11 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the TFT-LCD TV.

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

11-1 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.

Description	Picture Description
1. Place monitor face down on cushioned table. Remove screws from the rear cover. Remove screws from the stand.	

Description	Picture Description
2. Lift up the rear cover and remove the stand.	
3. Remove Screws from the stand BRKT and lift up the stand BRKT.	

Description	Picture Description
4. Remove 3 screws and lift up the inlay.	

Description	Picture Description
5. Disonnect cable from the boards.	
6. Remove screws from the boards and lift up the boards.	

Description	Description Picture
7. Remove screws and lift up speakers, stand BRKT.	
8. Remove screws from the BRKT and lift up the BRKT. Lift up the Lcd panel.	

Description	Description Picture

11-2 Reassembly

Reassembly procedures are in the reverse order of disassembly procedures.

12 PCB Diagram

12-1 Main PCB Diagram

12-2 32" SMPS

BN96-03832A
SOLDER DIRECTION
HOT
COLD
SAMSUNG
LCD-M24-PFC
SC-0616D

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.

1-1-2 Servicing the LCD Monitor

1. When servicing the LCD Monitor 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

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 Static Electricity 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.

1-4 Installation Precautions

1. For safety reasons, more than two people are required for carrying the product.

2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.

3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.

4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.

5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.

6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the high-voltage cable or the antenna falling over may cause fire or electric shock.

7. When installing the product, leave enough space (10cm) between the product and the wall for ventilation purposes.
   A rise in temperature within the product may cause fire.

Memo

3 Alignments and Adjustments

3-1 Service Instruction

1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync.
2. Use the specified test equipment or its equivalent.
3. Correct impedance matching is essential.
4. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test result.
5. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
6. Do not attempt to connect or disconnect any wire while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.
7. To protect aganist shock hazard, use an isolation transform.

3-2 How to Access Service Mode

3-2-1 Entering Factory Mode

1. To enter "Service Mode" Press the remote -control keys in this sequence :
   - If you do not have Factory remote - control

Power OFF → INFO → MENU → MUTE → Power ON

- If you have Factory remote - control

PICTURE ON → DISPLAY → FACTORY

- The buttons are active in the service mode.
  1. Remote - Control Key : Power, Arrow Up, Arrow Down, Arrow Left
     Arrow Right, Menu, Enter, Number Key(0~9)
  2. Function - Control Key : Power, CH +, CH -, VOL +, VOL -,
     Menu, TV/VIDEO(Enter)

3-2-2 Panel Check

Specially for LE32R32**, You have to check Panel Maker Because of different adjustments as follows.
First of all, Check the label rating!

1) Label Rating File

If Panel Mark is "A", Set the factory mode indicating as follows.

Panel BOM(Bill of material) : BN07-00289A
Connector between Panel and Power Unit
: BN39-00603M (300mm)

* Option Byte
1. Gamma "AUO"
2. Panel Option "AUO"

If Panel Mark is "S" or not printed.
Set the factory mode indicating as follows.

Panel BOM(Bill of material) : CPT :BN07-00315A
CMO:BN07-00207A
Connector between Panel and Power Unit
: BN39-00603M (300mm)
* Option Byte
1. Gamma : CPT: Off, CMO: 0.94
2. Panel Option : CPT: CPT, CMO: CMO

If Panel Mark is "C" , Set the Factory mode indicating as follows.

Panel BOM(Bill of Material) : CPT : BN07-00315A
CMO : BN07-00207A
Connecotor between Panel and Powe Unit :
BN39-00659A(200mm)
* Option Byte
1. Gamma " CMO "
2. Panel Option " CMO "

Others are same shown below.

3-3 Factory Data

1. Calibration
2. Option Byte XX XX XX XX
3. W/B
4. W/B Movie
5. MTK8202
6. Sound
7. YC Delay
8. Adjust
9. Bus Stop
10. Password 80 80 80 80
11. Checksum 0000
12. Spread Spectrum
13. Reset

T_SNMMPEU-1000 (Main Micom Ver/¸íÄª) Month/ Day / Year / Hour/ Min./Sec.
Panel On Time(Hour) XXXXX
0 0

1. Calibration
   1) AV Calibration ------ Failure../Success.. ------- Master(MSPG-925F) : model #2, Pattern #24
   2) DTV Calibration ----- Failure../Success.. ------- Master(MSPG-925F) : model #6, Pattern #24
   3) PC Calibration ------ Failure../Success.. ------- Master(MSPG-925F) : model #21, Pattern #24
   4) HDMI Calibration ---- Failure../Success.. ------- Master(MSPG-925F) : model #6, Pattern #24

2. Option Byte

Panel Inch	32	V-Chip	Off
Panel Vender	CPT, CMO	Caption	Off
Dimming	ANA-P3, PWM	ID TV Mode	Off
Gamma	Off, 0.94	ID TV Country	UK
Auto Power	On	Memory Type	ETRON
Hotel Mode	Off	Volume Table	Small
Shop Mode	Off		
Auto FM	Off		
High Devi	Off		
Carrier Mute	Off		
TTX	On		
TTX List	Flof		
TTX Group	User OSD		

3. White Balance

ITEM	RF/AV(Initial value)	Component(Initial value)	PC	HDMI
SubBright	128	128	138 (Fixed value)	128
Roffset	128	128	128 (Fixed value)	128
Goffset	128	128	128 (Fixed value)	128
Boffset	128	128	128 (Fixed value)	128
SubContrast	131	128	115 (Fixed value)	128
RGain	128	128	128 (Fixed value)	128
GGain	128	128	128 (Fixed value)	128
BGain	128	128	128 (Fixed value)	128

4. W/B Movie

Service P Mode	Dynamic	Cool1 Blue Offset	128
Service Color Tone	Cool1	Normal Red Gain	134
Mov. Contrast	80	Normal Blue Gain	121
Mov. Brightness	50	Normal Red Offset	127
Mov. Color	25	Normal Blue Offset	126
Mov. Sharpness	45	Warm1 Red Gain	143
Cool2 Red Gain	128	Warm1 Blue Gain	111
Cool2 Blue Gain	134	Warm1 Red Offset	128
Cool2 Red Offset	128	Warm1 Blue Offset	127
Cool2 Blue Offset	128	Warm2 Red Gain	142
Cool1 Red Gain	128	Warm2 Blue Gain	101
Cool1 Blue Gain	128	Warm2Red Offset	127
Cool1 Red Offset	128	Warm2 Blue Offset	128

5. MTK8202
1) Cal. Adjustment

R_Offset	41	CVBS Gain	50
G_Offset	23	CVBS U	0
B_Offset	28	CVBS V	0
R_Gain	92	HDMI R_Gain Ref.	229
G_Gain	96	HDMI G_Gain Ref.	229
B_Gain	92	HDMI B_Gain Ref.	229
Y_Offset	23	HDMI R_Offset Ref.	16
Cb_Offset	28	HDMI G_Offset Ref.	16
Cr_Offset	31	HDMI B_Offset Ref.	16
Y_Gain	43	LVDS control	55
Cb_Gain	43		
Cr_Gain	43		
CVBS Offset	50		

2) Cal. Target

AV_offset Target	15	PC_G_Offset Target	1
AV_offset Delta	1	PC_B_Offset Target	1
AV_Gain Target	220	PC_R_Offset Delta	0
AV_Gain Delta	2	PC_G_Offset Delta	0
Component_Y_Gain Target	234	PC_B_Offset Delta	0
Component_Y_Gain Delta	2	PC_R_Gain Target	254
Component_Y_Offset Target	15	PC_G_Gain Target	254
Component_Pb_Offset Target	128	PC_B_Gain Target	254
Component_Pr_Offset Target	127	PC_R_Gain Delta	0
Component_Y_Offset Delta	1	PC_G_Gain Delta	0
Component_Pb_Offset Delta	0	PC_B_Gain Delta	0
Component_Pr_Offset Delta	0		
PC_R_Offset Target	1		

3) Scart RGB

SC1_R_Offset	112
SC1_G_Offset	112
SC1_B_Offset	112
SC1_R_Gain	80
SC1_G_Gain	80
SC1_B_Gain	80

4) Picture Enhance

Cut Off	2
Upper	29
Center L Lmt	8
Center R Lmt	24
Ugain Max	40
Lgain Max	40

6. Sound

AM Mute	Off	Num of Double Chk	30
AM_mute Th_High	176	Mono Weight	1
AM_mute Th_Low	144	Stereo Weight	1
FM_mute Th_High	34	Dual Weight	1
FM_mute Th_Low	32	M2S Threshold	10
Carrier Shift	Off	S2M Threshold	10
Saturation Mute	Off	NICAM FINE VOL	20
Correct Threshold	6	FM FINE VOL	20
Sync Loop	201	AM FINE VOL	20
Error Threshold	8	FINE TUNE VOL	20
Parity Error Thrd	48		
Every Num Frames	512		
Num of Check	10		

7. YC Delay

RF PAL-B/G	10	AV NTSC4.43	10
RF PAL-D/K	10	AV PAL60	10
RF PAL- I	10		
RF PAL- L/L'	10		
RF SECAM-B/G	10		
RF SECAM-D/K	10		
RF SECAM-I	10		
RF SECAM-L/L'	10		
RF NTSC3.58	10		
RF NTSC4.43	10		
AV PAL	10		
AV SECAM	10		
AV NTSC 3.58	10		

8. Adjust
1) User Control Initial

TTX PWM	25	N_Dyn.Contrast	Off
Dyn. Contrast	100	Dynamic CE	Off
Dyn. Brightness	45	Dynamic Dimming	Off
Dyn. Color	55	Channel Table	Suwon
Dyn. Sharpness	75	Video Mute Time	5
Std. Contrast	80	Language	English
Std. Brightness	50		
Std. Color	55		
Std. Sharpness	50		
Melody Volume	10		
Sub Color	50		
Contrast Gain	64		
Dynamic Contrast	Off		

2) LNA PLUS

RF_Db-1	0
RF_Db-2	0
RF_Db-3	0

3) Hotel Option

Power On Channel	1
Power On Band	0
Power On Volume	10
Max Volume	100
Local Key Lock	OFF
Power On Source	Auto

4) HDCP Write

9. Bus Stop

Main Loop	Off
Eeprom	Off
Tuner	Off
Normal	Off
Watch Dog	On

10. Password : 80 80 80 80

11. Checksum XXXX

12. Spread Spectrum

Spread Spectrum	On	Step_1024_768	90
Step_480I/576I	90	Range_1024_768	43
Range_480I/576I	32	Step_1360_768	90
Step_480P/576P	112	Range_1360_768	43
Range_480P/576P	41		
Step_720P	90		
Range_720P	32		
Step_1080I	90		
Range_1080I	32		
Step_640_480	90		
Range_640_480	43		
Step_800_600	90		
Range_800_600	43		

13. Reset

3-4 Service Adjustment

3-4-1 White Balance - Calibration

If picture color is wrong, do calibration first.

Equipment : CA210, Patten : chess pattern
Execute calibration in Factory Mode
Source AV : PAL composite, Component : 1280*720/60Hz
PC : 1024*768/60Hz

(chess patten)

3-4-2 White Balance - Adjustment

If picture color is wrong, check White Balance condition.

Equipment : CA210, Patten : Toshiba
Adjust W/B in Factory Mode

Sub brightness and R/G/B Offset controls low light region
Sub contrast and R/G/B Gain controls high light region
Source AV : PAL composite, Component : 1280*720/60Hz
HDMI[DVI] : 1280*720/60Hz

[Test Pattern : MSPG-945 Series Pattern #16]

*Color temperature
1500K +/-500, -6 ~-20 MPCD

*Color coordinate
H/L : 267/263 +/- 2 35.0 Ft +/- 2.0Ft
L/L : 270/260 +/- 3 1.5 Ft +/- 0.2Ft

Toshiba Patten

3-4-3 Conditions for Measurement

1. On the basis of toshiba ABL pattern : High Light level (57 IRE)
   - INPUT SIGNAL GENERATOR : MSPG-925LTH
     * Mode NO 2 : 744X484@60 Hz
       NO 6 : 1280X720@60 Hz
       NO 21 : 1024X768@60 Hz
     * Pattern NO 36 : 16 Color Pattern
       NO 16 : Toshiba ABL Pattern
2. Optical measuring device : CA210 (FL)
   Please use the MSPG-925 LTH generator for model LE26M51B/LE32M51B/LE40M51B/LE46M51B.

3-4-4 Method of Adjustment

1. Adjust the white balance of AV, Component and DVI Modes.
   (AV ⟶ Component)
   a) Set the input to the mode in which the adjustment will be made
   (RF ⟶ DTV ⟶ PC ⟶ DVI).
   * Input signal - VIDEO Mode : Model #2 (744*484 Mode), Pattern #16
   - DTV,DVI Mode : Model #6 (1280*720 Mode), Pattern #16
   - HDMI Mode: Model #6(1280*720 Mode), Pattern #16

   b) Enter factory color control, confirm the data.

   c) Adjust the low light. (Refer to table 1, 2 in adjustment position by mode)
   - Adjust sub - Brightness to set the 'Y' value.
   - Adjust red offset ('x') and blue offset ('y') to the color coordinates.

Picture 4-2 Toshiba ABL Pattern

   * Do not adjust green offset data.

   d) Adjust the high light. (Refer to table 1, 2 in adjustment position by mode)
   - Adjust red gain ('x') and blue gain ('y') to the color coordinates.
   * Do not adjust the green gain and sub-contrast (Y) data.

d) Adjust the high light. (Refer to table 1, 2 in adjustment position by mode)
- Adjust red gain ('x') and blue gain ('y') to the color coordinates.
* Do not adjust the green gain and sub-contrast (Y) data.

Picture 4-3 Toshiba ABL Pattern

3-5 Software Upgrade

3-5-1 How to Update Flash ROM

1. Installthe Flash Downloader
   ConnectSet(Service Jack)and Jig Cable to execute Program Update.

2. Flash Downloader program update (SVP-PX)
   - Before Turning on the set,Click "connect"which is under of OSD Screen!
   - Turn on the Set.

3. Flash Downloader program update (MTK)
   - After Turning on the set, Click '1'(reset button)button two or more.
   - Click 'Browse' button, and find micom file for update.
   - Click 'Upgrade' button.
   - Turn on the set.

Memo

4 Troubleshooting

4-1 First Checklist for Troubleshooting

1. Check the various cable connections first.
   - Check to see if there is a burnt or damaged cable.
   - Check to see if there is a disconnected cable connection or a connection is too loose.
   - Check to see if the cables are connected according to the connection diagram.

2. Check the power input to the Main Board.

3. Check the voltage in and out between the SMPS ◄►Main Board, between the SMPS ◄► INVERTER Board, and between the Main LVDS Boards.

4-2 Checkpoints by Error Mode

4-2-1 No Power

4-2-2 No Video (Analog PC)

WAVEFORMS

1 R,G,B Output Signal of IC602

4-2-3 No Video (Digital-HDMI)

2 Digital Output Data of IC602

3 Signal of HDMI(Data)

4-2-4 No Picture (Tuner_CVBS)

3 CVBS Output Signal

4 Tuner_CVBS Output Signal

4-2-5 No Picture (Video_CVBS)

WAVEFORMS

4 CVBS Output Signal

4-2-6 No Picture (S-VIDEO_Y,C)

WAVEFORMS

2 Digital Output Data of IC602

5 Analog Signal(Y,C) to IC602

4-2-7 No Sound

Picture is display, no sound.
No
Connect a sound cable.
control a volume.
Yes
Does the signal appear at
Pin #8, #14(CH1_L, R Sound)
6
and Pin #29, #35
(CH2_L, R Sound)
of IC806?
No
Check a connection harness and
headphone jack / Side AV.
Yes
Check the DC 12V
of IC806?
No
Check a IC806.
Change a main PCB ass'y.
Yes
7
Does the signal appear at
L802~L805?
No
Change a main PCB ass'y.
Yes
Replace the speaker ass'y?

WAVEFORMS

6 The Signal are Inputed to IC603

7 DC +12V

7 Block Diagram

- This Document can not be used without Samsung's authorization

Memo

8 Wiring Diagram

8-1 Wiring Diagram

8-2 Main Board Layout

8-3 PIN characteristic

CN101 - Main Board power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NAME	B12V	GND	B5V	B5V	B5V	GND	GND	GND	B12VS	B12VS	B12VS	GND	GND	GND	A5V	A5V

Function Define

- B12V B8V, B5V-T
- B5V B5V-1, B5V, 5V-P, B1.8V
- B12VS B12VS
- A5V A5V, A3.3V-3, A3.3V, A3.3V-1, B3.3V, A1.8V

CN802 / CN801 - SPEAKER CONNECTOR

PIN	1	2	3
NAME	R+	NC	R-

PIN	1	2
NAME	L+	L-

CN102 - Front control

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
NAME	SDA-T	SCL-T	GND	KEY INPUT1	LED	GND	A5V	GND	IR	KEY INPUT1	KEY INPUT2	GND	IDENT HP	HP-L	HP-R

Function Define

- A5V Front control board poewr supply
- KEY INPUT1,2/SDA/SCL Key control, from the memu, change up/down Etc.
- IR Remote control signal
- LED Control the timing and stand by LED color

CN701 - Panel control

PIN	1	2	3	4	5
NAME	SW_inverter	Ana_dimming	PWM_dimming	GND	GND

Function Define

- SW_inverter panel inverter control, about 3.3V
- Ana_dimming panel dimming control
- PWM_dimming panel PWM control, duty 40% ~ 90%

CN702 - LVDS Signal

PIN	NAME	PIN	NAME
1	VCC	16	TXOUTCLK+
2	VCC5P	17	TXOUTCLK-
3	VCC5P	18	GND
4	VCC5P	19	TXOUT2+
5	VCC5P	20	TXOUT2-
6	GND	21	GND
7	GND	22	TXOUT1+
8	GND	23	TXOUT1-
9	NC	24	GND
10	LVDS_Option	25	TXOUT0+
11	NC	26	TXOUT0-
12	GND	27	GND
13	TXOUT3+	28	NC
14	TXOUT3-	29	NC
15	GND	30	NC

8-4 Power Board Layout

CN801 - AC Input

PIN	I	2
NAME	Live	Netural
VOLTAGE	AC	AC

Functing Define
- Refer to : AC Input

CN801 - Main Board power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NAME	13V	GND	5.4V	5.4V	5.4V	GND	GND	GND	12V	12V	12V	GND	GND	GND	ST7V	PWR

Functing Define
- ST7V Stand-By Output
- PWR Power On/Off Control

- Refer to : CN801 function define

CNM804 - Panel control

PIN	1	2	3	4	5
NAME	SW_inverter	Ana_dimming	PWM_dimming	GND	SENSOR POWER

Functing Define
- Refer to : CN815 function define

CN802 - Inverter power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NAME	24V	24V	24V	24V	24V	GND	GND	GND	GND	GND	GND	B/L	A_D	P_D

Functing Define

- AMLCD Panel Inverter Power
- 24V LAMP INVERTER Voltage
- B/L Brightness sensor power
- A_D ANA_DIMMING
- P_D PWM_DIMMING

CN803 - Inverter power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NAME	24V	24V	24V	24V	24V	GND	GND	GND	GND	GND	A_D	B/L	P_D	GND

Functing Define

- AUO Panel Inverter Power
- 24V LAMP INVERTER Voltage
- B/L Brightness sensor power
- A_D ANA_DIMMING
- P_D PWM_DIMMING

CN804 14PIN
CN803 14PIN
Inverter power supply
Line filter
1
Multi
3
Main Board
Power supply
Stand By
2
Stand by
AC input
CN800
Main board
Power supply
CN801 16PIN
Panel
control
CN802

CN801 - AC Input

PIN	I	2
NAME	Live	Netural
VOLTAGE	AC	AC

Functing Define
- Refer to : AC Input

CN801 - Main Board power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NAME	13V	GND	5.4V	5.4V	5.4V	GND	GND	GND	12V	12V	12V	GND	GND	GND	ST7V	PWR

Functing Define
- ST7V Stand-By Output
- PWR Power On/Off Control

- Refer to : CN801 function define

CNM804 - Panel control

PIN	1	2	3	4	5
NAME	SW_inverter	Ana_dimming	PWM_dimming	GND	SENSOR POWER

Functing Define
- Refer to : CN815 function define

CN803 - Inverter power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NAME	24V	24V	24V	24V	24V	GND	GND	GND	GND	GND	GND	B/L	A_D	P_D

Functing Define

- AMLCD Panel Inverter Power
- 24V LAMP INVERTER Voltage
- B/L Brightness sensor power
- A_D ANA_DIMMING
- P_D PWM_DIMMING

CN804 - Inverter power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NAME	24V	24V	24V	24V	24V	GND	GND	GND	GND	GND	B/D	P_L	GND	B/L

Functing Define

- CMO Panel Inverter Power
- 24V LAMP INVERTER Voltage
- B/L Brightness sensor power
- P_D PWM_DIMMING

Memo

9 Schematic Diagrams

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9-1 Power/Function/TUNER Schematic Diagram

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9-2 Schematic Diagram

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9-3 Schematic Diagram

	JA702_EU	JA207_EU	JA206_NT	JA208_JP JA209_JP
PAL	O	O		
NT			O	
Japan				O

	JA713	JA701	JA706	JA705
27"		O	O	O
32"~40"	O	X (PAL) O (NT)		

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9-4 Schematic Diagram

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9-5 Schematic Diagram

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9-6 Schematic Diagram

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9-7 Schematic Diagram

Memo