TFT-LCD MONITOR

Chassis Model
Degas DS17BS*

SERVICE Manual

TFT-LCD MONITOR

CONTENTS

1 Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1-1-1 Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC Power Jack before servicing.
3. When the chassis is operating, semiconductor heatsinks are potential shock hazards.

1-1-2 Servicing the LCD Monitor

1. When servicing the LCD Monitor, remove the static charge by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the chassis and the anode lead. (Disconnect the AC line cord from the AC outlet.)
2. It is essential that service technicians have an accurate voltage meter available at all times. Check the calibration of this meter periodically.

1-1-3 Fire and Shock Hazard

Before returning the monitor to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):
   WARNING: Do not use an isolation transformer during this test.
   Use a leakage current tester or a metering system that complies with American National Standards Institute (*ANSI C101.1, Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

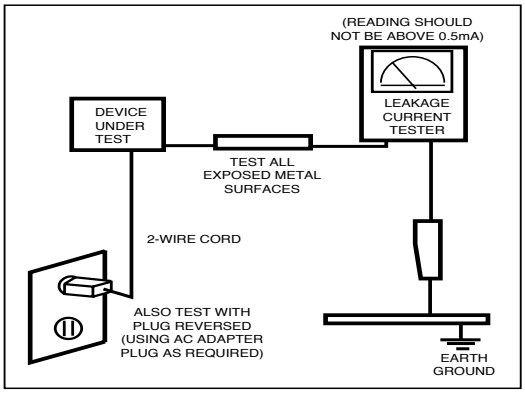


Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4 Product Safety Notices

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by ⚠ on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1-2 Servicing Precautions

WARNING: **An electrolytic capacitor installed with the wrong polarity might explode.**

Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.

Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
   (a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Electrostatically Sensitive Devices (ESD) Precautions

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

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, 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 body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

2 Product Specifications

2-1 Specifications

Item	Description
LCD Panel	TFT-LCD panel, RGB vertical stripe, normaly white, 17-Inch viewable, 0.264 mm pixel pitch
Scanning Frequency	Horizontal : 30 kHz ~ 81kHz (Automatic) Vertical : 56 Hz ~ 75 Hz (Automatic)
Display Colors	16.2 M
Maximum Resolution	Horizontal : 1280 Pixels Vertical : 1024 Pixels
Input Video Signal	Analog, 0.7 Vp-p ± 1% positive at 75Ω , internally terminated
Input Sync Signal	Type : Seperate H/V sync, Composite H/V, Sync-on-Green (option), automatic synchronization without external switch of sync type Level : TTL level
Maximum Pixel Clock rate	135 MHz
Active Display (H / V)	337.92 mm / 270.336 mm
AC power voltage & Frequency	AC 100 ~ 240 VAC (+ / - 10%), 60 / 50 Hz ~ ± 3 Hz
Power Consumption	40 W (MAX)
Dimensions(W x D x H) Set Package	 14.2 x 14.3 x 7.6 Inches (361.6 x 363.0 x 193.9 mm) After installation of stand 14.2 x 13.0 x 2.2 Inches (361.6 x 330.6x 55.0 mm) Without stand 18.1 x 5.6 x 15.5 Inches (461 x 142 x 393 mm)
Weight Set Package	 3.75 kg (8.3 lbs) 5.45 kg (12.0 lbs)
Environmental Considerations	Operating Temperature : 50 °F ~ 104 °F (10 °C ~ 40 °C) Operating Humidity : 10 % ~ 80 % Storage Temperature : 13 °F to 113 °F (-25 °C ~ 45 °C) Storage Humidity : 5 % ~ 95 %
• Designs and specifications are subject to change without prior notice.	

2-2 Pin Assignments

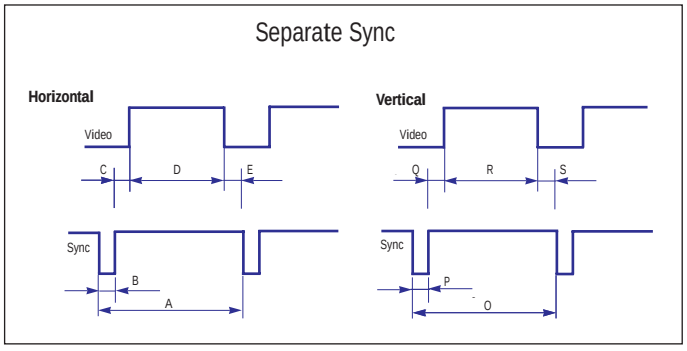
Sync Type / Pin No.	15-Pin Signal Cable Connector		
	Separate	**Composite**	**Sync-on-green (Option)**
1	Red	Red	Red
2	Green	Green	Green + H/V Sync
3	Blue	Blue	Blue
4	GND	GND	GND
5	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)
6	GND-R	GND-R	GND-R
7	GND-G	GND-G	GND-G
8	GND-B	GND-B	GND-B
9	No Connection	No Connection	Not Used
10	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND	GND
12	DDC Data	DDC Data	DDC Data
13	H-Sync	H/V-Sync	Not Used
14	V-Sync	Not Used	Not Used
15	DDC Data	DDC Data	DDC Data

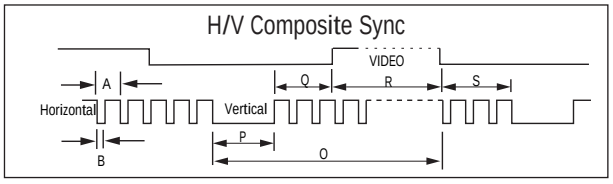
2-3 Timing Chart

This section of the service manual describes the timing that the computer industry recognizes as standard for computer-generated video signals.

Table 2-1 Timing Chart

Mode / Timing	IBM			VESA			
	VGA1/70 Hz 640 x 350	VGA2/70 Hz 720 x 400	VGA3/60 Hz 640 x 480	640/72 Hz 640 x 480	640/75 Hz 640 x 480	800/56 Hz 800 x 600	800/60 Hz 800 x 600
fH (kHz)	31.469	31.469	31.469	37.861	37.500	35.156	37.879
A µsec	31.778	31.777	31.778	26.413	26.667	28.444	26.400
B µsec	3.813	3.813	3.813	1.270	2.032	2.000	3.200
C µsec	1.589	1.589	1.589	3.810	3.810	3.556	2.200
D µsec	26.058	26.058	26.058	20.825	20.317	22.222	20.000
E µsec	0.318	0.318	0.318	0.508	0.508	0.667	1.000
fV (Hz)	70.086	70.087	59.940	72.809	75.000	56.250	60.317
O msec	14.268	14.268	16.683	13.735	13.333	17.778	16.579
P msec	0.064	0.064	0.064	0.079	0.080	0.057	0.106
Q msec	1.716	0.858	0.794	0.528	0.427	0.626	0.607
R msec	11.504	13.155	15.761	13.100	12.800	17.067	15.840
S msec	0.985	0.191	0.064	0.026	0.027	0.028	0.026
Clock Frequency (MHz)	25.175	28.322	25.175	31.500	31.500	36.000	40.000
Polarity H.Sync	Positive	Negative	Negative	Negative	Negative	Positive	Positive
V.Sync	Negative	Positive	Negative	Negative	Negative	Negative	Positive
Remark	Separate	Separate	Separate	Separate	Separate	Separate	Separate

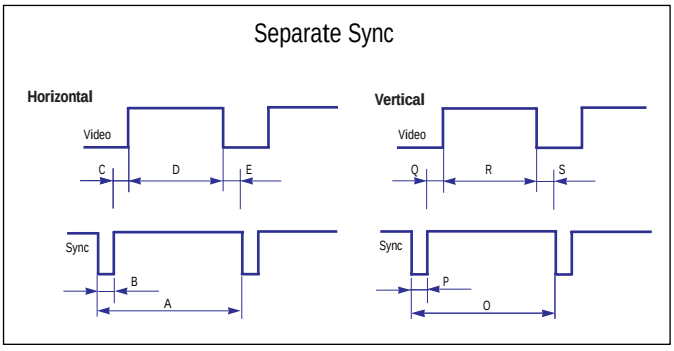


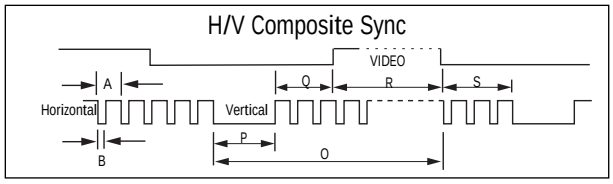


A : Line time total	B : Horizontal sync width	O : Frame time total	P : Vertical sync width
C : Back porch	D : Active time	Q : Back porch	R : Active time
E : Front porch		S : Front porch	

Table 2-2 Timing Chart

Mode / Timing	IBM		VESA						
	VGA2/ 70 Hz 720 x 400	**VGA3/ 60 Hz 640 x 480**	**640/75 Hz 640 x 480**	**800/60 Hz 800 x 600**	**800/75 Hz 800 x 600**	**1024/60 Hz 1024 x 768**	**1024/75 Hz 1024 x 768**	**1280/60 Hz 1280 x 1024** (Analog)	**1280/75 Hz 1280 x 1024** (Analog)
fH (kHz)	31.469	31.469	37.500	37.879	46.875	48.363	60.023	63.981	79.975
A µsec	31.777	31.778	26.667	26.400	21.333	20.677	16.660	11.852	12.504
B µsec	3.813	3.813	2.032	3.200	1.616	2.092	1.219	1.037	1.067
C µsec	1.589	1.589	3.810	2.200	3.232	2.462	2.235	2.296	1.837
D µsec	26.058	26.058	20.317	20.000	16.162	15.754	13.003	9.259	9.481
E µsec	0.318	0.318	0.508	0.000	0.323	0.369	0.203	0.000	0.119
fV (Hz)	70.087	59.940	75.000	60.317	75.000	60.004	75.029	60.020	75.025
O msec	14.268	16.683	13.333	16.579	13.333	16.666	13.328	16.005	13.329
P msec	0.064	0.064	0.080	0.106	0.064	0.124	0.050	0.047	0.038
Q msec	0.858	0.794	0.427	0.607	0.448	0.600	0.466	0.594	0.475
R msec	13.155	15.761	12.800	15.840	12.800	15.880	12.795	15.630	12.804
S msec	0.191	0.064	0.027	0.0261	0.021	0.062	0.017	0.016	0.013
Clock Freq. (MHz)	28.322	26.175	31.500	40.000	49.500	75.000	78.750	108.000	135.000
Polarity H.Sync	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	Positive
V.Sync	Positive	Negative	Negative	Positive	Positive	Negative	Positive	Positive	Positive
Remark	Separate	Separate	Separate	Separate	Separate	Separate	Separate	Separate	Separate





A : Line time total	B : Horizontal sync width	O : Frame time total	P : Vertical sync width
C : Back porch	D : Active time	Q : Back porch	R : Active time
E : Front porch		S : Front porch	

4 Alignments and Adjustments

This section of the service manual explains how to use the RS232 JIG.
This function is needed for AD board change and program memory (IC110) change.

4-1 Required Equipment

The following equipment is necessary for adjusting the monitor:

- Computer with Windows 95, Windows 98, or Windows NT.
- MTI-2031 DDC MANAGER JIG

4-2 Automatic Color Adjustment

To input video, use 16 gray or any pattern using black and white.

1. If OSD settings vary with relevant sales region, OSD language for 'Auto Color' displays default language setting for each region.
2. Press the "Exit" key for 5 seconds.

* Note : For models supporting the 4 languages (English, Simplified Chinese, Japanese, Korean), select English and press and hold the 'Exit' key for 5 seconds.

4-3 DDC EDID Data Input

1. Input DDC EDID data when replacing AD PCB.
2. Receive/Download the proper DDC file for the model from HQ quality control department. Install the below jig (Figure 1) and enter the data.

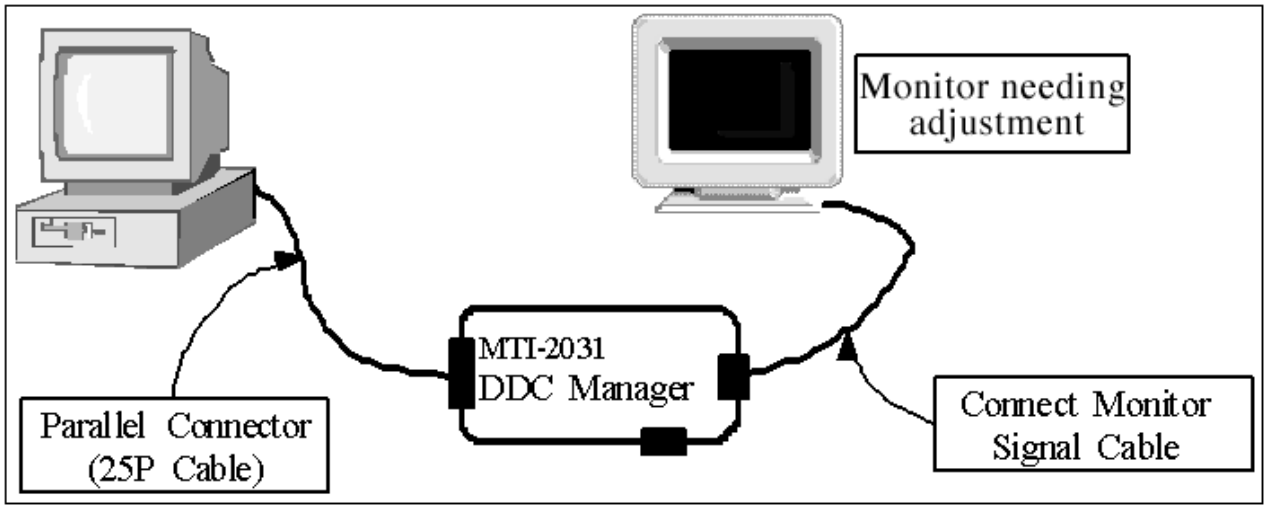


Figure 1.

4-4 OSD Adjustment When Replacing Panel

1. Adjust brightness and contrast to 0. Then, press the exit key for 5 second. Service function OSD will appear on screen.
2. Press the + key to place the cursor on the panel. Press the menu key for 5 seconds.

4-5 OSD Adjustment When Replacing Lamp Only

1. Adjust brightness and contrast to 0. Then, press the exit key for 5 seconds. Service function OSD will appear on the screen.
2. Press the + key. Select upper lamp and press the menu key for 5 seconds. Then, select lower lamp and press the menu key for 5 seconds.

* ***Note :*** *Please be sure to read the following instructions for details on service function.*

4-6 Service Function Spec.

4-6-1 How to Display Service Function OSD

1. The value for brightness and contrast should be changed to zero.
2. Within 5 seconds, press the exit key.
3. Service function OSD will be displayed.

* If you want to disable the service function OSD, you will have to power off.

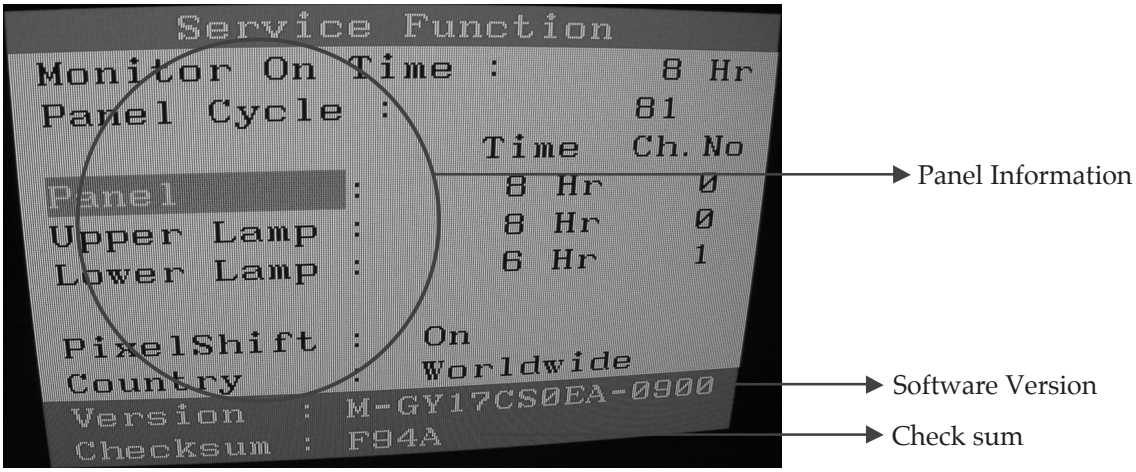


Figure 2. The example of service function OSD

The service function OSD is based on a grid of 29 columns x 12 rows.
The service function OSD consists of panel information, software version and MICOM check sum.

4-6-2 How to Control Service Function OSD

1. With the panel selected on OSD, whenever you press the right key, the base color will change to blue from “Panel” to “Country”, “Pixel Shift”, “Lower Lamp”, “Upper Lamp”.

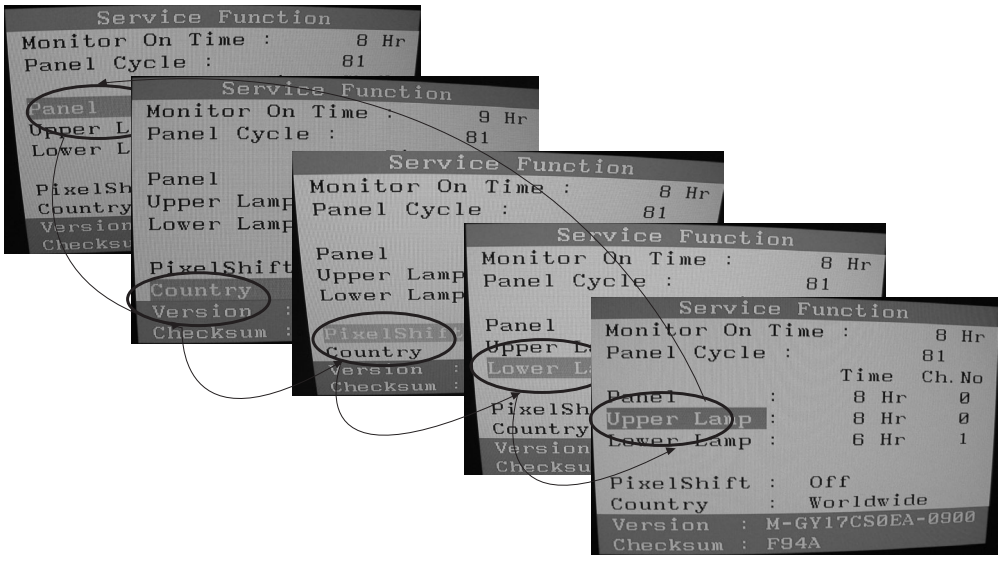


Figure 3.

4-6-3 How to Control Service Function OSD

• After change the panel or lamp, you must reset service function OSD.

• The case of panel change

After changeing the panel, press the menu key within 5 seconds,.
Then, panel Ch. No increases one step and the panel time information is reset to zero.
Simultaneously, other information is reset to zero (Upper/Lower lamp, Panel cycle).

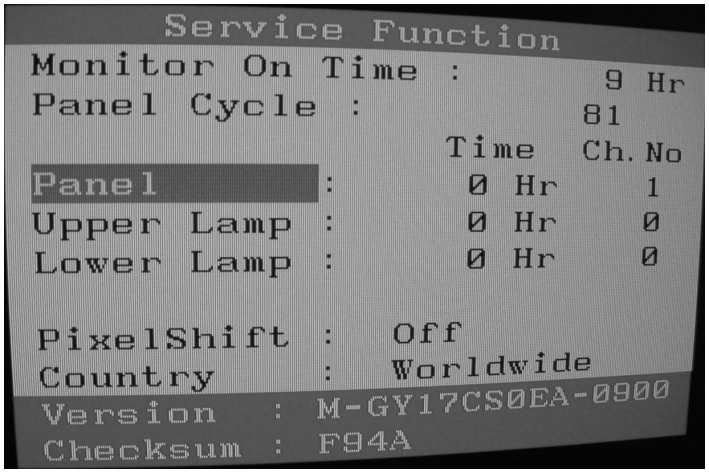


Figure 4.

4-6-4 How to Control Service Function OSD

• In the case of Upper Lamp or Lower Lamp change

After changeing the Upper Lamp or Lower Lamp,

1. Select the Upper Lamp or Lower Lamp
2. Press the Menu key within an 5 seconds.

Then, Ch. No and time will be reset to zero (selected item only).

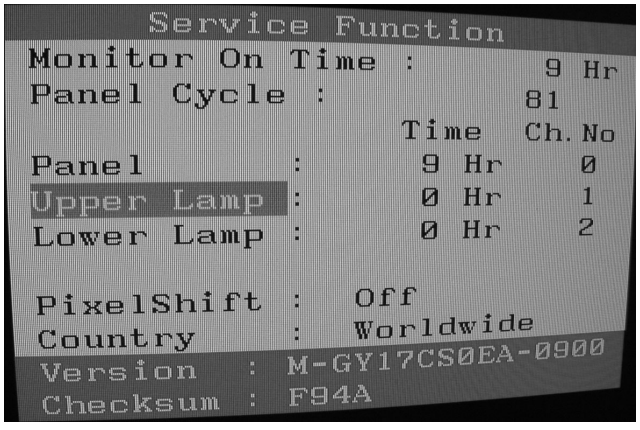


Figure 5.

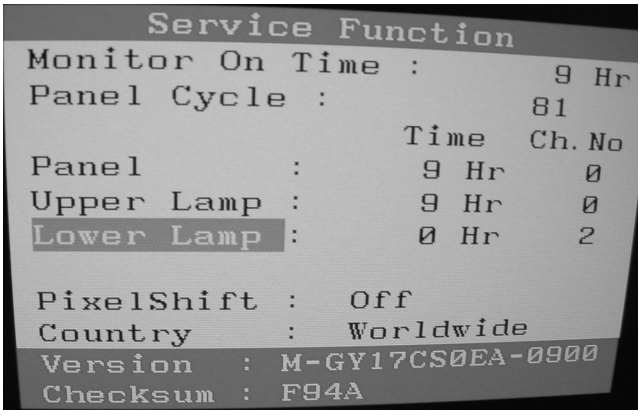


Figure 6.

4-6-5 Pixel shift and language selection change

* Note : Use the '-' key to vary values for new pixel shift and country menu.

1. Pixel shift : on->off

- When a same picture is displayed with no change for an extended period of time, this function prevents the display panel from image sticking.

* On for '0 x 01' with EEPROM 0x2E, Off for others; Always restart the monitor after EEPROM adjustment.

- Motion path : see Figure 7. One-step movement requires 4 minutes (total of 32 steps : 128 minutes)

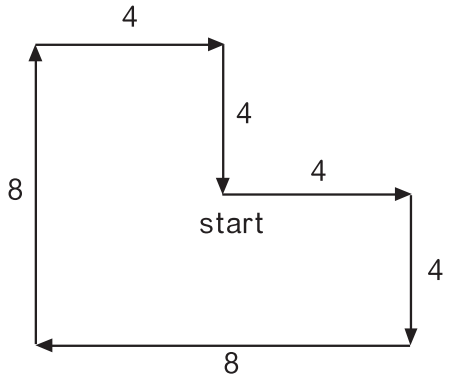


Figure 7.

- Location is reset.
  a) the monitor is restarted
  b) image mode is adjusted
  c) user adjusts a key

* Note : Pixel shift is not a vailable in service menu.

2. Country : Worldwide->Korean->Chinese->Japanese

- This function enables to select relevant OSD language for each region / country.
  - Worldwide : 7 languages (English, German, Spanish, French, Italian, Swedish, Russian)
  - Korean : 2 languages (Korean, English)
  - Chinese : 2 languages (Simplified Chinese, English)
  - Japanese : 2 languages (Japanese, English)

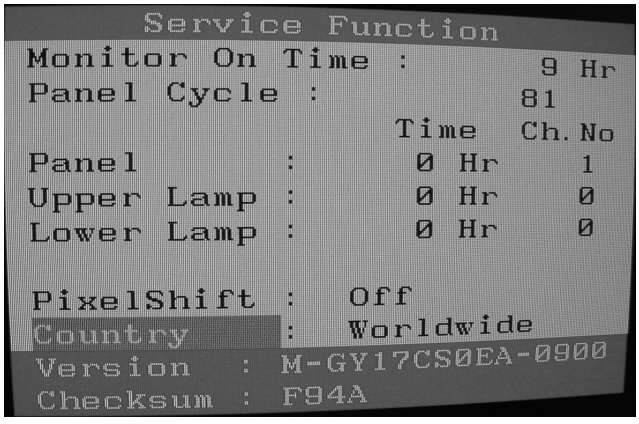


Figure 8.

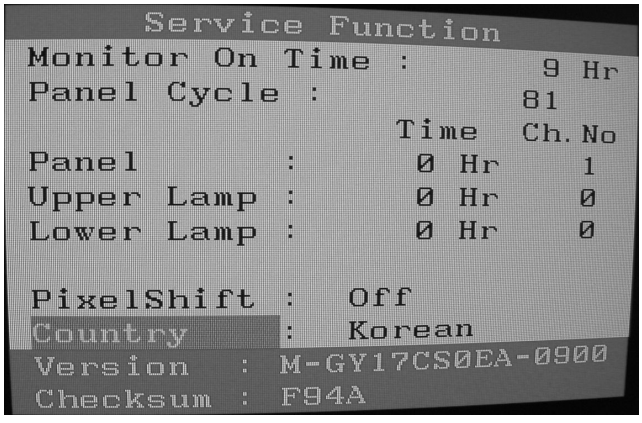


Figure 8-1.

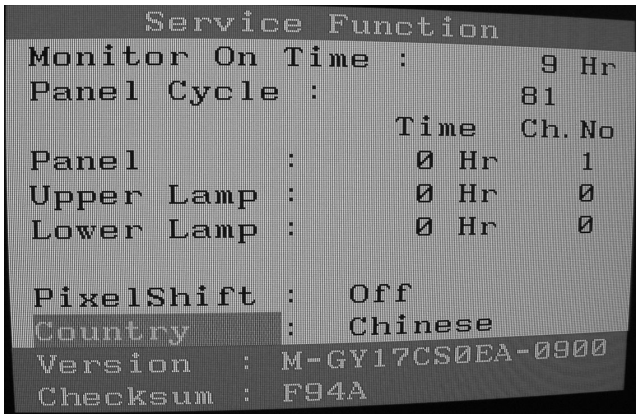


Figure 8-2.

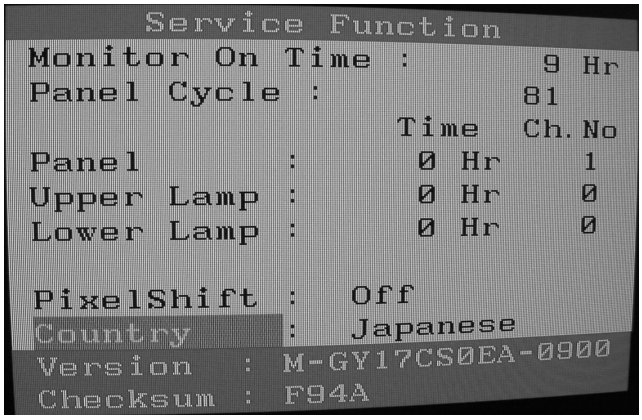


Figure 8-3.

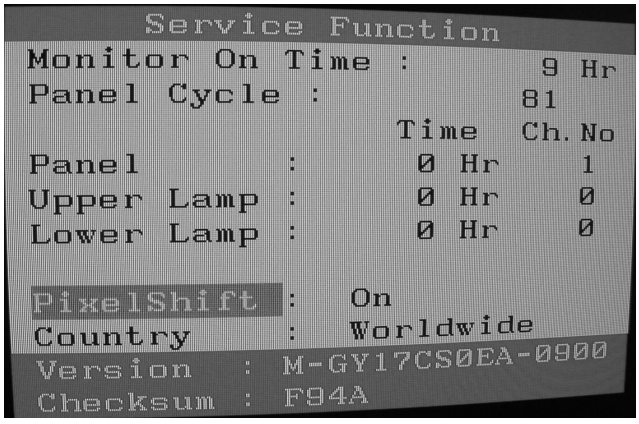


Figure 9.

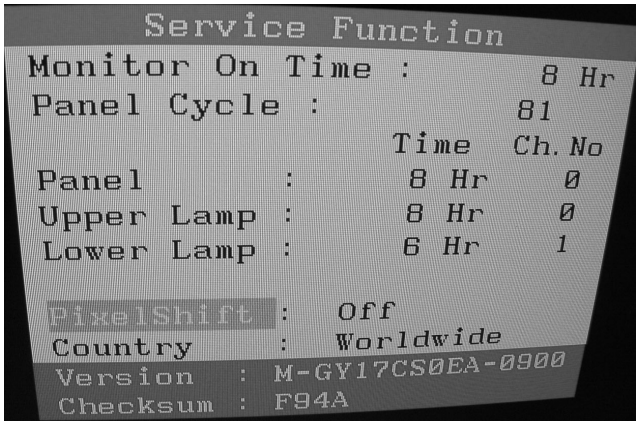


Figure 9-1.

Memo

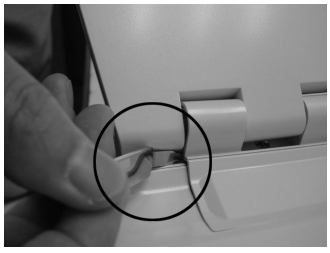
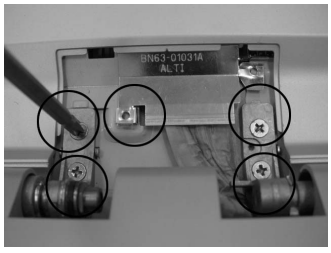
3 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the DS17BS* monitor.

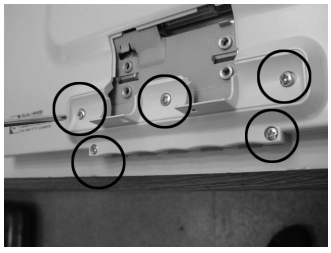
WARNING: This monitor contains electrostatically sensitive devices. Use caution when handling these components.

3-1 Disassembly

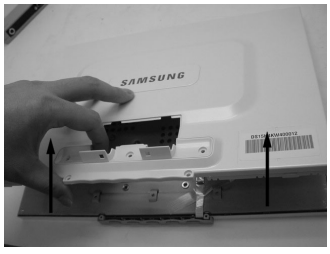
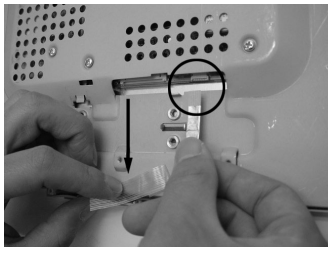
Cautions : 1. Disconnect the monitor from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.
3. R/Cover opening jig : BH81-00001A

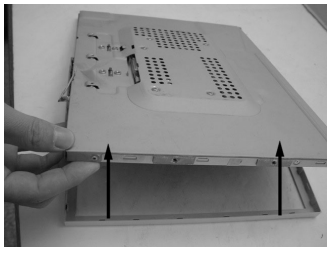
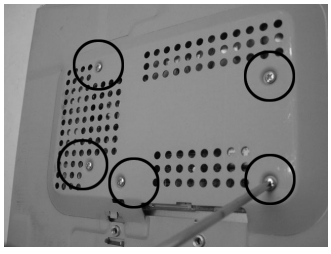
1. Place monitor face down on cushioned table. Remove rear cover from the monitor and remove 5 screws from the mointor. (CAUTION : Remove screw grip don't on the stand than fall the stand from the top side of the foot)

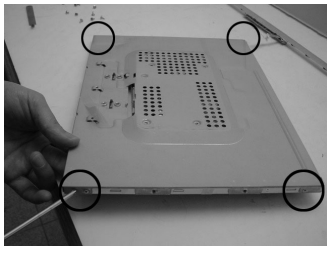
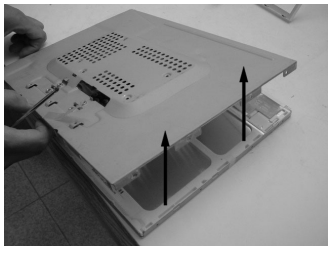
2. Disconnect function cable and lift up the stand. Remove 5 screws from the monitor.

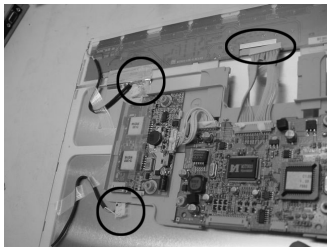
3. Open the rear cover and disconnect power cable from the shield.

4. Remove the cover front and remove 5 screws from the shield.

5. Remove 4 screws from the shield paenl coners and lift up the shield.



6. Disconnect LVDS cable and inverter cable.

3-2 Replacement Order of Lamp Assemblies

*Do not replace lamp for the LTM170EX-L01 panel.

*Note : No speciflc color for the wire connector of panel lamp is required.
You can change a connector assemble.

3-3 Reassembly

Reassembly procedures are in the reverse order of disassembly procedures.

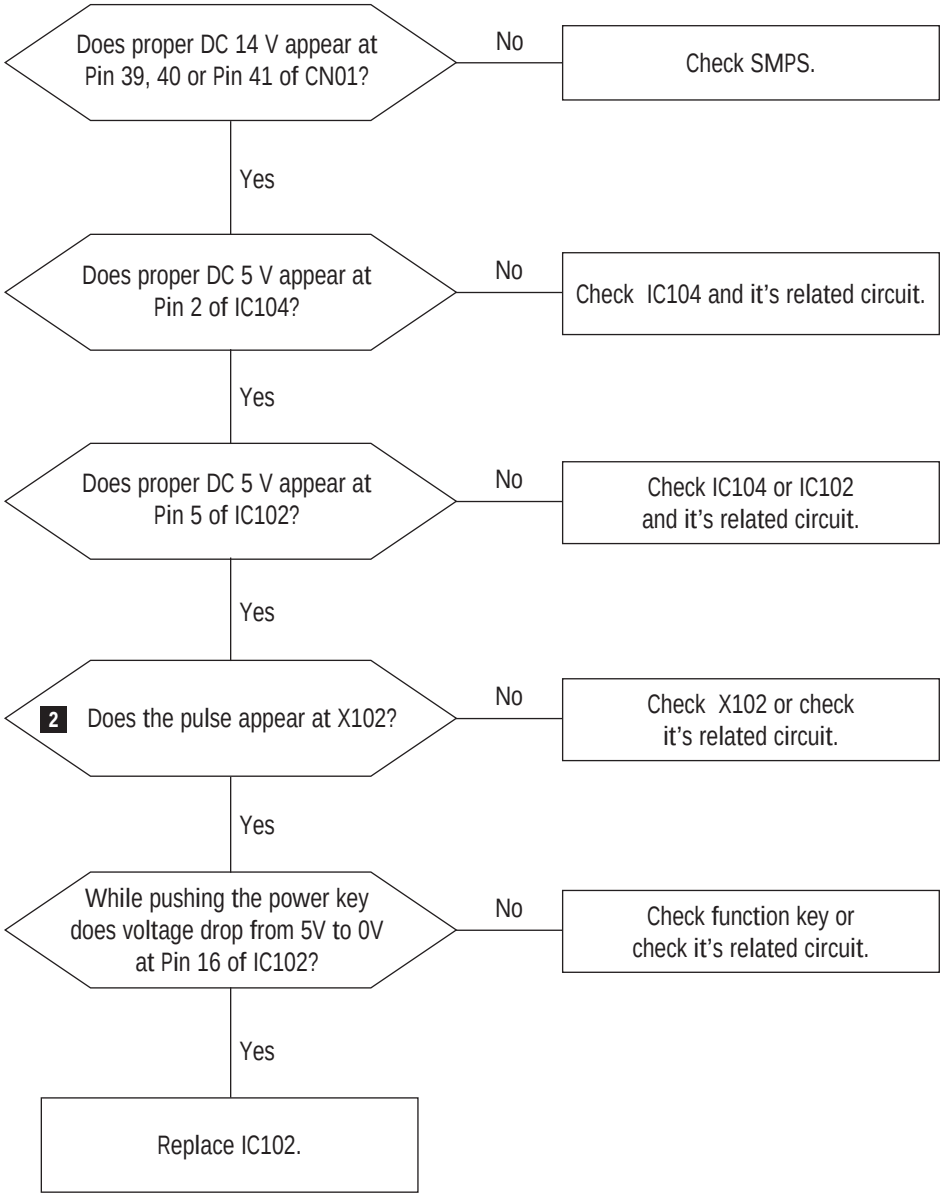
5 Troubleshooting

Notes: 1. Before troubleshooting, setup the PC's display as below.
- Resolution: 1280 x 1024
- H-frequency: 48 kHz
- V-frequency: 60 Hz

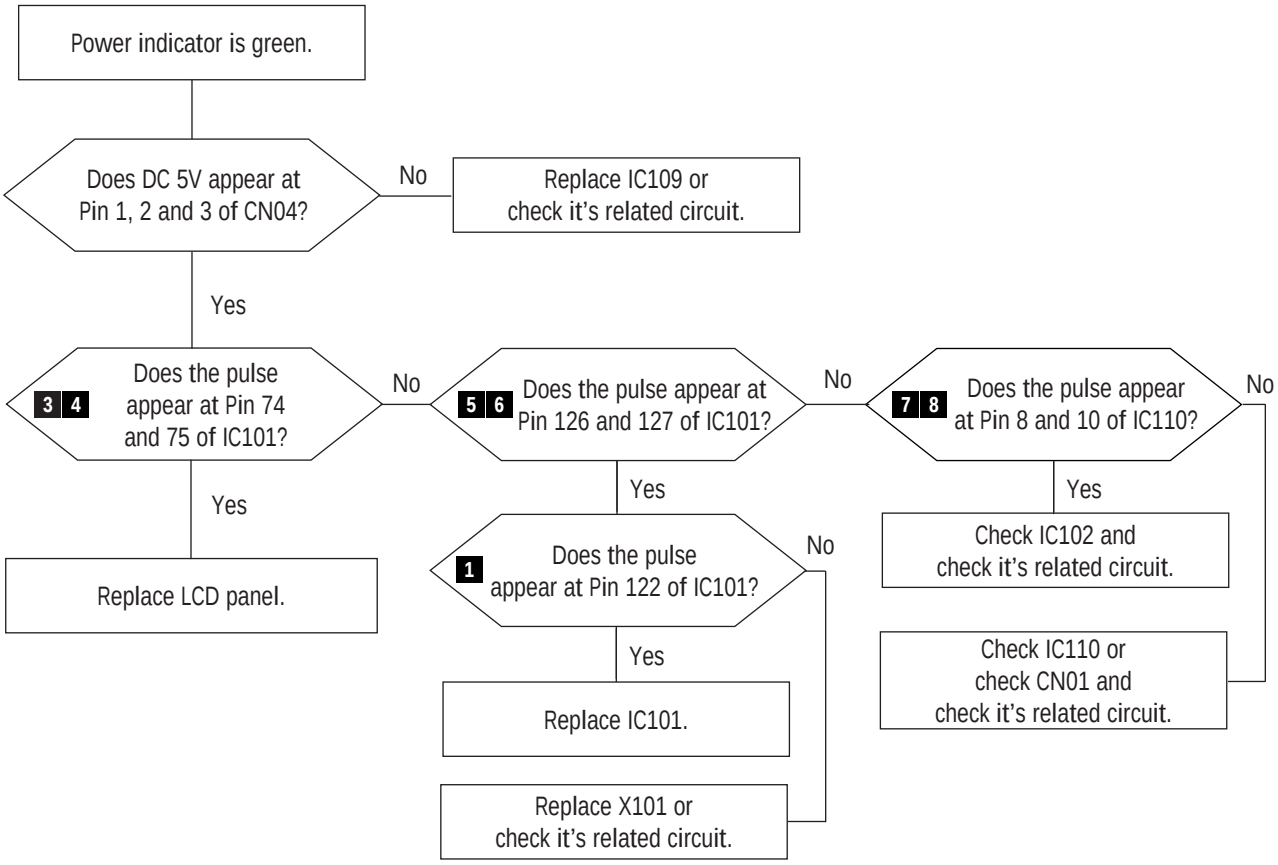
2. If no picture appears, make sure the power cord is correctly connected.
3. Check the following circuits.
- No raster appears: SMPS PCB, Main PCB
- 14V develop but no screen: Main PCB
- 14V does not develop: SMPS PCB

4. If you push and hold the "EXIT" button for more than 5 seconds, the monitor automatically turns back to the factory preset.

5-1 No Power

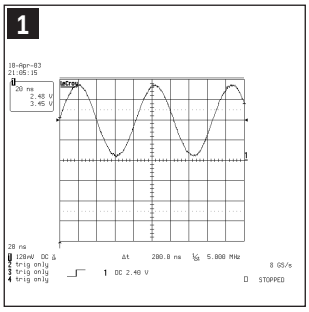


5-2 No Video

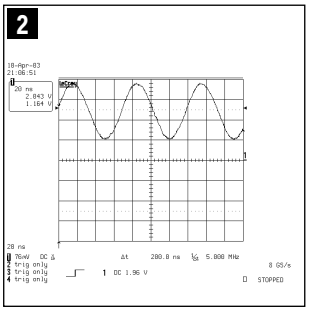

Power indicator is green.
Does DC 5V appear at Pin 1, 2 and 3 of CN04?
No
Replace IC109 or check it's related circuit.
Yes
3 4 Does the pulse appear at Pin 74 and 75 of IC101?
No
5 6 Does the pulse appear at Pin 126 and 127 of IC101?
No
7 8 Does the pulse appear at Pin 8 and 10 of IC110?
No
Yes
Replace LCD panel.
Yes
1 Does the pulse appear at Pin 122 of IC101?
No
Yes
Check IC102 and check it's related circuit.
Yes
Replace IC101.
Check IC110 or check CN01 and check it's related circuit.
Replace X101 or check it's related circuit.

WAVEFORMS

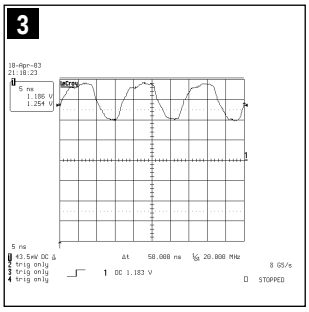
1



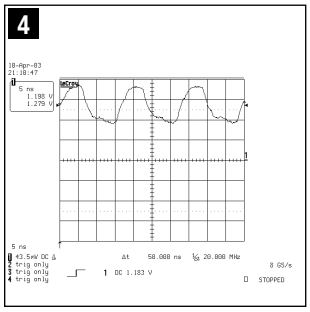
2



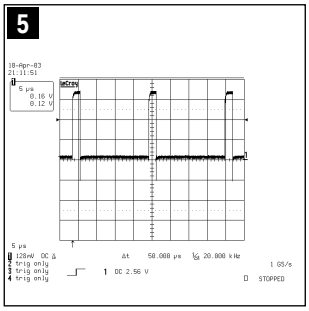
3



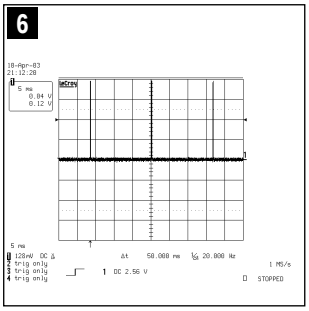
4



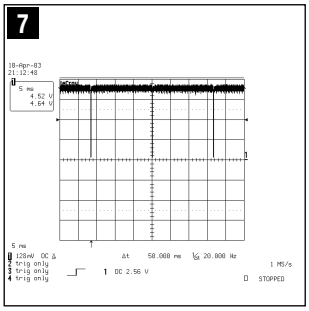
5



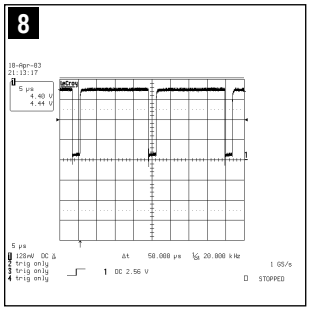
6



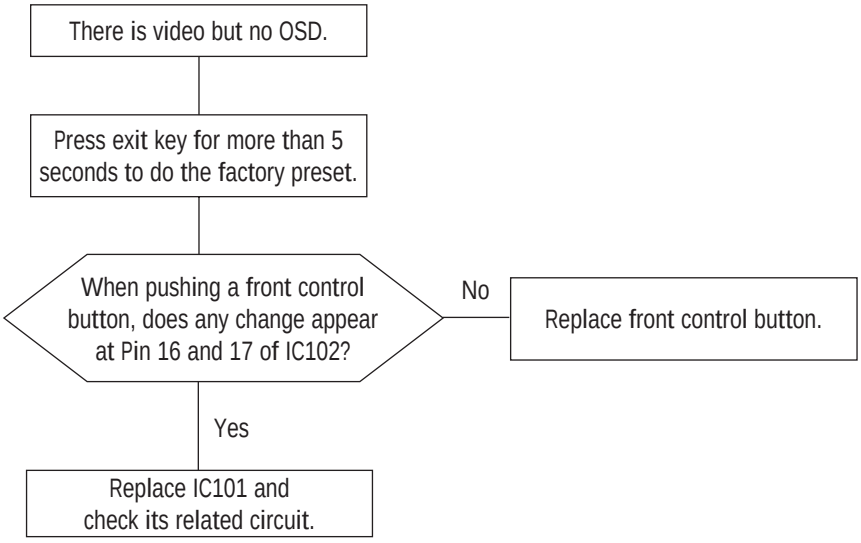
7



8



5-3 No OSD


There is video but no OSD.
Press exit key for more than 5 seconds to do the factory preset.
When pushing a front control button, does any change appear at Pin 16 and 17 of IC102?
No
Replace front control button.
Yes
Replace IC101 and check its related circuit.

7 Electrical Parts List

 You can search for updated part codes through CMS web site.
URL : http://ecms. samsungelectronics. com/

7-1 Main PCB Parts

Loc. No.	Code No.	Description	Specification	Remarks
-	BN94-00479B	ASSY PCB MAIN	DS17BS	
CIS2	0202-001044	SOLDER-WIRE.	S63S-W3.0,S63S,D3,63Sn/37Pb,-	SNA
CIS3	0202-001222	SOLDER-WIRE FLUX	RS-107,RS60-1.2AA,D1.2,SN60/PB40,-	SNA
CIS6	0204-001095	THINNER	#4520,-,-,-	SNA
CIS7	0204-001677	FLUX	DF-201TVS,MIX,0.820,FLUX 13%,G	SNA
CIS5	BN39-00395B	LEAD CONNECTOR	DS17BS,UL1571#30,UL/CSA,30P,90mm,#30,12507HS-30,HS-30-BB100,BK,90mm,1571#30,SJ03	SNA
CIS4	BN39-00419A	LEAD CONNECTOR	DS17BS,UL1571#30,UL/CSA,12P,60MM,AWG30,12507HS-12L,12507HS-12L,BK,SJ03-01-288,NO	
CIS10	BN63-01079A	GASKET	,CONDUCTIVE FAB,4MM,10MM,10MM,GRAY,32K,71TSSK-10-4-10-13	SNA
CIS9	BN96-00799A	ASSY COVER P-PCB	172X,ABS+PC 5V,GR70,SPRAY	SNA
-	BN97-00239B	ASSY SMD	DS17BS	SNA
BD101	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD102	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD103	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD104	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD105	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD106	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD107	2703-001334	INDUCTOR-SMD	1.5uH,10%,2012	
BD110	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	
BD111	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	
BD112	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	
C101	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C102	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C103	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C104	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C105	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C106	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C110	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C111	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C112	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C113	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C114	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C115	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C116	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C117	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C118	2203-000384	C-CER,CHIP	0.015NF,5%,50V,C0G,TP,1608	
C119	2203-000384	C-CER,CHIP	0.015NF,5%,50V,C0G,TP,1608	
C120	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C121	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C122	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C123	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C124	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C125	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C126	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C127	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C128	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C129	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C134	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C135	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C136	2203-000626	C-CER,CHIP	0.022NF,5%,50V,C0G,TP,1608	

Loc. No.	Code No.	Description	Specification	Remarks
C137	2203-000626	C-CER,CHIP	0.022NF,5%,50V,C0G,TP,1608	
C138	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C139	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C140	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4mm	
C141	2203-000041	C-CER,CHIP	0.01NF,0.25PF,50V,C0G,TP,1608	
C142	2203-000041	C-CER,CHIP	0.01NF,0.25PF,50V,C0G,TP,1608	
C143	2203-000236	C-CER,CHIP	0.1NF,5%,50V,C0G,TP,1608	
C144	2203-000315	C-CER,CHIP	0.12NF,5%,50V,C0G,TP,1608	
C145	2203-000236	C-CER,CHIP	0.1NF,5%,50V,C0G,TP,1608	
C146	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	
C147	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C148	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C149	2203-000236	C-CER,CHIP	0.1NF,5%,50V,C0G,TP,1608	
C150	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	
C151	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	
C152	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	
C153	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,TP,1608	
C154	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,TP,1608	
C155	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C156	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	
C157	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	
C158	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C159	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C160	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C161	2409-001065	C-ORGANIC	82UF,20%,16V,WT,TP,8X6.9MM,-	
C162	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C167	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	
C168	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C169	2402-001128	C-AL,SMD	100UF,20%,16V,WT,TP,6.3X5.7MM	
C170	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C171	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	
C172	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C173	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C174	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C175	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C176	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C177	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C178	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C179	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C180	2203-005437	C-CER,CHIP	10000nF,+80-20%,10V,Y5V,TP,3216	
C181	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4mm	
C182	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	
C185	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C186	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C187	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,TP,1608	
C188	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	
C189	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	
CIS1	BN60-00011A	FASTENER-PEM/NUT	MINERVA,SUM24L(SN),M3,-,7.0,6.8,WHT	SNA
CIS8	0202-001162	SOLDER-CREAM	RMA-20-21L,S63,-,SN63/PB36.6/AG0.4,FLUX9.5%	SNA
CN01	3711-005076	CONNECTOR-HEADER	BOX,41P,2R,0.625MM,SMD-A,AUF,BLK	
CN02	3708-001878	CONNECTOR-FPC/FFC/PIC	6P,1mm,SMD-A,SnPb	
CN04	3711-005470	CONNECTOR-HEADER	BOX,30P,1R,1.25mm,SMD-A,Sn+Pb,IVR	
CN05	3711-005471	CONNECTOR-HEADER	BOX,12P,1R,1.25mm,SMD-A,Sn+Pb,IVR	
D101	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D102	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	

Loc. No.	Code No.	Description	Specification	Remarks
D103	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D104	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D105	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D106	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D107	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D108	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D109	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D110	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D111	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D112	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D113	0401-001056	DIODE-SWITCHING	MMBD4148SE,75V,200MA,SOT-23,TP	
D115	0402-001019	DIODE-SCHOTTKY	MBRS340,40V,3000MA,DO-214AB,TP	
FT101	2901-001114	FILTER-EMI SMD	25VDC,2.0ADC,-,100nF,3.2x1.6x1	
FT102	3301-001145	BEAD-SMD	AB,4.5x1.6x1.6mm,-,-	SNA
FT103	3301-001145	BEAD-SMD	AB,4.5x1.6x1.6mm,-,-	SNA
FT104	3301-001145	BEAD-SMD	AB,4.5x1.6x1.6mm,-,-	SNA
FT106	2901-001114	FILTER-EMI SMD	25VDC,2.0ADC,-,100nF,3.2x1.6x1	
FT107	2901-001114	FILTER-EMI SMD	25VDC,2.0ADC,-,100nF,3.2x1.6x1	
FT108	2901-001114	FILTER-EMI SMD	25VDC,2.0ADC,-,100nF,3.2x1.6x1	
FT109	2901-001114	FILTER-EMI SMD	25VDC,2.0ADC,-,100nF,3.2x1.6x1	
FT110	2901-001114	FILTER-EMI SMD	25VDC,2.0ADC,-,100nF,3.2x1.6x1	
IC101	1003-001586	IC-LCD CONTROLLER	MST9131E,PQFP,128P,20X14MM,-,1UA,TR,PLASTIC,3.3V,0TO+70C,-,3.30,IBM L170(P)	SNA
IC102_SOCKET	3704-000001	SOCKET-IC	44P,PLCC,SN,-	
IC103	1103-001023	IC-EEPROM	524C80D81,1028x8Bit,SOP,8P,150MIL,10mS,5V,10%,PLASTIC,0to+70C,110uA,CMOS,TP	
IC104	1203-001448	IC-SWITCH VOL.REG	2596,TO-263,5P,-,PLASTIC,4.750/5.250V,-,-40TO+125C,3A,-,ST	
IC107	1203-001293	IC-POSI.FIXED REG.	033,T0-252,3P,6.5MIL,PLASTIC,3	
IC108	1203-002450	IC-VOLTAGE REGULATOR	MC33375ST-2.5T3,SOT-223,4P,137MIL,PLASTIC,2.475/2.525V,-,-40TO+125C,300MA,-,TP	
IC109	0505-001772	FET-SILICON	FDS9933A,P,-20V,-3.8A,0.075OHM,2W,SO-8	
IC110	0803-000117	IC-TTL	74F14,INVERTER,SOP,14P,150MIL,	
IC111	1103-000129	IC-EEPROM	24C02,256x8BIT,SOP,8P,150MIL,1	
L101	BN27-00009A	COIL CHOKE	SMD 12X12X6,EOS,33UH,15%,-,0.128Ÿ MAX,2A,DR10X5.0MM,18.5TS,12X12X6,1.8MM,1UEW 0.	
L102	3301-001595	BEAD-SMD	1KOHM,7.0X6.0X4.5MM,4000MA,TP,FERRITE,0.012OHM	
MP1.0	BN41-00340A	PCB MAIN	DS17BS,FR-4,2L,1.0,1.0T,117.84,4A	SNA
Q101	0501-002080	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SC-59,TP,120-270	
R100	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R101	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R102	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R103	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R104	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R105	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R106	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R107	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R108	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R109	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R110	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R111	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R112	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R113	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R114	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R115	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R116	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R117	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R118	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R119	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	
R120	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	

Loc. No.	Code No.	Description	Specification	Remarks
R121	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R122	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R123	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R124	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R125	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R126	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R127	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	
R128	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R129	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R130	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R131	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R132	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R133	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R134	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	
R135	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	
R136	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	
R140	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R142	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R143	2007-000821	R-CHIP	390ohm,1%,1/10W,TP,1608	
R150	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R151	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R153	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	
R154	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R155	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R156	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R157	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	
R158	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	
R161	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R162	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R163	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R164	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R165	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R166	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R167	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R168	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R169	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R170	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R171	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R172	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	
R174	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R175	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R176	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R177	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R178	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R179	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R180	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R181	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R182	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R183	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R185	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R186	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R187	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R188	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R189	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R190	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	

Loc. No.	Code No.	Description	Specification	Remarks
R191	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R195	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R196	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R197	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R198	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R199	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R200	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R201	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R202	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R203	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R204	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	
R205	2007-000109	R-CHIP	1Mohm,5%,1/10W,TP,1608	
R206	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R210	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R211	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R213	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R214	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	
R215	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R216	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R217	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	
R218	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R219	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R220	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	
R221	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	
R223	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R224	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R225	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R226	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	
R227	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R228	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	
R229	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	
X101	2801-003667	CRYSTAL-SMD	14.3182MHZ,50PPM,28-AAN,16,50OHM,TP	
X102	2801-003773	CRYSTAL-SMD	12MHZ,30PPM,28-AAN,20PF,50OHM,TP	
ZD102	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD103	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD104	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD105	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD106	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD107	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD108	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD109	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD110	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD111	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD112	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD113	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD115	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD116	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD117	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD118	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD120	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
ZD121	0403-000258	DIODE-ZENER	BZX84C5V6,5.6V,5.2-6.0V,225mW,	
MICOM	BN97-00242U	ASSY MICOM	DS17BS	
CIS	BN82-00104B	A/S MICOM	DS17BS	SNA
IC102	0903-001266	IC-MICROCONTROLLER	NT68F63,8BIT,PLCC,44P,653MIL,12MHZ,ST,CMOS,PLASTIC,5V,-,-0TO+70C,256B,4KB,-,-,MC	SNA

7-2 Others

Loc. No.	Code No.	Description	Specification	Remarks
-	BN90-00560B	ASSY COVER FRONT	DS17BS	SNA
C/F+C/R	6003-001083	SCREW-TAPTITE	BH,+,B,M3,L8,NI PLT,SWRCH18A	SNA
C/F	BN96-00602A	ASSY COVER P-FRONT	172X,ABS HB,GR70,SPRAY	SNA
C/F	6003-000343	SCREW-TAPTITE	CH,+,B,M2.6,L4,ZPC(YEL),SWRCH18A	
C/F	BH73-60304J	RUBBER-SUPPORT	172X,NEOPRENE 94,5*7,3.2,BLACK	SNA
C/F	BN63-00873A	COVER-FRONT	172X,ABS,HB,GR70,SPRAY	SNA
C/F	BN64-00193A	KNOB-FUNCTION	172X,ABS,HB,GR70	SNA
C/F	BN96-00096A	ASSY MISC P-BRKT-GROUND	MO15PS/ES,SECC T1.0	SNA
C/F	BN96-00738A	ASSY BOARD P-FUNCTION	DS17bS,FUNCTION,1350*8	SNA
-	BN90-00562B	ASSY COVER REAR	DS17BS	SNA
C/R+SH/PCB	6003-001518	SCREW-TAPTITE	BH,+,B,M3,L4,NI PLT,SWRCH18A,-	
C/R	BN96-00603A	ASSY COVER P-REAR	172X,ABS HB,GR70,SPRAY	
C/R	BN96-00798A	ASSY COVER P-HINGE	172X,ABS HB,GR70,SPRAY	SNA
-	BN90-00564B	ASSY STAND	DS17BS	SNA
STD	BN96-00604A	ASSY COVER P-STAND	172X,ABS HB,GR70,SPRAY	
STD	6003-000117	SCREW-TAPTITE	BH,+,B,M3,L6,ZPC(YEL),SWRCH18A	SNA
STD	6003-000276	SCREW-TAPTITE	BH,+,B,M3,L10,ZPC(YEL),SWCH10	SNA
STD	6003-000301	SCREW-TAPTITE	BH,+,S,M4,L6,ZPC(YEL),SWRCH18A	SNA
STD	6003-000343	SCREW-TAPTITE	CH,+,B,M2.6,L4,ZPC(YEL),SWRCH18A	
STD	6003-001010	SCREW-TAPTITE	FH,+,B,M3,L6,ZPC(YEL),SWRCH18A	
STD	6011-001445	BOLT-SOCKET	4-40 UNC,L7,NI PLT,BRASS,HEX SOCKET	SNA
STD	BH63-30103A	FELT-STAND	MCM1755,FELT,T1.0,W10,L4	
STD	BN39-00420A	CBF-STAND CABLE	DS17BS,UL20379,UL/CSA,24P,15P/41P,195.6MM,BLACK,DC-JACK,DSUB,DVI,FI-W41S,BK,SJ03	
STD	BN61-00649A	STAND-NECK FRONT	172X,ABS,GR70,SPRAY	SNA
STD	BN61-00650A	STAND-NECK REAR	172X,ABS,GR70,SPRAY	SNA
STD	BN61-00651A	STAND-BASE	172X,ABS,GR70,SPRAY	SNA
STD	BN61-00652A	STAND-TOP	172X,ABS,GR70,SPRAY	SNA
STD	BN61-00653A	STAND-BASE CAP	172X,ABS,GR70,SPRAY	SNA
STD	BN61-00654A	STAND-BOTTOM	SECC,T2.0,NTR,SLIM	SNA
STD	BN63-00951A	GASKET	RT15NS,CONDUCTIVE FAB,5,17,60,GRAY,32K,71TSSK-17-5-60-13	SNA
STD	BN73-00049C	RUBBER-FOOT	DS17BS,CR(V0),10*10,60,T1.5,BLACK	SNA
STD	BN96-00617A	ASSY MISC P-HINGE	172X,HINGE-ASS	SNA
-	BN91-00493A	ASSY MISC-ADAPTOR	MT17BO,MT17BO-SXV2/8384	SNA
CIS	BN44-00071A	ADAPTOR	APO04214-UV,LCDTM,90~264V,47 - 63 HZ,+14VDC,3.0A,AC/DC,0 TO +40 C,120*55*31	
-	BN91-00598N	ASSY LCD	DS17BS	SNA
LCD	BN07-00143A	LCD	LTM170EX-L01,1703,16.7M,358.5*296.5*17.5,16.7M,70,0.264*0.264,0~50,5V,TN	SNA
-	BN91-00677B	ASSY CHASSIS	DS17BS	
INVERTER	BN44-00103A	INVERTER	172X,SIC841,48Khz,13.5V/5.0V,2.0mA,7.4mA,100*71*8mm,4Lamp,48KHz	SNA
-	BN91-00679B	ASSY SHIELD	DS17BS	SNA
CIS	0203-001160	TAPE-FILAMENT	SCOTCH#8915,T0.16,W48,L55M,TRP	SNA
M/PCB+SH/PCB	6003-000117	SCREW-TAPTITE	BH,+,B,M3,L6,ZPC(YEL),SWRCH18A	SNA
PAN+SH/PCB	6001-000346	SCREW-MACHINE	FH,+,M3,L4,ZPC(YEL),SM20C,-	

Loc. No.	Code No.	Description	Specification	Remarks
CIS	BN96-00768A	ASSY MISC P-SHIELD PCB	172X	SNA
-	BN92-00871B	ASSY BOX	DS17BS	SNA
BOX	BH68-00329C	LABEL BAR CODE	-,ALL,TCO99,DOMESTIC,ART-PAPER 90G,-,WHT,BLACK,-,-,-	SNA
BOX	BH75-10529C	UNIT-HANDLE/PACKING	S/M170MP,PE-LD,PE-HD,-,WHITE,-	
BOX	BN69-00622A	BOX	S/M172X(DS17BS) W/W,CB-SW4,WHT OFFSET,A-1,L449*W381*H118,SILVER	SNA
CIS	BN72-60001A	LEVER-TOP	LSD210TL,PE-LD,WHITE,TFT_LCD	SNA
CIS	BN72-60002C	LEVER-BOTTOM	S/M170MP,PE-HD,BLUE	SNA
-	BN92-00877B	ASSY P/MATERIAL	DS17BS	SNA
P/M	0203-001100	TAPE-OPP MASKING	OPP/W75/CLR,T0.05,W75,L800000,CLR	SNA
P/M	6902-000379	BAG AIR	HDPE,T0.2,L1800,W1000,TRP,,,PAPER	SNA
P/M	6902-000561	BAG PE	HDPE+NITRON(DOUBLE),T0.015+T0.5,W500,L400,TRP,28,2	SNA
P/M	6902-000576	BAG ROLL	LDPE,T0.05,W2400,L1000,TRP,-,-	SNA
P/M	BH69-00328C	PAD-EDGE	CN15,DW3,200,1410,-,-,YEL,-,-	SNA
P/M	BH69-00457C	PACKING-PAD	CY15PO,FOAM,T3.0,1320,880	SNA
P/M	BH69-40379A	PACKING-WRAP	LDPE,W500*T0.02,-,-	SNA
P/M	BN68-00129A	LABEL SHIPPING	-,LABEL SHIPPING,ART-PAPER,100G,-,WHT,BLACK,-,-,-	SNA
P/M	BN69-00140E	PAD-PALLET COVER	ML17,SW,1100*4000,1362,-,-,-,-,-	SNA
P/M	BN69-00140M	PAD-PALLET COVER	IBM15,SW,800*3540,1295,-,-,-,-,-	SNA
P/M	BN69-00300B	CUSHION-EPE	152X,EPE,5,125,85,WHITE	SNA
P/M	BN69-00569A	CUSHION	172X,EPS M50,WHITE,C=0.02	SNA
P/M	BN69-00577B	PALLET	DS17BS,WOODEN,1390,790,120	SNA
P/M	BN96-00196B	ASSY MISC P-SCREW	152X,WALL MOUNTING	SNA
P/M	BN96-00618A	ASSY MISC P-BRKT VESA	172X,BRKT VESA ASSY	SNA
-	BN92-00901E	ASSY ACCESSORY	DS15ASDS/EDC,EDC,NETHERLANDS	SNA
CIS	BN96-00649E	ASSY ACCESSORY	DS15ASDS/EDC,EDC,NETHERLANDS	
ACCESSORY	0203-000214	TAPE-OPP MASKING	OPP/W50/CLR,T0.05,W50,L400000,	SNA
ACCESSORY	6801-001073	CARD-REGISTRATION	RUS,XEV,RUS,MOJO100,-,W220,L318,2,-	SNA
ACCESSORY	6902-000110	BAG PE	LDPE,T0.05,L356,W240,TRP,28,2,PE MARK	SNA
ACCESSORY	BH39-10339H	CBF POWER CORD	DET,H05VV-F,250V/10,16A,BLK,25	
ACCESSORY	BH68-00374A	CARD WARRANTY-01	ASC List,Samsung,ART100G,Russian,EDC,295,210	SNA
ACCESSORY	BH68-00489A	MANUAL-02	RUSSIAN W/CARD,SER,RUSSIAN,RUSSIA,MOJO100G	SNA
ACCESSORY	BH68-70438A	CARD-BLOC WARRANTY-09	TFT LCD,BASIC,EU,MOJO,100G,W21	SNA
ACCESSORY	BH68-70448A	CARD-01	TFT LCD,SRC,RUSSIA,S/W,120,W210*L120,INSTALL CARD	SNA
ACCESSORY	BN96-00674A	ASSY MANUAL P-IB+QSG	DS15AS,SyncMaster,W/W,18 Langs,BN59-371A+BH68-376L	SNA
CIS	BH68-00376L	MANUAL-01	LCDQUICK SETUP GUIDE,SYNCMASTER,E/F/S/G/P/I..13LANGS,W/W,MOJO100G,298,420	
CIS	BN59-00371A	S/W DRIVER-IB	152X,172X,Degas,SyncMaster,13 Langs	SNA
-	BN92-00946Q	ASSY LABEL	DS17BSDS/EDC,EDC,NETHERLANDS	SNA
CIS	BN68-00219P	LABEL-BARCODE	W/W,PE,T0.05,60*35,POLYESTER,BLK	SNA
CIS	BN68-00460B	LABEL RATING	DS17BS(GH17PS),SS,PE,T0.05,90*30,BLK,POLYESTER,EDC	SNA

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8 Block Diagram

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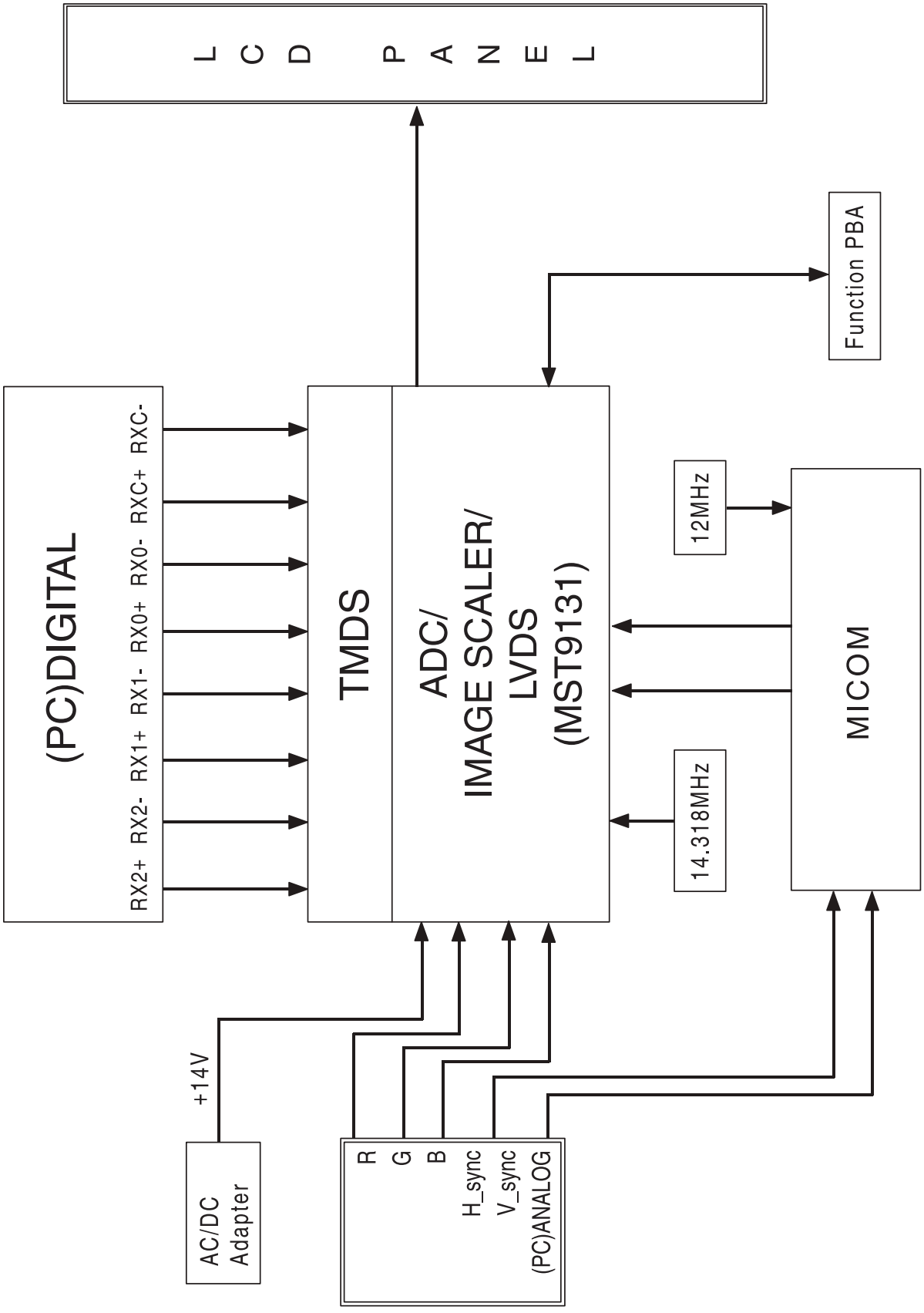

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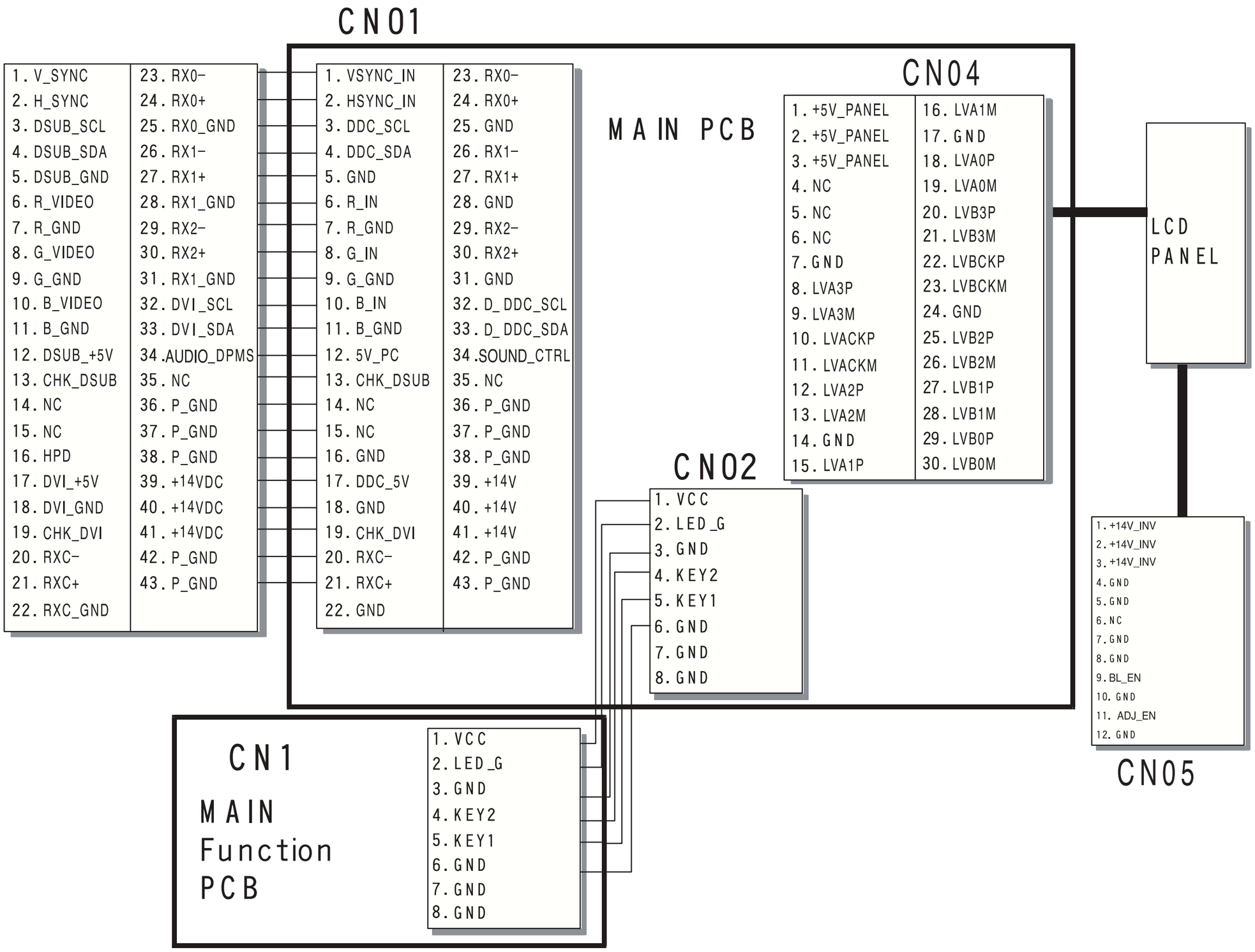
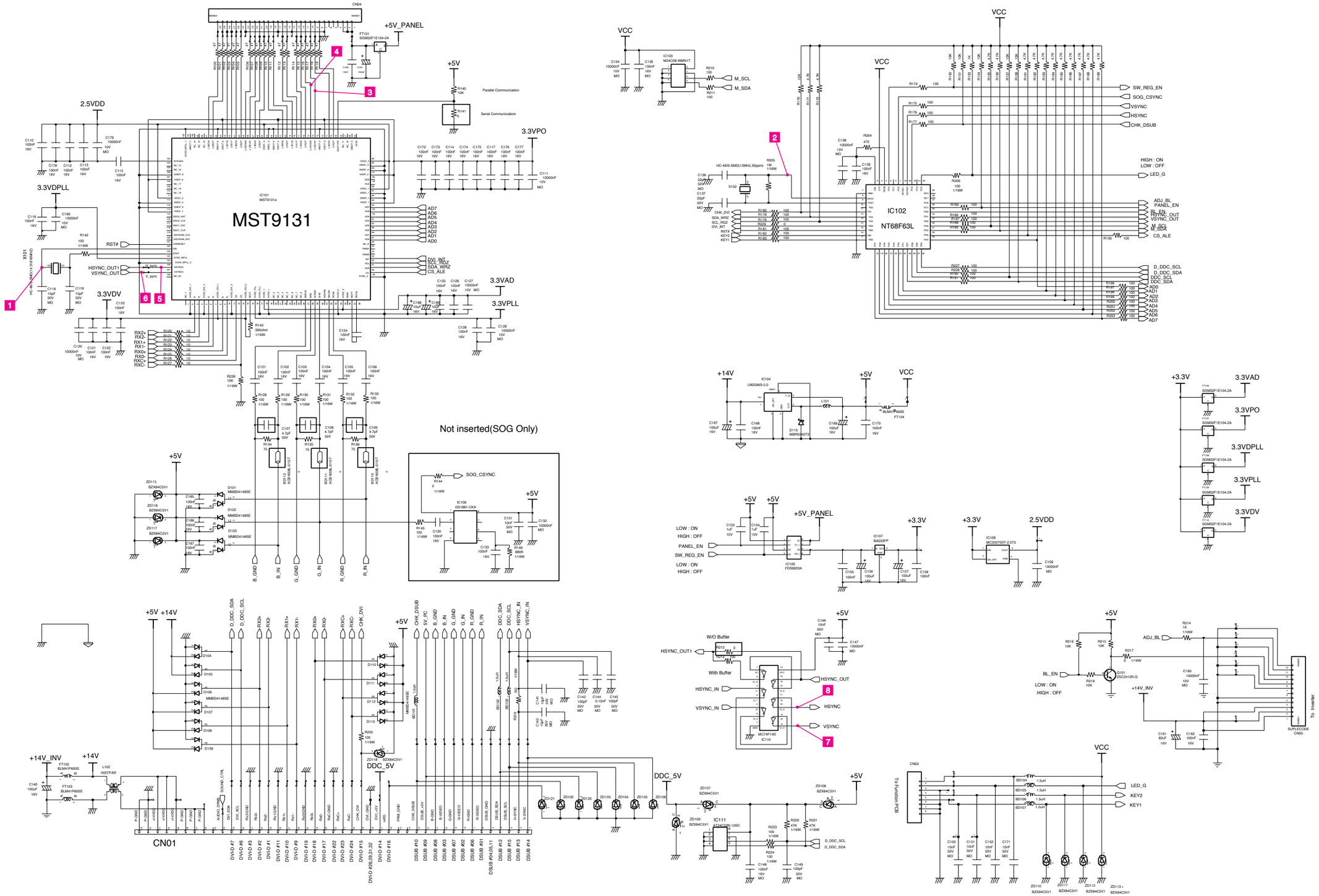
9 Wiring Diagram

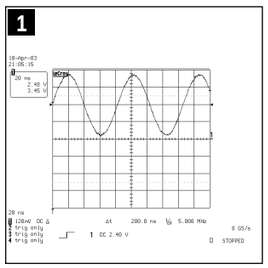


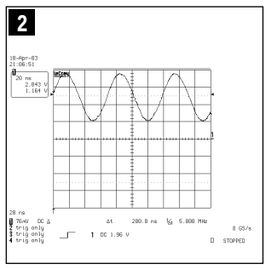
Memo

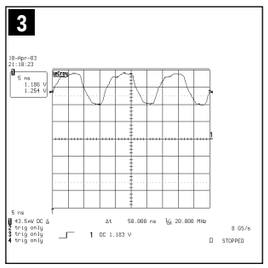
11 Schematic Diagrams

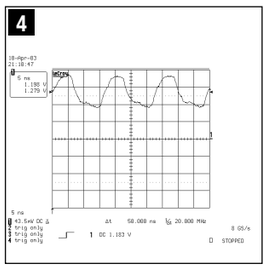


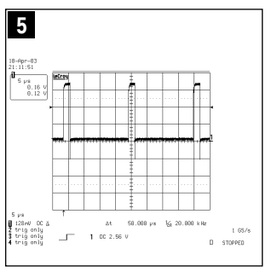
11 Schematic Diagrams

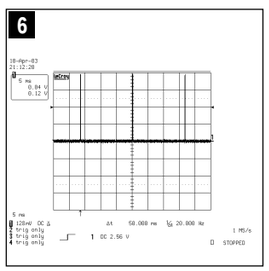


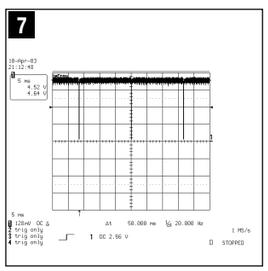


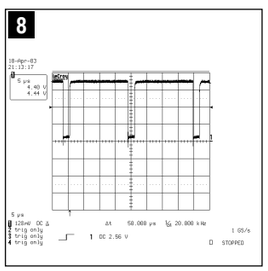












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416, Maetan-3Dong, Paldal-Gu, Suwon City, Kyungki-Do, Korea, 442-742
Printed in Korea
P/N : BN82-00105C-00
http : //www.samsungmonitor.com (SyncMaster Worldwide)
http : //www.samsung-monitor.com (SyncMaster USA)
URL : http://ecms. samsungelectronics. com/