222C	PWB(PCB) ASSEMBLY, SUB PSW MB042A DN-44SZ80L
691	5020V00904D	5020V00904D	BUTTON, POWER RZ-44SZ80DB ABS, AF-303S 1KEY NON
700	6871VSM82A	6871VSM82A	PWB(PCB) ASSEMBLY, SUB INTER MB042A DN-44SZ80L
720	6871VSMW40F	6871VSMW40F	PWB(PCB) ASSEMBLY, SUB SENSOR M.I NB03KA HD3 DLP 7SEGMENT COLOR WHEEL
721	5230V00028A	5230V00028A	FILTER(MECH), (HD3) RU-44SZ63D, COLOR WHEEL, NDF5, UNAXIS
722	7254V000008	7254V000008	ADHESIVE, UNILOCK LOCK SCREW LOCK

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
IC					
D1101	0IKE431000D	KIA431AF SOT-89 TP PROGRAMMABLE	IC801	0IMCRTI014A	CDCR83 TEXAS INSTRUMENT 24P
IC1	0IPRPT0002A	TC7S14F(T5L,T) TOSHIBA 5P SOP	IC802	0IMCRSG007A	74VIT125CTR SGS-THOMSON 5P
IC100	0ISO206900A	CXA2069Q QFP64 BK I2C BUS AV S/W	IC803	0IMCRSG008A	74LX1G14CTR SGS-THOMSON 5P
IC1000	0IMI623200B	M62320FP,I/O EXPANDER 16P SOP TP	IC804	0IMCRSG008A	74LX1G14CTR SGS-THOMSON 5P
IC1001	0IMI623200B	M62320FP,I/O EXPANDER 16P SOP TP	IC805	0IMCRMX001A	MAX708SCSA MAXIM 8P SOP R/TP RESET
IC101	0IMCRSG010A	ST3232CDR SGS-THOMSON SOP16	IC806	0IMCRSG008A	74LX1G14CTR SGS-THOMSON 5P
IC102	0IMCRTI003A	SN74HCT08D TEXAS INSTRUMENT 16P	IC807	0IMCRMX001A	MAX708SCSA MAXIM 8P SOP R/TP RESET
IC106	0ISA721700C	LA7217M MFP14 TP SYNC SEPARATOR	IC808	0IMCRSG008A	74LX1G14CTR SGS-THOMSON 5P
IC11	0IMCR02006A	FLI8125BB-LF GENESIS 208P/PQFP	IC810	0IMCRSK004A	SMA-E1017 SANKEN 3P TO220
IC1102	0IMMRSS037E	K4S643232H-TC60 TSOPII TRAY 64M	IC810	0IMCRSJ001A	SC1565IST-1.8 SEMTECH 3P SOT223
IC1103	0IMCRTI032A	2505428-0001 TEXAS INSTRUMENT 8P	IC830	0ISH817300B	PC817XF3 4D PHOTO COUPLER
IC12	0IMCRMN028B	MSP4410K MICRONAS 80P/PQFP	IC850	0ISH302122A	PQ30RV21 TO-220
IC13	0IMMRAL014B	AT24C02N-10SI-2.7 ATMEL 8P	IC851	0IMCRFA007A	KA431Z FAIRCHILD 3DIP,TO-92
IC133	0IPMGON013B	MC34063ADR2G ON SEMI SO-8P	IC870	0IMCRFA007A	KA431Z FAIRCHILD 3DIP,TO-92
IC15	0IMCR02005A	FLI8532BD-LF GENESIS 416P/PBGA	IC900	0IMCRTI012B	2503253-0003(DAD1000-3)
IC168	0IMCRKE006B	KIA278R33PI KEC TO-220IS 4P ST 3.3V	IC906	0IMCRSG007A	74VIT125CTR SGS-THOMSON 5P
IC169	0IMCRKE003B	KIA78R12API KEC 4P TO-220IS	IC907	0IMCRSG008A	74LX1G14CTR SGS-THOMSON 5P
IC170	0IMCRKE006A	KIA278R05PI KEC TO220IS,4P ST 2A	IC908	0IMCRSG008A	74LX1G14CTR SGS-THOMSON 5P
IC176	0IPMGKE045A	KIA278R25PI 2.5V 2A KEC TO220IS 4P	IC910	0IMCRSG007A	74VIT125CTR SGS-THOMSON 5P
IC177	0IPMGKE032A	KIA78R09F KEC 5PIN DPAK R/TP 1A,9V	IC912	0ISTLON037A	NL17S217DFT2G ON SEMI SOT353
IC178	0IMCRSJ001A	SC1565IST-1.8 SEMTECH 3P SOT223	IC913	0IMCRSG007A	74VIT125CTR SGS-THOMSON 5P
IC199	0IPRPS5005A	SII9011CLU(PB FREE) SILICON IMAGE	IC19	6927V0144AC	SOFT WARE, 3.01V 0000 MD PJT MB05DB
IC2	0IMCRSH003A	GP2S40 SHARP 4P DIP	IC226	692790004AA	SOFT WARE, 3.00V 8E73 MD PJT MB05DA
IC20	0IMP242560A	24LC256-I/SM 8P,SOP TP 256K IIC	IC58	692790015AA	SOFT WARE, 2.10.0V 883D MD PJ MB05DB
IC213	0IPMG00037A	KIA78D25F,LF KEC DPARK 3PIN	TRANSISTOR		
IC214	0IPMG00027A	SC156515M-1.8TR SEMTECH	Q10	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC217	0IPRP00026A	STA515,LF SGS-THOMSON PSSO 36P	Q100	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
IC218	0IKE704200J	KIA7042AF SOT-89 TP 4.2V	Q100	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC22	0IMP242560A	24LC256-I/SM 8P,SOP TP 256K	Q1000	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC220	0ILNR00015A	NSP-2100A,LF NEOFIDELITY TQFP 64P	Q1001	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC225	0IMCRKE006A	KIA278R05PI KEC TO220IS,4P ST 2A	Q1002	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC228	0IFA754207A	KA75420ZTA(KA7542ZTA) 3P,TO-92	Q1003	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC230	0IMCRAL006A	AT24C16AN-10SU-2.7,LF ATMEL 8P	Q1004	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC234	0IMCRTI003A	SN74HCT08D TEXAS INSTRUMENT 16P	Q1005	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC401	0IMCRAG001A	A8904SLP ALLEGRO MICRO SYSTEMS	Q101	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
IC500	0IMCRTH003A	THC63LVD104A THINE ELECTRONICS 64P	Q102	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
IC501	0IMCRTI031A	2505356-0001 TEXAS INSTRUMENT 256P	Q103	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
IC503	0IPMGSG018C	LD1086DT15TR SGS-THOMSON 2P DPAK	Q104	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
IC504	0IMCRSG007A	74VIT125CTR SGS-THOMSON 5P	Q105	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC581	0ILNRTI035A	OPA561PWP/2K TEXAS INSTRUMENT	Q106	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
IC582	0IMCRTI037A	TLC7524CDR TEXAS INSTRUMENT	Q107	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC583	0IMCRSG007A	74VIT125CTR SGS-THOMSON 5P	Q108	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC59	0IMMR00002A	K4D261638F-LC50,LF	Q109	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC60	0IMMR00002A	K4D261638F-LC50,LF	Q11	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC700	0IMCRTI011B	2504886-0003(DDP1011)	Q110	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC701	0IMMRAL015C	AT49BV8192A-90TI ATMEL 48P	Q111	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC702	0IMCRFA003A	KA2903 FAIRCHILD 8SOP	Q112	0TR101009AD	CHIP KRA101S SOT-23 TP KEC
IC705	0IMMRAL025A	AT24C32AN-10SI-2.7 ATMEL 8PIN	Q113	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
IC800	0IMMRSS053B	K4R271669F-TCS8 RDRAM 128MBIT	Q12	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC

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LOCA. NO	PART NO	DESCRIPTION
Q13	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q14	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q15	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q16	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q17	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q18	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q19	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q20	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q21	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q22	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q23	0TR150400BA	CHIP 2SA1504S(ASY) BK KEC
Q501	0TR830009BA	BSS83 TP PHILIPS N-CHANNEL S/W
Q502	0TR830009BA	BSS83 TP PHILIPS N-CHANNEL S/W
Q801	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q801	0TFSG10004A	STW20NK50Z SGS-T(STM)
Q802	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC
Q830	0TFSG10003A	STW8NK80Z SGS-T(STM)
Q832	0TR437000BA	KTC4370A-Y TO-220IS BK KEC
Q840	0TR437000BA	KTC4370A-Y TO-220IS BK KEC
Q852	0TR945009AA	KSC945C-Y TP SAMSUNG TO92
Q871	0TR102409AB	KTA TP KEC TO92 1024-Y(KTA949)
Q872	0TR322709AA	KTC3227 TP KECY, (KTC1627A)
DIODE		
D10	0DD184009AA	KDS184 TP KEC - 85V - 300MA
D105	0DS113379BA	1SS133 T-72 TP ROHM DO34 90V
D106	0DS113379BA	1SS133 T-72 TP ROHM DO34 90V
D11	0DD184009AA	KDS184 TP KEC - 85V - 300MA
D12	0DD184009AA	KDS184 TP KEC - 85V - 300MA
D13	0DD184009AA	KDS184 TP KEC - 85V - 300MA
D14	0DD226239AA	KDS226 TP KEC
D15	0DD226239AA	KDS226 TP KEC
D16	0DD226239AA	KDS226 TP KEC
D17	0DD226239AA	KDS226 TP KEC
D18	0DD226239AA	KDS226 TP KEC
D189	0DRDI00148A	B140A DIODES R/TP SMA 40V 1A 30A
D19	0DD226239AA	KDS226 TP KEC
D191	0DD184009AA	KDS184 TP KEC - 85V - 300MA
D192	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D193	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D194	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D195	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D196	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D197	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D198	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D199	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D20	0DD226239AA	KDS226 TP KEC
D200	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D201	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D202	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V

LOCA. NO	PART NO	DESCRIPTION
D203	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D204	0DS113379BA	1SS133 T-72 TP ROHM KOREA DO34 90V
D21	0DD226239AA	KDS226 TP KEC
D22	0DD226239AA	KDS226 TP KEC
D23	0DD226239AA	KDS226 TP KEC
D24	0DD226239AA	KDS226 TP KEC
D25	0DD226239AA	KDS226 TP KEC
D26	0DD226239AA	KDS226 TP KEC
D27	0DD226239AA	KDS226 TP KEC
D28	0DD226239AA	KDS226 TP KEC
D581	0DRON00088A	BAT54SWT1 ON SEMI R/TP D-PAK 60V 3A
D610	0DZVH00118A	GZF8V2C VISHAY R/TP SMD 0.8W 7.7-8.7V
D801	0DRSD00050B	D25XB60-4000 SHINDENGEN BK D-PAK
D831	0DD100009AU	EU1AV(1) TP SANKEN TP SANKEN
D832	0DD100009AU	EU1AV(1) TP SANKEN TP SANKEN
D834	0DR010009AA	EG01C TP SANKEN - 1000V 0.5A 10A
D835	0DD414809ED	1N4148 TP GRANDE
D840	0DD414809ED	1N4148 TP GRANDE
D851	0DD220000AC	FML-G22S SANKEN BK TO220 200V 10A
D861	0DD220000AC	FML-G22S SANKEN BK TO220 200V 10A
D871	0DRSD00091A	SF20JC10 SHINDENGEN ST FTO220(4115)
D881	0DD220000AC	FML-G22S SANKEN BK TO220 200V 10A
D891	0DRSA00170A	FML-G14S SANKEN BK TO220 400V 5A
D909	0DRGS00328A	SS26 GENERAL SEMICONDUCTOR
D910	0DRGS00328A	SS26 GENERAL SEMICONDUCTOR
D912	0DRON00088A	BAT54SWT1 ON SEMI R/TP D-PAK 60V
D913	0DRON00088A	BAT54SWT1 ON SEMI R/TP D-PAK 60V
D914	0DRON00088A	BAT54SWT1 ON SEMI R/TP D-PAK 60V
D915	0DRON00088A	BAT54SWT1 ON SEMI R/TP D-PAK 60V
Q801	0DR360000AA	FMG-36S BK SANKEN - 2.2V 100NSEC
ZD01	0DR050008AA	SD05.TC R/TP SEMTECH SOD323 5V 5A
ZD1	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD10	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD2	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD3	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD4	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD5	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD6	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
ZD839	0DZ300009BB	MTZJ30B TP ROHM-K DO34 0.5W 30V 5UA
ZD9	0DZ620009BB	MTZJ6.2B TP ROHM-K DO34 0.5W 6.2V
D1	0DLLT0260AA	LED, LITEON LTL-30EWJ BK GREEN/RED
D2	0DLLT0260AA	LED, LITEON LTL-30EWJ BK GREEN/RED
D3	0DLLT0260AA	LED, LITEON LTL-30EWJ BK GREEN/RED
CAPACITOR		
C1	0CE476DF618	47UF STD 16V M FL TP5
C10	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1002	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C1037	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1038	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD

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	CQ : Polyester	RS : Metal Oxide Film
	CE : Electrolytic	RN : Metal Film
		RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
C1044	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1065	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C11	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1102	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1103	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1104	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1105	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1106	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1107	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1108	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C111	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C1111	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1112	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1113	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1114	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1115	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1116	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1122	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1123	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1124	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1125	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1126	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1126	0CE227BJ618	220UF KME TYPE 35V 20% FL TP 5
C1127	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1127	0CK105EK56A	1UF 3216 50V 10% X7R R/TP
C1128	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1129	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1130	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1131	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1132	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1133	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1134	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1135	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1136	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1137	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1140	0CS226HDKDC	22UF 3528 10V 20%,-20% SMD
C1141	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1142	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1143	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1144	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1145	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1146	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1147	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1148	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1149	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1150	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1151	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1152	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1153	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1154	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R

LOCA. NO	PART NO	DESCRIPTION
C1155	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1156	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1157	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1158	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1159	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1160	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
C1161	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
C1161	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C1162	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
C1163	0CC331CK41A	330PF 1608 50V 5% R/TP NP0
C1163	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C1164	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1165	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1166	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1167	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1168	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1169	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1170	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1171	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C1172	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1174	0CE227BJ618	220UF KME TYPE 35V 20% FL TP 5
C1175	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C1178	0CE476SF6DC	47UF MVG 16V 20% SMD R/TP
C1182	0CE476SF6DC	47UF MVG 16V 20% SMD R/TP
C1189	0CF4741L438	0.47UF D 63V 5% TP 5 M/PE NI
C1191	0CK105EK56A	1UF 3216 50V 10% X7R R/TP
C1192	0CK105DF64A	1UF 2012 16V 20% R/TP F(Y5V)
C1196	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1199	0CF4741L438	0.47UF D 63V 5% TP 5 M/PE NI
C12	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1200	0CE476SF6DC	47UF MVG 16V 20% SMD R/TP
C1202	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1203	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1204	0CE107VH6DC	100UF MV 25V 20% R/TP(SMD) SMD
C1210	0CK105DF64A	1UF 2012 16V 20% R/TP F(Y5V)
C1216	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C1218	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C1219	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C1228	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1229	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1232	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C1235	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1236	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1237	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C1240	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C129	0CE476SF6DC	47UF MVG 16V 20% SMD R/TP
C13	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C130	0CE105SK6DC	1UF MVG 50V 20% SMD R/TP
C131	0CE105SK6DC	1UF MVG 50V 20% SMD R/TP
C133	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP

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LOCA. NO	PART NO	DESCRIPTION
C14	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C15	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C150	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C151	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C152	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C153	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C154	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C155	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C156	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C157	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C158	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C159	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C16	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C160	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C161	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C172	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C180	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C189	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C2	0CN1030F679	10000PF D 16V 20% X5R TA52
C20	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C209	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C211	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C215	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C22	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C23	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C24	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C241	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C242	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C25	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C259	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C26	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C27	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C276	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C28	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C29	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C3	0CN1010K519	100PF D 50V 10% B(Y5P) TA52
C30	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C31	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C311	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C32	0CK225DFK4A	2.2UF 2012 16V 20%,-20% F(Y5V)
C321	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C4	0CN1010K519	100PF D 50V 10% B(Y5P) TA52
C418	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C422	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C423	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C426	0CE475SK6DC	4.7UF MVG 50V 20% SMD R/TP
C434	0CE475SK6DC	4.7UF MVG 50V 20% SMD R/TP
C435	0CE475SK6DC	4.7UF MVG 50V 20% SMD R/TP
C440	0CE475SK6DC	4.7UF MVG 50V 20% SMD R/TP
C441	0CE475SK6DC	4.7UF MVG 50V 20% SMD R/TP

LOCA. NO	PART NO	DESCRIPTION
C443	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C445	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C446	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C447	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C448	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C449	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C450	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C452	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C454	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C455	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C456	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C481	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C482	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C515	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C517	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C519	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C523	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C528	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C530	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C531	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C531	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C533	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C535	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C556	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C569	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C575	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C576	0CE106SF6DC	10UF MVG 16V 20% R/TP(SMD) SMD
C580	0CE335SK6DC	3.3UF MVG 50V 20% SMD R/TP
C582	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C584	0CK103CK56A	0.01UF 1608 50V 10% R/TP X7R
C586	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C587	0CS226GJ6DC	22UF 7343 35V 20% SMD R/TP(SMD)
C590	0CE335SK6DC	3.3UF MVG 50V 20% SMD R/TP
C598	0CE226SF6DC	22UF MVG 16V 20% SMD R/TP
C609	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C610	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C611	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C612	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C614	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C615	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C616	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C617	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C618	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C619	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C620	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C621	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C622	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C623	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C624	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C625	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R

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LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
C626	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C723	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C627	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C724	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C628	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C725	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C629	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C726	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C630	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C727	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C631	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C728	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C632	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C728	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C633	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C729	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C634	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C730	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C635	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C731	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C636	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C732	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C637	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C733	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C638	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C734	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C639	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C735	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C640	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C736	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C641	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C737	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C642	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C738	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C643	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C739	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C644	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C740	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C645	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C741	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C646	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C742	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C647	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C743	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C648	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C744	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C649	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C745	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C650	0CC270CK41A	27PF 1608 50V 5% R/TP NP0	C746	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C651	0CC270CK41A	27PF 1608 50V 5% R/TP NP0	C747	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C652	0CC270CK41A	27PF 1608 50V 5% R/TP NP0	C748	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C653	0CC270CK41A	27PF 1608 50V 5% R/TP NP0	C749	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C654	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C750	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C655	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C751	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C691	0CE477SF6DC	470UF MVG 16V 20% R/TP(SMD) SMD	C752	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C692	0CE477SF6DC	470UF MVG 16V 20% R/TP(SMD) SMD	C753	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C700	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C754	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C701	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C755	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C702	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C756	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C704	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C757	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C706	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C758	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C707	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C759	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C709	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C760	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C710	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C761	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C711	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C762	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C712	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C763	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C713	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C764	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C714	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C765	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C717	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C766	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C718	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C767	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C719	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C768	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C720	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C769	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C721	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C770	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C722	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C771	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R

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LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
C772	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C824	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C772	0CE107VH6DC	100UF MV 25V 20% R/TP(SMD) SMD	C825	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C773	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C826	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C774	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C828	0CC471CK41A	470PF 1608 50V 5% R/TP NP0
C775	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C831	0CE476BK618	47UF KME TYPE 50V 20% FL TP 5
C775	0CE476DK618	47UF STD 50V M FL TP5	C832	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C776	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C832	0CE107BJ618	100UF KME TYPE 35V 20% FL TP 5
C777	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C833	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C778	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C833	0CC1000K115	10PF D 50V 0.5 PF NP0 TR
C779	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C834	0CK1040K945	0.1UF D 50V 80%,-20% F(Y5V) TR
C780	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C834	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C783	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C835	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C800	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C836	181-011B	0.001UF D 1.6KV J M/PP NI FM20
C801	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)	C836	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C801	181-091K	DEHR33D561KN3A 560PF 2KV 10%	C837	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C801	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C838	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C802	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C839	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C803	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)	C840	0CK1040K945	0.1UF D 50V 80%,-20% F(Y5V) TR
C803	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C840	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C805	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C841	0CK1040K945	0.1UF D 50V 80%,-20% F(Y5V) TR
C805	0CF1050W470	1UF 0 500V 5% BULK M/PP NI	C841	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C806	0CQZVBK002C	A.C 275V 0.22UF K (S=22.5)	C842	0CK1040K945	0.1UF D 50V 80%,-20% F(Y5V) TR
C806	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C842	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C807	0CK10202510	1000PF D 2KV 10% B(Y5P) R	C843	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C807	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C843	0CE476BK618	47UF KME TYPE 50V 20% FL TP 5
C808	0CK10202510	1000PF D 2KV 10% B(Y5P) R	C844	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C808	0CC680CK41A	68PF 1608 50V 5% R/TP NP0	C844	0CE476BK618	47UF KME TYPE 50V 20% FL TP 5
C809	0CC680CK41A	68PF 1608 50V 5% R/TP NP0	C845	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C810	0CK1030K945	0.01UF D 50V 80%,-20% F(Y5V) TR	C846	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C810	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C847	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C811	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C851	0CE108DH618	1000UF STD 25V M FL TP5
C811	0CK4730K945	0.047UF D 50V 80%,-20% F(Y5V) TR	C852	0CE227DH618	220UF STD 25V M FL TP5
C812	181-007H	MPE ECQ-V1H474JL3(TR), 50V	C853	181-091Q	R 470PF 1KV 10%,-10% R/TP TP5
C812	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C857	0CE105BK618	1UF KME 50V M FL TP5
C813	0CK1010K515	100PF D 50V 10% B(Y5P) TR	C861	0CE338EF618	3300UF KMG,RD 16V 20% FL TP 5
C813	0CC680CK41A	68PF 1608 50V 5% R/TP NP0	C862	0CE477DF618	470UF STD 16V 20% FL TP 5
C814	0CK4710K515	470PF D 50V 10% B(Y5P) TR	C863	181-091Q	R 470PF 1KV 10%,-10% R/TP TP5
C814	0CC680CK41A	68PF 1608 50V 5% R/TP NP0	C866	181-091N	SL 100PF 1KV 10%,-10% R/TP TP5
C815	0CK1010K515	100PF D 50V 10% B(Y5P) TR	C867	181-091N	SL 100PF 1KV 10%,-10% R/TP TP5
C815	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C868	181-091N	SL 100PF 1KV 10%,-10% R/TP TP5
C816	0CK1020K515	1000PF D 50V 10% B(Y5P) TR	C869	181-091N	SL 100PF 1KV 10%,-10% R/TP TP5
C816	0CC100CK11A	10PF 1608 50V 0.5 PF R/TP NP0	C869	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C817	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C870	0CK1040K945	0.1UF D 50V 80%,-20% F(Y5V) TR
C818	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C871	0CE478EHK50	4700UF KMG,RD 25V 20%,-20% FM7.5
C819	0CC680CK41A	68PF 1608 50V 5% R/TP NP0	C872	0CE477BF618	470UF KME TYPE 16V 20% FL TP 5
C820	181-001K	CE 450V 220UF M LUG(105)	C872	0CE477DF618	470UF STD 16V 20% FL TP 5
C820	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C873	181-091N	SL 100PF 1KV 10%,-10% R/TP TP5
C821	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C874	0CE475BK618	4.7UF KME TYPE 50V 20% FL TP 5
C822	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C881	0CE338EF618	3300UF KMG,RD 16V 20% FL TP 5
C823	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R	C882	0CE477DF618	470UF STD 16V 20% FL TP 5

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	CE : Electrolytic	RN : Metal Film
		RF : Fusible

LOCA. NO	PART NO	DESCRIPTION
C883	181-091Q	R 470PF 1KV 10%,-10% R/TP TP5
C891	0CE228EK650	2200UF KMG 50V 20% FM7.5 BULK
C892	0CE2276K618	220UF SMS,SG 50V 20% FL TP 5
C893	181-091Q	R 470PF 1KV 10%,-10% R/TP TP5
C894	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C898	181-120L	3300PF 4KV M E FMTW LEAD4.5
C899	181-035U	DE1B3KX471KA5B 470PF 250V 10%
C899	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C901	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C902	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C904	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C904	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C905	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C906	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C907	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C907	0CS335IJKDC	3.3UF 6032 35V 20%,-20% SMD R/TP(SMD)
C908	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C909	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C909	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C910	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C911	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C912	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C912	0CS226GJ6DC	22UF 7343 35V 20% SMD R/TP(SMD)
C913	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C914	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C914	0CS335IJKDC	3.3UF 6032 35V 20%,-20% SMD R/TP(SMD)
C917	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C919	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C919	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C920	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C921	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C922	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C938	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C942	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C943	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C944	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C947	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C947	0CE107SF6DC	100UF MVG 16V 20% SMD R/TP
C949	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C950	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C951	0CS335IJKDC	3.3UF 6032 35V 20%,-20% SMD R/TP(SMD)
C952	0CS335IJKDC	3.3UF 6032 35V 20%,-20% SMD R/TP(SMD)
C957	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C958	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C959	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C960	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C962	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C963	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C964	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C965	0CK272CK46A	2700PF 1608 50V 5% X7R R/TP

LOCA. NO	PART NO	DESCRIPTION
C966	0CK472CK56A	4700PF 1608 50V 10% R/TP X7R
C967	0CK272CK46A	2700PF 1608 50V 5% X7R R/TP
C968	0CK224DH56A	0.22UF 2012 25V 10% R/TP X7R
C970	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C971	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
C972	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
C973	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
C974	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C975	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C976	0CS335IJKDC	3.3UF 6032 35V 20%,-20% SMD R/TP(SMD)
C977	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C977	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C978	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C978	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C979	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C980	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C981	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C982	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C983	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C984	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C985	0CK104CF56A	0.1UF 1608 16V 10% R/TP X7R
C988	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
C999	0CE227SC6DC	220UF MVG 6.3V 20% SMD R/TP
R1204	0CE107VH6DC	100UF MV 25V 20% R/TP(SMD) SMD
COIL & INDUCTOR		
L183	6140VB0023A	SB7032-751 GET 750UH 118TURNS
L215	6140VB0032A	DBF-1015A DONGBANG DIGITECH
L217	6140VB0032A	DBF-1015A DONGBANG DIGITECH
L220	6140VB0032A	DBF-1015A DONGBANG DIGITECH
L222	6140VB0032A	DBF-1015A DONGBANG DIGITECH
L861	150-C02F	82UH PHY TURN
L871	150-C02V	CHOKE 10UH R 1318
L881	150-C02F	82UH PHY TURN
L891	150-C02V	CHOKE 10UH R 1318
L903	6140VR0007A	DT1608C-223 COILCRAFT 22UF+-20%
L904	6140VR0007A	DT1608C-223 COILCRAFT 22UF+-20%
J4	0LA0102K119	INDUCTOR, 10UH K 2.3*3.4 TP
J5	0LA0102K119	INDUCTOR, 10UH K 2.3*3.4 TP
L1	0LA0102K119	INDUCTOR, 10UH K 2.3*3.4 TP
T801	6170VMCA06P	TRANSFORMER,SMPS[COIL] EER4220
T830	6170VMCB131	TRANSFORMER,SMPS[COIL] EER4215
CONNECTOR		
C1	387-907L	1P 700MM R-H UL1617AWG22
C2	387-G03G	3P 2.5MM 400MM H-H UL1007AWG26
C3	387-G03L	3P GIL-G TO GIL-G(700)
C4	387-G04G	4P 2.5MM 400MM H-H UL1007AWG26
C5	387-G04M	4P GIL-G TO GIL-G(800)
C6	387-G06L	6P 2.5MM 700MM H-H UL1007AWG26

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LOCA. NO	PART NO	DESCRIPTION	LOCA. NO	PART NO	DESCRIPTION
C7	387-G10G	10P 2.5MM 400MM H-H UL1007AWG26	R820	ORD0102F609	10 OHM 1/6 W 5% TA52
C8	387-G12L	12P 2.5MM 700MM H-H UL1007AWG26	R821	ORD1003F609	100K OHM 1/6 W 5% TA52
C9	387-J12J	12P SHIELD(500) IL-G TO IL-G	R823	180-A01P	0.13 OHM 2 W 5% TA62 RWR
C10	6631V00015B	2P 8.0MM 400MM H-W UL1617 AWG22	R824	ORD2202F609	22K OHM 1/6 W 5% TA52
C11	6631V00030G	8P SPECIAL 400MM H-H UL1061 AWG26	R831	ORD0272A609	27 OHM 1/2 W(7.0) 5.00% TA52
C12	6631V12044G	7P 1.25MM 400MM H-H UL2851AWG28-6C	R832	ORD6802F609	68K OHM 1/6 W 5.00% TA52
C13	6631V12046L	5P 1.25MM 700MM H-H UL2851AWG28-5C	R833	ORD6801F609	6.8K OHM 1/6 W 5.00% TA52
C14	6631V20019E	3P 2.0MM 300MM H-H UL1007 AWG26	R834	ORD1000F609	100 OHM 1/6 W 5% TA52
C15	6631V20046J	8P 2.0MM 500MM H-H UL2464AWG24-7C	R835	ORD0152F609	15 OHM 1/6 W 5.00% TA52
C16	6631V23002K	2P 10.0MM 600MM H-H UL1617 AWG22	R836	ORD1001F609	1K OHM 1/6 W 5% TA52
C17	6631V23003R	3P 1.0MM 1400MM H-H UL1617AWG22	R837	180-A01M	0.22 OHM 2 W 5% TA62 RW ROUND G 2W
C18	6631V25063E	4P 2.54MM 900/250MM H-T UL1007AWG26	R838	ORD4300F609	430 OHM 1/6 W 5.00% TA52
C19	6631V25064F	3P 2.5MM 500/250MM H-T UL1007 AWG26	R839	ORD3001F609	3K OHM 1/6 W 5.00% TA52
C20	6631V39009M	3P 3.96MM 800MM H-H UL1617 AWG22	R840	ORD1000F609	100 OHM 1/6 W 5% TA52
JA104	6630G70016A	A03-7071-094 SPG 15P 2.29MM RGB	R841	ORS1003K607	100K OHM 2 W 5.00% TA62
JA105	6630G70017A	A02-0915-101 SPG 9P 2.54MM RS232	R842	ORD4700H609	470 OHM 1/2 W 5.00% TA52
P139	6630G70018A	AVI-40245-29B3 SPG 29P 1.91MM SPG	R843	ORD4700H609	470 OHM 1/2 W 5.00% TA52
P141A	6630B00074A	SW-1166SDIG-40P SAMWON 40P 2.54MM	R844	ORD4702F609	47K OHM 1/6 W 5% TA52
P141A	6630B00075A	SW-1166M-40P SAMWON 40P 2.54MM	R845	ORD0302F609	30 OHM 1/6 W 5.00% TA52
P141B	6630B00075A	SW-1166M-40P SAMWON 40P 2.54MM	R850	ORN3303G409	330K OHM 1/4 W 1.00% TA52
P142A	6630B00074A	SW-1166SDIG-40P SAMWON 40P 2.54MM	R851	ORD2001F609	2K OHM 1/6 W 5% TA52
P603	6630BX05007	53261-0590 MOLEX 5PIN 1.25MM ANGLE	R852	ORD1302F609	13K OHM 1/6 W 5.00% TA52
RESISTOR			R853	ORD3000F609	300 OHM 1/6 W 5.00% TA52
AR100	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R854	ORD4301F609	4.3K OHM 1/6 W 5.00% TA52
AR101	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R855	ORD1501F609	1.5K OHM 1/6 W 5% TA52
AR113	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R856	ORD5600F609	560 OHM 1/6 W 5% TA52
AR114	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R857	ORD5100F609	510 OHM 1/6 W 5.00% TA52
AR115	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R865	ORD3601F609	3.6K OHM 1/6 W 5.00% TA52
AR116	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R866	ORD3901F609	3.9K OHM 1/6 W 5% TA52
AR598	ORRZVTA001D	22 OHM 1 / 16 W 1608 5% R/TP 4P E24	R867	ORD5100F609	510 OHM 1/6 W 5.00% TA52
F861	180-D02Y	0.045 OHM 1/2 W 10% TA52 (MFR)	R868	ORN2201F409	2.2K OHM 1/6 W 1.00% TA52
F891	ORP0020J809	0.02 OHM 1 W 20% TA52	R872	ORN3303G409	330K OHM 1/4 W 1.00% TA52
FB882	180-D02Y	0.045 OHM 1/2 W 10% TA52 (MFR)	R873	ORD2703G609	270K OHM 1/4 W 5.00% TA52
R1	ORD0752F609	75 OHM 1/6 W 5.00% TA52	R874	ORN5101F609	5.1K OHM 1/6 W 5.00% TA52
R2	ORD4703F609	470K OHM 1/6 W 5.00% TA52	R875	ORD1002F609	10K OHM 1/6 W 5% TA52
R3	ORD4703F609	470K OHM 1/6 W 5.00% TA52	R876	ORD1001F609	1K OHM 1/6 W 5% TA52
R4	ORD0752F609	75 OHM 1/6 W 5.00% TA52	R877	ORD0391F609	3.9 OHM 1/6 W 5.00% TA52
R5	ORD0752F609	75 OHM 1/6 W 5.00% TA52	R891	ORD1002H609	10K OHM 1/2 W 5.00% TA52
R801	ORKZVTA001K	0.47M OHM 1/2 W 5% TA52 PILKOR	R892	ORS1001K607	1K OHM 2 W 5.00% TA62
R810	ORD2204F609	2.2M OHM 1/6 W 5.00% TA52	R893	ORS1001K607	1K OHM 2 W 5.00% TA62
R811	ORD2204F609	2.2M OHM 1/6 W 5.00% TA52	R894	ORD1001F609	1K OHM 1/6 W 5% TA52
R812	ORD3302F609	33K OHM 1/6 W 5% TA52	R895	ORN9101F409	9.1K OHM 1/6 W 1.00% TA52
R813	ORD1002F609	10K OHM 1/6 W 5% TA52	R896	ORD2401F609	2.4K OHM 1/6 W 5.00% TA52
R814	ORN5603G409	560K OHM 1/4 W 1.00% TA52	R897	ORD1001F609	1K OHM 1/6 W 5% TA52
R815	ORN5103G409	510K OHM 1/4 W 1% TA52	R898	ORKZVTA001D	10M OHM 1/2 W 5% TA52 UL
R816	ORN5103G409	510K OHM 1/4 W 1% TA52	R899	ORD0271A609	2.7 OHM 1/2 W(7.0) 5.00% TA52
R817	ORN5103G409	510K OHM 1/4 W 1% TA52	X1	6212AB2844A	CRYSTAL, ABLS-19.6608MHZ-22-B-4Y-T
R818	ORD2202F609	22K OHM 1/6 W 5% TA52	X2	6212AB2844A	CRYSTAL, ABLS-19.6608MHZ-22-B-4Y-T
R819	ORD5602F609	56K OHM 1/6 W 5% TA52	X3	6202VDT002H	CRYSTAL, SX-1 SUNNY 18.432000MHZ
			X5	6212AB2845A	CRYSTAL, ABLS-27.000MHZ-16-B-4Y-F-T

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LOCA. NO	PART NO	DESCRIPTION
X6	6202VDT002D	CRYSTAL, SX-1SMD 8.0MHZ
X7	166-E02F	CERAMIC, CSBLA500KECF09-B0
SWITCH		
SW01	140-275E	PUSH, SPBS222EP011 POSTEC DC50V
SW1	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW2	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW3	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW4	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW5	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW6	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW7	140-313B	TACT 2LEAD 160G(TA) LG C&D 5V
SW801	140-289A	PUSH, POWER SDDF3PASP013 LG C&D
FILTER & CRYSTAL		
FB851	125-123A	FERRITE BFD3565R2F(TAPING)
FB861	125-123A	FERRITE BFD3565R2F(TAPING)
FB871	125-022K	FERRITE AXIAL 62MM 1UH NY 3.5X6.0MM
FB891	125-123A	FERRITE BFD3565R2F(TAPING)
FL102	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL103	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL104	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL105	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL107	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL108	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL109	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL110	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL111	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL112	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL113	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL114	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL115	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL116	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL117	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL118	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL119	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL120	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL121	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL122	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL123	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL124	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL125	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL126	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL127	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL128	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL129	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL130	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
FL131	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL132	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ
FL133	6200J000012	NFL21SP207X1C3 MURATA LPF 200MHZ

LOCA. NO	PART NO	DESCRIPTION
FL134	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
L1100	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L1103	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L238	6210VC0006A	FBMH3216 HM501NT TAIYOYUDEN
L239	6210VC0006A	FBMH3216 HM501NT TAIYOYUDEN
L28	6200JB8010L	MLB-201209-1000L-N2 MAG LAYERS
L29	6200JB8010L	MLB-201209-1000L-N2 MAG LAYERS
L30	6200JB8010L	MLB-201209-1000L-N2 MAG LAYERS
L31	6200JB8010L	MLB-201209-1000L-N2 MAG LAYERS
L32	6210VC0006A	FBMH3216 HM501NT TAIYOYUDEN
L33	6210VC0006A	FBMH3216 HM501NT TAIYOYUDEN
L505	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L581	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L602	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L700	0LCML00004A	MLB-160808-0068L-N2 1A MAG LAYERS
L702	0LCML00004A	MLB-160808-0068L-N2 1A MAG LAYERS
L705	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L800	0LCML00004A	MLB-160808-0068L-N2 1A MAG LAYERS
L801	6200JB8012T	SQE2828 NAMYANG BK 17.2MH 60TURNS
L802	6200JB8012T	SQE2828 NAMYANG BK 17.2MH 60TURNS
L803	150-F06U	SQE3535 27.5MH 0.6PHY 70TURN .
L901	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L902	0LCML00004A	MLB-160808-0068L-N2 1A MAG LAYERS
L906	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L908	0LCML00004A	MLB-160808-0068L-N2 1A MAG LAYERS
L909	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L910	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L911	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L912	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
L913	0LCML00003B	MLB-201209-0120P-N2 5A MAG LAYERS
T501	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T502	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T504	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T509	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T511	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T512	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
T513	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
T514	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
T515	6200VJT006A	STC222D NIIGATA 50VOLT 4A 2200PF
T520	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T601	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T602	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T603	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
T604	6200QJ3001A	FILTER,EMI REEL/TAPING BMS400 NIGATA
JACK		
JA101	6612M00010B	SCART, PSC003-02 PARK S/T,SCART,SH,LF
JA102	6612M00010B	SCART, PSC003-02 PARK S/T,SCART,SH,LF
JA103	6612M00010B	SCART, PSC003-02 PARK S/T,SCART,SH,LF
JA106	6612J10012A	RCA, UJB-05-02C UGCOM COMPONENT

REPLACEMENT THE LAMP

Lamp unit replacement

* You must replace the lamp when:

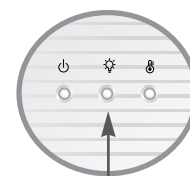
The image gets darker or starts to deteriorate.

The lamp indicator is orange.

The lamp indicator is red.

The message "Replace the lamp" appears on the screen when turning the TV on.

<Front panel of the TV>



Lamp indicators

Be careful when replacing lamp

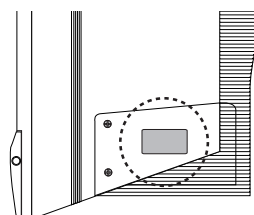
- Turn off the power with the remote control. In 3 minutes, press the power button to off on the front panel and unplug the power cord. (For 2 minutes, cooling fan works after turning off power)
- Allow the lamp to cool for 30 minutes before replacing it.
- Replace only with the same type lamp from a LG Electronics Service Centre. Using other lamp type may cause damage to the TV and lamp.
- Pull out the lamp only when replacing the lamp.
- Keep the lamp unit out of reach of children or and heat sources such as radiators, stoves.
- To reduce the risk of fire, lamp shall not be exposed to liquids or foreign material.
- Do not place the lamp near any heat source.
- Make sure the new lamp is securely tightened with screws. If not, the image may be dark or there could be a risk of fire.
- Never touch the lamp unit glass or otherwise get it dirty.

To obtain a replacement Lamp unit

Lamp model number is on the lamp cover. check the lamp

model and then locate a LG electronic service center.

Using other type of lamp may cause damage to the TV or lamp.



Lamp unit disposal

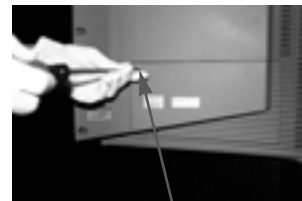
LG electronic is provided with an interlock to reduce the risk of excessive ultraviolet radiation. Dispose of the used lamp by returning it to the LG electronic service center.

Replacing the Lamp

1. Turn off the power on the remote control to STBY. In 3 minutes, press the power button to off on the front panel and unplug the power cord.
(Allow the lamp to cool for 30 minutes before replacing it.)
2. Remove the 2 retaining screws on the lamp cover with a "+" type screwdriver then separate the lamp cover from the TV.
3. Remove the two retaining screws on the lamp case by using "-" type screwdriver.
4. Lift up the fixed wire knob on the lamp.
5. Pull out the knob slowly and remove the lamp case.
6. Insert the new lamp gently into the correct position. Make sure it is inserted correctly.
7. Tighten the screws you removed in step 3.
8. Replace the lamp cover and tighten the cover screws.
(If the lamp cover is open, the lamp indicator flashes green and the TV will not turn on.)

Note :

- Only use LG approved lamp replacement.
- Using incorrect type of lamp may cause damage to the TV or lamp.
- Make sure the lamp cover is securely fastened. If the lamp cover is open, the TV will not turn on.



lamp case Screws



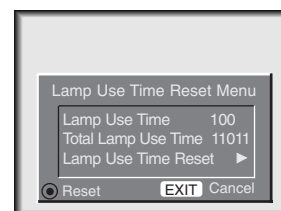
Screws

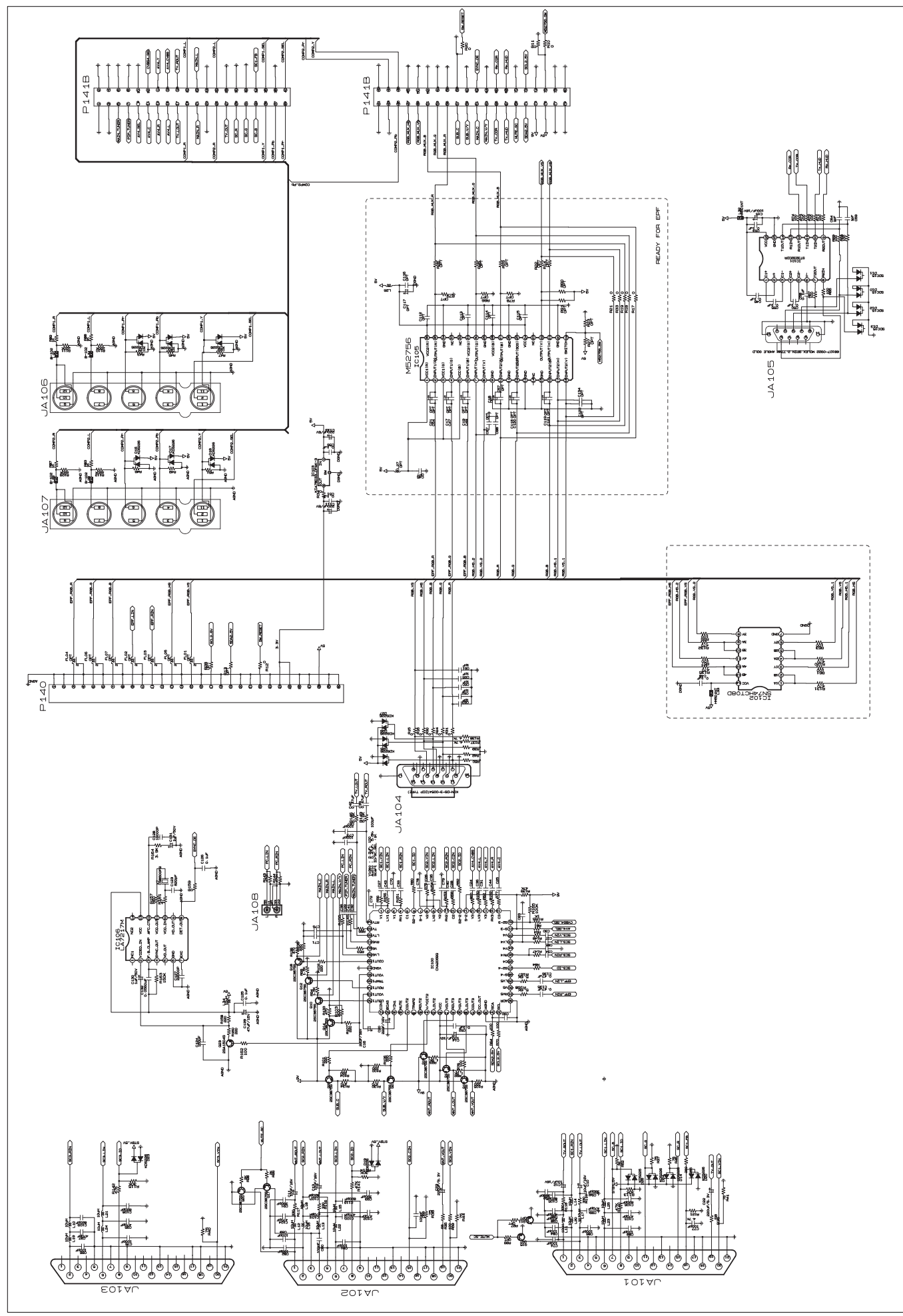
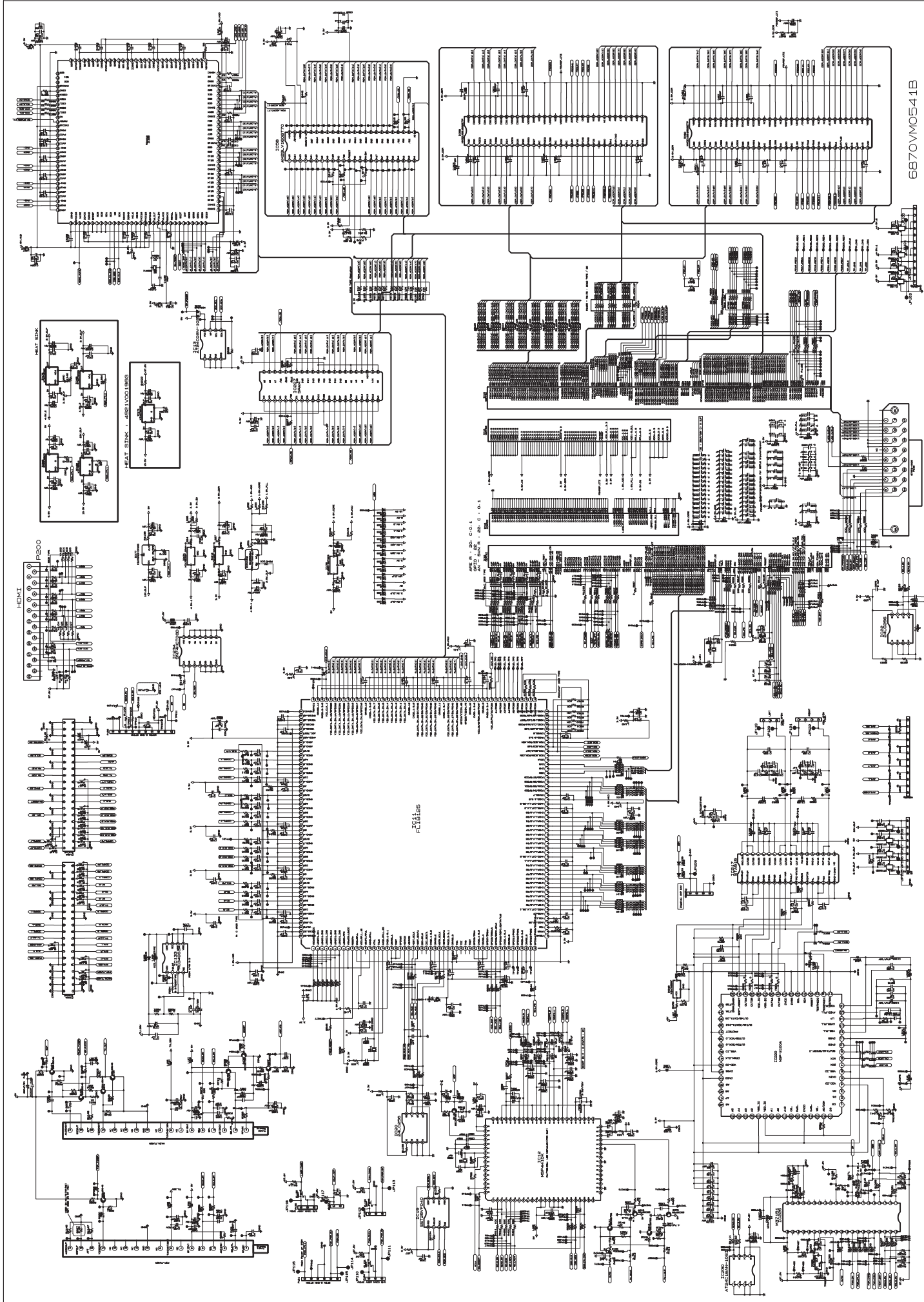


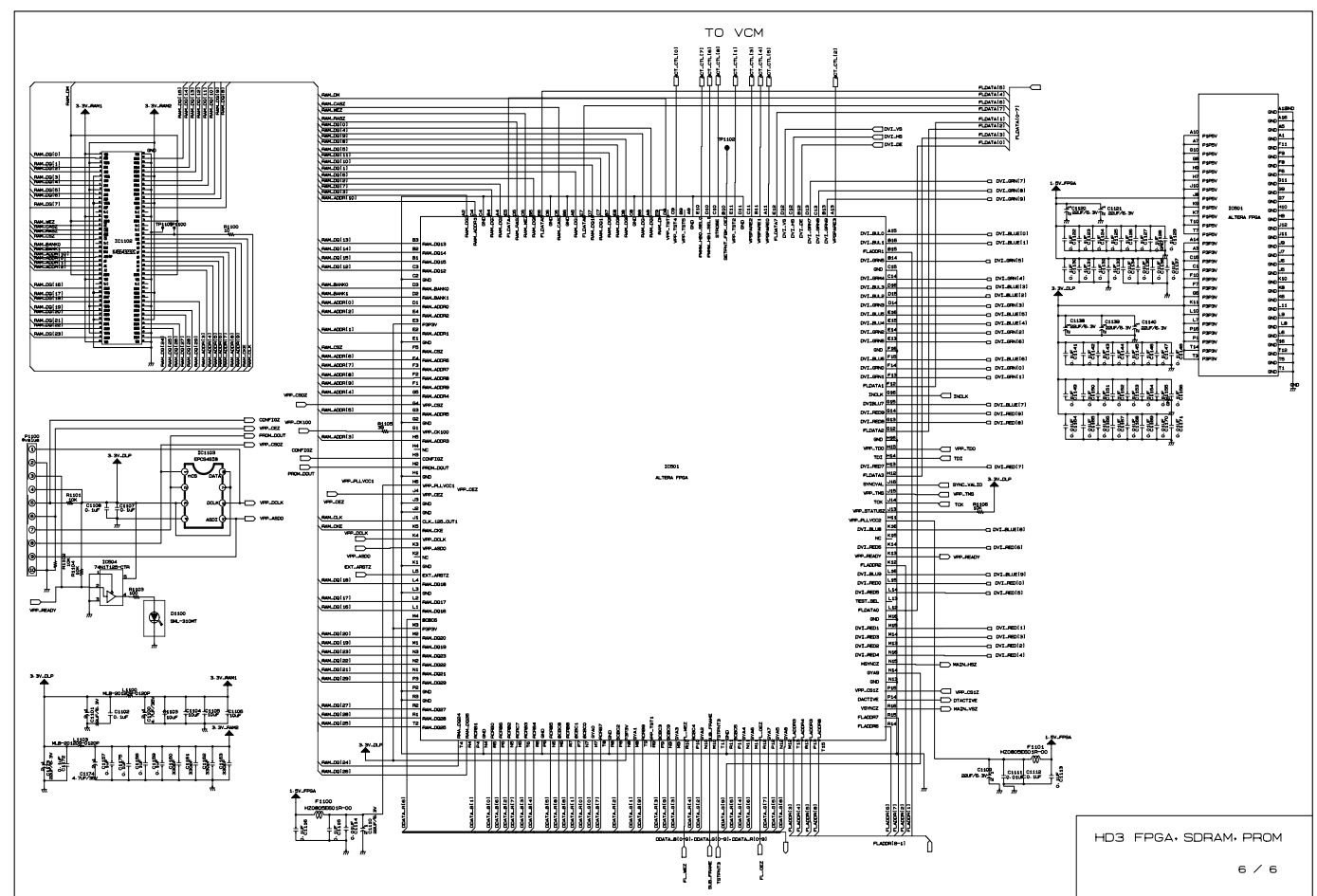
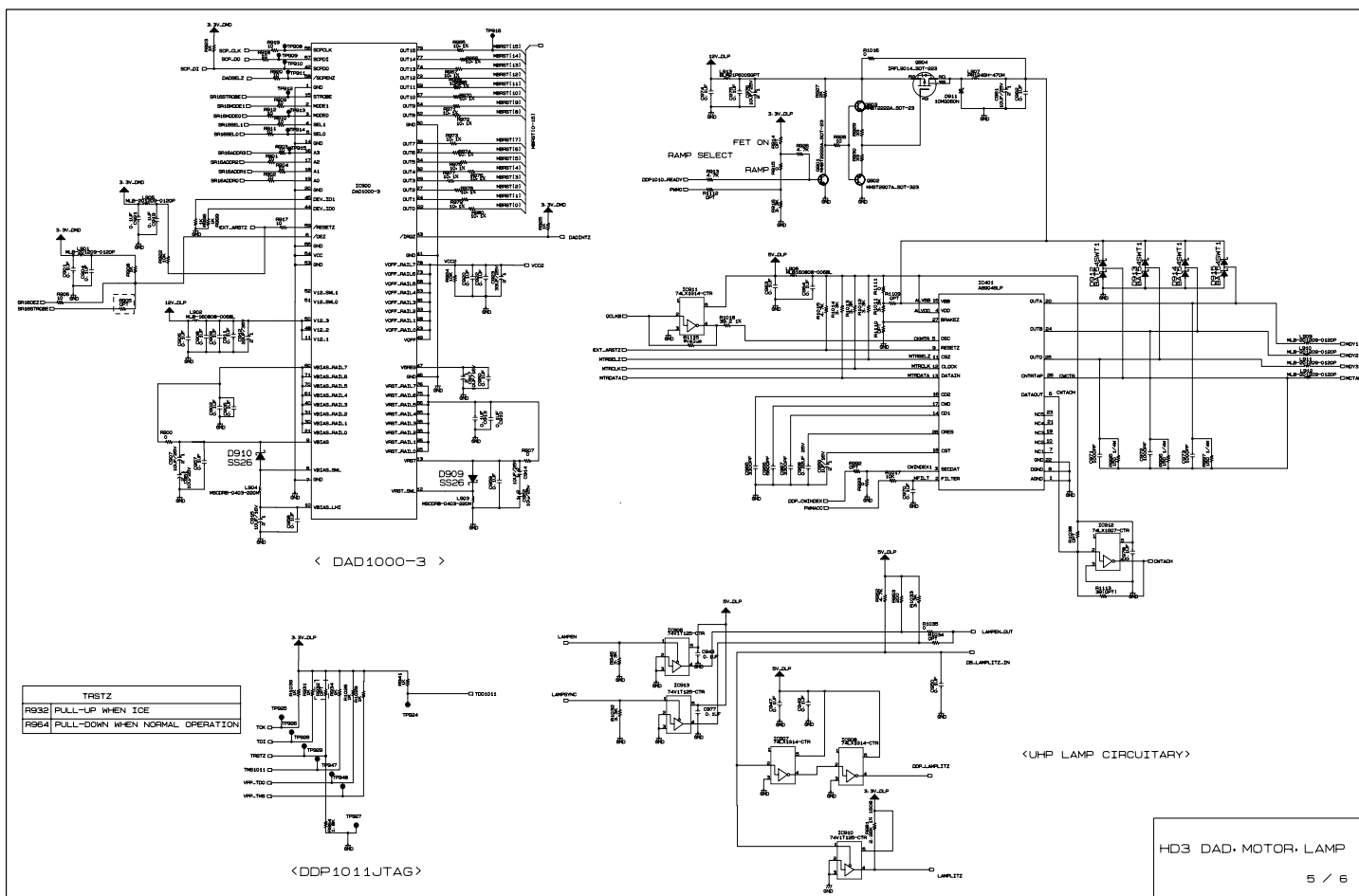
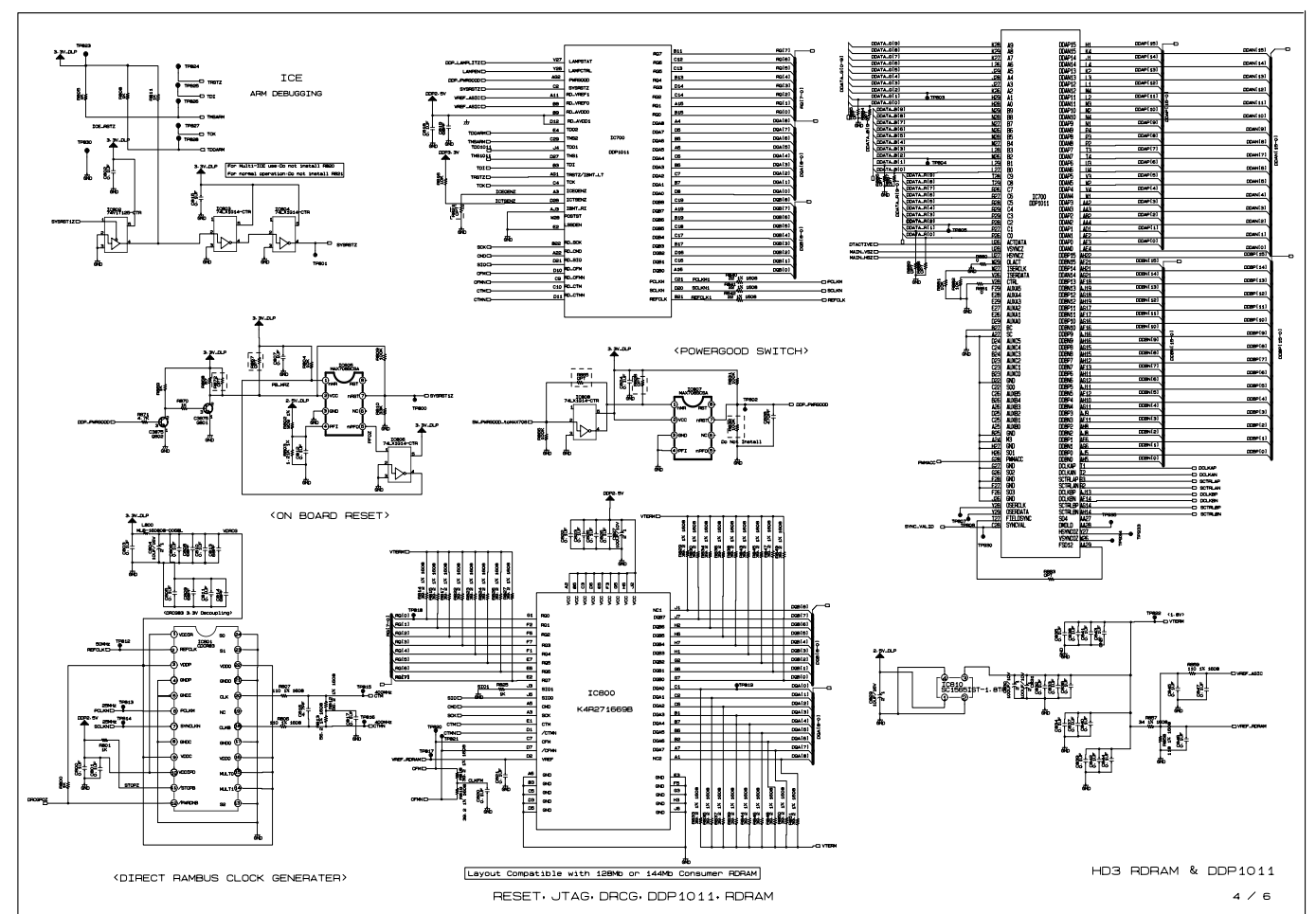
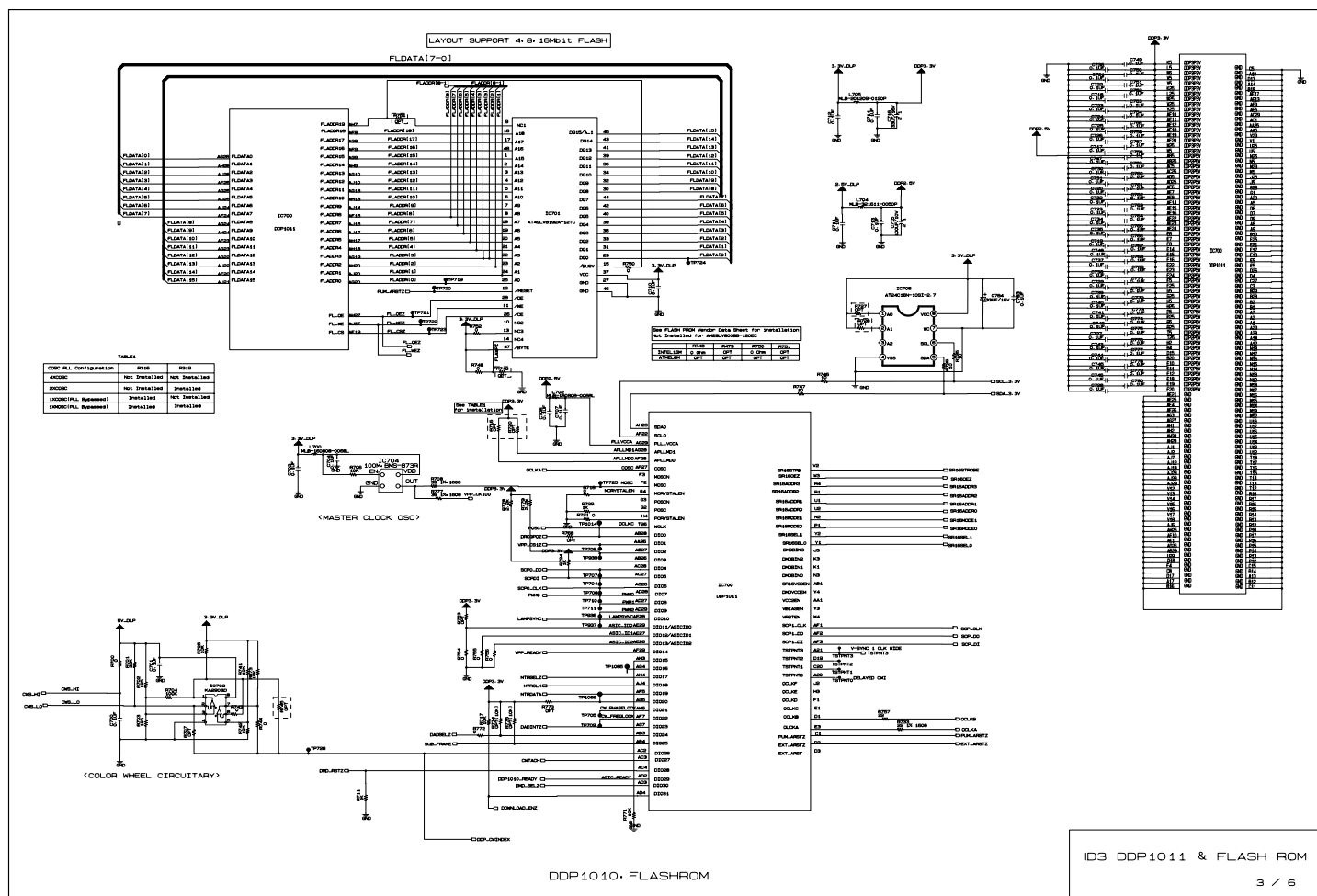
Knob

Reset Lamp Time

- * You must reset lamp time on the menu after replacing the lamp.
 - * In some models, the lamp time may not be reset.
1. Press the **OK** or enter button on the front panel and **MUTE** button on the remote control simultaneously (About 5 seconds).
 2. Press the **VOLUME** (►) button.
 3. Press the **OK** or enter button.
Lamp time will be reset.









P/NO : 3828VD0216A

Aug., 2005
Printed in Korea