Plasma TV

Chassis	F82A
Model Code	PS51D550C1WXZG

SERVICE MANUAL

Plasma TV

PS51D550C1W

Contents

Refer to the service manual in the GSPN (see the rear cover) for more information.

Contents

1. Precaution

To avoid possible damage, electric shocks or exposure to radiation, follow the instructions below with regard to safety, installation, service and ESD.

1.1. Safety Precautions

1) Make sure all protective devices are properly installed including non-metallic handles and compartment covers when installing or re-installing the chassis or chassis assemblies.

2) Make sure that no gaps exist between the cabinets for children to insert their fingers in to prevent children from receiving electric shocks. Gaps mentioned above include ventilation holes of a too great magnitude between the PDP module and the cabinet mask, and the improper installation of the rear cabinet.

   Errors may occur when the resistance is below 1.0MΩ or over 5.2MΩ. In these cases, make sure that the device is repaired before sending it back to the customer.

3) Check for Electricity Leakage (AC Leakage Test)

WARNING

Do not use an insulated transformer for checking the leakage. Use only those current leakage testers or mirroring systems that comply with ANSIC 101.1 and the Underwriter Laboratory's specifications (UL1410, 59.7).

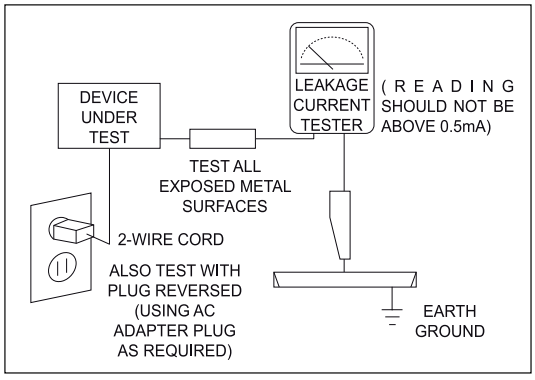


Figure 1.1 AC Leakage Test

4) A high voltage is maintained within the specified limits using safety parts, calibration and tolerances. When voltage exceeds the specified limits, check each special part.

5) Warning for Engineering Changes:

   Never make any changes or additions to the circuit design or the internal part for this product.

   Ex: Do not add any audio or video accessory connectors. This might cause physical damage.

   Furthermore, any changes or additions to the original design/engineering will invalidate the warranty.

6) Warning - Hot Chassis:

   Some TV chassis are directly connected to one end of the AC power cord for electrical reasons. Without insulated transformers, the product can only be repaired safely when the chassis is connected to the earthed end of the AC power source.

   To make sure the AC power cord is properly connected, follow the instructions below. Use the voltmeter to measure the voltage between the chassis and the earthed ground. If the measurement is over 1.0V, unplug the AC power cord and change the polarity before reinserting it. Measure the voltage between the chassis and the ground again.

7) Some TV chassis are shipped with an additional secondary grounding system. The secondary system is adjacent to the AC power line. These two grounding systems are separated in the circuit using an unbreakable/unchangeable insulation material.

8) When any parts, material or wiring appear overheated or damaged, replace them with new regular ones immediately. When any damage or overheating is detected, correct this immediately and make a regular check of possible errors.

9) Check for the original shape of the lead, especially that of the antenna wiring, any sharp edges, the AC power and the high voltage power. Carefully check if the wiring is too tight, incorrectly placed or loose. Never change the space between the part and the printed circuit board. Check the AC power cord for possible damages. Keep the part or the lead away from any heat-emitting materials.

10) Safety Indication:

Some electrical circuits or device related materials require special attention to their safety features, which cannot be viewed by the naked eye. If an original part is replaced with another irregular one, the safety or protective features will be lost even if the new one has a higher voltage or more watts.

Critical safety parts should be bracketed with (⚠, ⚠). Use only regular parts for replacements (in particular, flame resistance and dielectric strength specifications). Irregular parts or materials may cause electric shock or fire.

1.2. Servicing Precautions

WARNING

1) First carefully read the "Safety Instruction" in this service manual.
When there is a conflict between the service and the safety instructions, follow the safety instruction at all times.

2) Any electrolytic capacitor with the wrong polarity will explode.

1) The service instructions are printed on the cabinet, and should be followed by any service personnel.

2) Make sure to unplug the AC power cord from the power source before starting any repairs.
   a) Remove or re-install parts or assemblies.
   b) Disconnect the electric plug or connector, if any.
   c) Connect the test part in parallel with the electrolytic capacitor.

3) Some parts are placed at a higher position than the printed board. Insulated tubes or tapes are used for this purpose. The internal wiring is clamped using buckles to avoid contact with heat emitting parts. These parts are installed back to their original position.

4) After the repair, make sure to check if the screws, parts or cables are properly installed. Make sure no damage is caused to the repaired part and its surroundings.

5) Check for insulation between the blade of the AC plug and that of any conductive materials (i.e. the metal panel, input terminal, earphone jack, etc).

6) Insulation Check Process:

   Unplug the power cord from the AC source and turn the switch on. Connect the insulating resistance meter (500V) to the AC plug blade. The insulating resistance between the blade of the AC plug and that of the conductive material should be more than 1MΩ.

7) Any B+ interlock should not be damaged.

   If the metal heat sink is not properly installed, no connection to the AC power should be made.

8) Make sure the grounding lead of the tester is connected to the chassis ground before connecting to the positive lead. The ground lead of the tester should be removed last.

9) Beware of risks of any current leakage coming into contact with the high-capacity capacitor.

10) The sharp edges of the metal material may cause physical damage, so protect yourself by wearing gloves during the repair.

11) Due to the nature of plasma display panels, partial after-images may appear if a still picture is displayed on the screen for a long period of time.

    This is caused by brightness deterioration due to the storage effect of the panel, and to prevent this from happening, we recommend that the brightness and contrast are reduced. (e.g.) Contrast: 25, Brightness: 50

1.3. Static Electricity Precautions

1) Some semi-conductive (“solid state”) devices are vulnerable to static electricity. These devices are known as ESD. ESD includes the integrated circuit and the field effect transistor. To avoid any materials damage from electrostatic shock, follow the instructions described below.

2) Remove any static electricity from your body by connecting the earth ground before handling any semi-conductive parts or assemblies. Alternatively, wear a dischargeable wrist-belt.

   (Make sure to remove any static electricity before connecting the power source - this is a safety instruction for avoiding electric shock)

3) Remove the ESD assembly and place it on a conductive surface such as aluminum foil to prevent accumulating static electricity.

4) Do not use any Freon-based chemicals. Such chemicals will generate static electricity that causes damage to the ESD.

5) Use only grounded-tip irons for soldering purposes.

6) Use only anti-static solder removal devices.

   Most solder removal devices do not support an anti-static feature. A solder removal device without an anti-static feature can store enough static electricity to cause damage to the ESD.

7) Do not remove the ESD from the protective box until the replacement is ready. Most ESD replacements are covered with lead, which will cause a short to the entire unit due to the conductive foam, aluminum foil or other conductive materials.

8) Remove the protective material from the ESD replacement lead immediately after connecting it to the chassis or circuit assembly.

9) Take extreme caution in handling any uncovered ESD replacements. Actions such as brushing clothes or lifting your leg from the carpet floor can generate enough static electricity to damage the ESD.

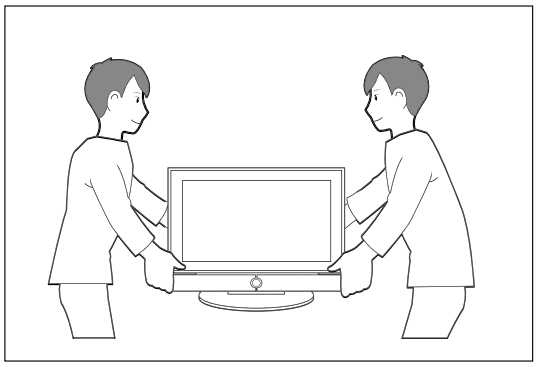
CAUTION

These servicing instructions are for use by qualified service personnel only.

To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

1.4. Installation Precautions

1) For safety reasons a minimum of two people are required to carry this 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 connecting the RF antenna, check for a DTV receiving system and install a separate DTV reception antenna for areas with no DTV signal.

8) When installing the product, leave enough space (4”) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.

9) When moving a PDP with removable speakers, detach the speakers first before moving the main body. Moving the PDP main body without separating the speakers may cause the speakers to detach, possibly causing damage or injury.

2. Product Specification

2.1. Product Feature

■ Features

Block	Specification	Major IC	Remark
RF	Digital/Analog (DTV Built In)		
PDP Module	SDI DF MODULE	51" HD 59" HD 64" HD	New Module
Power	SAMSUNG ELECTRO MECHANICS SMPS (51") DONGYANG SMPS (51") WAVE POWER (59", 64")		
Video	NTSC 3.58 ATSC HDMI Component, PC	MSD 2248	
Sound	SRS TruSuround HD, Dolby Digital	TAS 5715	Optical Output
Cabinet	D550 Design		

■ Specification

Model		P*51D550	P*59D550	P*64D550
Dimensions (W x H x D)	with stand	47.1 x 31 x 12 inches	54 x 35 x 13.1 inches	58.6 x 37.8 x 13.1 inches
	without stand	47.1 x 28.1 x 2.2 inches	54 x 32.4 x 2.2 inches	58.6 x 34.8 x 2.2 inches
Weight	with stand	57.5 lbs	80 lbs	89.5 lbs
	without stand	48 lbs	66.5 lbs	76 lbs
Panel Resolution				
PC Resolution		1920 (H) x 1080 (V)		
Screen Size		51 Inches (16:9)	51 Inches (16:9)	64Inches (16:9)
Power Consumption		51FHD 340W ±10% and Less	59FHD 380W ±10% and Less	64FHD 420W ±10% and Less
Antenna Input		ANT - AIR / CABLE IN 75Ω unbalanced		
Video Input	W/W	AV COMPONENT1 - 480i / 480p / 720p / 1080i / 1080p COMPONENT2 - 480i / 480p / 720p / 1080i / 1080p PC HDMI1(DVI Compatible) - 480i / 480p / 720p / 1080i / 1080p HDMI2 - 480i / 480p / 720p / 1080i / 1080p HDMI3(SIDE AV) - 480i / 480p / 720p / 1080i / 1080p HDMI4(SIDE AV) -480i / 480p / 720p / 1080i / 1080p 480i can be displayed on HDMI, however it is not contained in EDID data.		
	EU	AV COMPONENT1 - 480i / 480p / 720p / 1080i / 1080p SCART - 21P, Sn, BLK PC HDMI1(DVI Compatible) - 480i / 480p / 720p / 1080i / 1080p HDMI2 - 480i / 480p / 720p / 1080i / 1080p HDMI3(SIDE AV) - 480i / 480p / 720p / 1080i / 1080p HDMI4(SIDE AV) -480i / 480p / 720p / 1080i / 1080p 480i can be displayed on HDMI, however it is not contained in EDID data.		
Audio Input		AV COMPONENT1 - 480i / 480p / 720p / 1080i / 1080p COMPONENT2 - 480i / 480p / 720p / 1080i / 1080p PC DVI		
Audio Output		AUDIO (L/R)		
Speaker Output		10W + 10W (40dB + 40dB)		
New Features		3D Built-In		

2.2. Specifications Analysis

Model			P*51D550	P*59D550	P*64D550	P*50C550
Design						
Basic	Display Type		PDP TV	PDP TV	PDP TV	PDP TV
	Built-In Tuner		O	O	O	O
	Resolution		1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
	PDP Module		DF	DF	DF	UF2P
	Screen Size		51 inches	59 inches	64 inches	50 inches
	Picture ratio		16 : 9	16 : 9	16 : 9	16 : 9
Picture	Brightness		1,500 Cd/m2	1,500 Cd/m2	1,500 Cd/m2	1,500 Cd/m2
	Contrast Ratio		1000000:1	1000000:1	1000000:1	1000000:1
	Picture Enhacer		DNIe (SEMS20)	DNIe (SEMS20)	DNIe (SEMS20)	DNIe (SEMS13)
Audio	Equalizer		5 Band	5 Band	5 Band	5 Band
	Auto Volume Control		O	O	O	O
	Surround Sound		SRS Theater Sound	SRS Theater Sound	SRS Theater Sound	SRS TruSurround HD
	Speaker Output		10W + 10W	10W + 10W	10W + 10W	10W + 10W
Features	PIP		O	O	O	X
	Double Screen		X	X	X	X
	Caption		O	O	O	O
	Still Image		X	X	X	X
	EPG		O	O	O	O
	My color Control		X	X	X	X
	Energy Saving		O	O	O	O
	Screen Burn Protection		O	O	O	O
	Anynet		O	O	O	X
Connections	Antenna		1 (Cable/Air)	1 (Cable/Air)	1 (Cable/Air)	1 (Cable/Air)
	AV Input		1 Input	1 Input	1 Input	1 Input
	S-Video		X	X	X	X
	Component	W/W	2 Input	2 Input	2 Input	2 Input
		EU	1 Input	1 Input	1 Input	1 Input
	PC (D-SUB)		1 Input	1 Input	1 Input	1 Input
	DVI		X	X	X	X
	HDMI		4 Input	4 Input	4 Input	3 Input
	USB		2	2	2	2
	Sub Woofer		X	X	X	X
	Optical		1	1	1	1
Etc.	Speaker/Stand		Built-in Speaker	Built-in Speaker	Built-in Speaker	Built-in Speaker

TIP

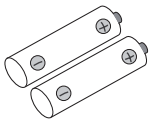
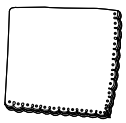
O : Supported, X : Not Supported

NOTE

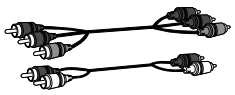
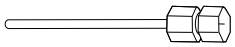
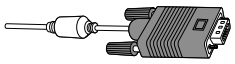
For the power supply and power consumption, refer to the label attached to the product.

2.3. Accessories

2.3.1. Supplied Accessories

Accessories	Item	Item code	Remark
	Remote Control	AA59-00483A	Samsung Service Center
	Batteries	4301-000103	
	Power Cord	3903-000551	
	Owner`s Instructions	BN68-03449C	
	Cloth-Clean	BN63-01798B	
	Ferrite Core (2EA)	3301-002053	
	Ferrite Core (1EA)	3301-002052	

2.3.2. Sold Separately

Accessories	Item	Item code	Remark
	RS232 Cable	-	Samsung Service Center
	HDMI	-	
	HDMI-DVI	-	
	Component	-	
	Composite (AV)	-	
	Coaxial (RF)	-	
	VGA	-	

3. Disassembly & Reassembly

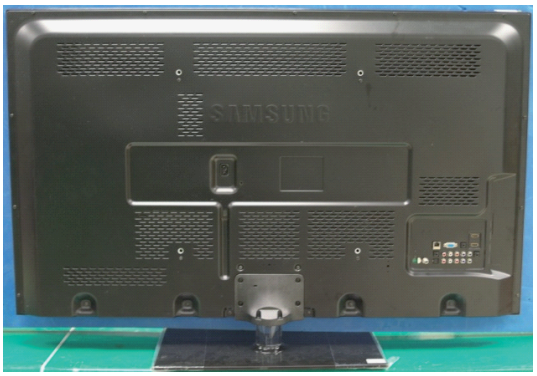
3.1. Overall Disassembly & Reassembly

CAUTION

- **Be sure to separate the power cord before disassembling the unit.**
- **Discharge the capacitors first when separating PCB's with high capacity capacitors such as SMPS, X Main Board, Y Main Board, etc. (A spark may be generated by the electric charge, and there is danger of electronic shock.)**
- **Check that the cables are properly connected referring to the circuit diagram when disassembling or assembling the unit taking care not to damage the cables**
- **Take care not to scratch the Glass Filter in the front.**
- **Assemble the boards in the reverse order of the disassembly.**
- **The plasma must be layed down on a flat padded surface for disassembly and reassembly.**

1. Place monitor face down on cushioned table. Remove screws from the Stand. Remove stand.

* Rear view of 51"



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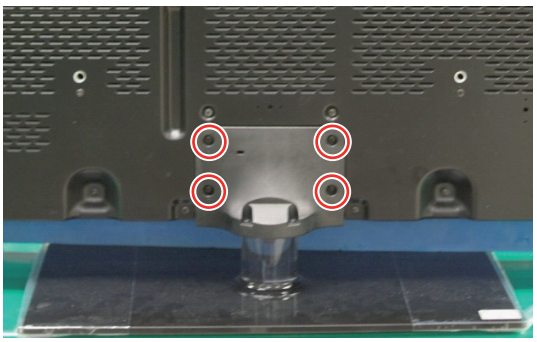

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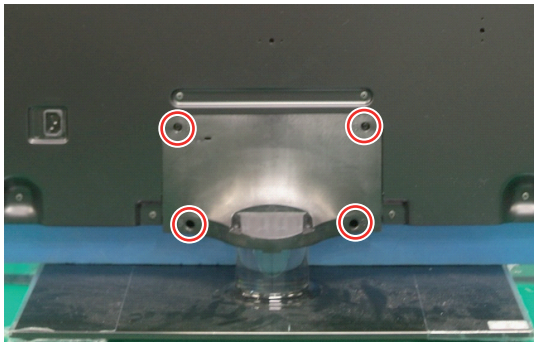
6001–002621 : M4 * L8

* Rear view of 59"

<59" PDP>



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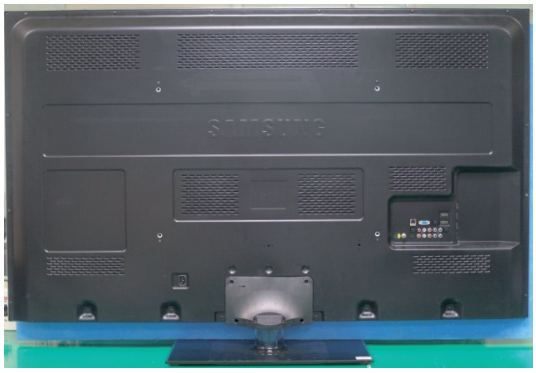
6001–002621 : M4 * L8

* Rear view of 64"



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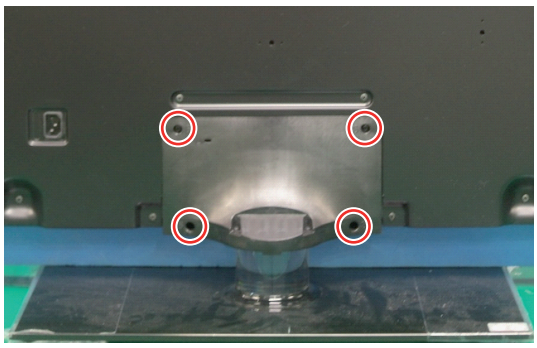

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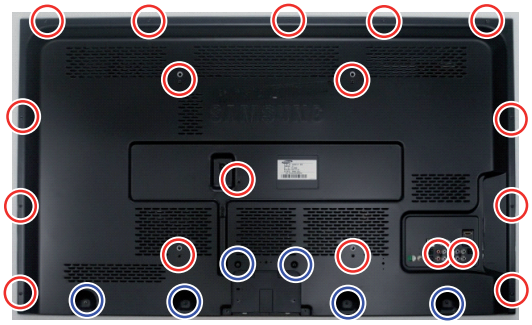
6001–002621 : M4 * L8

2. Remove the screws of rear-cover.

* Rear view of 51"



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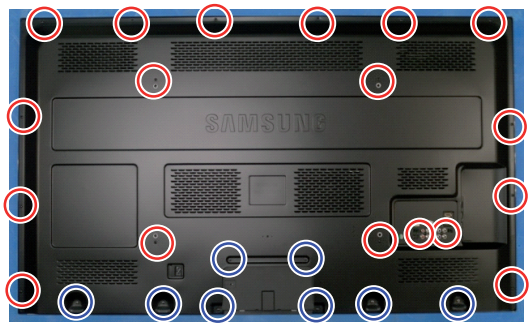
6003–001782 : M4 * L12

6003–000337 : M4 * L10

* Rear view of 59"



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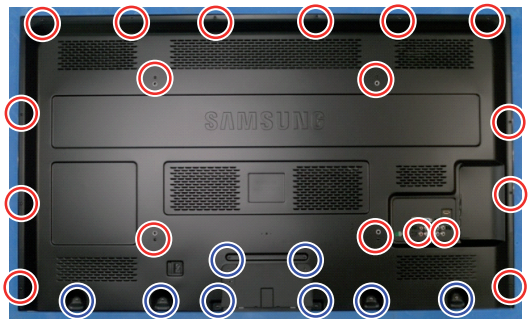
6003–001782 : M4 * L12

6003–000337 : M4 * L10

* Rear view of 64"



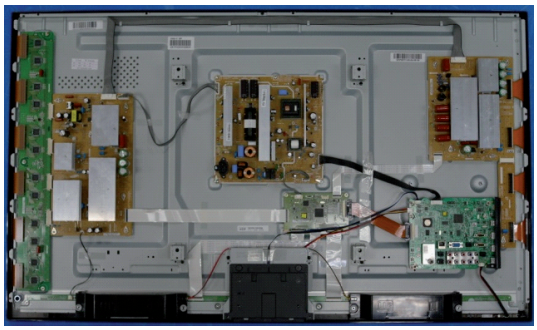
<64" PDP>

6003–001782 : M4 * L12

6003–000337 : M4 * L10

3. Lift up and remove the rear-cover.

* Rear view of 51"



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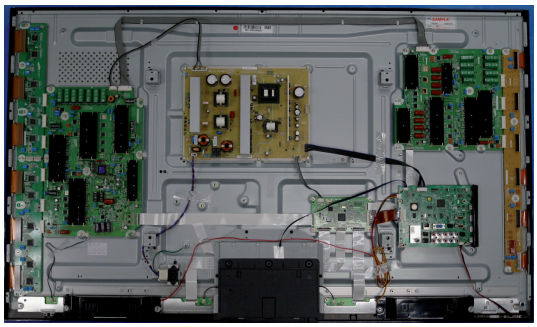
* Rear view of 59"



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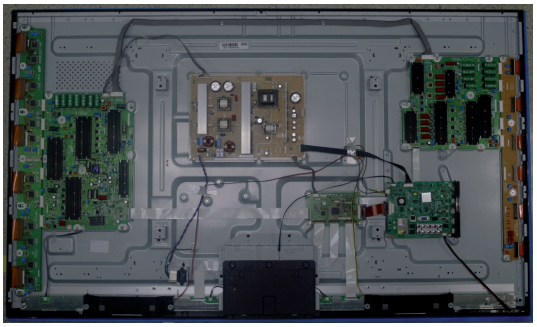
* Rear view of 64"



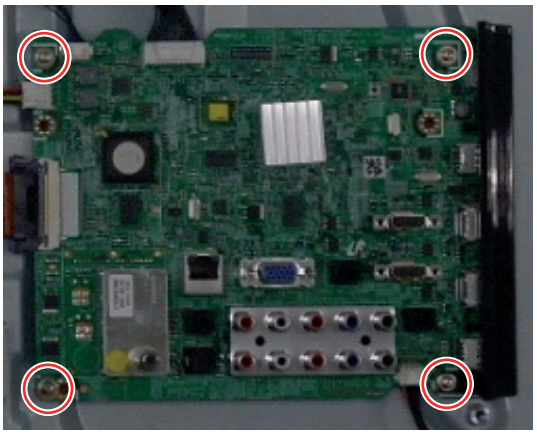
<64" PDP>

4. Remove the screws of main board.

CAUTION

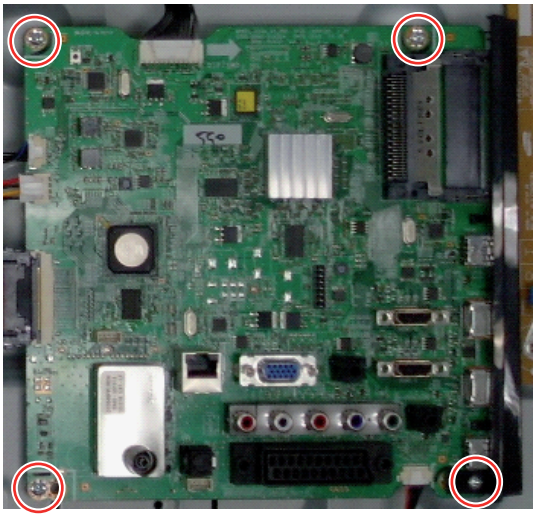
Disconnect all cables prior to removing the boards.

* F85A [EU / KOR], F84A [Latin America], F83A [Asia DTV & Ready]



6001–002606 : M3 * L10

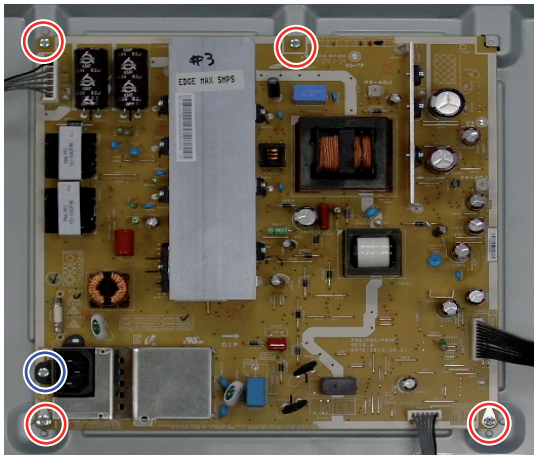
* F82A [EU]



6001–002606 : M3 * L10

5. Remove the screws of SMPS. Remove the SMPS.

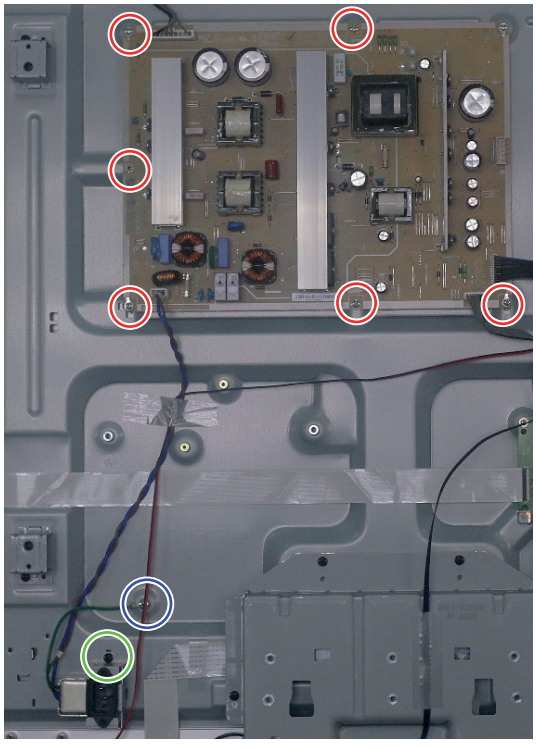
* 51" SMPS



6001–002606 : M3 * L10

6003–001439 : M4 * L8

* 59" & 64" SMPS

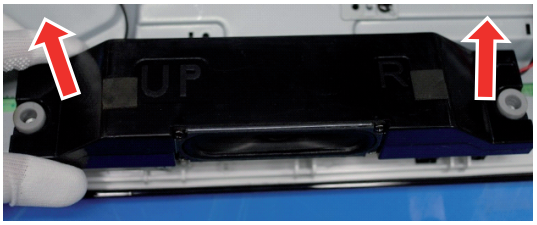


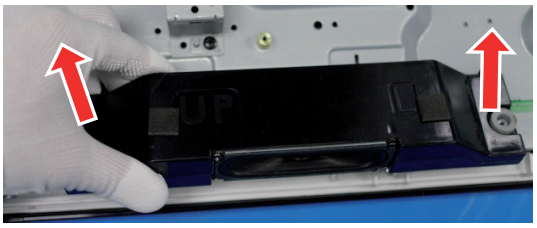
6001–002606 : M3 * L10

6003–001439 : M4 * L8

6003–000337 : M4 * L10

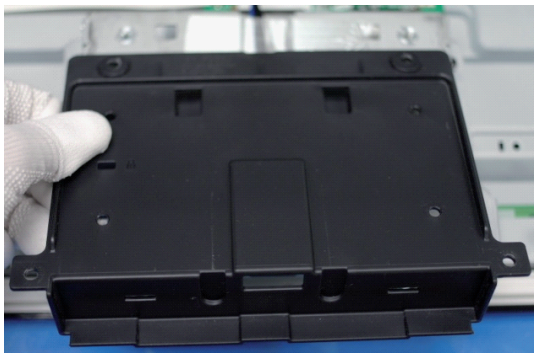
6. Remove the speakers. (R/L)





7. Remove the Cover Bottom.

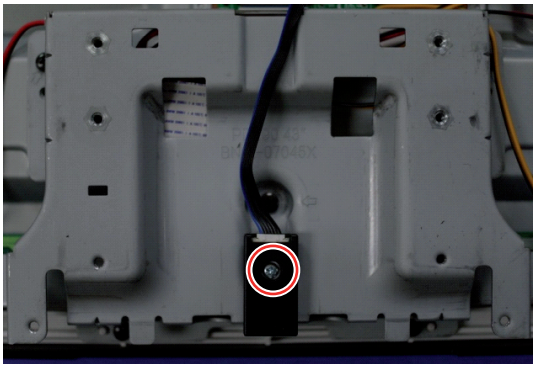
* 51"



* 59" & 64"

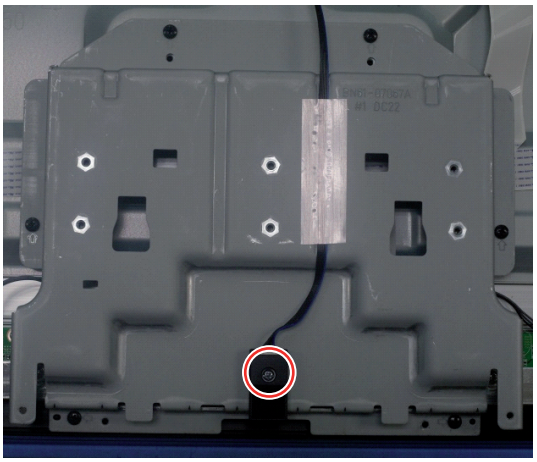
8. Remove the screw of Bluetooth Module.

* 51"



6001–002606 : M3 * L10

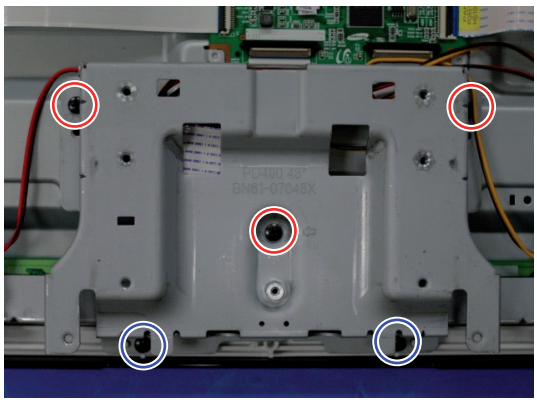
* 59" & 64"



6001–002606 : M3 * L10

9. Remove the screws of Bracket Stand Link. Lift up the Stand Bracket Stand Link.

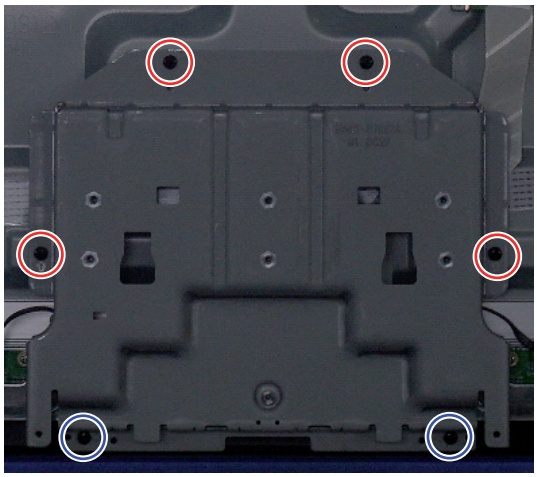
* 51"



6003–000337 : M4 * L10

6003–001782 : M4 * L12

* 59" & 64"

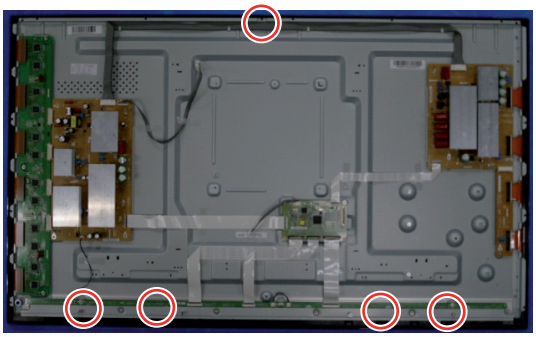


6003–000337 : M4 * L10

6003–001782 : M4 * L12

10. Remove the screws of the front-cover.

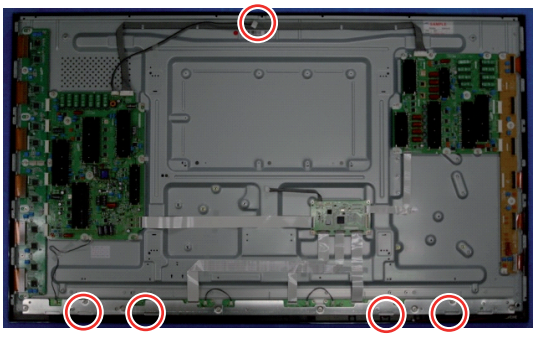
* Rear view of 51"



<51" PDP>

6003–001782 : M4 * L12

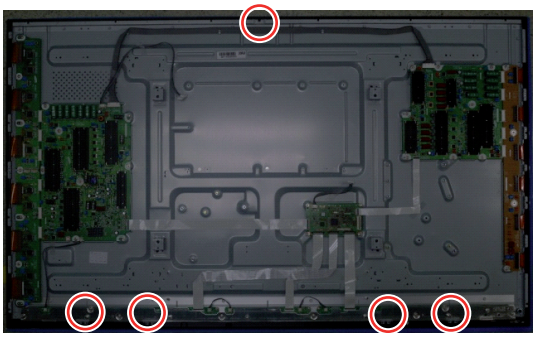
* Rear view of 59"



<59" PDP>

6003–001782 : M4 * L12

* Rear view of 64"

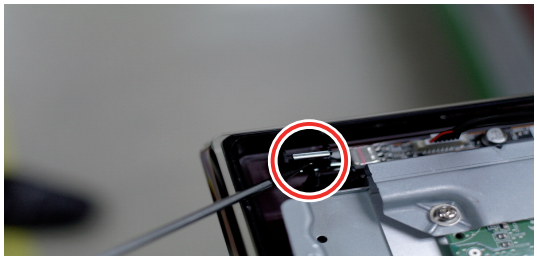


<64" PDP>

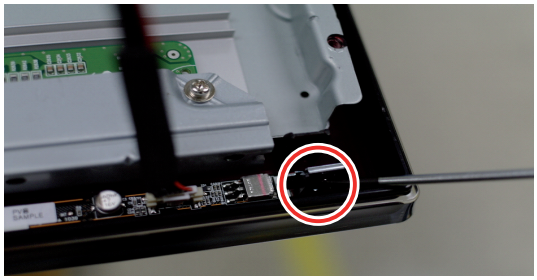
6003–001782 : M4 * L12

3.2. Method for Disassembly of Function Assy

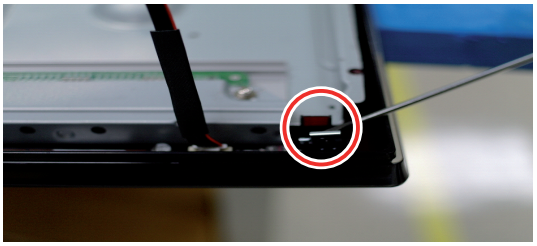
1. Put up the upper Locking, Use screwdriver.



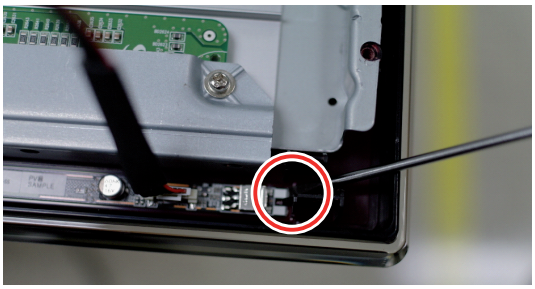
2. Put up the lower Locking, Use screwdriver.



3. Remove Locking.



4. Detach the Function PBA.



CAUTION

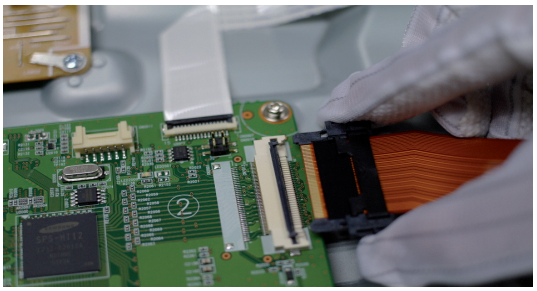
Disconnect all connectors prior to removing boards.

3.3. Method for Disassembly of LVDS

1. Put up the connector locking of logic board.

2. Push the LVDS housing locking.

3. Remove the LVDS.



4. Troubleshooting

4.1. Checkpoints by Error Mode

4.1.1. First Checklist for Troubleshooting

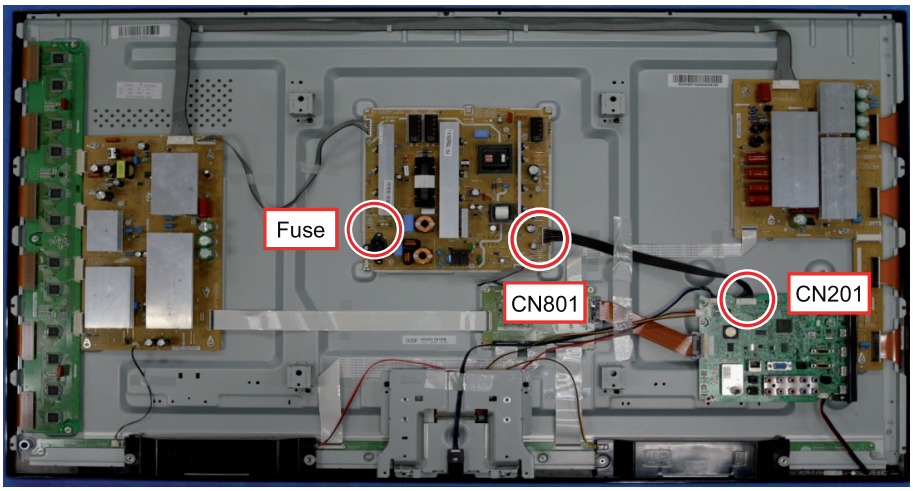
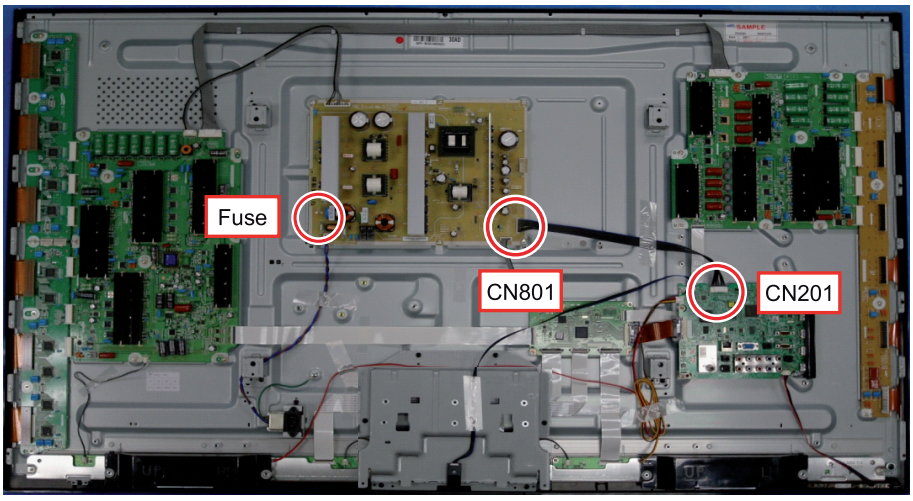
1) Check the various cable connections first.
   - Check to see if there is a burnt or damaged cable.
   - Check to see if there is a disconnected or loose cable connection.
   - Check to see if the cables are connected according to the connection diagram.
2) Check the power input to the Main Board.
3) How to distinguish if the problem is caused by Main board or Logic Board.
   - No Video : If the problem is No Video but Logic Board is on and Indication LED is blinking repeatedly and faster than normal booting, replace the T-Con board.
   - Distorted Picture : Check the inner patterns.

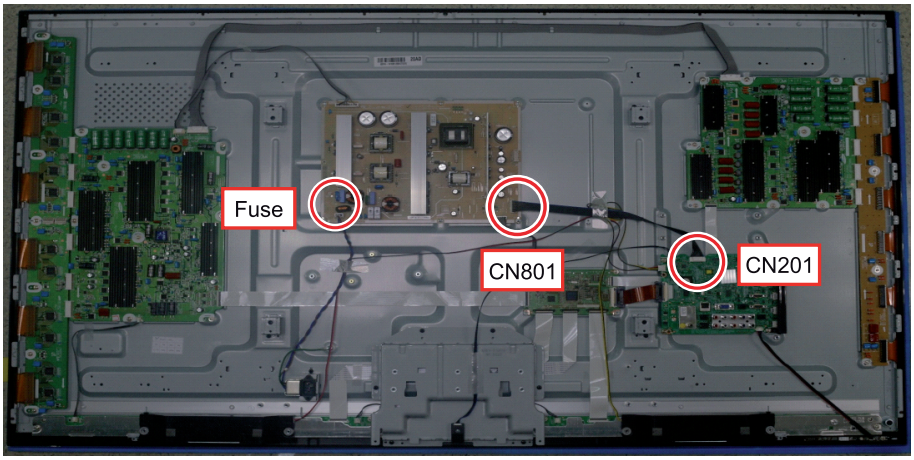
Inner pattern	Picture	Problem
OK	NG	Main board
NG	NG	Main or LVDS cable or Logic Board or Panel.

   - How to check inner pattern?
     a. Entering Factory mode.
     b. Move to SVC menu.
     c. Move to Test Pattern.
     d. Check inner patterns.

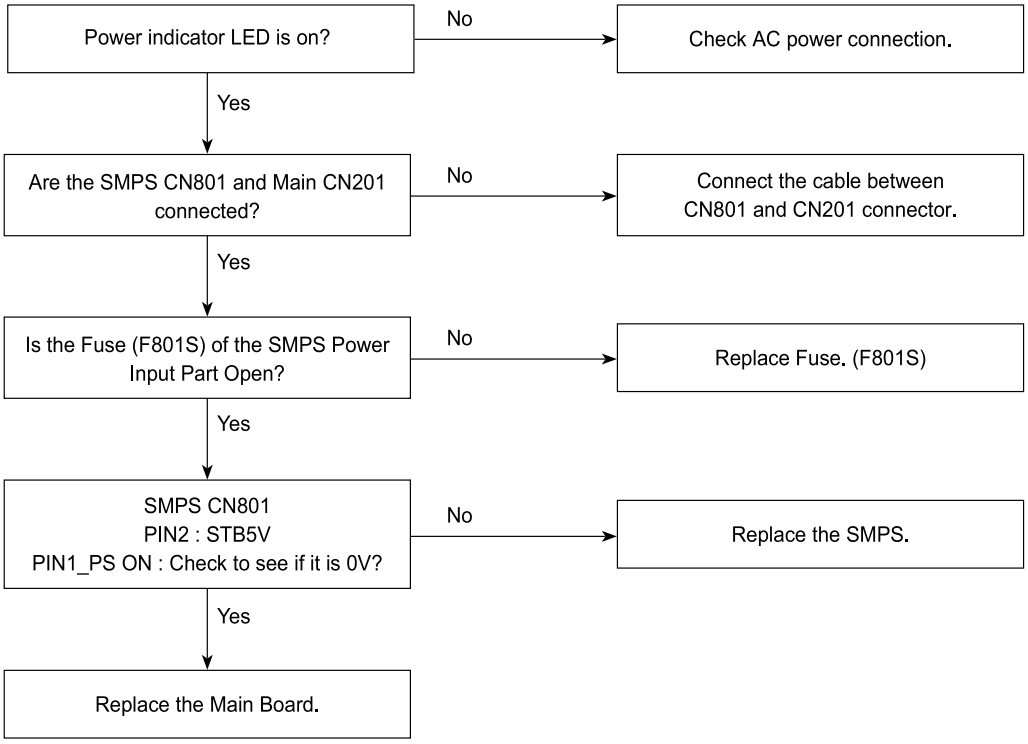
4.1.2. Checkpoints by Error Mode

■ No Power

Symptom	• The LEDs on the front panel do not work when connecting the power cord. • The SMPS relay does not work when connecting the power cord. • The unit appears to be dead.
Major Checklist	The SMPS relay or the LEDs on the front panel does not work when connecting the power cord if the cables are improperly connected or the Main Board or SMPS is not functioning. In this case, check the following: • Check the internal cable connection status inside the unit. • Check the fuses of each part. • Check the output voltages of the SMPS. • Replace the Main Board.
Diagnostics	 <51" PDP>  <59" PDP>



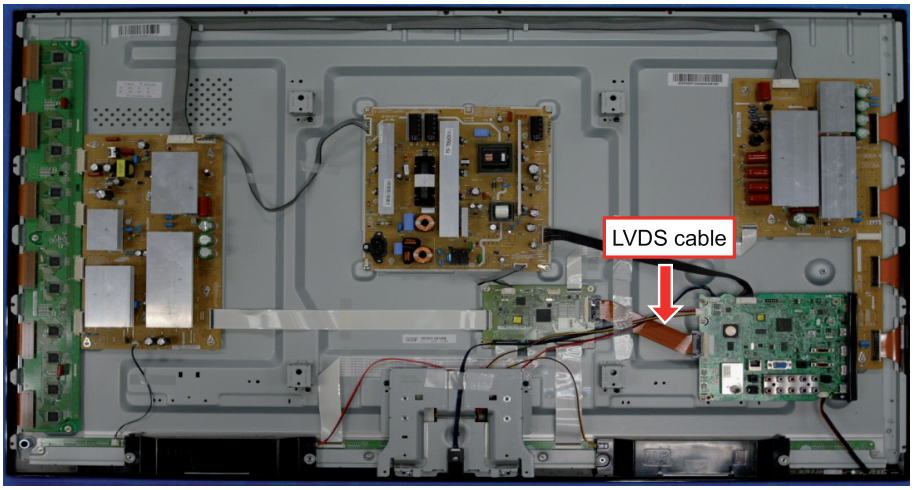
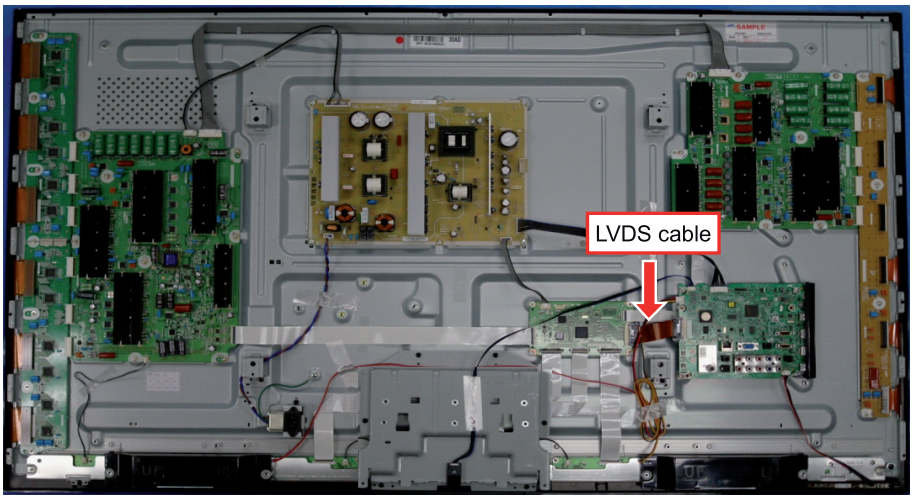
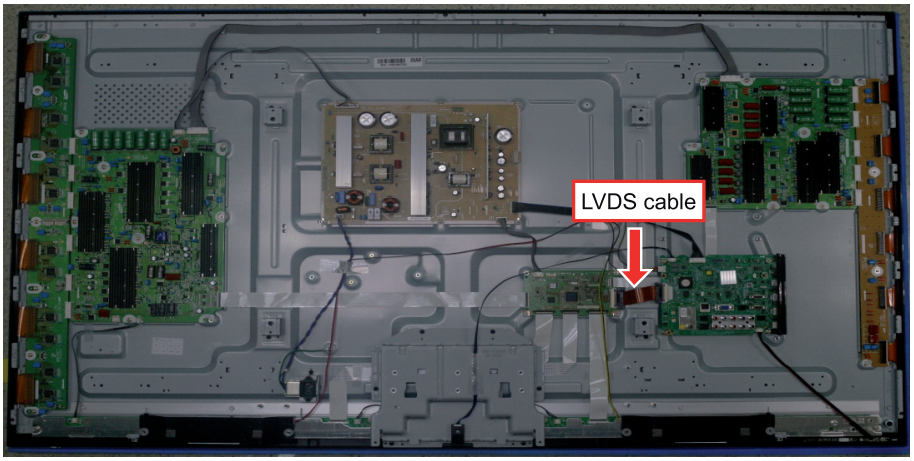
<64" PDP>

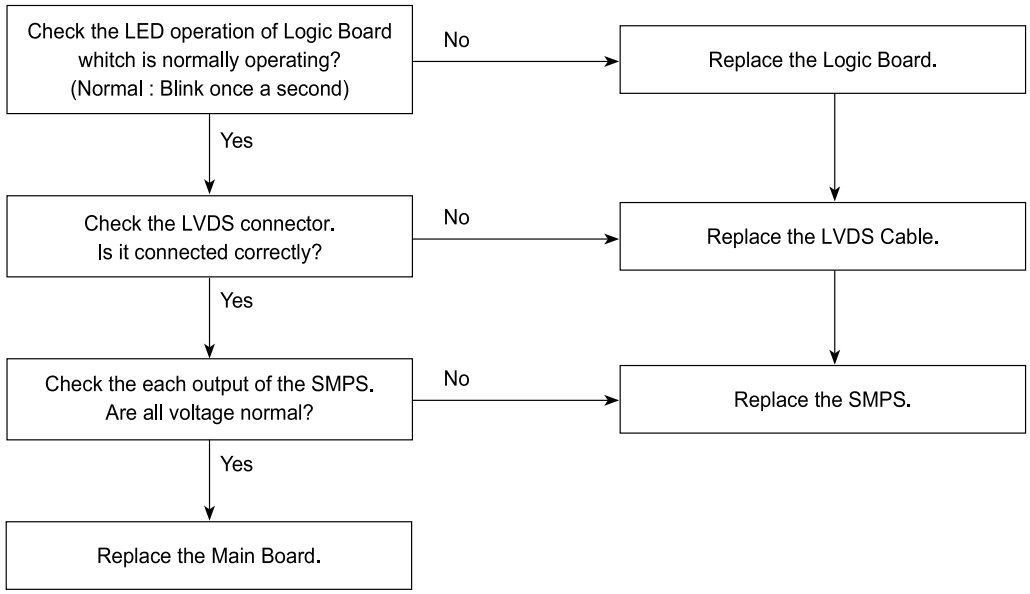


CAUTION

Make sure to disconnect the power before working on the SMPS board.

■ No Video

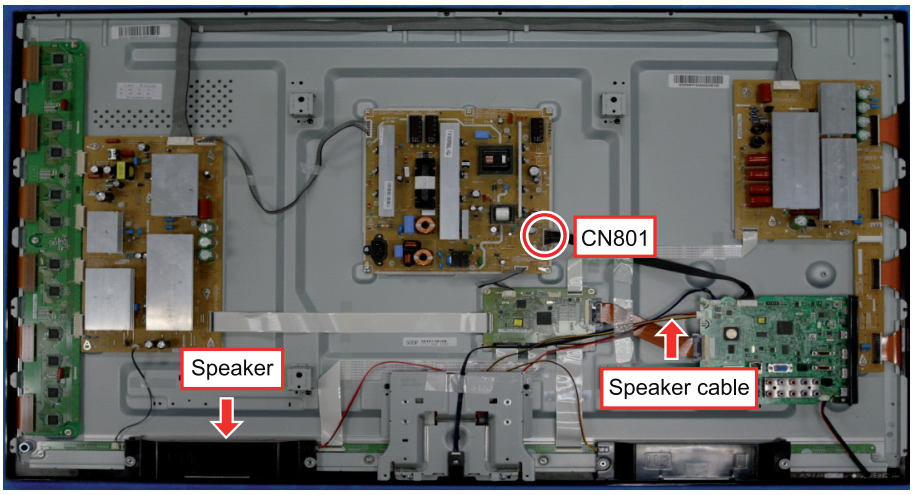
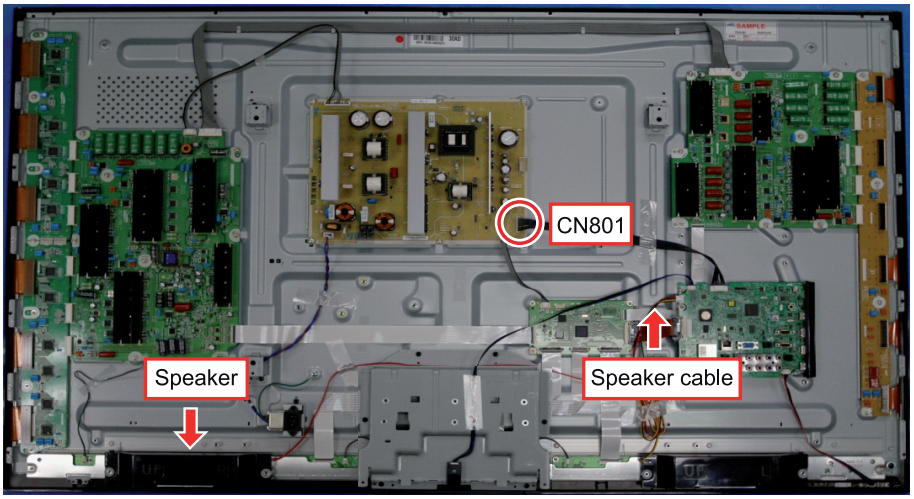
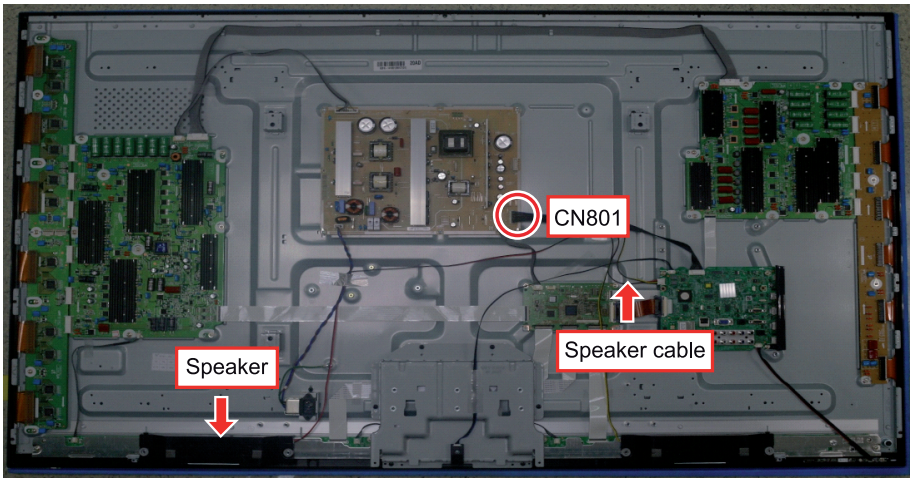
Symptom	• Audio is normal but no picture is displayed on the screen.
Major Checklist	• The output voltage of the Main SMPS. • This may happen when the LVDS cable connecting the Main Board and the Panel is disconnected.
Diagnostics	 <51" PDP>  <59" PDP>  <64" PDP>

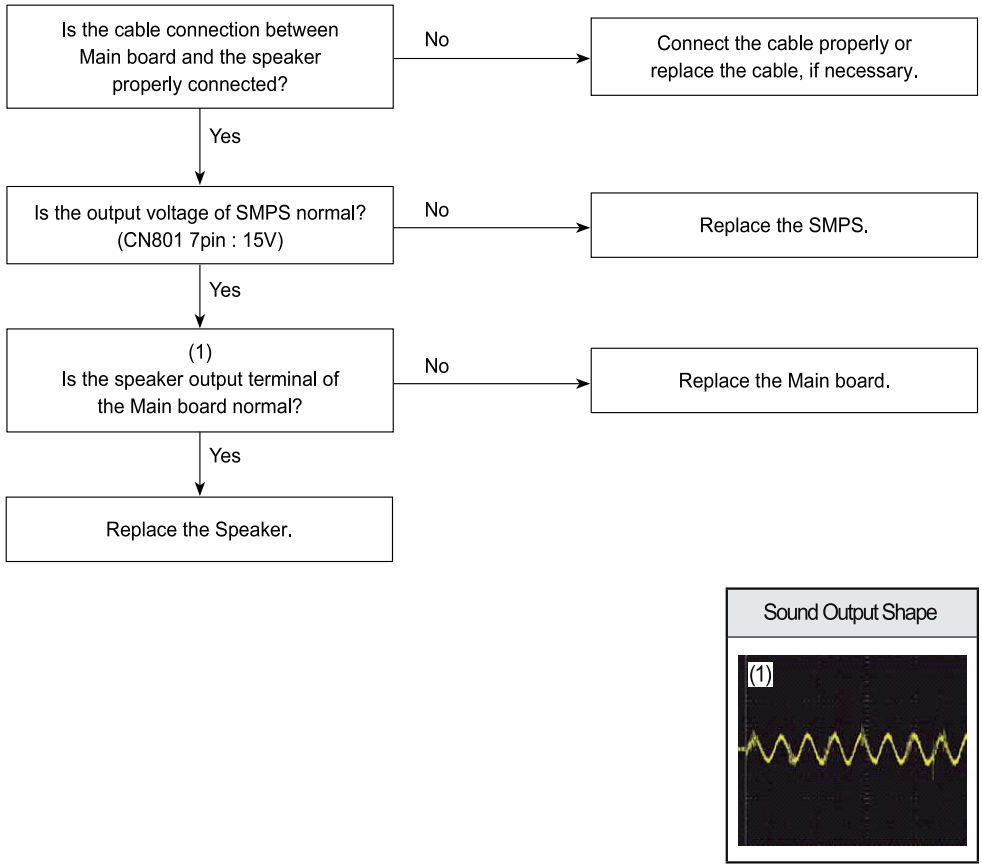


CAUTION

Make sure to disconnect the power before working on the SMPS board.

■ No Sound

Symptom	• Video is normal but there is no sound.
Major Checklist	• When the speaker connectors are disconnected or damaged. • When the sound processing part of the Main Board is not functioning. • Speaker defect. • SMPS not supplying voltage to the main board.
Diagnostics	 <51" PDP>  <59" PDP>  <64" PDP>



CAUTION

Make sure to disconnect the power before working on the IP board.

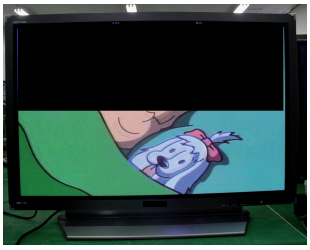
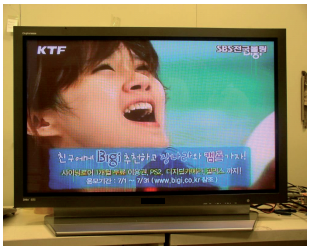
4.1.3. Faults and Corrective Actions

Symptom	Related Image	Causes and Countermeasures

A blank vertical cell (block) appears on the screen.		• Address buffer defect
		  • Replace the corresponding upper/lower buffers. (E, F or G)
		• COF defect (burnt)
		  • Replace the module.

A green screen appears when the TV is turned on.		• The Scale is not reseting. • Replace the Main board.

The OSD box appears but there is no text.		• Incorrect program version.
		  • Check the version of each program.
		  • Replace the Main board.

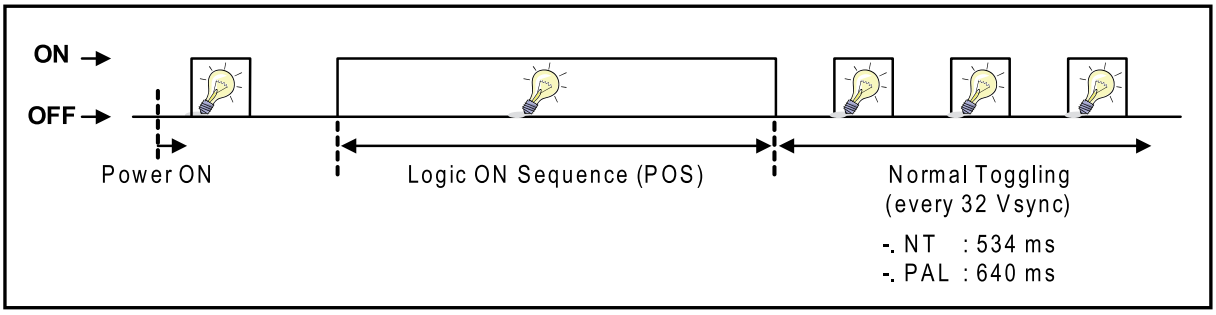
A blank upper (or lower) block appears on the screen.		• Upper/Lower Y Buffer defect • Replace the corresponding upper/ lower buffers.
Either the main or sub picture does not appear.		• Replace the Main board.
A vertical green line appears on the screen.		• The SMPS voltage is incorrect. • Adjust the SMPS voltage according to the voltage printed on the module label.

Symptom	Related Image	Causes and Countermeasures
Dim screen (blurred in red)		• X-Main board defect • Replace the X-Main board.
A blank screen appears.		• Replace the Y-Main board.

4.1.4. Operating Logic LED

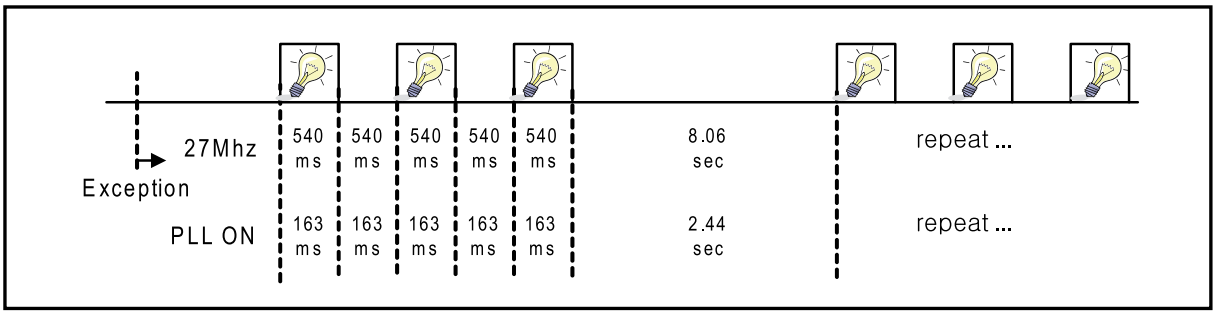
■ Normal

- LED ON/OFF for 0.5s



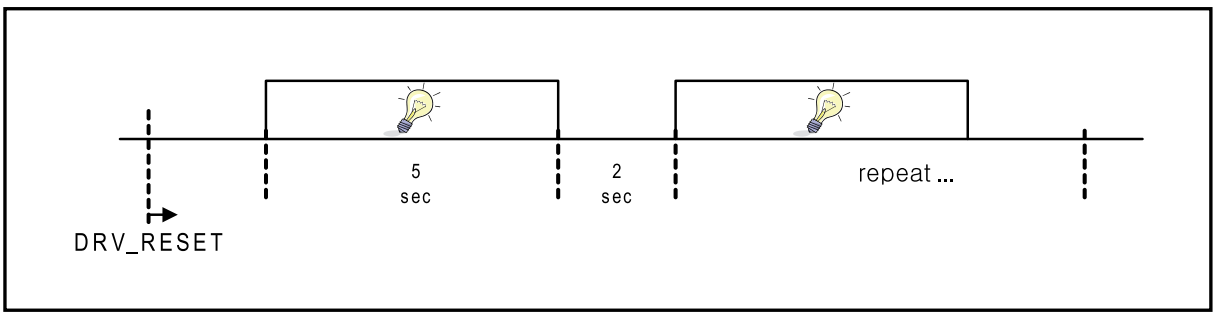
■ Abnormal

- LED ON/OFF three times for 8.1s



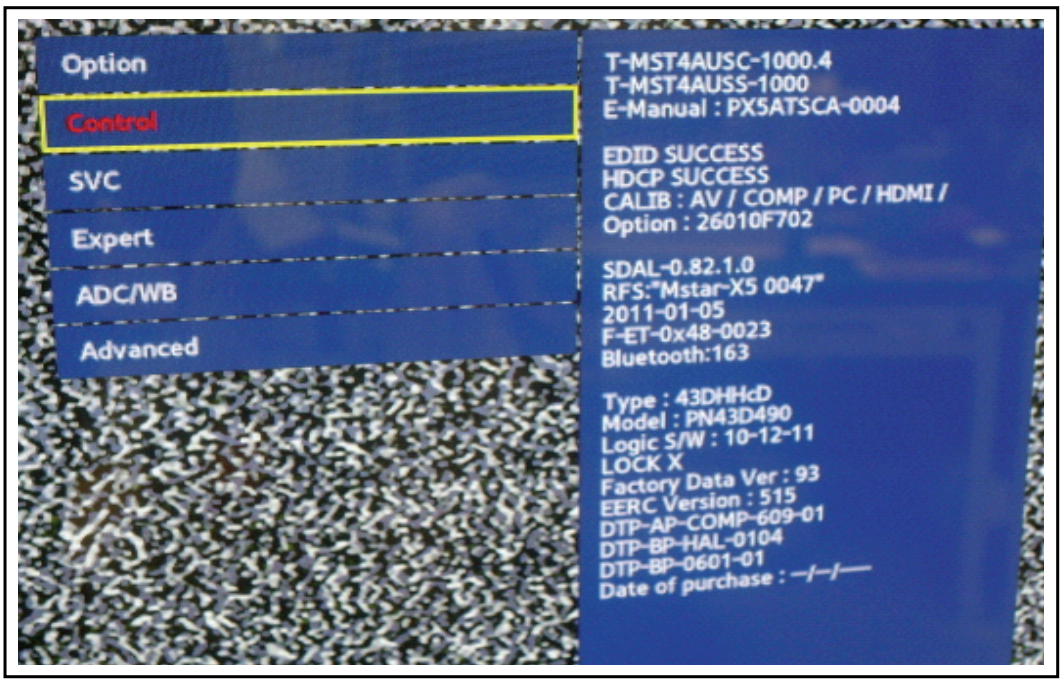
■ DRV_RESET

- LED ON for 5s and LED OFF for 2s

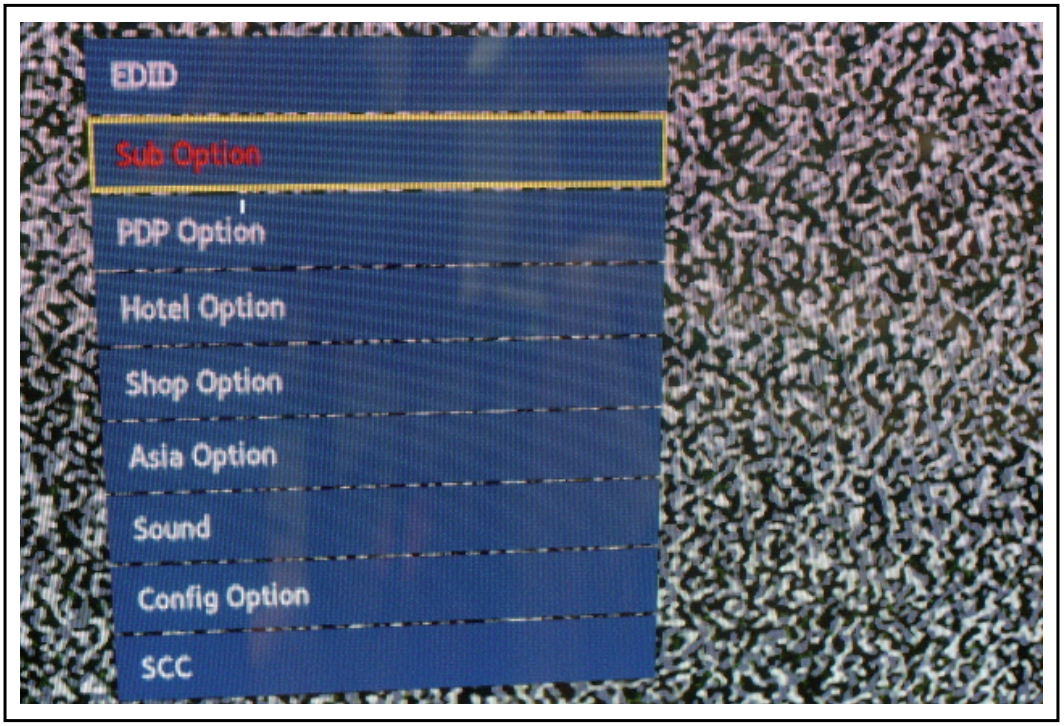


4.1.5. Adjust Function Key Sensitivity

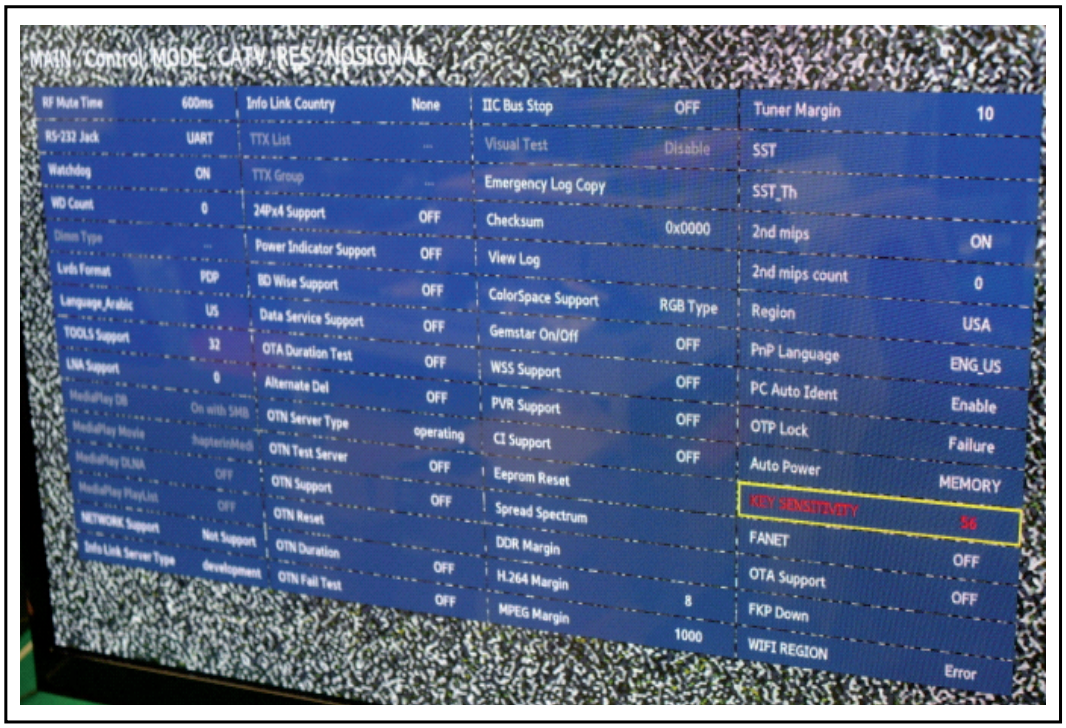
1) Select 'Factory'



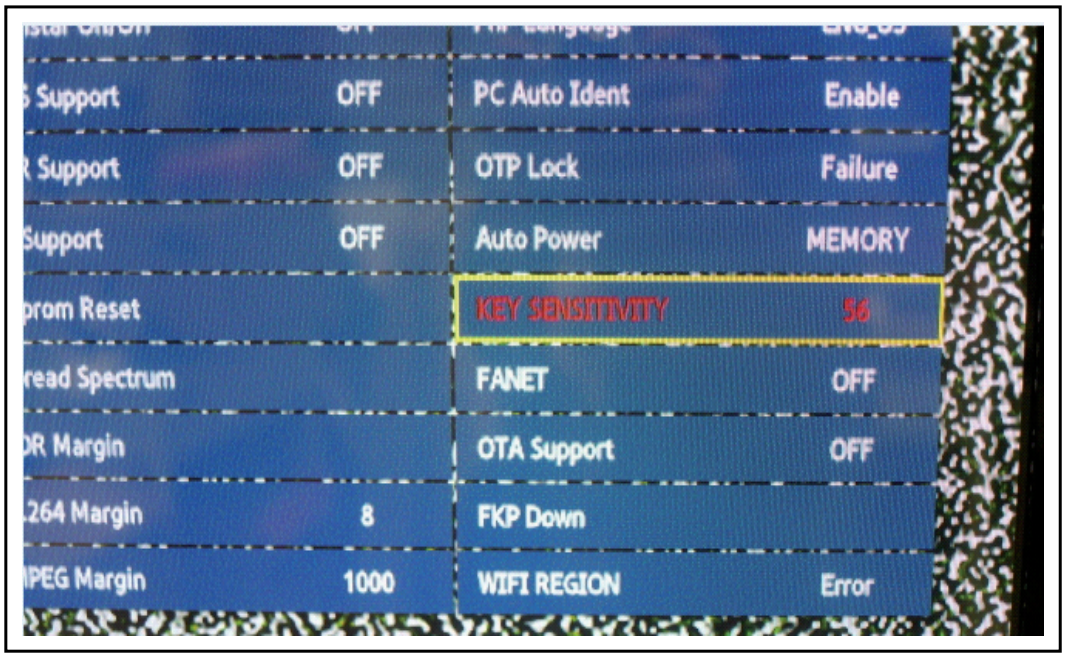
2) Select 'Control'



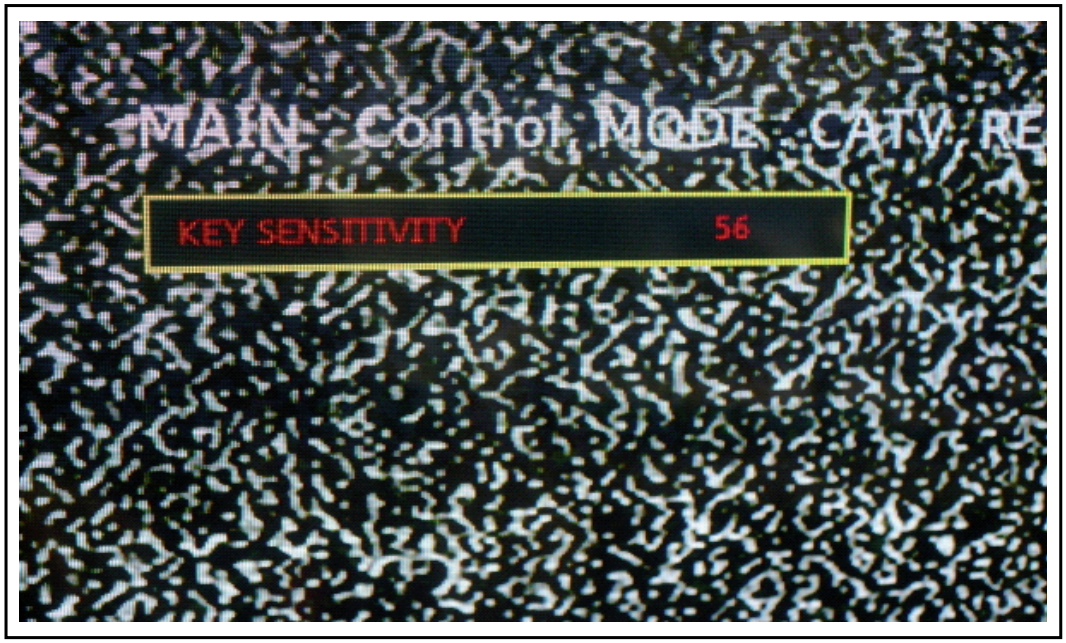
3) Select 'Sub Option'



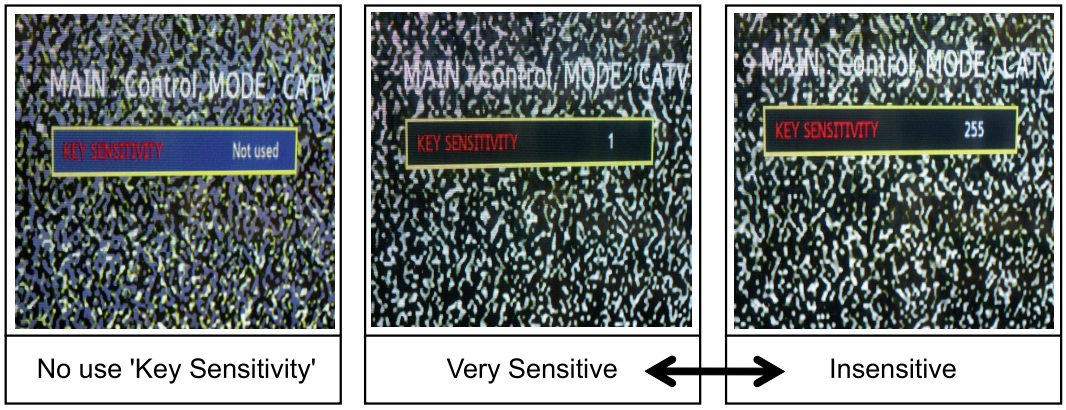
4) Select 'Key Sensitivity'



5) Default value (PD490=56, PD550=32)

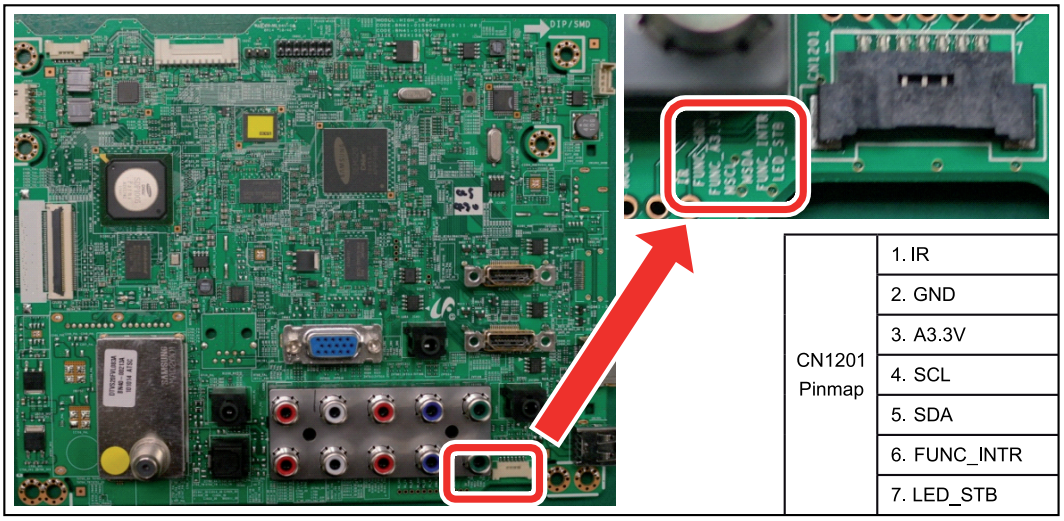


6) Adjust The Value of Key Sensitivity



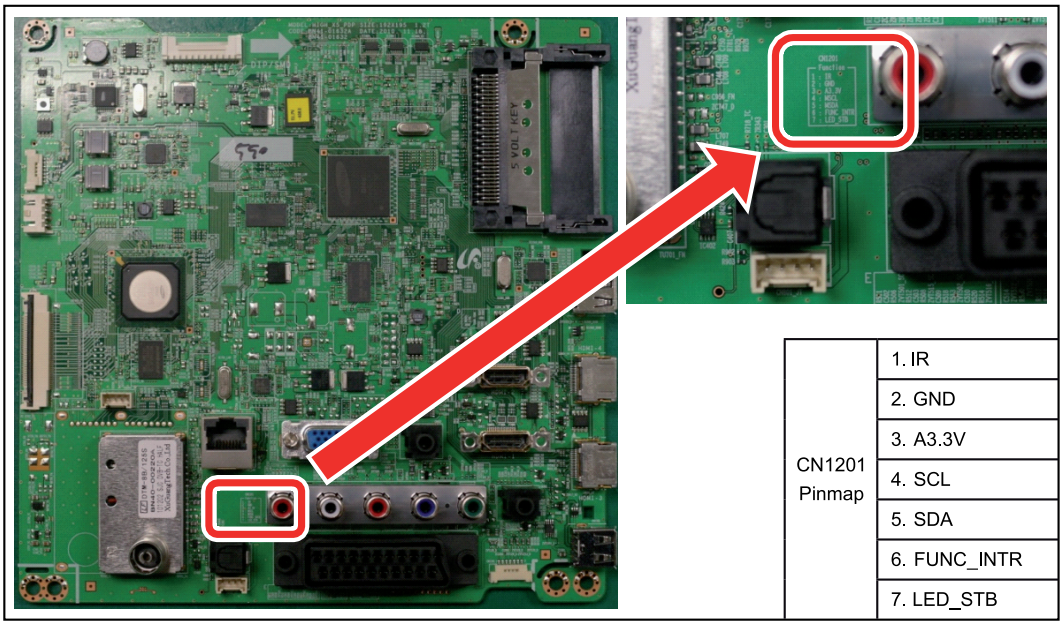
4.1.6. Function Assy Pin Map

■ US Main Board



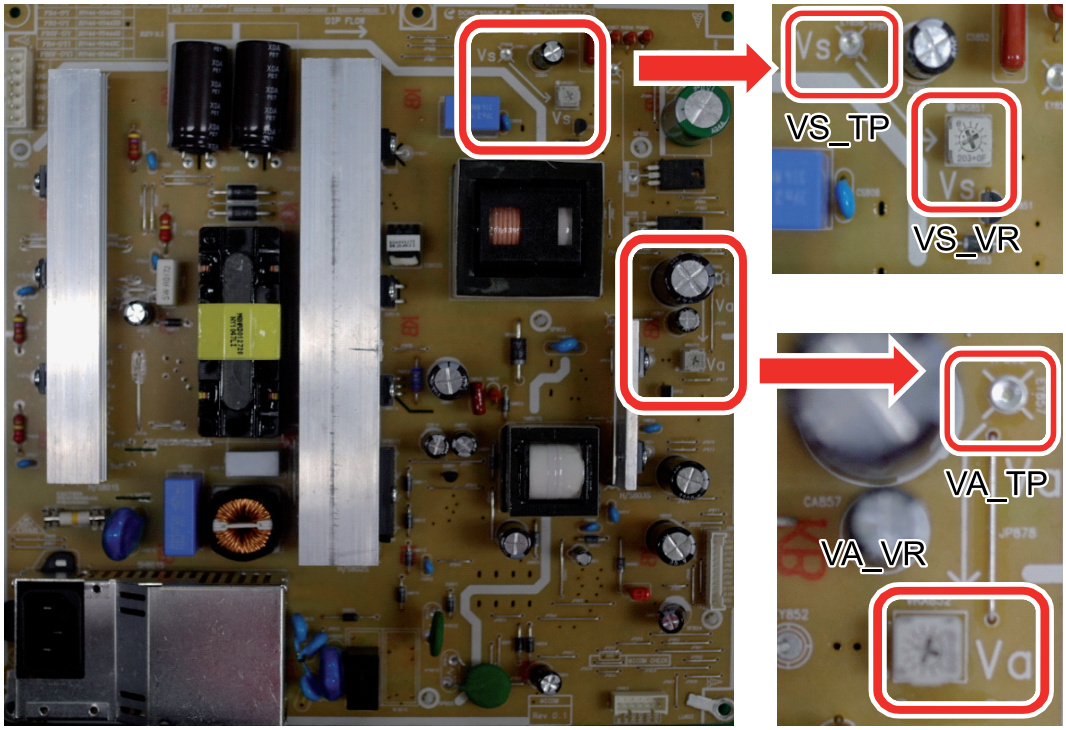
CN1201 Pinmap	1. IR
	2. GND
	3. A3.3V
	4. SCL
	5. SDA
	6. FUNC_INTR
	7. LED_STB

■ EU Main Board



CN1201 Pinmap	1. IR
	2. GND
	3. A3.3V
	4. SCL
	5. SDA
	6. FUNC_INTR
	7. LED_STB

4.1.7. Adjust SMPS Voltage when change SMPS



TIP

- T.P : Test Point
- V.R : Variable Resistor

4.2. Factory Mode Adjustments

4.2.1. Entering Factory Mode

To enter 'Service Mode' Press the remote-control keys in this sequence.

- If you do not have Factory remote-control.

W/W → Power OFF → MUTE → 1 → 8 → 2 → Power ON

EU → Power OFF → INFO → MENU → MUTE → Power ON

- If you have Factory remote-control.

INFO → Factory

- If you don't have Factory remote control, can't control some menu.

Option
Control
SVC
Expert
ADC / WB
Advanced
T-MST4xxxx-1000.4 T-MST4xxxx-1000 E-Manual: PX5xxxxx-0004 EDID SUCCESS HDCP SUCCESS CALIB : AV O COMP O PC O HMDI O Option :26020F702 SDAL-0.82.1.0 RFS : "Mstar-X5 0047" 2011-xx-xx F-ET-0x48-0023 Bluetooth:xxx Type : 51DFHHcD Model : Px51D550 Logic S/W:xx-xx-xx MAC SUCCESS LOCD X Factory Data Ver : 93 EERC Version : 515 DTP-AP-COMP-609-01 DTP-BP-HAL-0104 DTP-BP-0601-01 Date of purchase : mm/dd/yyyy

4.2.2. Factory Data

■ Option

Item	Data	Remark
Factory Reset	-	
Type	51DFHcD	
Local Set	xx	
Model	PD550	
Tuner	PD551	
Ch table	PD552	
Front Color	PD553	

■ Control

Menu	Item		Data	Remark
EDID	EDID ON/OFF		ON	
	EDID WRITE ALL		Success	
	EDID WRITE PC		Success	
	EDID WRITE HDMI		...	
	EDID WRITE HDMI1		Success	
	EDID WRITE HDMI2		Success	
	EDID WRITE HDMI3		Success	
	EDID WRITE HDMI4		Success	
	HDMI EDID Ver		HDMI 1.2	
	HDMI EDID Port		NONE	
	EDID WRITE DVI		...	
Sub Option	RF Mute Time		600ms	
	RS-232 Jack		Debug	
	Watchdog		OFF	
	WD COUNT		255	
	Dimm Type			
	LVDS FORMAT		PDP	
	Language_Arabic		xx	
	TOOLS Support		32	
	LNA Support		0	
	MediaPlay	DB	On with 5MB	
		MOVIE	chapterinmed	
		DLNA	ON	
		Play List	OFF	

Menu	Item		Data	Remark
	NETWORK Support		Ext-Wifi	
	Info Link Server Type		development	
	Info Link Country		None	
	TTX List			
	TTX Group			
	24Px4 Support		OFF	
	Power Indicator Support		OFF	
	BD Wise Support		OFF	
	Data Service Support		OFF	
	OTA Duration Test		OFF	
	Alternate Del		OFF	
	OTN Server Type		operating	
	OTN Test Server		OFF	
	OTN Support		ON	
	OTN Reset			
	OTN Duration		OFF	
	OTN Fail Test		OFF	
	IIC BUS STOP		OFF	
	Visual Test		Disable	
	Emergency Log Copy			
	Checksum		0x0000	
	View Log	Select Log Type	IR KEY	
		Log View		
		Delete Log		
	ColorSpace Support		RGB Type	
	Gemstar On/Off		OFF	
	WSS Support		OFF	
	PVR Support		OFF	
	CI Support		OFF	
	Eepron Reset			
	Spread Spectrum	LVDS Spread	ON	
		Period	40K	
		Amplitude	1.5	
		DDR Spread	1.0% Spread	
	DDR Margin	A CTRL_OFFSET_0_3	0x0	
		A CTRL_OFFSET_D	0x0	
		B CTRL_OFFSET_0_3	0x0	
		B CTRL_OFFSET_D	0x0	
	H.264 Margin		8	
	MPEG Margin		1000	

Menu	Item		Data	Remark
	Tuner Margin		10	
	SST	Y0 Ref	165	
		Y1 Ref	148	
		Y2 Ref	119	
		Y3 Ref	101	
		Y4 Ref	76	
		Y5 Ref	60	
		Y6 Ref	31	
		Y7 Ref	0	
		Cb0 Ref	128	
		Cb1 Ref	64	
		Cb2 Ref	148	
		Cb3 Ref	85	
		Cb4 Ref	171	
		Cb5 Ref	108	
		Cb6 Ref	194	
		Cb7 Ref	0	
		Cr0 Ref	128	
		Cr1 Ref	137	
		Cr2 Ref	64	
		Cr3 Ref	74	
		Cr4 Ref	181	
		Cr5 Ref	192	
		Cr6 Ref	118	
		Cr7 Ref	0	
	SST_TH	Y0 TH	20	
		Y1 TH	20	
		Y2 TH	20	
		Y3 TH	20	
		Y4 TH	20	
		Y5 TH	20	
		Y6 TH	20	
		Y7 TH	20	
		Cb0 TH	20	
		Cb1 TH	20	
		Cb2 TH	20	
		Cb3 TH	20	
		Cb4 TH	20	
		Cb5 TH	20	
		Cb6 TH	20	

Menu	Item		Data	Remark
		Cb7 TH	20	
		Cr0 TH	20	
		Cr1 TH	20	
		Cr2 TH	20	
		Cr3 TH	20	
		Cr4 TH	20	
		Cr5 TH	20	
		Cr6 TH	20	
		Cr7 TH	20	
	2nd mips		ON	
	2nd mips count		0	
	Region		xxx	
	PnP Language		xxx	
	PC Auto Ident		Enable	
	OTP Lock		...	
	Auto Power		MEMORY	
	KEY SENSITIVITY		56	1(Very Sensitive)~255(Insensitive)
	FANET		OFF	
	OTA Support		OFF	
	WIFI REGION		V	
	FKP Down			
PDP Option	LOGIC CONNECT		OFF	
	PIXEL SHIFT TEST		OFF	
	PANEL VERSION		DF	
	PANEL INCH		51FHD	
	PANEL TYPE		53	
	PANEL TEMPERATURE		40	
	LOGIC ID		A712	
	LOGIC SW VERSION		2010-11-20	
	LOGIC SW CHECKSUM		0xFC31	
	MRT		44	
	SAPC TIMER		ON	
	APC SPEED		SLOW	
	Real 100 Hz Support		OFF	
	XGA Resolution		OFF	
	PLG_SHOP		128	
Hotel Option	HOTEL MODE		ON	
	POWER ON CHANNEL EN		User Defined	
	POWER ON CHANNEL		3	

Menu	Item	Data	Remark
	CHANNEL TYPE	CATV	
	POWER ON VOLUME EN	User Defined	
	POWER ON VOLUME	10	
	MIN VOLUME	0	
	MAX VOLUME	100	
	PANEL BUTTON LOCK	Unlock	
	POWER ON SOURCE	TV	
	Picture Menu Lock	OFF	
	Music Mode AV	OFF	
	Music Mode PC	OFF	
	Music Mode Comp	OFF	
	Music Mode Backlight	OFF	
	Menu Display	ON	
	Power On Option	Last Option	
	Auto Source	OFF	
	Energy Saving	OFF	
	Clone TV to USB		
	Clone USB to TV		
	Setting Auto initialize	OFF	
	SIRCH Update Time	2:00 AM	
	MONITOR OUT CVBS	ON	
Shop Option	Shop Mode	OFF	
	Exhibition Mode	OFF	
Asia Option	TTX	OFF	
	China HD	OFF	
	NT Conversion	OFF	
	Sepco 120Hz	OFF	
	Unbalance	OFF	
	FMTransmitter Support	OFF	
	FMTransmitter Carrier	OFF	
	AF Level adjust	3	
	TX power Level	0	
	Mono Last Memory	OFF	
	H Shaking	OFF	
SOUND	High Devi	OFF	
	Carrier Mute	ON	
	Volume Curve	Type1	
	Speaker Delay Normal	50	
	Pilot Level High Thld	0x28h	
	Pilot Level Low Thld	0x10h	

Menu	Item	Data	Remark
	FM Prescale	0	
	AM Prescale	0	
	NICAM Prescale	0	
	Amp Volume	0xc7h	
	Amp Scale	0x82h	
	Woofer Type	1	
	Woofer Scale	0x7fh	
	Woofer Check Sum		
	Speaker EQ	ON	
	Amp Model	0	
	Speaker cut-off Freq	NTP7411	
	SPDIF PCM Gain	-9 dB	
	FM M Prescale	48	
	BTSC Mono Prescale	25	
	BTSC stereo Prescale	47	
	SAP Prescale	43	
	A2 Ident High Thld	31	
	A2 Ident Low Thld	2	
	Carrier2 Amp High Thld	4	
	Carrier2 Amp Low Thld	3	
	Carrier2 SNR High THR	16	
	Carrier2 SNR Low THR	80	
	Audio-IP Test	Ready	
	TruBass-Checksum	0x200190E2	
	PWM Mode	BD	
Config Option	Num of ATV	1	
	Num of DTV	1	
	Num of AV	1	
	Num of SVIDEO	0	
	Num of COMP	2	
	Num of HDMI	4	
	Num of PC	1	
	Num of SCART	0	
	Num of DVI	0	
	Num of OPTICAL Link	0	
	Num of MEDIA	1	
	Num of PANEL KEY	6	
	Num of USB Port	2	

Menu	Item	Data	Remark
	Num of HeadPhone	0	
	Num of RVU	0	
	MFT Offset	62.5	
	Select LCD/PDP	PDP	
	HDMI/DVI SEL	1	
	Indicator Led	OFF	
	Wall Mount	OFF	
	HV Flip	OFF	
	Num Of Display	2	
	DVI/HDMI SOUND	Auto	
	HDMI HOT PLUG	Disable	
	HOTPLUG SWITCHING	Boot	
	HOT PLUG DURATION	1200ms	
	CLK TERM DURATION	1200ms	
	HDMI FLT CNT SIG	100ms	
	HDMI FLT CNT LOS	100ms	
	UNSTABLE BAN CNT	3500ms	
	HDMI Err Cnt	1	
	HDMI ROBIN	ON	
	HDMI Callback	OFF	
	HDMI CTS Thld	8	
	HDMI CTS Cnt1	1	
	TMDS_EQ2_Boost	1	
	TMDS_EQ2_Gain	0	
	TMDS_PLL_Loop	3	
	TMDS_CPREG_BLEED	1	
	HDMI EQ	Auto	
	HDMI EDID wRITE Type	Separate	
	HDMI Switch	NONE	
	DVI SET TIME	300ms	
	Type Of PANEL KEY	PDPVertical	
	EcoSensor Support	ON	
	LEDMotionPlus Support	OFF	
	Natural Mode Support	OFF	

Menu	Item		Data	Remark
	All Share Support		ON	
	Relax Mode Support		OFF	
	DVI-I Support			
	Melfas Function Support			
	Light Level Support			
	H Write			
	HDMI Sync		DE	
	HeadPhone Port		A Out2	
SCC	SCC Mode		Dynamic	
	SCC ON/OFF		OFF	
	SCC Input Data	Hx	272	
		Hy	278	
		Lx	272	
		Ly	278	
	sSCC Const	sSCC Hx	550	
		sSCC Hy	566	
		sSCC Lx	598	
		sSCC Ly	550	
	pSCC Const	pSCC Hx	550	
		pSCC Hy	566	
		pSCC Lx	598	
		pSCC Ly	550	
	SCC Source Data		PBA	
	SWAP		PBA	

■ SVC

Menu	Item	Data	Remark
Test Pattern	Pattern Sel	...	
	LOGIC Pattern Sel	0	
	LOGIC Level Sel	255	
Panel Auto Setting		Failure	
PANEL DISPLAY TIME		2Hr	
LOGIC USB D/L		off	
Tuner Status			
T-CON USB Download		Failure	
MICOM UPGRADE		Off	
BT ADDRESS		e4e0c53197db	
BT UPGRADE			
SVC Reset			

■ Expert

Menu	Item	Data	Remark
N/D ADJ		OFF	
Source		...	

■ ADC/WB

Menu	Item	Data	Remark
ADC	AV Calibration		
	Comp Calibraion		
	PC Calibration		
	HDMI Calibration		
ADC Target	1st_AV_Low	64	
	1st_AV_High	880	
	1st_AV_Delta	2	
	1st_COMP_Y_Low	64	
	1st_COMP_Cb_Low	512	
	1st_COMP_Cr_Low	512	
	1st_COMP_Y_High	940	
	1st_COMP_Cb_High	512	
	1st_COMP_Cr_High	512	
	1st_COMP_Delta	2	
	1st_PC_Low	4	
	1st_PC_High	1004	

Menu	Item	Data	Remark
	1st_PC_Delta	2	
	2nd_ACH_Low	4	
	2nd_ACH_High	940	
	2nd_PC_Low	4	
	2nd_PC_High	940	
	2nd_Delta	2	
ADC Result	1st_Y_GH	258	
	1st_Y_GL	128	
	1st_Cb_BH		
	1st_Cb_BL		
	1st_Cr_RH		
	1st_Cr_RL		
	2nd_R_L	133	
	2nd_G_L	133	
	2nd_B_L	133	
	2nd_R_H	70	
	2nd_G_H	70	
	2nd_B_H	70	
White Balance	Sub Brightness	128	
	R-Offset	128	
	G-Offset	128	
	B-Offset	128	
	Sub Contrast	128	
	R-Gain	128	
	G-Gain	128	
	B-Gain	128	
	Movie R-Offset		
	Movie B-Offset		
	Movie R-Gain		
	Movie B-Gain		

■ Advanced

- Picture_2D

Menu	Item	Data	Remark
Sub Setting	Gamma	0.95	
	Natural Gamma	0	
	Pwm Max	100	
	PWM Min	0	
	Pwm Mid	0	
	Contrast Dimming	OFF	
	7.5 IRE NTSC	OFF	
	7.5 IRE Offset		
	Comp Phase	110	
	Led Peak OnOff	OFF	
	Dither Bypass	OFF	
	D Motion Light	On	
	Dynamic Contrast	On	
EPA Standard	Standard Contrast	100	
	Standard Brightness	45	
	Standard Sharpness	50	
	Standard Color	50	
	Standard Tint	0	
	Standard Backlight	10	
WB Movie	W/B Movie On/Off	OFF	
	Model	...	
	Color Tone	...	
	Msub Brightness	...	
	Msub Contrast	...	
	N_Rgain	...	
	N_Bgain	...	
	N_Roffset	...	
	N_boffset	...	
	W2_Rgain	...	
	W2_Bgain	...	
	W2_Roffset	...	
	W2_Boffset	...	
	Movie Contrast	...	
	Movie Bright	...	
	Movie Color	...	
	Movie Sharpness	...	
	Movie Tint	...	
	Movie Backlight	...	

Menu	Item	Data	Remark
	Movie Gamma	...	
	M_Sub_Gamma	...	
	HDMI Black Level	...	
WCE	WRHue	64	
	WRSat	16	
	WYHue	64	
	WYSat	16	
	WGHue	64	
	WGSat	16	
	WCHue	64	
	WCSat	16	
	WBHue	64	
	WBSat	16	
	WMHue	64	
	WMSat	16	
	ARHue	64	
	ARSat	16	
	AYHue	64	
	AYSat	16	
	AGHue	64	
	AGSat	16	
	ACHUE	64	
	ACSat	16	
	ABHue	64	
	ABSat	16	
	AMHue	64	
	AMSat	16	
VDEC	AGC mode	3	
	AGC manual gain	72	
	Ifcomptype	1	
	Ifcompsel	15	
	Saturain Cb/Cr	145	
	Secam Filter Sel	0	
	RGB Delay	150	
	Peaking Gain	0	
	Coring Gain	3	
	Chroma Peak	10	
	2D V Peaking	0	
	2D H Peaking	0	
	2D Peaking Gain	0	

Menu	Item	Data	Remark
Sharpness	Post_H1	20	
	Post_H2	26	
	Post_H3	20	
	Post_H4	15	
	Post_v1	20	
	Post_v2	18	
	Post_H2 Overshoot	128	
	Post_H2 Undershoot	128	
	Post_H3 Overshoot	128	
	Post_H3 undershoot	128	
	Core Gain1	2	
	CoreGain2	3	
	D_Tot_Gain	24	
	S_Tot_Gain	24	
ColorMapping	A_Red_R	60	
	A_Red_G	0	
	A_Red_B	0	
	A_Green_R	67	
	A_Green_G	100	
	A_Green_B	0	
	A_Blue_R	0	
	A_Blue_G	49	
	A_Blue_B	100	
	A_Yellow_R	100	
	A_Yellow_G	100	
	A_Yellow_B	0	
	A_Cyan_R	0	
	A_Cyan_G	46	
	A_Cyan_B	100	
	A_Magenta_R	27	
	A_Magenta_G	0	
	A_Magenta_B	67	
	N_Red_R	50	
	N_Red_G	0	
	N_Red_B	0	
	N_Green_R	0	
	N_Green_G	50	
	N_Green_B	0	
	N_Blue_R	0	
	N_Blue_G	0	

Menu	Item	Data	Remark
	N_Blue_B	50	
	N_Yellow_R	50	
	N_Yellow_G	50	
	N_Yellow_B	0	
	N_Cyan_R	0	
	N_Cyan_G	50	
	N_Cyan_B	50	
	N_Magenta_R	50	
	N_Magenta_G	0	
	N_Magenta_B	50	
Enhance	BLE_Gain	22	
	D Sub Color	80	
	D Skin Hue	84	
	D Skin Sat	18	
	S Sub Color	80	
	S Skin Hue	72	
	S Skin Sat	16	
	M Sub Color	55	
	M Skin Hue	64	
	M Skin Sat	16	
	Sub Tint	45	
	CE_Normal_Left_Gain	35	
	CE_Normal_Right_Gain	20	
	CE_Normal_Offset	-10	
	CE_Special_Left_Gain	15	
	CE_Special_Right_Gain	10	
	CE_Special_Offset	-50	
	CE_S_Left_gain	10	
	CE_S_Right_Gain	40	
	CE_S_Normal_Offset	-2	
LNA_Plus	Synctip_Noise	102	
	dB01_th	3	
	dB12_th	4	
	dB23_th	6	
	dB34_th	8	
	dB45_th	10	
	dB56_th	12	
	dB67_th	15	
	dB78_th	28	
	LNA_Plus_Yfiller	3	

Menu	Item	Data	Remark
YC_Delay	RF PAL BG	10	
	RF PAL DK	11	
	RF PAL I	13	
	RF PAL M	6	
	RF PAL n	11	
	RF SECAM BG	5	
	RF SECAM DK	8	
	RF SECAM L	8	
	RF NT 358	14	
	RF NT 443	8	
	AV PAL	9	
	AV PAL M	7	
	AV PAL N	9	
	AV SECAM	9	
	AV NT 358	10	
	AV NT 443	4	
	AV Pal 60	6	
	SCART PAL	9	
	SCART PAL M	9	
	SCART PAL N	9	
	SCART SECAM	4	
	SCART NT 358	10	
	SCART NT 443	4	
	SCART PAL 60	6	
	SCART RGB PAL	8	
	SCART RGB PAL M	8	
	SCART RGB PAL N	8	
	SCART RGB SECAM	8	
	SCARTRGB NT 358	8	
	SCARTRGB NT 443	8	
	SCARTRGB PAL 60	8	
Picture Update			

- Picture_3D

Menu	Item	Data	Remark
Sub Setting_3D	3D_Gamma	0.95	
	3D_Natural Gamma	0	
	3D_Pwm Max	100	
	3D_PWM Min	0	
	3D_Pwm Mid	0	
	3D_Contrast Dimming	OFF	
	3D_Led Peak OnOff	OFF	
	3D_Dither Bypass	OFF	
	3D_D Motion Light	OFF	
	3D_Dynamic Contrast	OFF	
EPA_3D	3D Contrast	100	
	3D Brightness	45	
	3D Standard Sharpness	50	
	3D Standard Color	50	
	3D Standard Tint	0	
	3D Standard Backlight	7	
WB Movie_3D	3D_W/B Movie On/Off	OFF	
	3D_Model	...	
	3D_Color Tone	...	
	3D_Msub Brightness	...	
	3D_Msub Contrast	...	
	3D_C_Rgain	...	
	3D_C_Bgain	...	
	3D_C_Roffset	...	
	3D_C_boffset	...	
	3D_N_Rgain	...	
	3D_N_Bgain	...	
	3D_N_Roffset	...	
	3D_n_Boffset	...	
	3D_W2_Rgain		
	3D_W2_Bgain		
	3D_W2_Roffset		
	3D_W2_Boffset		
	3D_Movie Contrast	...	

Menu	Item	Data	Remark
	3D_Movie Bright	...	
	3D_Movie Color	...	
	3D_Movie Sharpness	...	
	3D_Movie Tint	...	
	3D_Movie Backlight	...	
	3D_Movie Gamma	...	
	3D_M_Sub_Gamma	...	
	3D_HDMI Black Level	...	
	3D_Sub Contrast	128	
	3D_Sub_Brightness	128	
WCE_3D	3D_WRHue	64	
	3D_WRSat	17	
	3D_WYHue	72	
	3D_WYSat	17	
	3D_WGHue	47	
	3D_WGSat	17	
	3D_WCHue	58	
	3D_WCSat	17	
	3D_WBHue	54	
	3D_WBSat	18	
	3D_WMHue	64	
	3D_WMSat	17	
	3D_ARHue	64	
	3D_ARSat	16	
	3D_AYHue	64	
	3D_AYSat	16	
	3D_AGHue	64	
	3D_AGSat	16	
	3D_ACHUE	64	
	3D_ACSat	16	
	3D_ABHue	64	
	3D_ABSat	16	
	3D_AMHue	64	
	3D_AMSat	16	
ColorMapping_3D	3D_A_Red_R	50	
	3D_A_Red_G	0	
	3D_A_Red_B	0	
	3D_A_Green_R	0	

Menu	Item	Data	Remark
	3D_A_Green_G	50	
	3D_A_Green_B	0	
	3D_A_Blue_R	0	
	3D_A_Blue_G	0	
	3D_A_Blue_B	50	
	3D_A_Yellow_R	50	
	3D_A_Yellow_G	50	
	3D_A_Yellow_B	0	
	3D_A_Cyan_R	0	
	3D_A_Cyan_G	50	
	3D_A_Cyan_B	50	
	3D_A_Magenta_R	50	
	3D_A_Magenta_G	0	
	3D_A_Magenta_B	50	
	3D_N_Red_R	50	
	3D_N_Red_G	0	
	3D_N_Red_B	0	
	3D_N_Green_R	0	
	3D_N_Green_G	50	
	3D_N_Green_B	0	
	3D_N_Blue_R	0	
	3D_N_Blue_G	0	
	3D_N_Blue_B	50	
	3D_N_Yellow_R	50	
	3D_N_Yellow_G	50	
	3D_N_Yellow_B	0	
	3D_N_Cyan_R	0	
	3D_N_Cyan_G	50	
	3D_N_Cyan_B	50	
	3D_N_Magenta_R	50	
	3D_N_Magenta_G	0	
	3D_N_Magenta_B	50	
Sharpness_3D	3D_Post_H1	16	
	3D_Post_H2	10	
	3D_Post_H3	10	
	3D_Post_H4	10	
	3D_Post_v1	20	
	3D_Post_v2	14	
	3D_Post_H2 Overshoot	32	

Menu	Item		Data	Remark
	3D_Post_H2 Undershoot		32	
	3D_Post_H3 Overshoot		16	
	3D_Post_H3 undershoot		16	
	3D_Core Gain1		1	
	3D_CoreGain2		2	
	3D_D_Tot_Gain		28	
	3D_S_Tot_Gain		28	
Enhance_3D	3D_BLE_Gain		22	
	3D_D Sub Color		65	
	3D_D Skin Hue		100	
	3D_D Skin Sat		18	
	3D_S Sub Color		65	
	3D_S Skin Hue		72	
	3D_S Skin Sat		16	
	3D_M Sub Color		55	
	3D_M Skin Hue		64	
	3D_M Skin Sat		16	
	3D_Sub Tint		50	
	3D_CE_Normal_Left_Gain		20	
	3D_CE_Normal_Right_Gain		30	
	3D_CE_Normal_Offset		-10	
	3D_CE_Special_Left_Gain		15	
	3D_CE_Special_Right_Gain		10	
	3D_CE_Special_Offset		-50	
	3D_CE_S_Left_gain		10	
	3D_CE_S_Right_Gain		40	
	3D_CE_S_Normal_Offset		-2	
3D Setting	LED_BT_IR	BTPairDis_Ho	2	
		BTPairDis_sh	25	
		BTTransDis	10	
		BTSlaveDelay48	0	
		BTSlaveDelay50	0	
		BTSlaveDelay60	0	
		BTEmiDel_48	0	
		BTEmiDel_50	0	
		BTEmiDel_60	0	
		BTGlsDUTY	100	
		IREmiDel_48	0	

Menu	Item		Data	Remark
		IREmiDel_50	0	
		IREmiDel_60	0	
		IREmiMask	1	
		IRMASKPRD	1	
		IREmiNum	1	
		SlavDelay48	0	
		SlavDelay50	0	
		SlavDelay60	0	
	PDP_BT_IR	BTPairDis_Ho_PDP	2	
		BTPairDis_sh_PDP	25	
		BTTransDis_PDP	10	
		BTSlaveDelay48_D	0	
		BTSlaveDelay50_D	0	
		BTSlaveDelay60_D	0	
		BTGlsDUTY_D	100	
		BTEmiDel_48_S	0	
		BTEmiDel_50_S	0	
		BTEmiDel_60_S	0	
		BTGlsDUTY_S	100	
		IREmiDel_48_R	0	
		IREmiDel_50_R	0	
		IREmiDel_60_R	0	
		BTGlsDUTY_R	100	
		BTEmiDel_48_M	0	
		BTEmiDel_50_M	0	
		BTEmiDel_60_M	0	
		BTGlsDUTY_M	100	
		IREmiMask_PDP	1	
		IRMASKPRD_PDP	1	
		IREmiNum_PDP	1	
		SlavDelay48_PDP	0	
		SlavDelay50_PDP	0	
		SlavDelay60_PDP	0	
	Duty	PDuty192	25	
		PDuty200	25	
		PDuty240_Dyn	25	
		PDuty210_Mov	25	

Menu	Item		Data	Remark
	Dcc	Glmit_LBT0	88	
		Glmit_LBT1	89	
		Glmit_LBT2	90	
		Glmit_LBT3	91	
		Glmit_LLT0	95	
		Glmit_LLT1	96	
		Glmit_LLT2	97	
		Glmit_LLT3	98	
		DCCX1	0	
		DCCX2	0	
		DCCX3	0	
		DCCY1	0	
		DCCY2	0	
		DCCH1	0	
		DCCH2	0	
		DCCH3	0	
		DCCV1	0	
		DCCV2	0	
		Temp Read	0	
		Time_HOT	120	
		Time_Cold	120	
		Temp_ST	16	
		Temp_TH	40	
		delta	5	
	Effect	Depth_Min	10	
		Depth_Max	100	
		Viewp_Min_2D3D	64	
		Viewp_Max_2D3D	192	
		Viewpoint_Min	64	
		viewpoint_Max	192	
	Debug	Debug	OFF	
		DccMode	0	
		DccSele0_0	0	
		DccSele0_1	0	
		DccSele0_2	0	
		DccSele0_3	0	
		DccSele0_4	0	
		DccSele0_5	0	
		DccSele0_6	0	
		DccSele0_7	0	

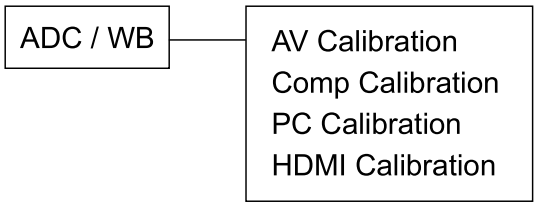
Menu	Item		Data	Remark
		PosiSel_0_0	0	
		PosiSel_0_1	0	
		PosiSel_0_2	0	
		PosiSel_0_3	0	
		PosiSel_0_4	0	
		PosiSel_0_5	0	
		PosiSel_0_6	0	
		PosiSel_0_7	0	
		PosiSel_0_8	0	
		PosiSel_0_9	0	
		PosiSel_0_10	0	
		PosiSel_0_11	0	
	Bypass		OFF	

4.3. Service Adjustment

- You must perform Calibration in the Lattice Pattern before adjusting the White Balance.

■ White Balance - Calibration

- Factory



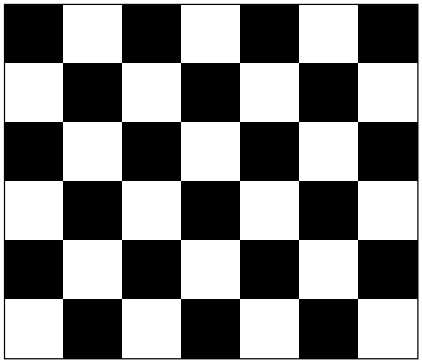
■ Color Calibration

- Adjust spec.

  1) Source : HDMI

  2) Setting Mode : 1280*720@60Hz

  3) Pattern : Pattern #24 (Chess Pattern)



  4) Use Equipment : CA210 & Master MSPG925 Generator

  Use other equipment only after comparing The result with that of The Master equipment.

Input mode	Calibration	Pattern
CVBS IN (Model_#1)	Perform in NTSC/PAL B&W Pattern #24	Lattice
Component IN (Model_#6)	Perform in 720p B&W Pattern #24	Lattice
PC Analog IN (Model_#21)	Perform in VESA XGA (1024x768) B&W Pattern #24	Lattice
HDMI IN	Perform in 720p B&W Pattern #24	Lattice

- Method of Color Calibration (AV)

  1) Apply the NTSC/PAL Lattice (N0. 3) pattern signal to the AV IN 1 port.
  2) Press the Source key to switch to “AV1” mode.
  3) Enter Service mode.
  4) Select the “ADC” menu.
  5) Select the “AV Calibration” menu.
  6) In “AV Calibration Off” status, press the “ ▶” key to perform Calibration.
  7) When Calibration is complete, it returns to the high-level menu.
  8) You can see the change of the “AV Calibration” status from Failure to Success.

- Method of Color Calibration (Component)

  1) Apply the 720p Lattice (N0. 6) pattern signal to the Component IN 1 port.
  2) Press the Source key to switch to “Component1” mode.
  3) Enter Service mode.
  4) Select the “ADC” menu.
  5) Select the “Comp Calibration” menu.
  6) In “Comp Calibration Off” status, press the “▶ ” key to perform Calibration.
  7) When Calibration is complete, it returns to the high-level menu.
  8) You can see the change of the “Comp Calibration” status from Failure to Success.

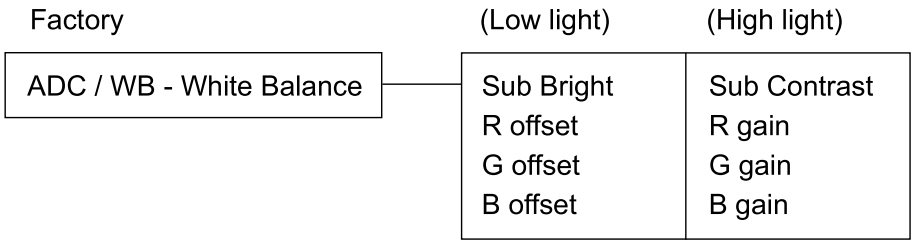
- Method of Color Calibration (PC)

  1) Apply the VESA XGA Lattice (N0. 21) pattern signal to the PC IN port.
  2) Press the Source key to switch to “PC” mode.
  3) Enter Service mode.
  4) Select the “ADC” menu.
  5) Select the “PC Calibration” menu.
  6) In “PC Calibration Off” status, press the “▶ ” key to perform Calibration.
  7) When Calibration is complete, it returns to the high-level menu.
  8) You can see the change of the “PC Calibration” status from Failure to Success.

- Method of Color Calibration (HDMI)

  1) Apply the 720p Lattice (N0. 6) pattern signal to the HDMI1/DVI IN port.
  2) Press the Source key to switch to “HDMI1” mode.
  3) Enter Service mode.
  4) Select the “ADC” menu.
  5) Select the “HDMI Calibration” menu.
  6) In “HDMI Calibration Off” status, press the “▶ ” key to perform Calibration.
  7) When Calibration is complete, it returns to the high-level menu.
  8) You can see the change of the “HDMI Calibration” status from Failure to Success.

■ White Balance - Adjustment



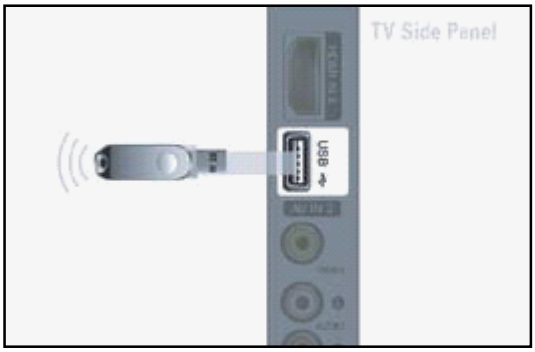
4.4. Software Upgrade

Samsung may offer upgrades for the TV's firmware in the future.

These upgrades can be performed via the TV when it is connected to the Internet, or by downloading the new firmware from samsung.com to a USB memory device.

- Alternative Software (Backup) shows The previous version that will be replaced.
- Software is represented as 'Year/Month/Day_Version'.
  The more recent the date, the newer the software version.
  Installing the latest version is recommended.

■ By USB

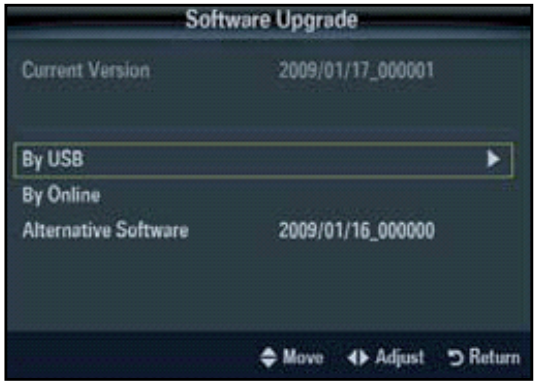


Insert a USB drive containing the firmware upgrade downloaded from samsung.com into the TV. Please be careful to not disconnect the power or remove the USB drive while upgrades are being applied.

The TV will turn off and turn on automatically after completing the firmware upgrade. Please check the firmware version after the upgrades are complete (the new version will have a higher number than the older version). have a higher number than the older version) made will return to their default (factory) settings.

We recommend you write down your settings so that you can easily reset them after the upgrade.

■ By Online



Upgrades the software using the Internet.

- First, configure your network. For detailed procedures on using the Network Setting.

Refer to the ‘Setting the Network’ instructions.

- If The internet connection doesn’t operate properly, connection can be broken, please retry downloading.

If the problem still happens, download by USB and upgrade.

■ Alternative Software (Backup)

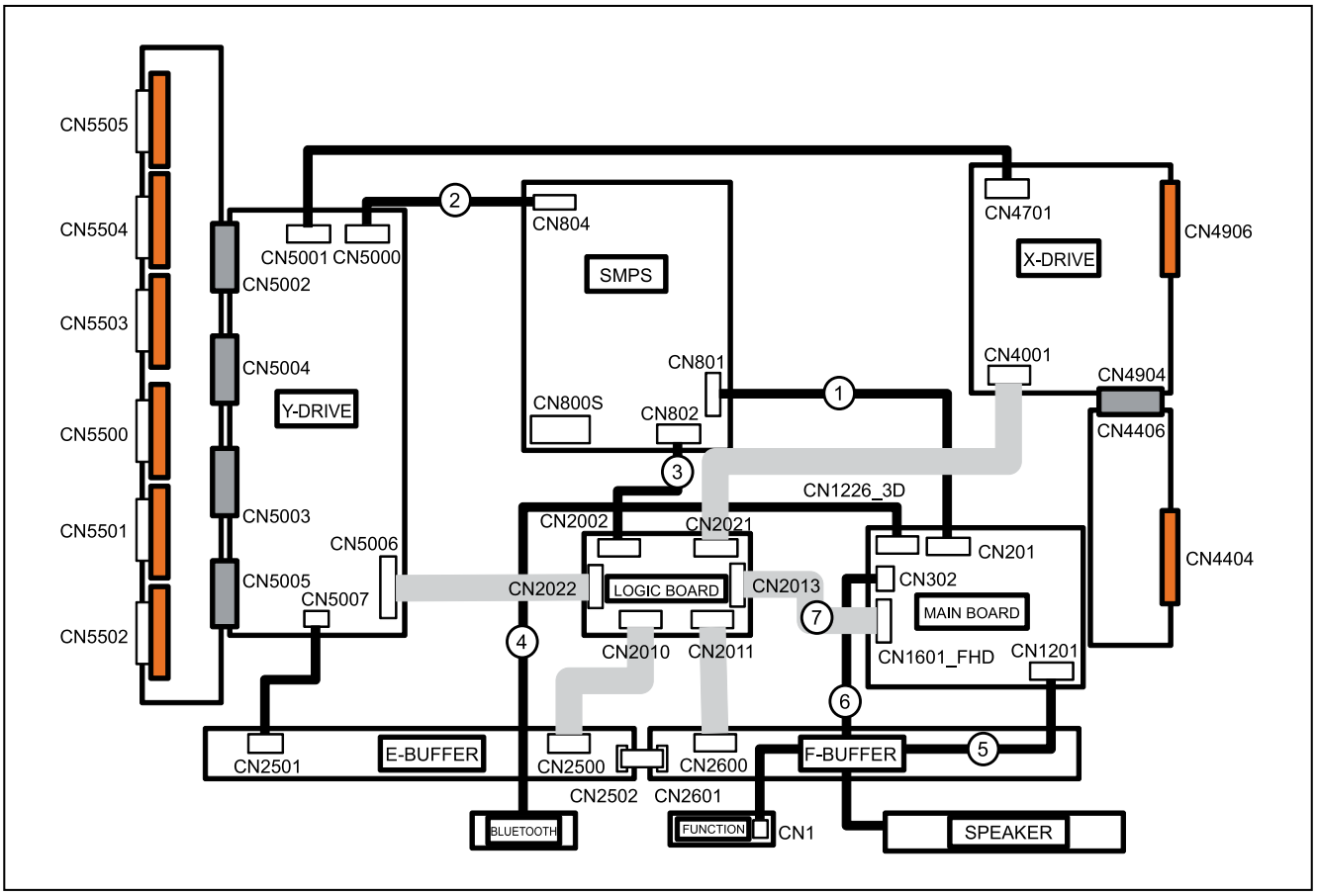
If there is an issue with the new firmware and it is affecting operation, you can change the software to the previous.

- If Software was changed, existing Software is displayed.
- You can change current Software to Alternative Software by ‘Alternative Software’.

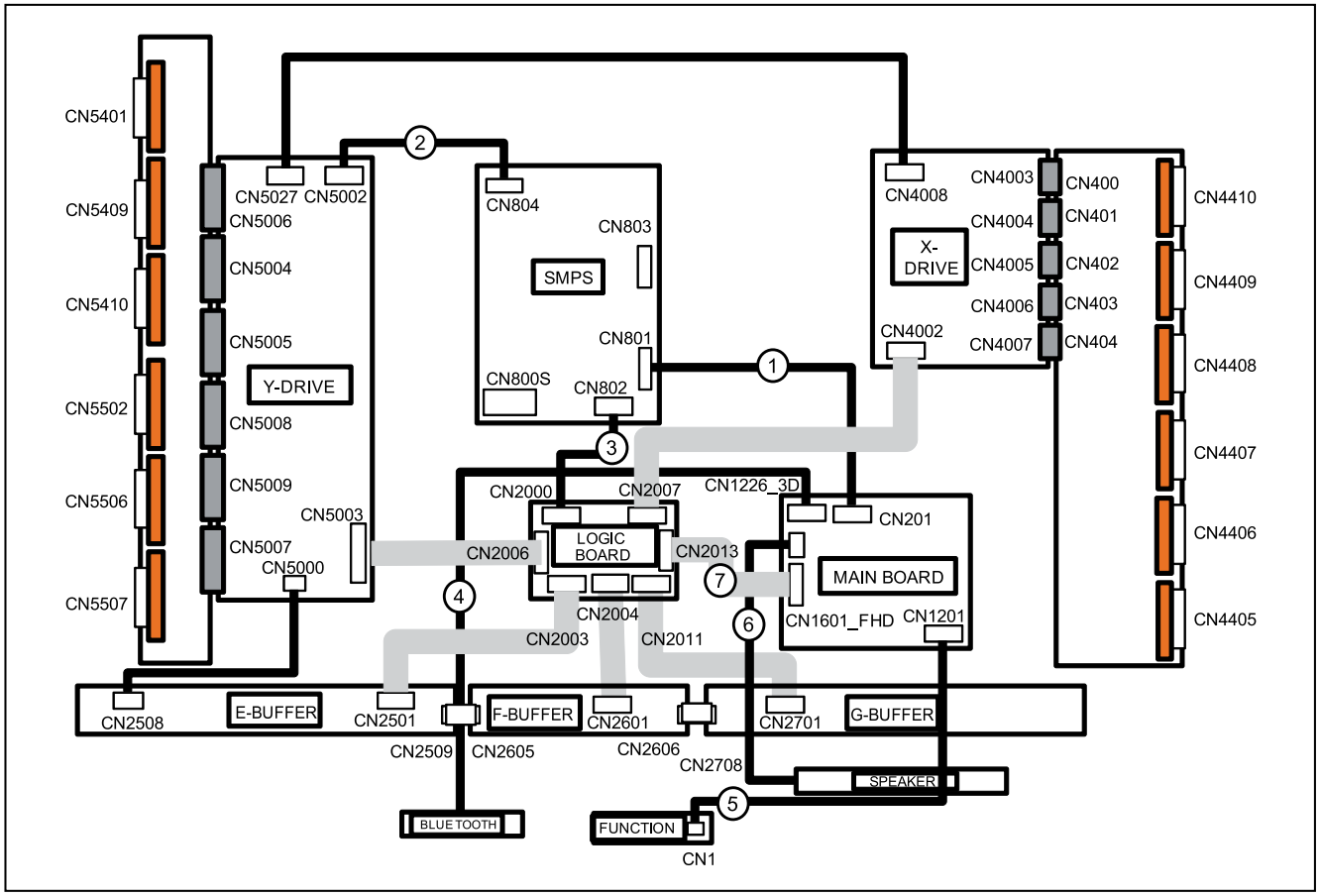
5. Wiring Diagram

5.1. Overall Wiring

■ 51" FHD Overall Wiring



■ 59" / 64" FHD Overall Wiring



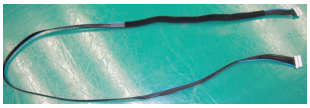
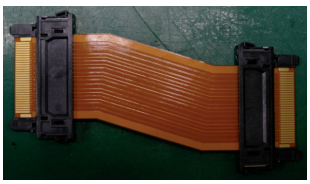
NOTE

The code number of cable (Lead-connector) can be changed, see “Exploded Views and Parts List”.

■ 51" Cable (Lead-connector)

Use	(1) POWER 12 Pin	(7) LVDS FFC 82 Pin
Code	BN39-01285L	BN96-18130E
Photo		

■ 59" / 64" Cable (Lead-connector)

Use	(1) POWER 12 Pin	(4) Bluetooth Cable 8 Pin	(7) LVDS FFC 82 Pin
Code	BN39-01285D	59” – BN39-01447B 64” – BN39-01447D	BN96-18130F
Photo			

5.1.1. Pin Connection

(1) CN801 (SMPS) ↔ CN201 (Main Board)			
Pin No. (SMPS)	**Signal (SMPS)**	**Pin No. (Main Board)**	**Signal (Main Board)**
1	PS-ON	1	SW_POWER
2	STBY	2	A5V_PW
3	GND	3	DGND
4	D15V	4	B15VS_PW
5	GND	5	DGND
6	GND	6	DGND
7	D5.3V	7	B5V_PW
8	D5.3V	8	B5V_PW
9	GND	9	DGND
10	D15V	10	B15V_PW
11	D15V	11	B15V_PW
12	D5.3V	12	B5V_PW

(2) 51" only : CN804 (SMPS) ↔ CN5000 (Y Board) 59"/64" only : CN804 (SMPS) ↔ CN5002 (Y Board)			
Pin No. (SMPS)	**Signal (SMPS)**	**Pin No. (Y Board)**	**Signal (Y Board)**
1	208V	1	Vs
2	208V	2	Vs
3	GND	3	GND
4	D15V	4	Vg(15V)
5	GND	5	GND
6	VA	6	Va

(3) 51" only : CN802 (SMPS) ↔ CN2002 (Logic Board) 59"/64" only : CN802 (SMPS) ↔ CN2000 (Logic Board)			
Pin No. (SMPS)	**Signal (SMPS)**	**Pin No. (Logic Board)**	**Signal (Logic Board)**
1	D5.3V	1	5.3V
2	D5.3V	2	5.3V
3	GND	3	GND
4	VS-SIGNAL	4	GND
5	PS-ON	5	PS_ON
6	VS-ON	6	VS_ON

(4) CN1226D_3D (Main Board) ↔ BLUETOOTH			
Pin No. (Main Board)	**Signal (Main Board)**	**Pin No. (BLUETOOTH)**	**Signal (BLUETOOTH)**
1	FRAME_SYNC_IN	1	Reset_Module
2	FRAME_SYNC_OUT	2	VCC 5V
3	DGND	3	USB D-(BT)
4	USB_BT_DP	4	USB D+(BT)
5	USB_BT_DM	5	GND
6	A5V_PM	6	3D Sync Out
7	FUNC_INTR	7	3D Sync In
8	POWER_DET	8	

(5) CN1201 (Main Board) ↔ CN1 (FUNCTION)			
Pin No. (Main Board)	**Signal (Main Board)**	**Pin No. (FUNCTION)**	**Signal (FUNCTION)**
1	IR	1	IR
2	FUNC_GND	2	GND
3	FUNC_A3.3V	3	A3.3V
4	MSCT	4	SCL
5	MSDA	5	SDA
6	FUNC_INTR	6	INT
7	LED_STR	7	LED

(6) CN302 (Main Board) ↔ SPEAKER	
Pin No. (Main Board)	**Signal (Main Board)**
1	R+_OUT
2	R-_OUT
3	L+_OUT
4	L-_OUT

(7) Logic Board Pin CN2013 (Logic Board) ↔ CN1601_FHD (Main Board)							
Pin No.	**Signal**	**Pin No.**	**Signal**	**Pin No.**	**Signal**	**Pin No.**	**Signal**
1	I2C_READY	22	Ch1[4]-	43	GND	64	CH4[1]-
2	GND	23	Ch1[4]+	44	SDA	65	Ch4[0]+
3	3D_SYNC	24	GND	45	GND	66	CH4[0]-
4	GND	25	Ch3[0]-	46	N/C	67	GND
5	GND	26	Ch3[0]+	47	GND	68	Ch2[4]+
6	N/C	27	Ch3[1]-	48	UART Rx	69	Ch2[4]-
7	GND	28	Ch3[1]+	49	GND	70	Ch2[3]+
8	GND	29	Ch3[2]-	50	UART Tx	71	Ch2[3]-
9	GND	30	Ch3[2]+	51	GND	72	GND
10	Ch1[0]-	31	GND	52	GND	73	Ch2CLK+
11	Ch1[0]+	32	Ch3CLK-	53	Ch4[4]+	74	Ch2CLK-
12	Ch1[1]-	33	Ch3CLK+	54	CH4[4]-	75	GND
13	Ch1[1]+	34	GND	55	Ch4[3]+	76	Ch2[2]+
14	Ch1[2]-	35	Ch3[3]-	56	CH4[3]-	77	Ch2[2]-
15	Ch1[2]+	36	Ch3[3]+	57	GND	78	Ch2[1]+
16	GND	37	Ch3[4]-	58	Ch4CLK+	79	Ch2[1]-
17	Ch1CLK-	38	Ch3[4]+	59	Ch4CLK-	80	Ch2[0]+
18	Ch1CLK+	39	GND	60	GND	81	Ch2[0]-
19	GND	40	SCL	61	Ch4[2]+	82	GND
20	Ch1[3]-	41	GND	62	CH4[2]-		
21	Ch1[3]+	42	N/C	63	Ch4[1]+		

(7) Main Board Pin CN2013 (Logic Board) ↔ CN1601_FHD (Main Board)							
Pin No.	**Signal**	**Pin No.**	**Signal**	**Pin No.**	**Signal**	**Pin No.**	**Signal**
1	GND	22	Ch3[2]+	43	GND	64	Ch2[3]+
2	UART Tx	23	Ch3[2]-	44	GND	65	Ch2[4]-
3	GND	24	Ch3[1]+	45	GND	66	Ch2[4]+
4	UART Rx	25	Ch3[1]-	46	N/C	67	GND
5	GND	26	Ch3[0]+	47	GND	68	Ch4[0]-
6	N/C	27	Ch3[0]-	48	GND	69	Ch4[0]+
7	GND	28	GND	49	3D_SYNC	70	Ch4[1]-
8	SDA	29	Ch1[4]+	50	GND	71	Ch4[1]+
9	GND	30	Ch1[4]-	51	N/C	72	Ch4[2]-
10	N/C	31	Ch1[3]+	52	GND	73	Ch4[2]+
11	GND	32	Ch1[3]-	53	Ch2[0]-	74	GND
12	SCL	33	GND	54	Ch2[0]+	75	Ch4CLK-
13	GND	34	Ch1CLK+	55	Ch2[1]-	76	Ch4CLK+
14	Ch3[4]+	35	Ch1CLK-	56	Ch2[1]+	77	GND
15	Ch3[4]-	36	GND	57	Ch2[2]-	78	Ch4[3]-
16	Ch3[3]+	37	Ch1[2]+	58	Ch2[2]+	79	Ch4[3]+
17	Ch3[3]-	38	Ch1[2]-	59	GND	80	Ch4[4]-
18	GND	39	Ch1[1]+	60	Ch2CLK-	81	Ch4[4]+
19	Ch3CLK+	40	Ch1[1]-	61	Ch2CLK+	82	GND
20	Ch3CLK-	41	Ch1[0]+	62	GND		
21	GND	42	Ch1[0]-	63	Ch2[3]-		

GSPN (GLOBAL SERVICE PARTNER NETWORK)

Area	Web Site
Europe, MENA, CIS, Africa	https://gspn1.samsungcsportal.com
E.Asia, W.Asia, China, Japan	https://gspn2.samsungcsportal.com
N.America, S.America	https://gspn3.samsungcsportal.com