



LED TV

Chassis : U85B

U85C

Model : UE**F5000A*

UE32F4800AW

UE**F5005AK

UE**F5020AK

UE**F5070SS

UE32F40**AW

SERVICE Manual

LED TV



UE**F5000AW / UE**F4000AW

Contents

1. Precautions
2. Product specifications
3. Disassembly and Reassembly
4. Troubleshooting
5. Wiring Diagram

Contents

1. Precautions	1-1
1-1. Safety Precautions	1-1
1-2. Servicing Precautions	1-3
1-3. Static Electricity Precautions	1-4
1-4. Installation Precautions	1-5
2. Product Specifications	2-1
2-1. Product Information	2-1
2-2. Accessories	2-22
3. Disassembly and Reassembly	3-1
3-1. Disassembly and Reassembly	3-1
3-2. Assy Board P-Jog Switch & Ir	3-7
3-3. Disassembly(PTC).....	3-9
4. Troubleshooting	4-1
4-1. Troubleshooting	4-1
4-2. How to Check Fault Symptom	4-4
4-3. Factory Mode Adjustments	4-7
4-4. White Balance	4-22
4-5. White Ratio (Balance) Adjustment.....	4-25
4-6. Software Upgrade.....	4-27
4-7. Rear Cover Dimension	4-29
5. Wiring Diagram	5-1
5-1. Wiring Diagram.....	5-1
5-2. Connector	5-3
5-3. Connector Functions	5-6
5-4. Cables	5-7



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1. Precautions

1-1. Safety Precautions

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

1-1-1. Warnings



For continued safety, do not attempt to modify the circuit board.
Disconnect the AC power and DC power jack before servicing.

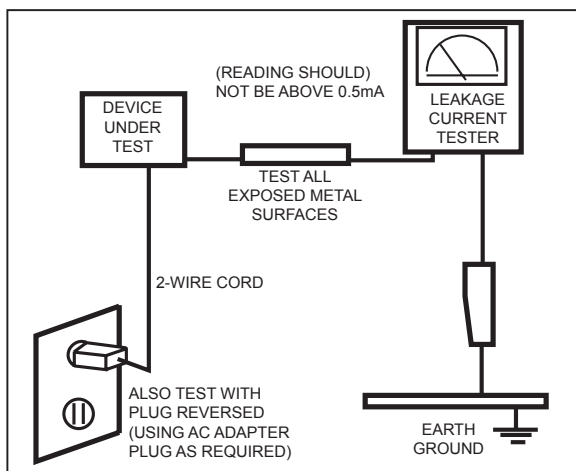
1-1-2. Servicing the LED TV

1. When servicing the LED TV, 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:




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).

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



An electrolytic capacitor installed with the wrong polarity might explode.



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



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.



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 a 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 highvoltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (0.4m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.

2. Product Specifications




2-1. Product Information

2-1-1. Model Comparison



Model	UE**F50**		
Front View	<p style="text-align: center;">* W : Width H : High D : Depth</p>		
Detail View			
Front Color	Black (Panel)		
Dimensions (W x H x D)	32"	Set with Stand	738.0 x 505.8 x 191.7 mm / 29.1 x 19.9 x 7.5 inches
		Set without Stand	738.0 x 445.4 x 49.0 mm / 29.1 x 17.5 x 1.9 inches
	39"	Set with Stand	895.6 x 593.0 x 235.0 mm / 35.3 x 23.3 x 9.3 inches
		Set without Stand	895.6 x 533.0 x 49.4 mm / 35.3 x 21.0 x 1.9 inches
	42"	Set with Stand	971.8 x 637.2 x 235.0 mm / 38.3 x 25.1 x 9.3 inches
		Set without Stand	971.8 x 576.9 x 49.4 mm / 38.3 x 22.7 x 1.9 inches
	46"	Set with Stand	1059.6 x 686.1 x 235.0 mm / 41.7 x 27.0 x 9.3 inches
		Set without Stand	1059.6 x 626.2 x 49.4 mm / 41.7 x 24.7 x 1.9 inches
50"	Set with Stand	1135.4 x 727.9 x 235.0 mm / 44.7 x 28.7 x 9.3 inches	
	Set without Stand	1135.4 x 668.0 x 49.8 mm / 44.7 x 26.3 x 2.0 inches	

2. Product specifications

Model	UE**F50**		
Weight	32"	Set with Stand	5.6 kg / 12.3 lbs
		Set without Stand	5.0 kg / 11.0 lbs
	39"	Set with Stand	9.1 kg / 20.1 lbs
		Set without Stand	7.6 kg / 16.8 lbs
	42"	Set with Stand	10.2 kg / 22.5 lbs
		Set without Stand	8.4 kg / 18.5 lbs
	46"	Set with Stand	12.3 kg / 27.1 lbs
		Set without Stand	10.8 kg / 23.8 lbs
	50"	Set with Stand	14.5 kg / 32.0 lbs
		Set without Stand	13.0 kg / 28.7 lbs
Panel Type	Anti Glare		
Internal Memory	128 Mbyte		
DDR	256 Mbyte		
Feature	Media Play		

Model	UE32F4000		
Front View	 <p style="text-align: center;">* W : Width H : High D : Depth</p>		
Detail View	 		
Front Color	Black (Panel)		
Dimensions (W x H x D)	32"	Set with Stand	737.9 x 487.0 x 252.6 mm / 29.1 x 19.2 x 9.9 inches
		Set without Stand	737.9 x 435.8 x 49.5 mm / 29.1 x 17.2 x 1.9 inches
Weight	32"	Set with Stand	5.6 kg / 12.3 lbs
		Set without Stand	5.2 kg / 11.5 lbs
Panel Type	Anti Glare		
Internal Memory	128 Mbyte		
DDR	256 Mbyte		
Feature	Media Play		

2. Product specifications

Model	UE32F4800		
<p>Front View</p>	 <p>* W : Width H : High D : Depth</p>		
<p>Detail View</p>			
<p>Front Color</p>	<p>Black (Panel)</p>		
<p>Dimensions (W x H x D)</p>	<p>32"</p>	<p>Set with Stand</p>	<p>737.8 x 506.0 x 182.9 mm / 29.0 x 19.9 x 7.2 inches</p>
		<p>Set without Stand</p>	<p>737.8 x 435.7 x 49.5 mm / 29.0 x 17.2 x 1.9 inches</p>
<p>Weight</p>	<p>32"</p>	<p>Set with Stand</p>	<p>6.7 kg / 14.8 lbs</p>
		<p>Set without Stand</p>	<p>6.3 kg / 13.9 lbs</p>
<p>Panel Type</p>	<p>Anti Glare</p>		
<p>Internal Memory</p>	<p>128 Mbyte</p>		
<p>DDR</p>	<p>256 Mbyte</p>		
<p>Feature</p>	<p>Media Play</p>		

2-1-2. Feature & Specifications

Model	UE32F50**Ax*** (x : W=DVB-TC / K=DVB-T2C) / UE32F5070SS*** (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0, LAN(UK only) • Brightness : 300 cd/m² • Response Time : 8 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound, DTS premium sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	32 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	890.6(H) X 503.2(V) (mm) / 36.4(H) X 20.5(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 100~240V], 50/60 Hz	
Power Consumption	72 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 75 W (Under 0.3 W, Stand by) (AC 100~240V, CIS) 77 W (Under 0.3 W, Stand by) (AC 220~240V, EU)_ UF5070 75 W (Under 0.3 W, Stand by) (AC 100-260V, AFRICA)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	738.0 x 505.8 x 191.7 mm / 29.1 x 19.9 x 7.5 inches
	Set without Stand	738.0 x 445.4 x 49.0 mm / 29.1 x 17.5 x 1.9 inches
Weight	Set with Stand	5.60 kg / 12.35 lbs
	Set without Stand	5.00 kg / 11.02 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications

Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Energy Saving	

Model	UE39F50**Ax*** (x : W=DVB-TC / K=DVB-T2C) / UE39F5070SS*** (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0, LAN(UK only) • Brightness : 300 cd/m² • Response Time : 8 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound, DTS premium sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	39 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	1023.0(H) X 577.6(V) (mm) / 41.8(H) X 23.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 100~240V], 50/60 Hz	
Power Consumption	101 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 103 W (Under 0.3 W, Stand by) (AC 100~240V, CIS) 105 W (Under 0.3 W, Stand by) (AC 220~240V, EU)_ UF5070	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	895.6 x 593.0 x 235.0 mm / 35.3 x 23.3 x 9.3 inches
	Set without Stand	895.6 x 533.0 x 49.4 mm / 35.3 x 21.0 x 1.9 inches
Weight	Set with Stand	9.10 kg / 20.06 lbs
	Set without Stand	7.60 kg / 16.76 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications

Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, Game Mode, Film Mode, Energy Saving	

Model	UE42F50**Ax*** (x : W=DVB-TC / K=DVB-T2C) / UE42F5070SS*** (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0, LAN(UK only) • Brightness : 300 cd/m² • Response Time : 8 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound, DTS premium sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	42 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	1023.0(H) X 577.6(V) (mm) / 41.8(H) X 23.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 100~240V], 50/60 Hz	
Power Consumption	110 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 114 W (Under 0.3 W, Stand by) (AC 100~240V, CIS) 110 W (Under 0.3 W, Stand by) (AC 220~240V, EU)_ UF5070	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	971.8 x 637.2 x 235.0 mm / 38.3 x 25.1 x 9.3 inches
	Set without Stand	971.8 x 576.9 x 49.4 mm / 38.3 x 22.7 x 1.9 inches
Weight	Set with Stand	10.20 kg / 22.49 lbs
	Set without Stand	8.40 kg / 18.52 lb
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications

Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Energy Saving	

Model	UE46F50**Ax*** (x : W=DVB-TC / K=DVB-T2C) / UE46F5070SS*** (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0, LAN(UK only) • Brightness : 300 cd/m² • Response Time : 8 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound, DTS premium sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	46 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	1023.0(H) X 577.6(V) (mm) / 41.8(H) X 23.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 100~240V] / AC100-260V, 50/60 Hz	
Power Consumption	108 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 112 W (Under 0.3 W, Stand by) (AC 100~240V, CIS) 108 W (Under 0.3 W, Stand by) (AC 220~240V, EU)_ UF5070 112 W (Under 0.3 W, Stand by) (AC 100-260V, AFRICA)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	1059.6 x 686.1 x 235.0 mm / 41.7 x 27.0 x 9.3 inches
	Set without Stand	1059.6 x 626.2 x 49.4 mm / 41.7 x 24.7 x 1.9 inches
Weight	Set with Stand	12.30 kg / 27.12 lbs
	Set without Stand	10.80 kg / 23.81 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications

Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Energy Saving	

Model	UE50F50**Ax*** (x : W=DVB-TC / K=DVB-T2C) / UE50F5070SS*** (DVB-TCS2)	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0, LAN(UK only) • Brightness : 300 cd/m² • Response Time : 8 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound, DTS premium sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	50 inch FHD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1920 Pixels Vertical : 1080 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	1023.0(H) x 577.6(V) mm/ 41.8(H) X 23.6(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 100~240V], 50/60 Hz	
Power Consumption	131 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 134 W (Under 0.3 W, Stand by) (AC 100~240V, CIS) 131 W (Under 0.3 W, Stand by) (AC 220~240V, EU)_ UF5070	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	1135.4 x 727.9 x 235.0 mm / 44.7 x 28.7 x 9.3 inches
	Set without Stand	1135.4 x 668.0 x 49.8 mm / 44.7 x 26.3 x 2.0 inches
Weight	Set with Stand	14.50 kg / 31.97 lbs
	Set without Stand	13.00 kg / 28.66 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C/T2C/TCS2(depend on country), PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications

Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, DTS Studio Sound, DTS premium sound, Game Mode, Film Mode, Energy Saving	

Model	UE32F40**AW	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0 • Brightness : 350 cd/m² • Response Time : 6 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	32 inch HD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1366 Pixels Vertical : 768 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	703.4(H) x 397.8(V) mm / 28.7(H) X 16.2(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 100~240V] / AC100-260V, 50/60 Hz	
Power Consumption	56 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 58 W (Under 0.3 W, Stand by) (AC 100~240V, CIS) 58 W (Under 0.3 W, Stand by) (AC 100-260V, AFRICA)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	737.9 x 487.0 x 252.6 mm / 29.1 x 19.2 x 9.9 inches
	Set without Stand	737.9 x 435.8 x 49.5 mm / 29.1 x 17.2 x 1.9 inches
Weight	Set with Stand	5.60 kg / 12.35 lbs
	Set without Stand	5.20 kg / 11.46 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications



Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 10 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, DTS Studio Sound, Game Mode, Film Mode, Energy Saving	

Model	UE32F4800AW	
Feature		
<ul style="list-style-type: none"> • Digital-TV, RF, 2-HDMI, 1-Component, 1-A/V, 1-USB2.0 • Brightness : 350 cd/m² • Response Time : 6 ms • CMR : 100 • Dolby Digital+, DTS Studio Sound • No Portable USB HDD Supported 		
Specifications		
Item	Description	
LCD Panel	32 inch HD 60Hz	
Scanning Frequency	Horizontal : 60 kHz ~ 73 kHz (Automatic) Vertical : 47 Hz ~ 63 Hz (Automatic)	
Display Colors	16.7M colors	
Maximum Resolution	Horizontal : 1366 Pixels Vertical : 768 Pixels	
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated	
Input Sync Signal	H/V Separate, TTL, P. or N.	
Maximum Pixel Clock Rate	74.25 MHz	
Active Display (H x V)* * Horizontal x Vertical	703.4(H) x 397.8(V) mm / 28.7(H) X 16.2(V) (inches)	
AC Power Voltage & Frequency	[EU : AC 220~240V, CIS : AC 110~240V], 50/60 Hz	
Power Consumption	56 W (Under 0.3 W, Stand by) (AC 220~240V, EU) 58 W (Under 0.3 W, Stand by) (AC 100~240V, CIS)	
Dimensions Set (W x H x D)* * Width x High x Depth	Set with Stand	737.8 x 506.0 x 182.9 mm / 29.1 x 19.9 x 7.2 inches
	Set without Stand	737.8 x 435.8 x 49.5 mm / 29.1 x 17.2 x 1.9 inches
Weight	Set with Stand	6.70 kg / 14.77 lbs
	Set without Stand	6.30 kg / 13.89 lbs
TV System	Tuning	Frequency Synthesize (Refer to detailed Frequency Table)
	System	DVB-T/C, PAL , SECAM , NT4.43
	Sound	PAL-B/G/I/D/K, Dolby Digital Plus/Pulse

2. Product specifications



Specifications	
Item	Description
Environmental Considerations	Operating Temperature : 32°F ~ 122°F (0°C ~ 50°C) Operating Humidity : 20% ~ 90% Storage Temperature : -4°F ~ 140°F (-20°C ~ 60°C) Storage Humidity : 10% ~ 90%
Audio Specifications	MAX Internal Audio Output Power : Each 20 W(Left/Right) Equalizer : 5 Band Output Frequency : <ul style="list-style-type: none">• RF : 20 Hz ~ 15.4 kHz• AV/Componet/HDMI : 20 Hz ~ 20 kHz
Note : Dolby Digital +, DTS Studio Sound, Game Mode, Film Mode, Energy Saving	

2-1-3. Specification Comparison to Old Models

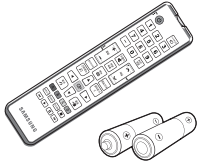



Model	UF5F(UE**F50****)		UE5L(UE**EH50***)	
Design				
Display Type	LED TV		LED TV	
Built-in Tuner	O		O	
Resolution	1920 x 1080		1920 x 1080	
LCD Panel	TFT LCD Panel 60 Hz		TFT LCD Panel 60 Hz	
Screen Size	32"/39"/42"/46"/50"		32"/37"/40"/46"	
Picture ratio	16 : 9		16 : 9	
Power Consumption	32"	72/75 W (Under 0.3W, Standby) 77 W (Under 0.3W, Standby)_UF5070	32"	60/62 W (Under 0.3W, Standby)
	39"	101/103 W (Under 0.3W, Standby) 105 W (Under 0.3W, Standby)_UF5070	37"	79/81 W (Under 0.3W, Standby)
	42"	110/114 W (Under 0.3W, Standby) 110 W (Under 0.3W, Standby)_UF5070	40"	87 W (Under 0.3W, Standby)
	46"	108/112 W (Under 0.3W, Standby) 108 W (Under 0.3W, Standby)_UF5070	46"	92/95 W (Under 0.3W, Standby)
	50"	131/134 W (Under 0.3W, Standby) 131 W (Under 0.3W, Standby)_UF5070		
Dimensions (W x H x V)	32"	29.1 x 19.9 x 7.5 inches_with stand 29.1 x 17.5 x 1.9 inches_without stand	32"	29.1 x 19.6 x 7.5 inches_with stand 29.1 x 17.5 x 3.7 inches_without stand
	39"	35.3 x 23.3 x 9.3 inches_with stand 35.3 x 21.0 x 1.9 inches_without stand	37"	34.1 x 22.7 x 9.8 inches_with stand 34.1 x 20.4 x 3.7 inches_without stand
	42"	38.3 x 25.1 x 9.3 inches_with stand 38.3 x 22.7 x 1.9 inches_without stand	40"	36.5 x 19.6 x 7.5 inches_with stand 36.5 x 17.5 x 3.7 inches_without stand
	46"	41.7 x 27.0 x 9.3 inches_with stand 41.7 x 24.7 x 1.9 inches_without stand	46"	41.7 x 26.8 x 9.0 inches_with stand 41.7 x 24.6 x 3.7 inches_without stand
	50"	44.7 x 28.7 x 9.3 inches_with stand 44.7 x 26.3 x 2.0 inches_without stand		

2. Product specifications

Model	UF5F(UE**F50****)		UE5L(UE**EH50***)	
Weight	32"	12.3 lbs_with stand 11.0 lbs_without stand	32"	14.11 lbs_with stand 12.57 lbs_without stand
	39"	20.1 lbs_with stand 16.8 lbs_without stand	37"	21.83 lbs_with stand 17.64 lbs_without stand
	42"	22.5 lbs_with stand 18.5 lbs_without stand	40"	24.25 lbs_with stand 19.84 lbs_without stand
	46"	27.1 lbs_with stand 23.8 lbs_without stand	46"	30.86 lbs_with stand 26.46 lbs_without stand
	50"	32.0 lbs_with stand 28.7 lbs_without stand		
Contrast Ratio	MEGA		MEGA	
Picture Enhancer	HyperReal Engine(X13)		HyperReal Engine (X9)	
Wide Color Enhance Plus	Wide Color Enhance Plus		Wide Color Enhance Plus	
Equalizer	5 Band		5 Band	
Auto Volume Control	O		O	
Surround Sound	Dolby Digital Plus / Pulse		Dolby Digital Plus	
Speaker Output	32"	10 W x 10 W	32"	10 W x 10 W
	39"	10 W x 10 W	37"	10 W x 10 W
	42"	10 W x 10 W	40"	10 W x 10 W
	46"	10 W x 10 W	46"	10 W x 10 W
	50"	10 W x 10 W		
PIP	O		O	
Function	Jog Function		Jog Function	
Caption	O		O	
Game Mode	O		O	
Energy Saving	O		O	
3D	X		X	
Antenna	1(Cable/Air/Satellite, depend on country)		1(Cable/Air)	

Model	UF4B(UE32F40**AW)		UE4J(UE**EH40***)	
Design				
Display Type	LED TV		LED TV	
Built-in Tuner	O		O	
Resolution	1366 x 768		1366 x 768	
LCD Panel	TFT LCD Panel 60 Hz		TFT LCD Panel 60 Hz	
Screen Size	32"		32"	
Picture ratio	16 : 9		16 : 9	
Power Consumption	32"	56/58 W (Under 0.3W, Standby)	32"	52/54 W (Under 0.3W, Standby)
Dimensions (W x H x D)	32"	29.1 x 19.2 x 9.9 inches_with stand 29.1 x 17.2 x 1.9 inches_without stand	32"	29.1 x 19.4 x 7.5 inches_with stand 29.1 x 17.2 x 3.7 inches_without stand
Weight	32"	12.3 lbs_with stand 11.5 lbs_without stand	32"	13.89 lbs_with stand 12.57 lbs_without stand
Contrast Ratio	MEGA		MEGA	
Picture Enhancer	HyperReal Engine (X13)		HyperReal Engine (X9)	
Wide Color Enhance Plus	Wide Color Enhance Plus		Wide Color Enhance Plus	
Equalizer	5 Band		5 Band	
Auto Volume Control	O		O	
Surround Sound	Dolby Digital Plus / Pulse		Dolby Digital Plus / Pulse	
Speaker Output	32"	10 W x 10 W	32"	10 W x 10 W
PIP	O		X	
Function	Jog Function		Jog Function	
Caption	O		O	
Game Mode	O		O	
Energy Saving	O		O	
Network	X		X	
Anynet+	X		X	
Antenna	1(Cable/Air)		1(Cable/Air)	

2-2. Accessories

Product	Description	Code. No	Remark
	Remote Control & Batteries (AAA x 2)	AA59-00741A(EU/CIS)	Samsung Electronics Service center
		4301-000121	
	Power Cord	3903-000603(EU) 3903-000619(UK)	
	Owners Manual	BN68-04784A	
	Holder-Wire Stand	BN61-08370A	

3. Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the LED TV.



This LED TV contains electrostatically sensitive devices. Use caution when handling these components.

WARNING


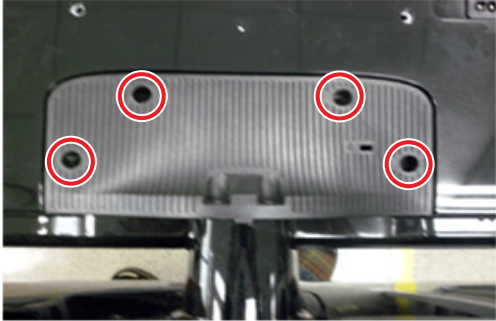

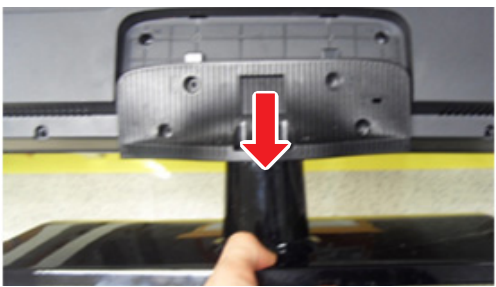
3-1. Disassembly and Reassembly



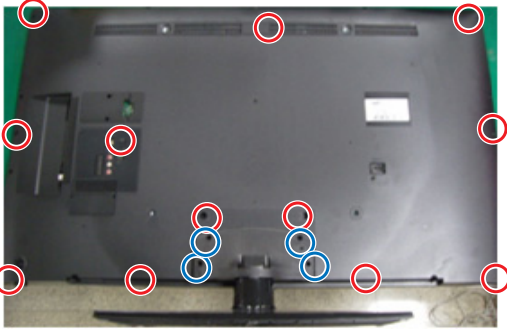


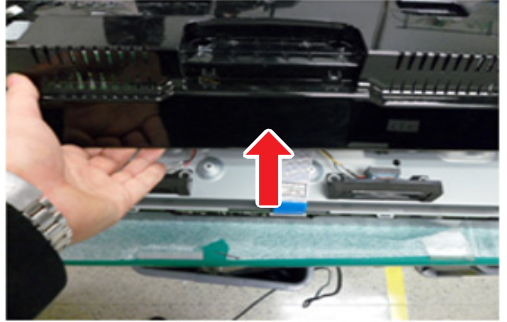
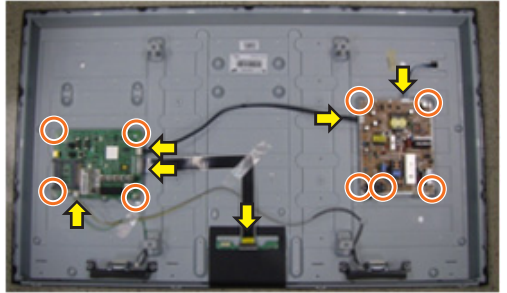

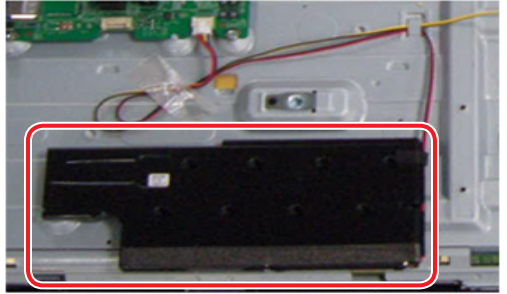
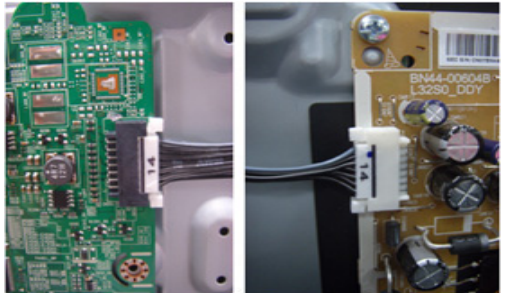
CAUTION

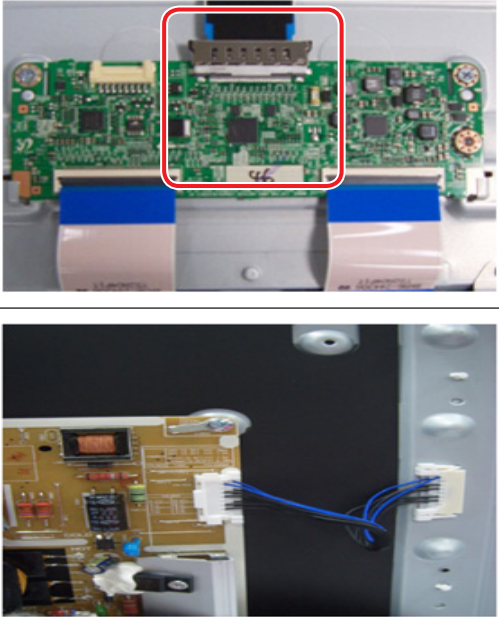

1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.
3. If there is no additional comment, it is same for all inches.

■ 5000


Description	Picture Description	Screws
<p>1 Place TV face down on cushioned table.</p>		
<p>2 Remove 4 screws from the Stand.</p>		 6003-001782
<p>3 Remove Stand.</p>		

3. Disassembly and Reassemble

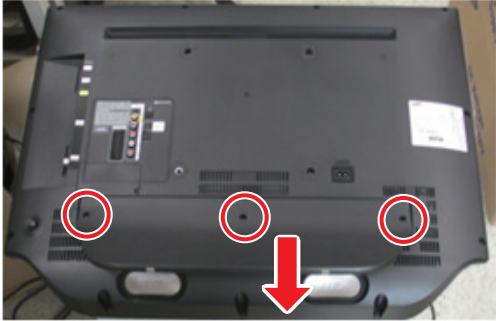

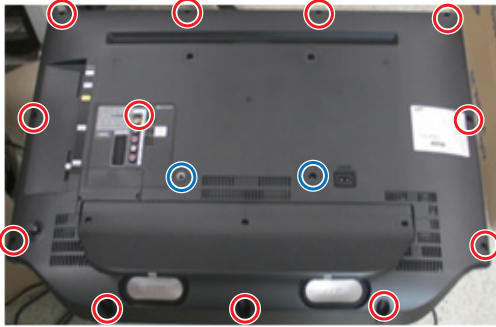


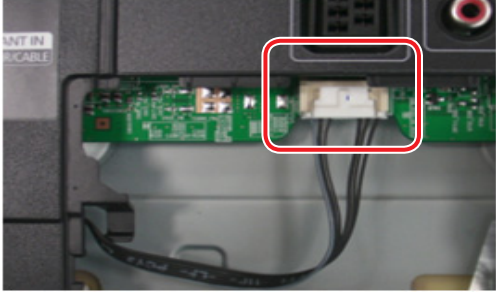

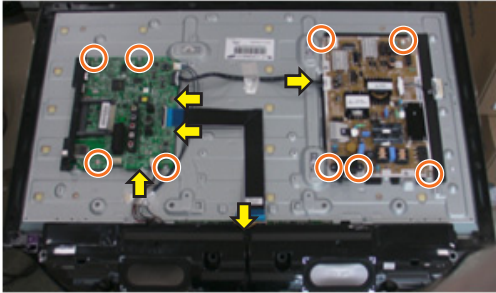

Description	Picture Description	Screws
<p>4 Remove the screws of Rear-Cover.</p>		 <p>6003-001782</p>  <p>6003-002755</p>
<p>5 Remove the Rear-Cover.</p>		
<p>6 Remove the screws.</p>		 <p>6001-003016</p>
<p>7 Remove the Speakers and Power Cables.</p>	 	

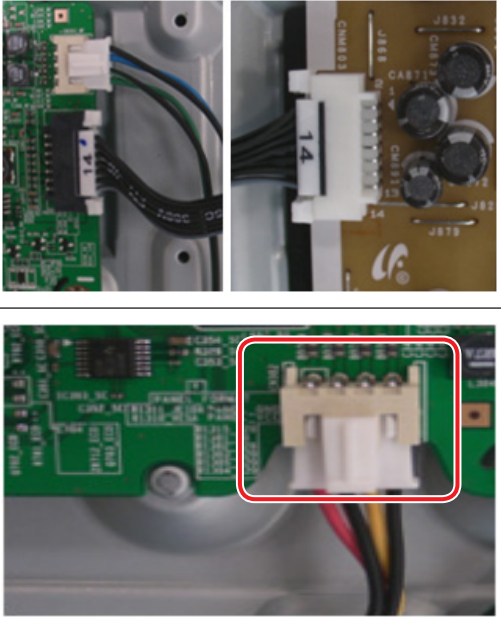
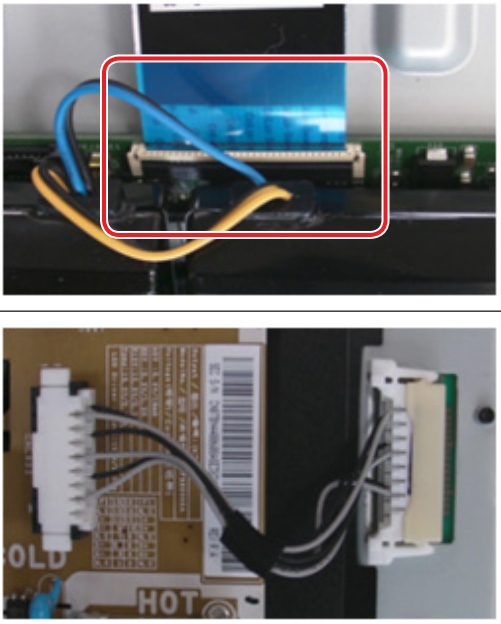

Description	Picture Description	Screws
<p>8 Remove the LVDS Cable and Panel Drive Cable.</p>		
<p>9 Completed disassembly.</p>		

■ 4800

Description	Picture Description	Screws
<p>1 Place TV face down on cushioned table.</p>		

3. Disassembly and Reassemble

Description	Picture Description	Screws
<p>2 Remove 3 Screws from the Stand and Remove Stand.</p>		 <p>6003-001782</p>
<p>3 Remove 14 Screws of Rear-Cover.</p>		 <p>6003-001782</p>  <p>6003-002755</p>
<p>4 Remove the Cover Jack and Function Assy Cable.</p>		
<p>5 Remove the Rear Cover.</p>		
<p>6 Remove 9 Screws of Main Board and Power Board.</p>		 <p>6001-003016</p>

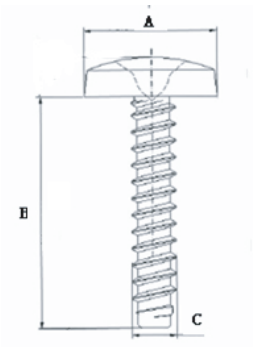
Description	Picture Description	Screws
<p>7 Remove the Speakers and Power Cables.</p>		
<p>8 Remove the LVDS Cable and Panel Drive Cable.</p>		
<p>9 Completed disassembly.</p>		

**NOTE**

Reassembly procedures are in the reverse order of disassembly procedures.

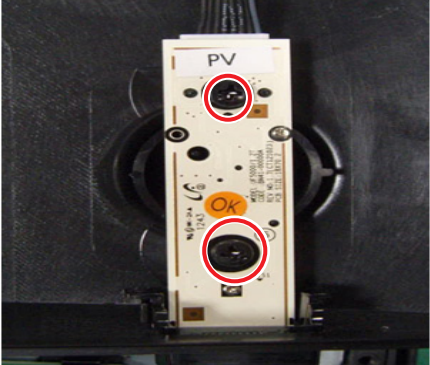
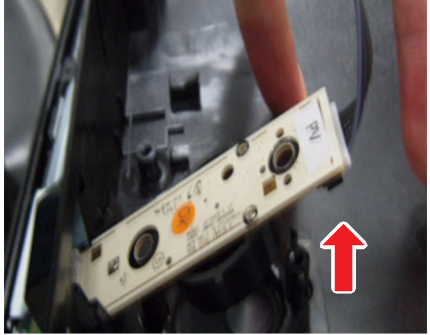
■ **Screw Size**

Code No.	COLOR	A (mm)	B (mm)	C (mm)
6003-001782	BLACK	7.80~8.30	11.20~12.00	3.81~3.91
6001-002755	BLACK	7.1~7.5	5.7~6.0	2.98~3.02
6001-003016	WHITE	7.1~7.5	4.7~5.0	2.92 ~ 2.98
6003-000115	BLACK	5.8~6.3	5.5~6.0	2.95~3.05


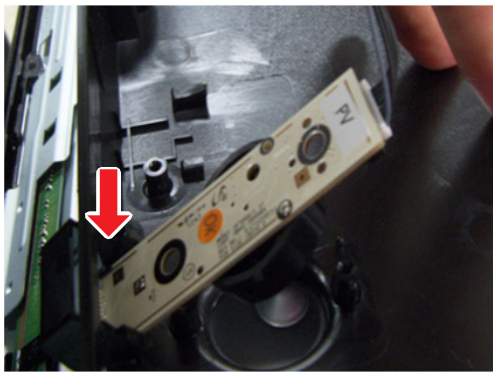


3-2. Assy Board P-Jog Switch & Ir

■ How to disassembly

Description	Picture Description	Refer
1 Remove the screw.		
2 Remove the Function Assy.		

■ How to assembly

Description	Picture Description	Refer
<p>1 Check the locking hole.</p>		
<p>2 Combine the function assy to locking hole.</p>		

When you want to ignore the funtion key actions

- Option
- Control**
- Debug
- SVC
- ADC/WB
- Advanced


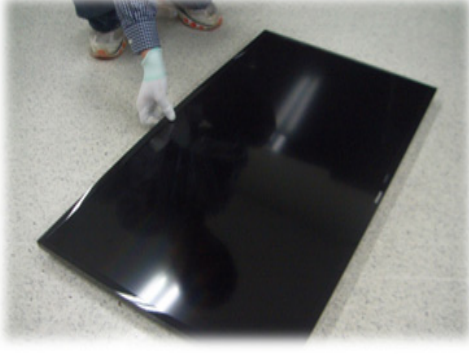

Config Option

Navigation Key Func

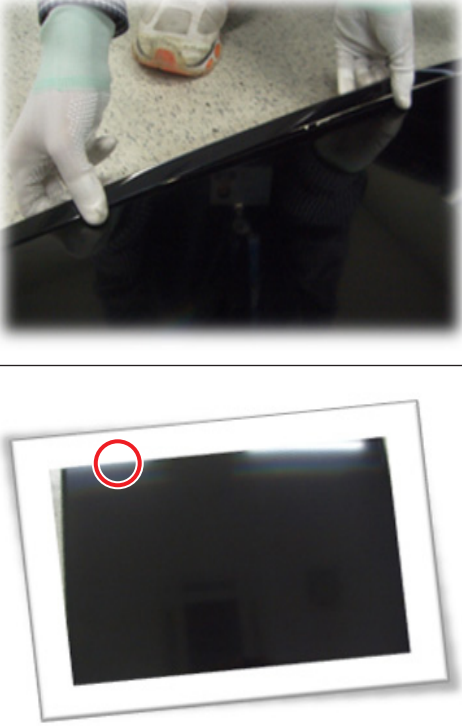
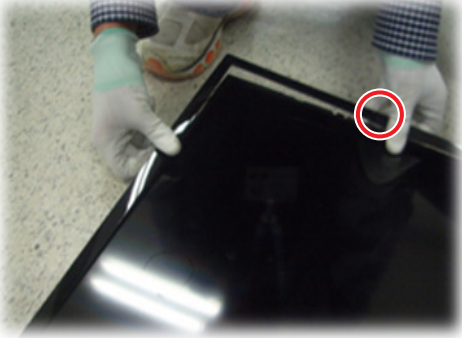
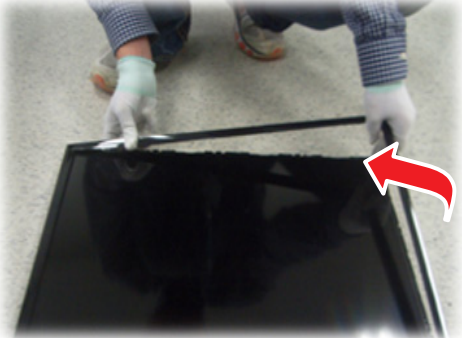
0 : New Function (Naviagtion) Key **[Default]**
 1 : Old Function (Touch) Key
 2 : Do not work Function key


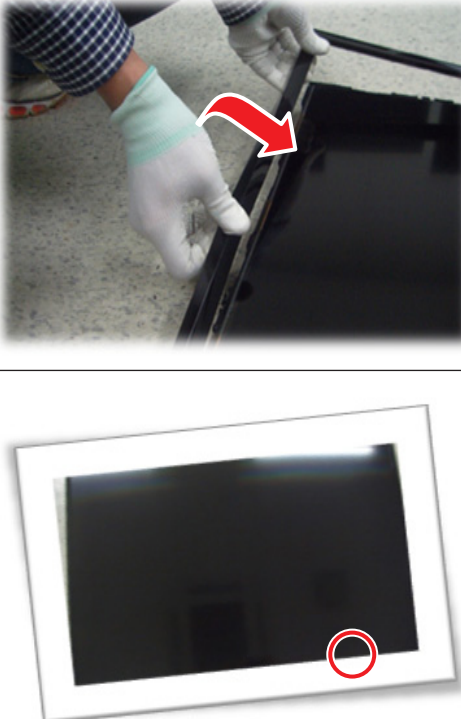
3-3. Disassembly(PTC)

■ How to disassembly



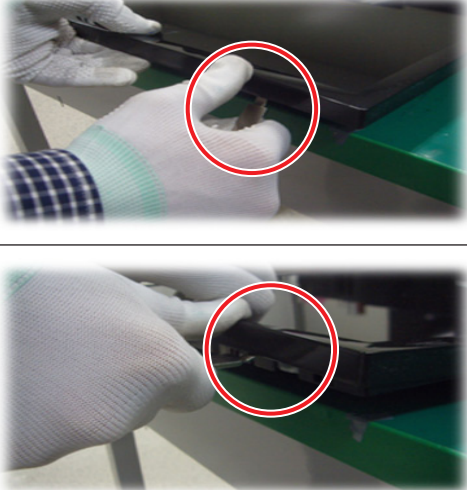
Description	Picture Description	Refer
1 Place TV face up on cushioned table.		
2 Products at the top of the central TOP-CHASSIS is rotated by 45 degrees outward and pulls.	 	

3. Disassembly and Reassemble

Description	Picture Description	Refer
<p>3 Pull in the same way from the center of the top.</p>		
<p>4 Pull the left part of the product as shown while holding the raised portion on figure 3.</p>		
<p>5 Pull the bottom part of the product as figure 2 while holding the raised portion on figure 4.</p>		

Description	Picture Description	Refer
<p>6 As shown in the picture, Lift the bottom of the TOP-CHASSIS.</p>		
<p>7 Pull the products at the bottom of the right side of the chassis.</p>		

3. Disassembly and Reassemble

Description	Picture Description	Refer
<p>8 Lift the bottom of the chassis with one hand and holding the bottom of the product after you pull the right side of the product chassis.</p>		
<p>9 Disassembly is complete.</p>		
<p>! CAUTION To use JIG : Does not lift the chassis by hand, JIG using the lift.</p>		



NOTE

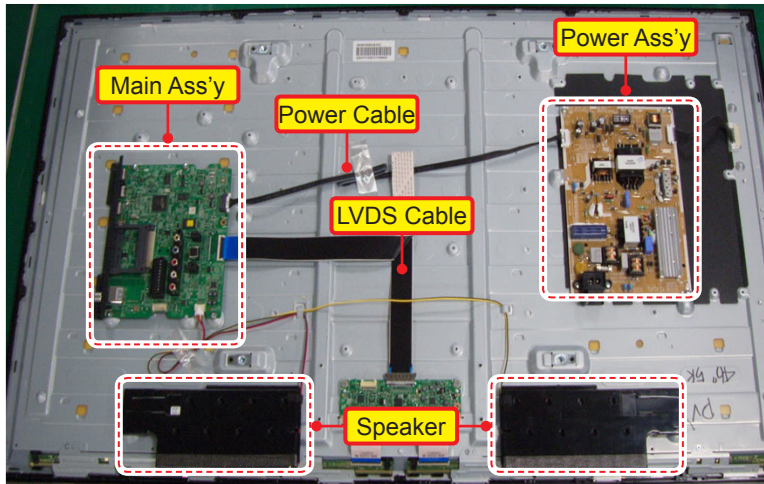
Reassembly procedures are in the reverse order of disassembly procedures.

4. Troubleshooting

4-1. Troubleshooting

■ Previous Check

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.



Main Board Assy (CN201)			
13	B13V	14	PWM_DIM
11	B13V	12	B13V
9	B13VS	10	SW_INV
7	B13VS	8	GND
5	GND	6	GND
3	B5.3V	4	A5.3V
1	B5.3V	2	SW_PW

Power Board Assy (CNM803)			
14	B13V	13	B13V
12	B13V	11	B13V
10	SW_INV	9	B13VS
8	GND	7	B13VS
6	GND	5	GND
4	A5.3V	3	B5.3V
2	SW_PW	1	B5.3V

* Change the 14Pin to PWM_DIM(2013 years) from B13V(2012 years)

3. Check the power in & output between IP & Main Board, Main Board & Panel, IP & Panel.

■ How to know it is from Main Board or T-Con when some problems happen

1. No Picture : Backlight is on, but there is no picture and LED indicator in front of TV is blinking.
 - Check the LVDS Cable connection. If still problems, change the T-Con Board and then Main Board step by step.
2. Picture distortion : Enter the service mode → Choose 'SVC' → Check the 'internal pattern.'

- Enter 'Service Mode.'

- If you do not have Factory remote control



- If you have Factory remote control

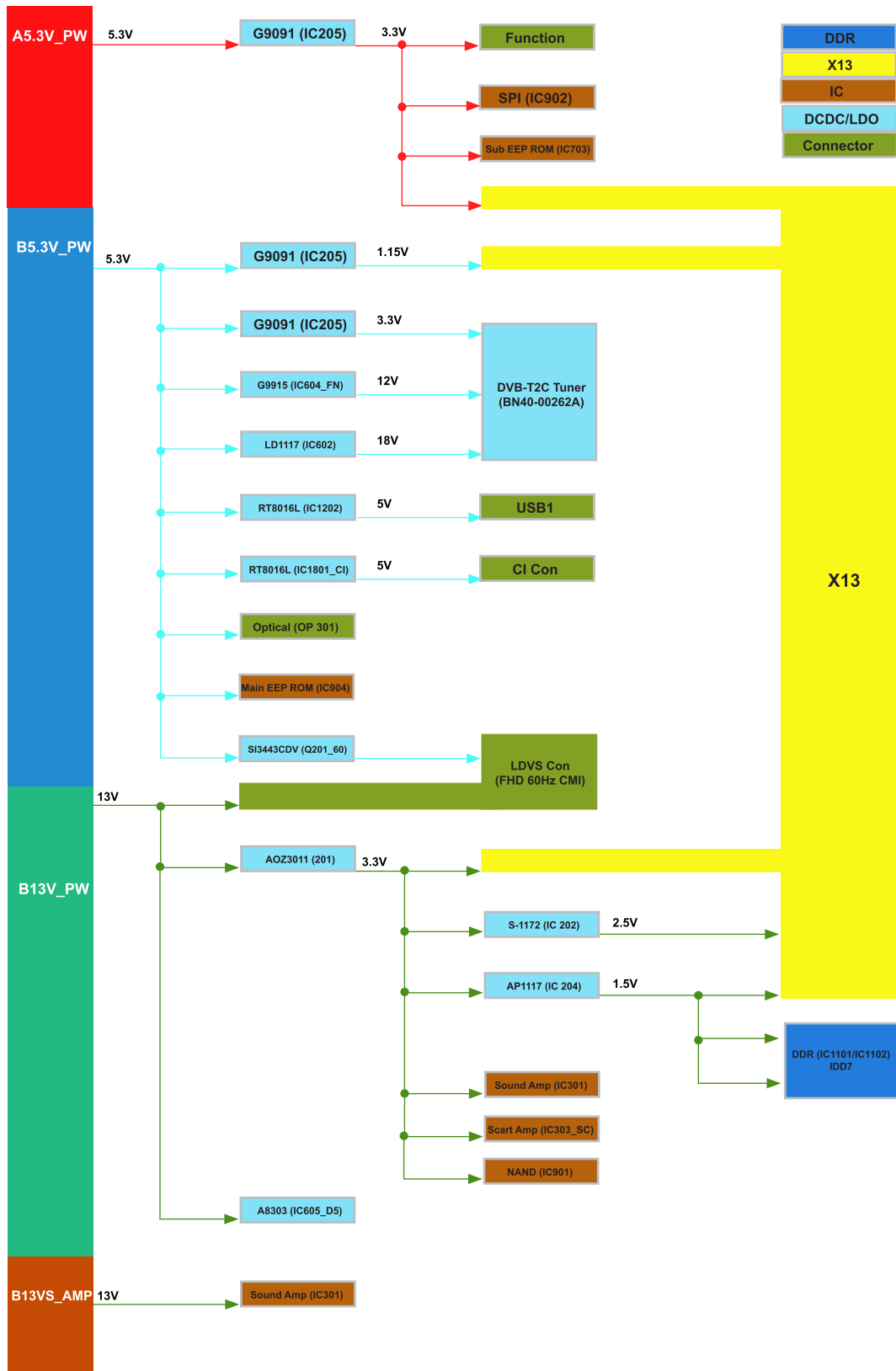


3. Choose 'SVC.'
4. Choose 'Test pattern.'
5. Select the each pattern and then check all pattern is ok or not.



Pattern Status is	Change the	Test Pattern is made by the MSTAR IC
OK	Main Board	We guess front of MSTAR IC has problem.
NG	Panel and T-Con Board	We guess back of MSATR IC has problem.

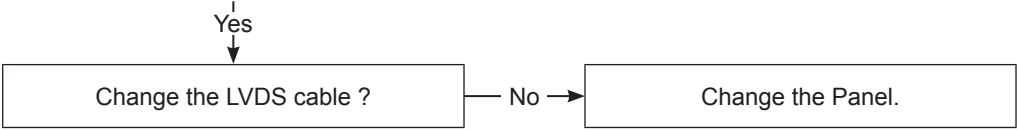
■ Power-Tree



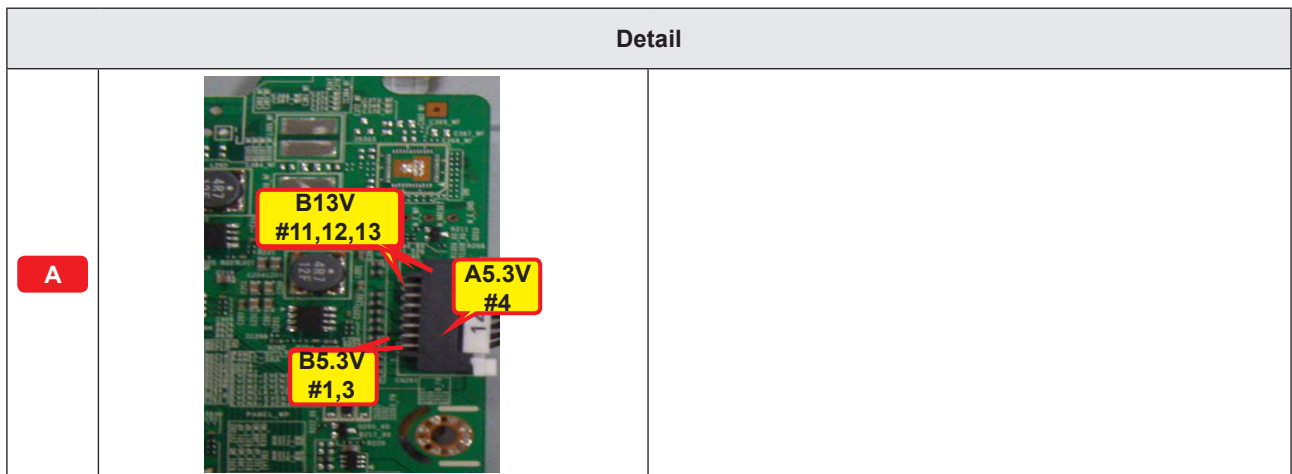
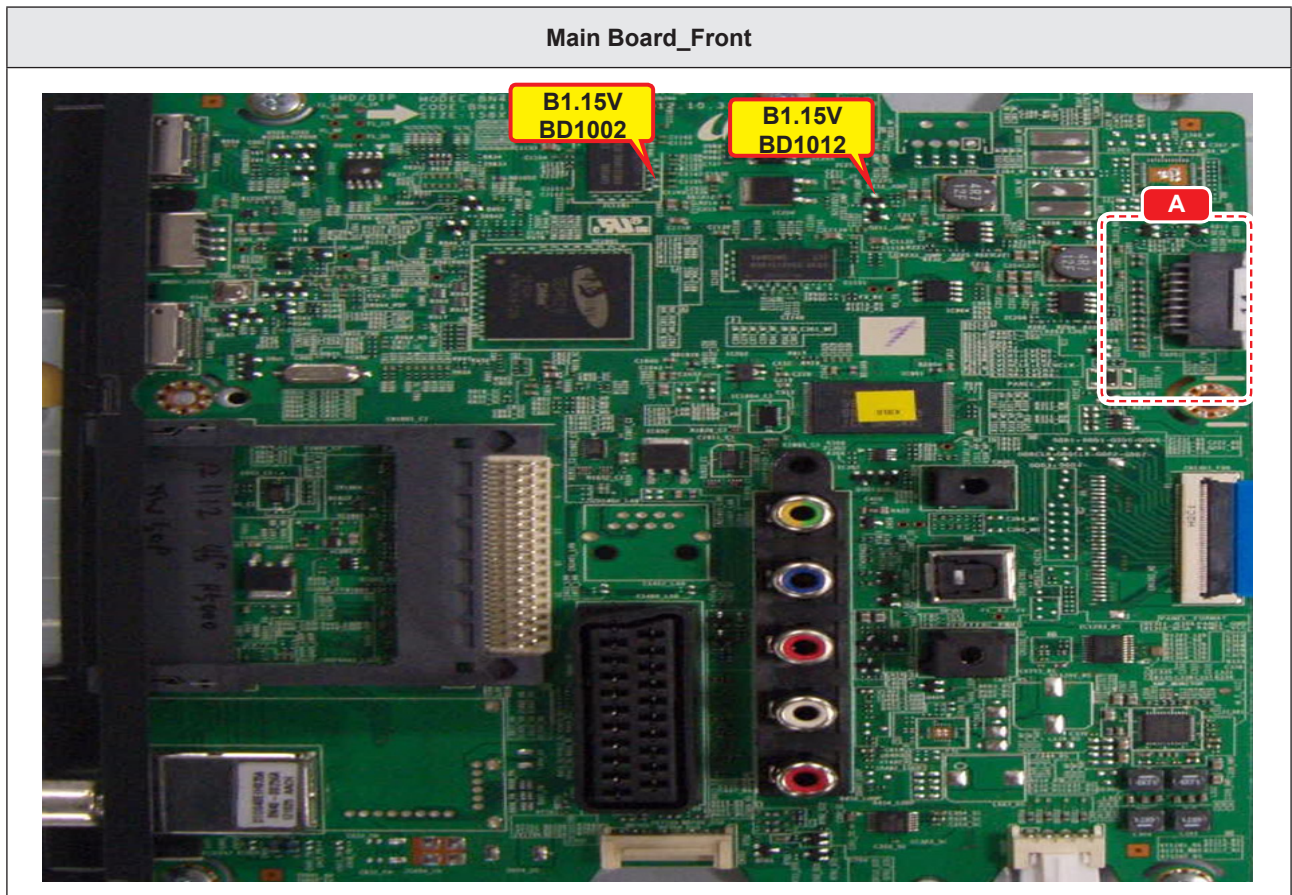
4-2. How to Check Fault Symptom

■ NO Power and No Video

Symptom	<ul style="list-style-type: none"> 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 units appears to be dead.
Major checkpoints	<p>The IP 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:</p> <ul style="list-style-type: none"> Check the internal cable connection status inside the unit. Check the fuses of each part. Check the output voltage of SMPS. Replace the Main Board.
Diagnostics	<pre> graph TD Start[Power cord on] -- Yes --> Check1[Check 'Stand-By A5.3V' 5.3V appear at BD210? 0V to 5.3V (CN201 #4)] Check1 -- No --> Cause1[Cause : There did not supply the power from SMPS. Measure : Change 14p power cable and SMPS.] Check1 -- Yes --> SetOn[Set On.] SetOn -- Yes --> Check2[Check 'SW_POWER' more than 3.3V appear at CN201(#2) 0V to 3.3V↑ (CN201 #2)] Check2 -- No --> Cause2[Cause : Main IC(X13) did not control the SW_Power. Measure : Change the Main Assy.] Check2 -- Yes --> Check3[Check 'Power input of Main Ass'y' ? DC B13V, B5.3V appear at CN201 #11,12,13(B13V) CN201 #1,3 (B5.3V)? 0V to 13V (CN201 #11,12,13) 0V to 5.3V (CN201 #1,3)] Check3 -- No --> Cause3[Cause : There did not supply the power from SMPS. Measure : Change 14p power cable and SMPS.] Check3 -- Yes --> Check4[Check 'Power of main IC(B1.15V)' appear at BD1002. Check 'Power of DDR IC(B1.5V)' appear at BD1012.] Check4 -- No --> Cause4[Cause : There is proble at DCDC(IC203) / LDO(IC204). Measure : Change the Main Assy.] Check4 -- Yes --> Check5[Check 'Power of LVDS (13V)' appear at TP-PANEL_VCC? 0V to 13V (TP-PANEL_VCC)] Check5 -- No --> Cause5[Cause : There is proble at FET(Q201_60) or Main IC(X13) did not control the SW_PVCC. Measure : Change the Main Assy.] </pre>

	 <pre>graph TD; Start(()) --> Q[Change the LVDS cable?]; Q -- Yes --> End(()); Q -- No --> A[Change the Panel.];</pre>
Caution	Make sure to disconnect the power before working on the IP board.

■ Location of Parts



4-3. Factory Mode Adjustments

4-3-1. Detail Factory Option



NOTE

If you replace the main board with new one, please change the factory option as well.
The options you must change are "Type".

■ 5000

Model Name		UE32F50****	UE39F50****	UE42F50****	UE46F50****	UE50F50****
Panel	Vendor	AUO SDC	AUO	AUO	SDC AUO	AUO AUO
	Code	BN07-01259A BN95-00883A	BN07-01272A	BN07-01273A	BN95-00891A BN07-01274A	BN07-01278A BN07-01278B
	Spec.	HF320BGA-B1 LSF320HN02-A	HF390BGA-C1	HF420BGA-B1	HF460BGL-V1 HF460BGA-B1	HF500BGA-B1 HF500BGA-B2
SMPS	Vendor	SEM SEM	SEM	SEM	POWERNET	SEM
	Code	BN44-00605A BN44-00607A	BN44-00609A	BN44-00609A	BN44-00610B	BN44-00612A
	Spec.	L32SF_DSM L32S1P_DSM	L42SF_DSM	L42SF_DSM	L46SF_DPN	L55S1_DSM
MAIN ASSY	Chassis Ass'y	BN91-10501X	BN91-10501Y	BN91-10501Z	BN91-10508G	BN91-10508H
		Depending on Region, Chassis Ass'y is different.				
	PBA Ass'y code	BN94-06268X	BN94-06268Y	BN94-06268Z	BN94-06273G	BN94-06273H
		Depending on Region, PBA Ass'y code is different.				
Byte	Item					
0	Factory Reset	-	-	-	-	-
1	Type	32R6AF0S 32A6AF0S	39L6AF0S	42R6AF0S	46A6AF0S 46R6AF0S	50R6AF0S 50R6AF0S
2	Local Set	EU	EU	EU	EU	EU
		Depending on Region, Local Set is different.				
3	SW Model	UF5000	UF5000	UF5000	UF5000	UF5000
4	BOM Model	5000	5000	5000	5000	5000
5	Tuner	TC	SI_ADI	SI_ADI	SI_ADI	SI_ADI
		T2C	FOX_T2C	FOX_T2C	FOX_T2C	FOX_T2C
		TCS2	SI_TCS2	SI_TCS2	SI_TCS2	SI_TCS2
6	Ch Table	NONE	NONE	NONE	NONE	NONE

■ 4000

Model Name		UE32F4000	UE32F4800
Panel	Vendor	CMI SDC CSOT	SDC
	Code	BN07-01263A BN95-00882A BN07-01293A	BN95-01089A
	Spec.	HF320AGM-C1 LSF320AN01-A HF320AGH-C1	LSF320AN01
SMPS	Vendor	DONGYANG	SEM
	Code	BN44-00604B	BN44-00608A
	Spec.	L32S0_DDY	L32SSN_DSM
MAIN ASSY	Chassis Ass'y	BN91-10507R	BN91-10317C
		Depending on Region, Chassis Ass'y is different.	
	PBA Ass'y code	BN94-06272R	BN94-06173C
		Depending on Region, PBA Ass'y code is different.	
Byte	Item		
0	Factory Reset	-	-
1	Type	32P6AH0S 32A6AH0S	32A6AH0S
2	SW Model	UF4000	UF4800
3	BOM Model	4000	4800
4	Local Set	EU	CIS_RUSSIA
		Depending on Region, Local Set is different.	
5	Tuner	TC	SI_ADI
		T2C	FOX_T2C
		TCS2	SI_TCS2
6	Ch Table	NONE	NONE

4-3-2. Entering Factory Mode

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

- If you do not have Factory remote control



- If you have Factory remote control



- If you don't have Factory remote control, can't control some menus. (Expert, Advanced menu)

Option	T-MST13DEUC-xxxx
Control	T-MST13DEUS-xxxx
Debug	E-Manual : X13DVBEU*F-xxxx
SVC	EDID SUCCESS
ADC/WB	CALIB : AV/COMP/PC/HDMI/
Advanced	Option : 32R6AF60S,EU,5000,NONE
	USB RS232C : OFF
	SDAL-X13-MAIN-xxxx-xxxx
	RFS:"X13 xxxx" KER/20xx-xx-xx
	KERNEL:x.xxxx,D/Onboot:xxxx
	TCON Version:----
	DTP-DTVTD-xxxx
	Model: UE32F5000
	CIP SUCCESS
	Factory Data Ver:xx
	EERC Version: xx
	DTP-BP-HAL-xxxx
	DTP-AP-CNC-xxxx
	DTP-AP-MM-xxxx
	DTP-BP-MW-xxxx
	DTP-BP-APP-xxxx
	POP-PNG-xx-xxxx
	Date of purchase: -/-----

- How to enter the hidden factory mode.

1. Into the factory mode.
2. Move the tap to Advanced.
3. Key input : 0 + 0 + 0 + 0.

NOTE

hidden menu : Advanced

4-3-2. Factory Data



Note

- Version of the software is written in 0002.
- Black : I should not be possible to adjust or change that does not require a change item
- Blue : Adjustment Services for the corresponding
- Red : Items that are secured

■ Option

Factory Menu Name	Data	Range	Remark	Key
Factory Reset	-	-		
Type	46A6AF0S		32P6AH0S(UF40** only) 32R6AF0S/39L6AF0S/ 42R6AF0S/46A6AF0S /50R6AF0S(UF50** only)	
Local Set	Local Set		Select Local	
SW Model	UF5000		UF4000/UF48000	
BOM Model	5000		4000/4800	
TUNER	SI_ADI		SI_ADI/FOX_T2C/ SI_TCS2	
Ch Table	NONE, Each Factory			
MRT Option				
Front Color	U-S-C-5K			
Lvds Format	JEIDA			
Language_Arabic	EU			
Region	PANEURO			
PnP Language	ENG			
WIFI REGION	E			
OTN Support	OFF			
OTA Support	General			
MediaPlay DLNA	...			
TTX	ON			
China HD	OFF			
NT Conversion	OFF			
Num of DTV	1			
Num of AV	1			
Num of COMP	1			
Num of HDMI	2			
Num of SCART	1			
Num of USB Port	1			
Num of RVU	0			
Num Of Display	2			

Factory Menu Name	Data	Range	Remark	Key
Num of IPTV	0			
Num of RUI	0			
Num of PVR RECORD	0			
TOOLS Support	57			
LNA Support	OFF			
24Px4 Support	OFF			
BD Wise Support	OFF			
Data Service Support	OFF			
PVR Support	OFF			
CI Support	ON			
LEDMotionPlus Support	ON			
Natural Mode Support	ON			
Relax Mode Support	OFF			
HDMI/DVI SEL	2			
Select LCD/PDP	LCD			
Wall Mount	0			
HV Flip	HV Flip			
Light Effect	OFF			
e-POP Default	1			
CAMERA Support	OFF			
NETWORK Support	Not Support			
EcoSensor Support	ON			
3D Support	OFF			
BT Support	OFF			
BT ADDRESS	0			
HP LINE	Headphone			
Engineer option				
Auto Power	MEMORY			
Type Of PANEL KEY	None			
5 Way Function Key	R_BACK			
Contents Bar	OFF			
Cable Modulation	...			
Standby led on/off	OFF			
Recognition Support				
IF AGC	0			
D AGC	0			
PH BW	0			

4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
FQ BW	0			
PH RATE	0			
PD EN	0			
PEQ Inx	0			
WF Scale				
WF Type	0			
Num of Network Stream	0			
DP V Size	0			
Backend Device	NONE			
BT_AUDIO_ON_OFF	OFF			
Config_AV_PATH				
V_HDMI IDENT TYPE	1234			
V_HDMI PATH TYPE	ABCD			
V_EDID TYPE	LCD_FHD			
V_ATV	CVBS_PORT_0			
V_AV1	AV_COMP_G2			
V_AV2	None			
V_COMP1	ADC_PORT_2			
V_COMP2	None			
V_PC	ADC_PORT_0			
V_SCART1_CVBS	CVBS_PORT_3			
V_SCART1_RGB	ADC_PORT_1			
V_SCART2_CVBS	None			
V_SCART2_RGB	None			
A_ATV	SIF			
A_DTV	DECODER			
A_AV1	AUIN2			
A_AV2	None			
A_COMP1	AUIN2			
A_COMP2	None			
A_PC	AUIN0			
A_SCART1	AUIN3			
A_SCART2	None			
A_DVI	AUIN0			
A_HDMI	SPDIF			
A_Media	DECODER			
USING_PSI_UPDATE	...			

Factory Menu Name	Data	Range	Remark	Key
ECO Standby	OFF			
Fast Logo Delay	0			
Num Of PANEL KEY	6			

■ Control

Factory Menu Name	Data	Range	Remark	Key
EDID				
EDID ON/OFF	OFF			
EDID WRITE ALL	...			
EDID WRITE PC	...			
EDID WRITE HDMI	...			
EDID WRITE HDMI1				
EDID WRITE HDMI2				
EDID WRITE HDMI3				
EDID WRITE HDMI4				
EDID Ver	...	HDMI 1.2/HDMI1.3		
EDID Port		NONE/HDMI1/HDMI3/HDMI4		
EDID WRITE DVI	...			
Sub Option				
RS-232 Jack	UART	Debug/UART		
Serial Log On/Off	ON	ON/OFF		
Watchdog	OFF			
Checksum	0x0000			
Fast Boot in Production	ON			
USB Serial	OFF			
Eeprom Reset				
ECO IC TYPE	CT802FN			
Info Link Server Type	operating			
Info Link Country	None			
TTX Group	UserOSD	EU / EAST ASIA		
Visual Test	...			
MediaPlay DB	...			
OPTION_SWU				
OTN Server Type	OFF			
OTN Test Server				
SWU Reset	OFF			
SWU Duration	OFF			
SWU Fail Test	OFF			

4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
OPTION_NUM				
Num of ATV	1			
Num of SVIDEO	0			
Num of PC	0			
Num of DVI	0			
Num of OPTICAL Link	1			
Num of MEDIA	1			
Num of tuner	1			
Num of ISP	0			
RF Remocon Support				
CDD mode	...			
DPMS Support	OFF			
Num of IPTV CIP	0			
Num of CI	1			
Num of DECODER	0			
T-CON Device				
BOARD CONTROL	OFF			
RM				
Server Type	Operating			
RTS Mode	OFF			
PSA				
FKP Download1	0			
FKP Download2	0			
LMK threshold	3			
Low threshold	10			
High threshold	15			
CSB	ON			
CLB	ON			
EEPG Enable				
PDP Option				
Pixel shift Test	...			
Logic SW	...			
Panel Temperature	...			
LOGIC Waveform Day	...			
Logic CheckSum	...			
MRT	...			
SAPC Timer	...			

Factory Menu Name	Data	Range	Remark	Key
APC Speed	...			
HOTEL Option				
Hospitality Mode	OFF			
Power On	...			
Menu OSD	...			
Operation	...			
Music Mode	...			
External Source	...			
Eco Solution	...			
Cloning	...			
Shop Option				
Shop Mode	OFF			
Exhibition Mode	OFF			
3D Cube	OFF			
Asia Option				
Unbalance	OFF			
AF Level adjust	3			
TX Power Level	0			
Mono Last Memory	OFF			
H Shaking	OFF			
SOUND				
Carrier Mute	OFF			
High Devi	OFF			
Speaker Delay Normal	0x46h			
SPDIF PCM Gain	-9 dB			
FM M Prescale	0x30h			
FM Prescale	0x44h			
AM Prescale	0x32h			
NICAM Prescale	0x48h			
BTSC Mono Prescale	0x19h			
BTSC stereo Prescale	0x2Fh			
BTSC SAP Prescale	0x2Bh			
A2Ident High Thld	36			
A2Ident Low Thld	9			
Pilot Level High Thld	0x28h			
Pilot Level Low Thld	0x10h			
Carrier2 Amp High Thld	4			

4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
Carrier2 Amp Low Thld	3			
Carrier2 SNR High THR	16			
Carrier2 SNR Low THR	80			
Sig Error On	35			
Sig Error Off	41			
Amp Model	NTP7412			
Amp Volume	0xc7h			
Amp Scale	0x9ah			
Amp Check Sum	0x0143C040			
Woofers Type	0			
Woofers Volume	0xc7h			
Woofers Scale	0x8ah			
Woofers Check Sum	NONE			
Woofers Local EQ Checksum	0			
Speaker EQ	ON			
PEQ Test	Ready			
Local Speaker EQ	0			
Local EQ Checksum	0			
Speaker cut-off Freq	4			
Audio-IP Test				
SRS Tuning Parm	0			
TruBass-CheckSum	0			
Mic Scale	0			
Subwoofer Support	0			
India Sound	OFF			
AudioDock BT delay	50			
Wall Filter Type	0			
Wiselink Delay Menu	70			
Temp Private Range Use	ON			

■ DEBUG

Factory Menu Name	Data	Range	Remark	Key
Spread spectrum				
LVDS Spread	ON			
DDR Spread	1.0% Spectrum			
Period	30K			
Amplitude	0.0			
HD SSC ON/OFF	ON			

Factory Menu Name	Data	Range	Remark	Key
HD SSC Value	1			
LVDS SSC ON/OFF	ON			
LVDS SSC Value	0			
DDR SSC ON/OFF	ON			
DDR SSC Value	1			
FRC LVDS SSC ON/OFF	ON			
FRC LVDS SSC MRR	10			
FRC LVDS SSC MFR	1			
FRC LVDS SSC Period	1			
FRC LVDS SSC Modulation	1			
FRC DDR SSC ON/OFF	ON			
FRC DDR SSC MRR	15			
FRC DDR SSC MFR	1			
FRC DDR SSC Period	1			
FRC DDR SSC Modulation	1			
DDR Margin				
A CTRL_OFFSET_0_3	0x0			
A CTRL_OFFSET_D	0x0			
B CTRL_OFFSET_0_3	0x0			
B CTRL_OFFSET_D	0x0			
ND ADJ Support	OFF			
MICOM POWER OFF	OFF			
RF Mute Time	6ms			
CI+1.3	ON			
FRC				
Tuner Margin	10			
MPEG Margin	1000			
H.264 Margin	8			
CAM Wait Time				
TS Clock delay	0			
TCON_TEMP READ	0.00			
TEMP LAST	60.00			
DCC VERSION	0x0			
DCC CHK SEL	0			
DCC CHECK LOCAL	0x0			
DCC CHECK TOTAL	0x0			
MultiACC Checksum	0			
IIC Bus Stop	OFF			

4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
Tuner Status				
HHP OPTION	0			
RM_BIST_DTV				
RM_BIST_ATV				

■ SVC

Factory Menu Name	Data	Range	Remark	Key
Test Pattern				
Pattern Sel	...			
Logic Pattern Sel	...			
Logic Level Sel	0			
FRC Pre Test Pattern	0			
FRC Post Test Pattern	OFF			
SOC TCON Test Pattern				
SOC TCON Pattern Level	21Hr			
SOC TCON FRC Pattern	...			
HDMI WB Pattern				
HDMI Pattern Sel				
Parma Pre Test Pattern	0x3076			
Parma Post Test Pattern				
Panel Display Time				
SVC Info				
Delete S/N				
Upgrade				
T-CON Usb Download				
T-CON CheckSum				
Logic Usb D/L				
SUBMICOM UPGRADE				
BT UPGRADE				
BT FREPAIRING				
Function Upgrade				
FRC3D FW Upgrade				
Camera Upgrade				
Mic Upgrade				
CPLD USB Download				
JP MICOM UPGRADE				
DP MICOM UPGRADE				

Factory Menu Name	Data	Range	Remark	Key
Jump Upgrade				
IR Blaster Upgrade				
CPLD Download				
Smart Hub Reset				
ER Count				
WD Count				
AR Count				
WIFI ER Count				
BT ER Count				
HDMI Err Cnt				
Camera ER Count				
LOG(View Log)				
Self Diagnosis				
IPERF	Stopped			
OPTION_HDMI				
DVI/HDMI SOUND	Auto			
HDMI HOT PLUG	Disable			
HOTPLUG SWITCHING	Boot			
HOTPLUG DURATION	1200ms			
CLK TERM DURATION	1200ms			
HDMI FLT CNT SIG	100ms			
HDMI FLT CNT LOS	100ms			
UNSTABLE BAN CNT	5000ms			
HDMI ROBIN	ON			
HDMI Callback	OFF			
HDMI CTS THLD	8			
HDMI CTS Cnt1	1			
HDMI EQ	AUTO			
HDMI Write Type	Combine			
HDMI Switch	NONE			
DVI SET TIME	300ms			
HDMI Sync	DE			
HDMI 3D DET	0			
HOT PLUG OFF HOLD TIME				
Expert				
N/D ADJ	OFF			
Source	...			

4. Troubleshooting

Factory Menu Name	Data	Range	Remark	Key
DVB CI				
TS Clock delay TC				
TS Clock delay S				
CI Control Buf On	ON			
TS Clock delay CPU	-1			
CAL Data Backup				
CAL Data Restore				

■ ADC/WB

Factory Menu Name	Data	Range	Remark	Key
ADC				
AV Calibration	Success			
Comp Calibration	Success			
PC Calibration	Success			
HDMI Calibration	Success			
ADC Target				
1st_Y_GH		0~255		
1st_Y_GL		0~255		
1st_Cb_BH		0~255		
1st_Cb_BL		0~255		
1st_Cr_RH		0~255		
1st_Cr_RL		0~255		
2nd_R_L		0~255		
2nd_G_L		0~255		
2nd_B_L		0~255		
2nd_R_H		0~255		
2nd_G_H		0~255		
2nd_B_H		0~255		
White Balance				
R-Offset	128			
G-Offset	128			
B-Offset	128			
R-Gain	128			
G-Gain	128			
B-Gain	128			
WB_W2_R_Offset	128			
WB_W2_B_Offset	128			
WB_W2_R_Gain	165			

Factory Menu Name	Data	Range	Remark	Key
WB_W2_B_Gain	72			
WB_N_R_Offset	128			
WB_N_B_Offset	128			
WB_N_R_Gain	151			
WB_N_B_Gain	110			
MGA				
MAG On/Off	OFF			
R1_Gain				
G1_Gain				
B1_Gain				
R2_Gain				
G2_Gain				
B2_Gain				
R3_Gain				
G3_Gain				
B3_Gain				
R4_Gain				
G4_Gain				
B4_Gain				
R5_Gain				
G5_Gain				
B5_Gain				
R6_Gain				
G6_Gain				
B6_Gain				
R7_Gain				
G7_Gain				
B7_Gain				
R8_Gain				
G8_Gain				
B8_Gain				
R9_Gain				
G9_Gain				
B9_Gain				
R10_Gain				
G10_Gain				
B10_Gain				

4-4. White Balance

4-4-1. Calibration

1. Into the Factory Mode.
2. Select **SVC** Menu.
3. Select **ADC/WB** menu.
4. Select **ADC** menu.



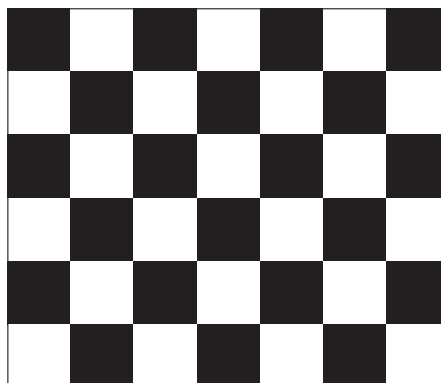
4-4-2. Service Adjustment

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

■ Color Calibration

- Adjust Specification

Source	Setting Mode	Pattern	Use Equipment
HDMI	1280 x 720@60 Hz	Pattern #24 (Chess Pattern)	CA210 & Master MSPG925 Generator



(Chess Pattern)

- 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 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 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)

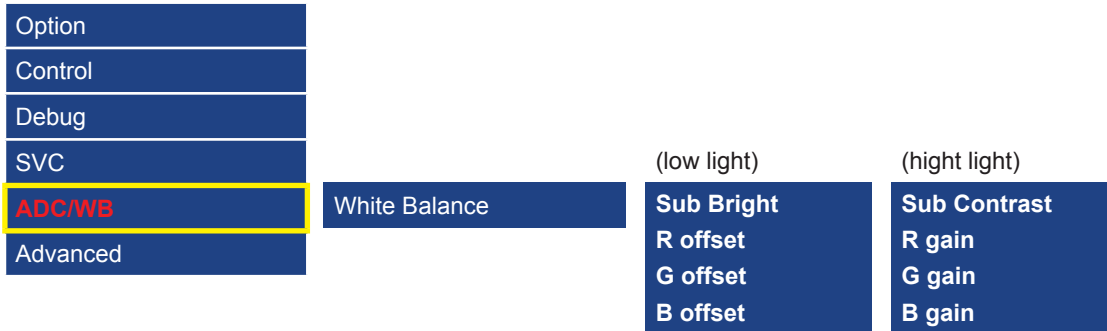
1. Apply the VESA XGA Lattice (N0. 21) pattern signal to the PC IN port.
2. Press the Source key to switch to "PC" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "PC Calibration" menu.
6. In "PC Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration 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.

4-4-3. Adjustment

1. Into the Factory Mode.
2. Select **SVC** Menu.
3. Select **ADC/WB** menu.
4. Select **White Balance** menu.



4-5. White Ratio (Balance) Adjustment

- You can adjust the white ratio in factory mode (1:Calibration, 3:White-Balance).
- Since the adjustment value and the data value vary depending on the input source, you have to adjust these in CVBS, Component 1 and HDMI 1 modes.
- The optimal values for each mode are configured by default. It varies with Panel's size and Specification.
 - Equipment : CS-210
 - Pattern: MIK K-7256 #92 "Flat W/B Pattern" as standard
 - Alternate Equipment : CA200& anyone Master supported pattern#92(refer to right photo)
 - Use other Equipment only after comparing the result with that of the Master equipment.
 - Set Aging time : 60 min



Calibration and Manual setting for WB adjustment

- HDMI : Calibration at #24 Chessboard Pattern Manual adjustment at #92 pattern (720p)
- COMP: Calibration at #24 Chessboard Pattern Manual adjustment at #92 pattern (720p)
- CVBS: Calibration at #24 Chessboard Pattern Manual adjustment at #92 pattern (NTSC)



Note

If finishing in HDMI mode, adjustment coordinate is almost same in AV/COMP mode.

White Balance Manual adjustment

- F4000_5000

Type
LED_LOW

RGB Measurement		
Levels	Code	Check
10 IRE	0x01	O
20 IRE	0x02	O
30 IRE	0x03	X
40 IRE	0x04	O
50 IRE	0x05	X
60 IRE	0x06	X
70 IRE	0x07	O
80 IRE	0x08	X
90 IRE	0x09	X
100 IRE	0x0A	O

Panel Inspection Spec.				
Levels	Check	x(±)	y(±)	Gamma(±)
10 IRE	O	0.020	0.020	0.35
20 IRE	O	0.020	0.020	0.35
30 IRE	O	0.020	0.020	0.35
40 IRE	O	0.020	0.020	0.35
50 IRE	O	0.020	0.020	0.35
60 IRE	O	0.020	0.020	NA
70 IRE	O	0.020	0.020	NA
80 IRE	O	0.020	0.020	NA
90 IRE	O	0.020	0.020	NA
100 IRE	O	NA	NA	NA

4. Troubleshooting

Gray Check			Adjust Spec(xyL)			2nd Adjust Spec(xyL)		
Levels	Code	Check	x(±)	y(±)	L(±)	x(±)	y(±)	L(±)
10 IRE	0x01	X	0.007	0.007	0.11	0.007	0.007	0.11
20 IRE	0x02	O	0.007	0.007	0.08	0.007	0.007	0.08
30 IRE	0x03	X	0.007	0.007	0.06	0.007	0.007	0.06
40 IRE	0x04	O	0.005	0.005	0.05	0.005	0.005	0.05
50 IRE	0x05	X	0.005	0.005	0.04	0.005	0.005	0.04
60 IRE	0x06	X	0.005	0.005	0.03	0.005	0.005	0.03
70 IRE	0x07	O	0.004	0.004	0.02	0.004	0.004	0.02
80 IRE	0x08	X	0.004	0.004	0.01	0.004	0.004	0.01
90 IRE	0x09	X	0.004	0.004	0.01	0.004	0.004	0.01
100 IRE	0x0A	X	NA	NA	NA	NA	NA	NA

Target Gamma		2.30	
Black	x	y	Contrast
	0.231	0.208	300000
Target xy	Option	x	y
	Auto	0.282	0.299

Panel Spec.		±	
Gamma	2.2	0.30	20~128
x	0.281	0.030	255
y	0.288	0.030	
ACC x	255 white	0.015	26~255
ACC y	x,y value	0.015	

Color Tone Target			Spec.	
High	x	y	x(±)	y(±)
COOL	0.274	0.286	0.004	0.004
NORMAL	0.293	0.307		
WARM2	0.328	0.353		
Low	x	y	x(±)	y(±)
COOL	NA	NA	NA	NA
NORMAL	NA	NA		
WARM2	NA	NA		

10IRE Gamma target	2.30
RetryCount	3

4-6. Software Upgrade

Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

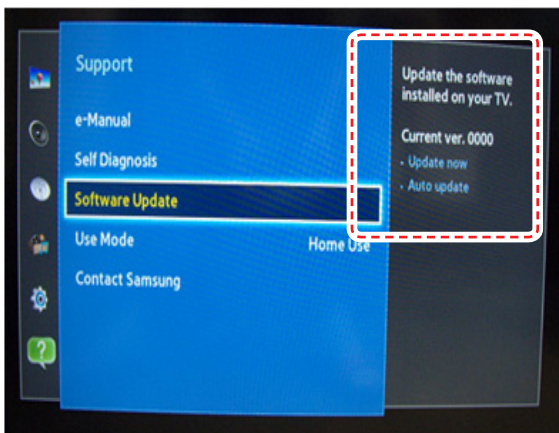
- Current Version - The software already installed in the TV.

Software is represented as 'Year/Month/Day_Version'.

4-6-1. How to Check the Software Version

■ Use the Main Menu

1. Click the "MENU" key in remote controller.
2. Select "Support" menu.
3. Locate the menu cursor "Software Upgrade" menu.
4. Click the "INFO" key.
 - Check the Main SW and Micom version.



■ Use the Factory Mode

Option	T-MST13DEUC-xxxx T-MST13DEUS-xxxx
Control	E-Manual : X13DVBEU*F-xxxx
Debug	EDID SUCCESS
SVC	CALIB : AV/COMP/PC/HDMI/
ADC/WB	Option : 32R6AF60S,EU,5000,NONE
Advanced	USB RS232C : OFF

	Model: UE32F5000
	CIP SUCCESS
	Factory Data Ver:xx
	EERC Version: xx
	DTP-BP-HAL-xxxx
	DTP-AP-CNC-xxxx
	DTP-AP-MM-xxxx
	DTP-BP-MW-xxxx
	DTP-BP-APP-xxxx
	POP-PNG-xx-xxxx
	Date of purchase: -/-----

4-6-2. How to Upgrade Software and Micom

Insert a USB drive containing the firmware upgrade downloaded from samsung.com into the TV. Please be careful not to 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). When software is upgraded, video and audio settings you have made will return to their default (factory) settings. We recommend you write down your settings before beginning firmware update. After update is completed, restore your previous settings.

■ Main Software Upgrade

1. Store the sw program named "T-MST13DEUC" in USB memory stick
 - Connect the USB.



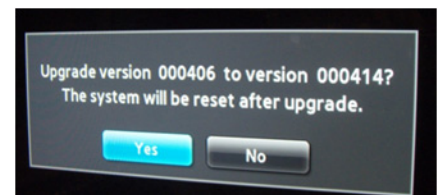
2. Click the "MENU" key in Remote Controller.
3. Select "Support" menu.
Locate the menu cursor "Software Upgrade" menu.



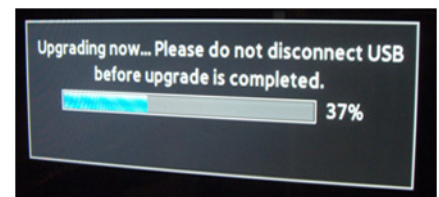
4. Locate the menu cursor "Update now" menu.



5. Click the "ENTER" key.

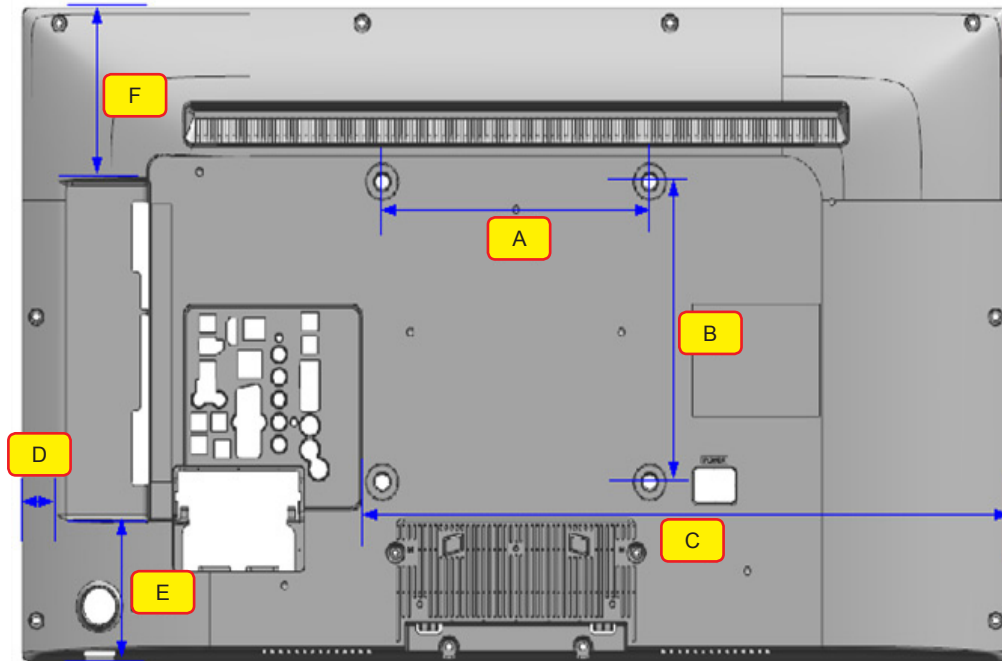


6. Click the "ENTER" key.
 - Wait for upgrade complete.
 - Check the Software Version.



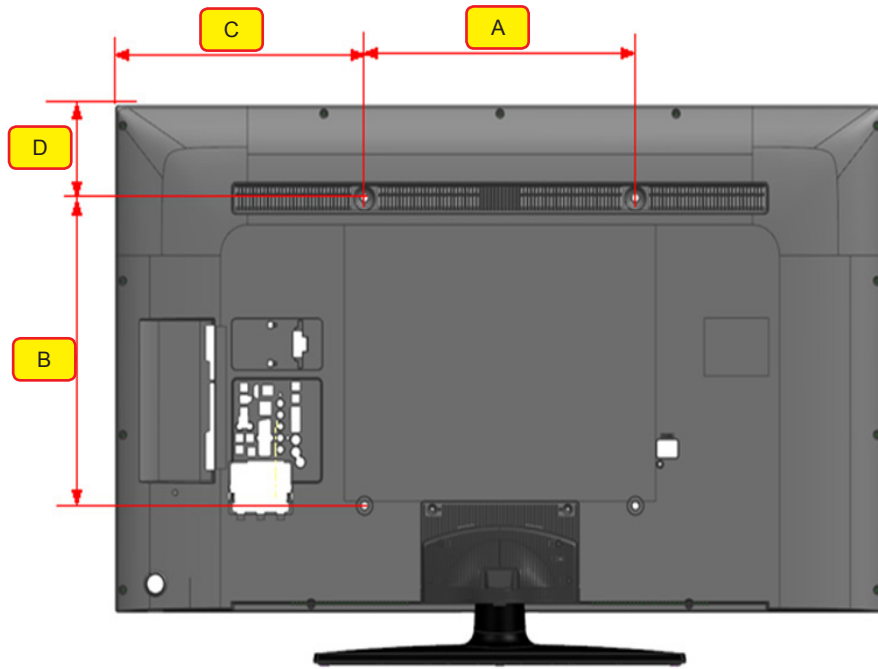
4-7. Rear Cover Dimension

■ UE32F40**AW / UA32F4000AW



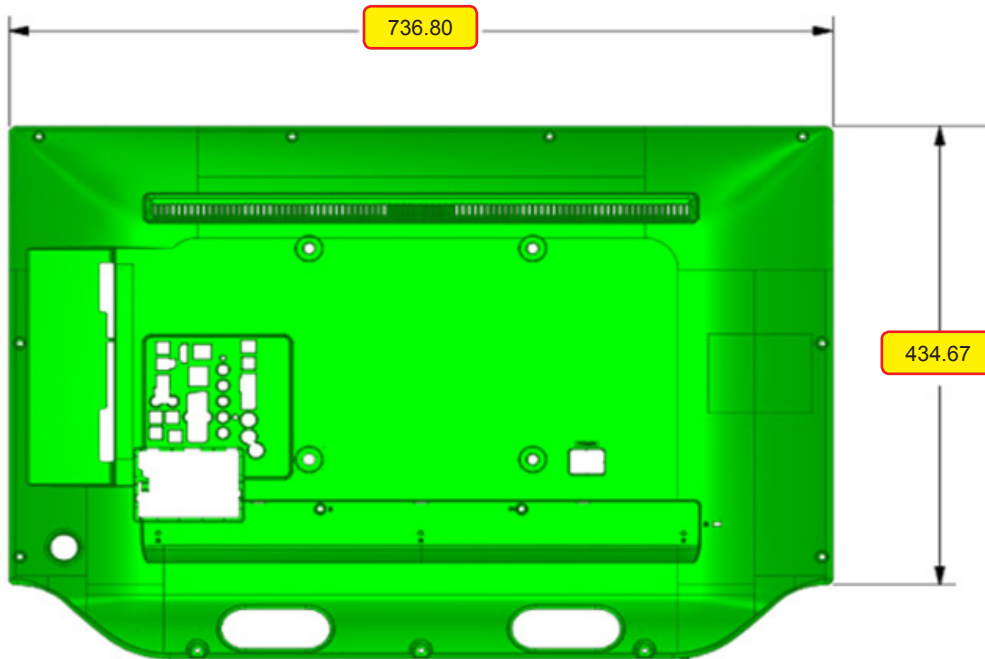
A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
200	200	483.5	25.8	112.4	93.8

■ UE**F50**** / UA**F5000AW



UF5000 (mm)	32"	39"	42"	46"	50"
WALL MOUNT (A X B)	200 X 200	200 X 200	200 X 200	400 X 400	400 X 400
C	269	347.8	385.9	329.8	367.7
D	116.2	136	182.4	78.1	120

■ UE32F4800AW

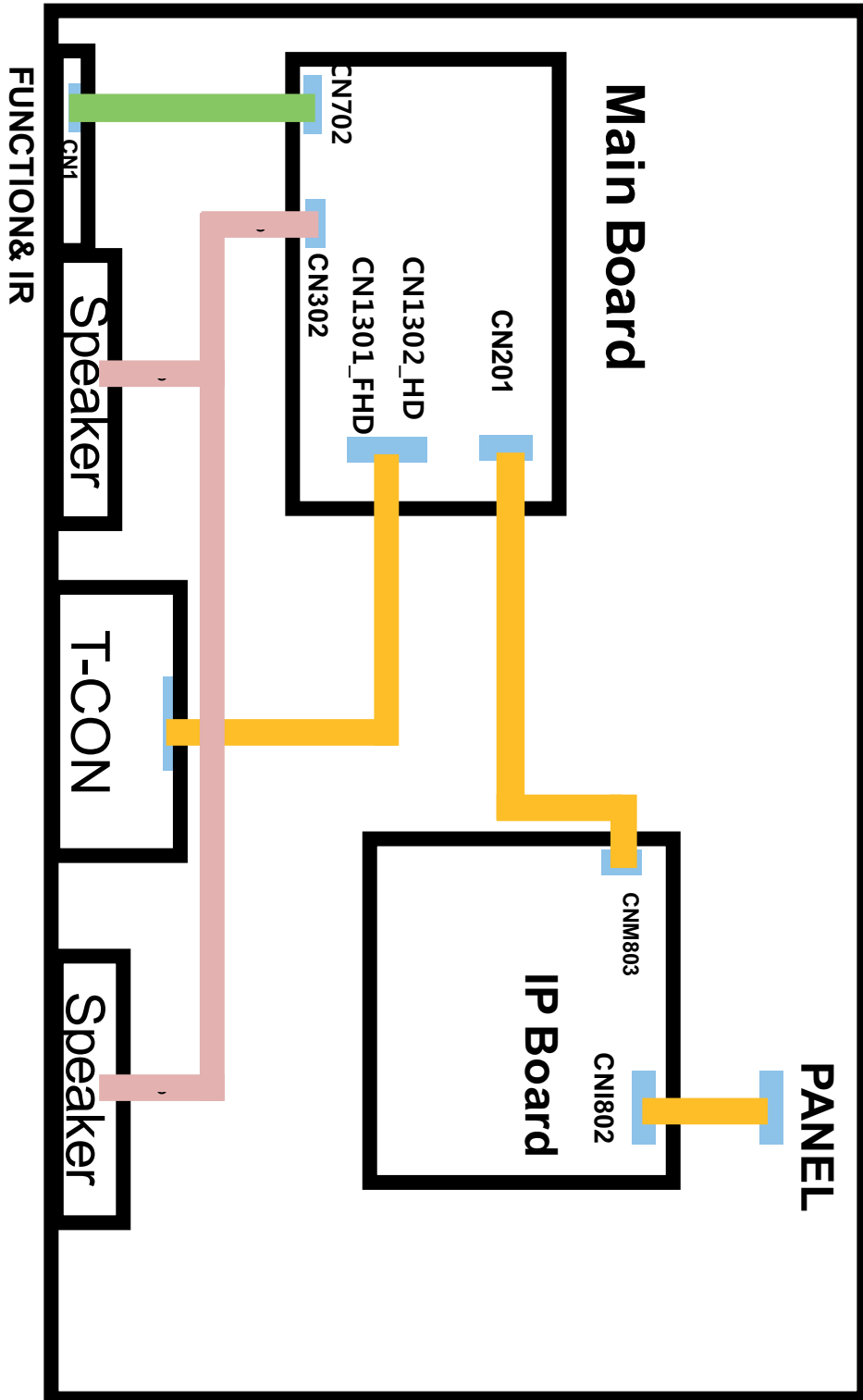


Model	A	B
UF4800 (mm)	736.80	434.67

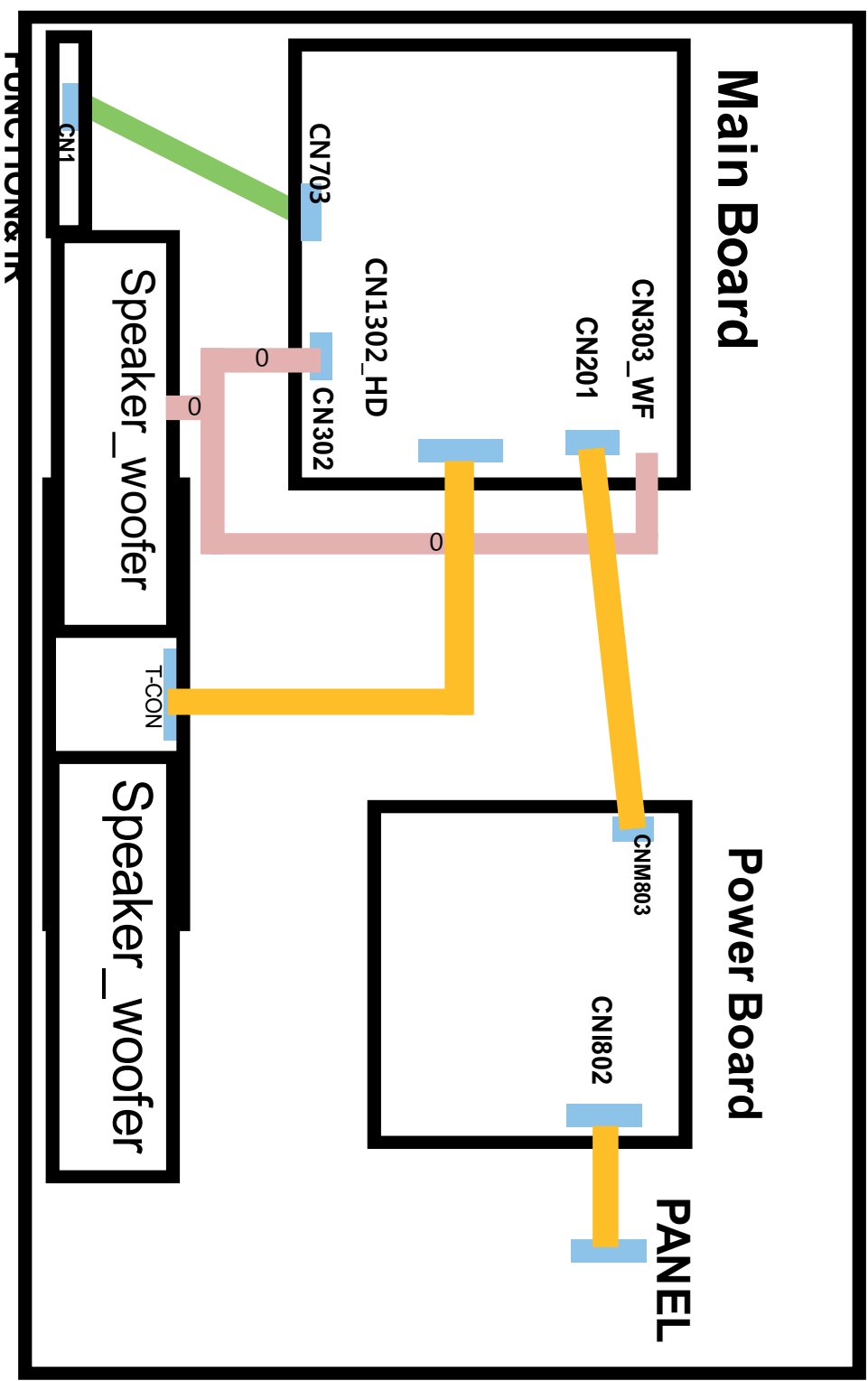
5. Wiring Diagram

5-1. Wiring Diagram

■ U85B_FHD_HD

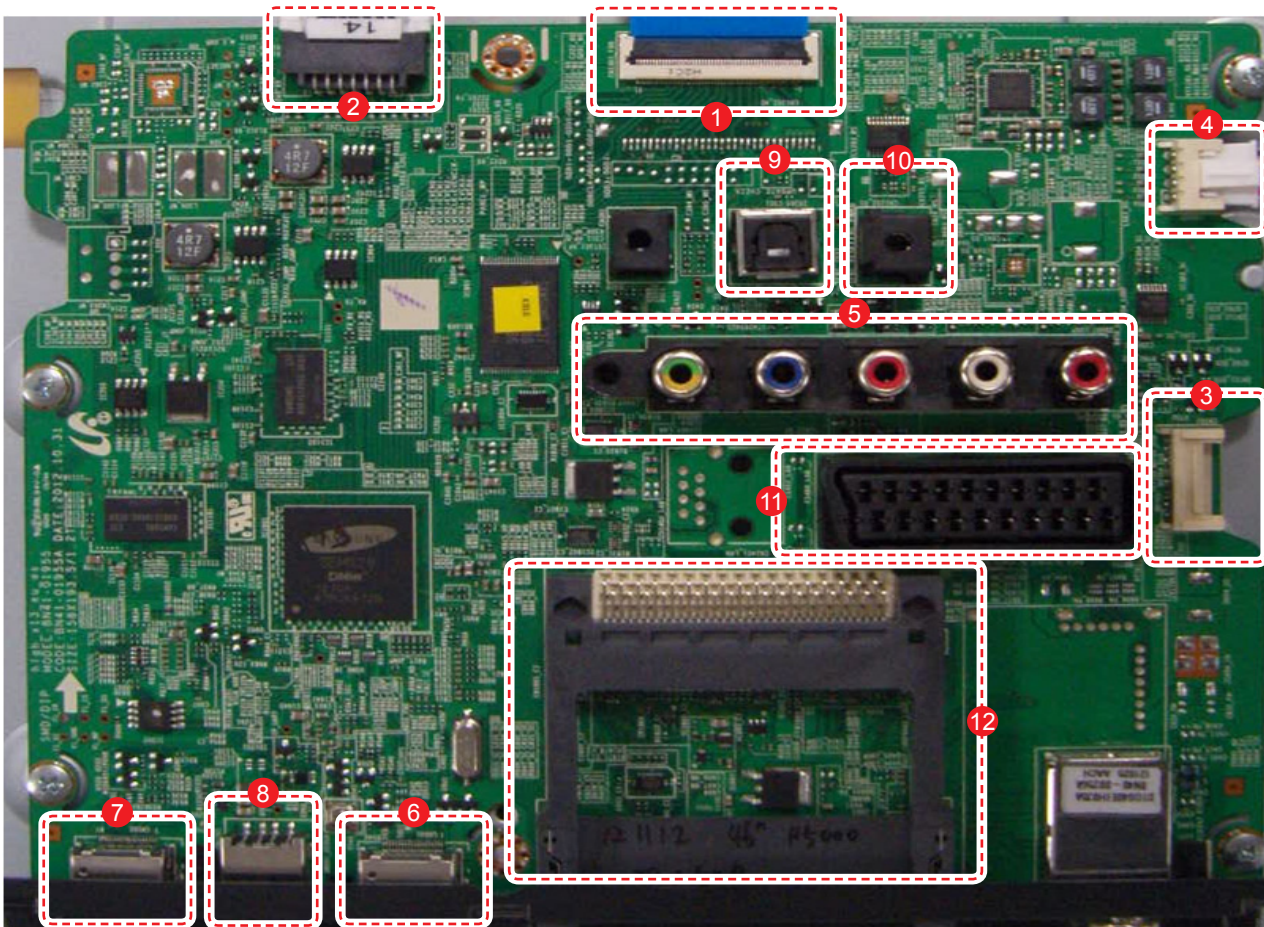


■ U85C_HD



5-2. Connector

■ Main Board



① CN1301_FHD (to Panel)

1	NC	16	EVEN_TX3+_LVDS
2	GND	17	EVEN_TX3-_LVDS
3	NC	18	GND
4	NC	19	EVEN_TXCLK+_LVDS
5	NC	20	EVEN_TXCLK-_LVDS
6	NC	21	GND
7	GND	22	EVEN_TX2+_LVDS
8	TCON_SDA	23	EVEN_TX2-_LVDS
9	PANEL_I2C_EN	24	EVEN_TX1+_LVDS
10	NC	25	EVEN_TX1-_LVDS
11	NC	26	EVEN_TX0+_LVDS
12	TCON_SCL	27	EVEN_TX0-_LVDS
13	GND	28	GND
14	EVEN_TX4+_LVDS	29	ODD_TX4+_LVDS
15	EVEN_TX4-_LVDS	30	ODD_TX4-_LVDS

① CN1301_FHD (to Panel)

31	ODD_TX3+_LVDS	42	ODD_TX0-_LVDS
32	ODD_TX3-_LVDS	43	GND
33	GND	44	GND
34	ODD_TXCLK+_LVDS	45	GND
35	ODD_TXCLK-_LVDS	46	NC
36	GND	47	Panel_13V_PW
37	ODD_TX2+_LVDS	48	Panel_13V_PW
38	ODD_TX2-_LVDS	49	Panel_13V_PW
39	ODD_TX1+_LVDS	50	Panel_13V_PW
40	ODD_TX1-_LVDS	51	Panel_13V_PW
41	ODD_TX0+_LVDS		

5. Wiring Diagram

② CN201 (to Powr board)			
1	B5.3V	8	GND
2	SW_POWER_OUT	9	B13VS
3	B5.3V	10	SW_INVERTER
4	A5.3V	11	B13V
5	GND	12	B13V
6	GND	13	B13V
7	B13VS	14	PWM_DIMM1_OUT

③ CN702 (FUNCTION)			
1	IR	5	MSDA
2	GND	6	KEY_INPUT1
3	A3.3V	7	KEY_INPUT2
4	MSCL	8	LED_STB

④ CN302 (SPEAKER)			
1	R+	3	L+
2	R-	4	L-

⑤ CN403 (COMPONENT)			
1	GND	9	TEST_COMP_PR
2	COMP1_Y_CVBS	10	GND
3	IDENT_VIDEO1	11	COMP1_SL_IN
4	GND	12	TEST_SL
5	COMP1_PB	13	GND
6	IDENT_COMP1	14	COMP1_SR_IN
7	GND	15	TEST_SR
8	COMP1_PR		

⑥ CN501 (HDMI1)			
1	HDMI1_RX2+	11	GND
2	GND	12	HDMI1_RXCLK-
3	HDMI1_RX2-	13	HDMI_CEC
4	HDMI1_RX1+	14	GND
5	GND	15	HDMI1_SCL
6	HDMI1_RX1-	16	HDMI1_SDA
7	HDMI1_RX0+	17	GND
8	GND	18	5V
9	HDMI1_RX0-	19	STB_CHECK
10	HDMI1_RXCLK+		

⑦ CN502 (HDMI2)			
1	HDMI2_RX2+	11	GND
2	GND	12	HDMI2_RXCLK-
3	HDMI2_RX2-	13	HDMI_CEC
4	HDMI2_RX1+	14	GND
5	GND	15	HDMI_SCL
6	HDMI2_RX1-	16	HDMI_SDA
7	HDMI2_RX0+	17	GND
8	GND	18	5V
9	HDMI2_RX0-	19	STB_CHECK
10	HDMI2_RXCLK+		

⑧ CN1201 (USB1)			
1	B5V_USB1	3	USB_DP
2	USB_DM	4	GND

⑨ CN301 (Headphone)			
1	GND	5	TEST_SR
2	SL_OUT	6	IDENT_HP
3	SR_OUT	7	GND
4	TEST_SL		

⑩ OP301 (OPTICAL)			
1	SPDIF_OUT	3	GND
2	B5V		

⑪ CN401_SC (SCART)			
1	SC_SR_OUT	12	NC
2	SC_SR_IN	13	GND
3	SC_SL_OUT	14	GND
4	GND	15	SC_R
5	GND	16	SC_FB
6	SC_SL_IN	17	GND
7	SC_B	18	GND
8	IDENT_SC	19	SC_CVBS_OUT
9	GND	20	SC_CVBS_IN
10	NC	21	GND
11	SC_G		

⑫ CN1801_CI (PCMCIA)			
1	GND	35	GND
2	EXT_DATA[3]	36	PCM_CD1
3	EXT_DATA[4]	37	TSO_DATA[3]
4	EXT_DATA[5]	38	TSO_DATA[4]
5	EXT_DATA[6]	39	TSO_DATA[5]
6	EXT_DATA[7]	40	TSO_DATA[6]
7	PCM_CE1	41	TSO_DATA[7]
8	EXT_ADDR[10]	42	PCM_CE2
9	PCM_OE	43	NC
10	EXT_ADDR[11]	44	PCM_IORD
11	EXT_ADDR[9]	45	PCM_IOWR
12	EXT_ADDR[8]	46	CH_START
13	EXT_ADDR[13]	47	CH_DATA[0]
14	EXT_ADDR[14]	48	CH_DATA[1]
15	PCM_WE	49	CH_DATA[2]
16	PCM_IRQA	50	CH_DATA[3]
17	CI_VCC	51	CI_VCC
18	CI_VCC	52	CI_VCC
19	CH_VALID	53	CH_DATA[4]
20	CH_CLK	54	CH_DATA[5]
21	EXT_ADDR[12]	55	CH_DATA[6]
22	EXT_ADDR[7]	56	CH_DATA[7]
23	EXT_ADDR[6]	57	TSO_CLK
24	EXT_ADDR[5]	58	PCM_RESET
25	EXT_ADDR[4]	59	PCM_WAIT
26	EXT_ADDR[3]	60	NC
27	EXT_ADDR[2]	61	PCM_REG
28	EXT_ADDR[1]	62	TSO_VALID
29	EXT_ADDR[0]	63	TSO_START
30	EXT_DATA[0]	64	TSO_DATA[0]
31	EXT_DATA[1]	65	TSO_DATA[1]
32	EXT_DATA[2]	66	TSO_DATA[2]
33	CI_VCC	67	GND
34	GND	68	GND

5-3. Connector Functions

■ U85B_FHD

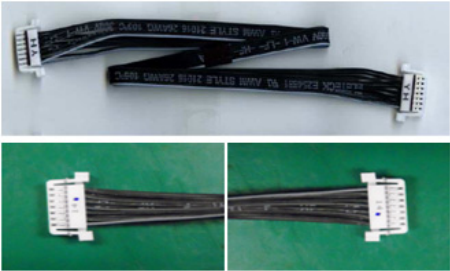
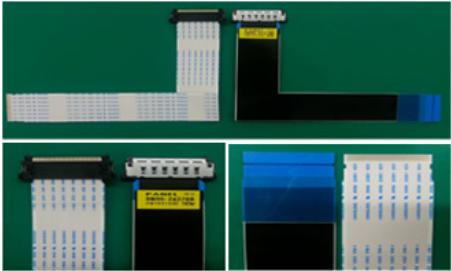
Connector	Function
CN201 ↔ IP CN	Supply main power and dimming signal from IP board to Main Board.
CN1301_FHD ↔ T-CON CNF1	The LVDS signal transferred from Main Board to Panel.

■ U85B_U85C_HD

Connector	Function
CN201 ↔ IP CN	Supply main power and dimming signal from IP board to Main Board.
CN1302_HD ↔ T-CON CNF1	The LVDS signal transferred from Main Board to Panel.

5-4. Cables

■ 5000

Use	LEAD (Main-IP 14P)	LVDS CALBE (Main - Panel 51P)
Code No.	32" : BN39-01455W 39" : BN39-01455K 42" : BN39-01455Z 46" : BN39-01455X 50" : BN39-01455S	32" : BN96-24278R 39" : BN96-26699F 42" : BN96-26699H 46" : BN96-24278S 50" : BN96-24278S
Image		

■ 4000_4800

Use	LEAD (Main-IP 14P)	LVDS CALBE (Main - Panel 30P)
Code No.	32" : BN39-01455W	32" : BN96-20370Z
Image	