LED TV

Chassis : UAE50

Model : UN40J5300AG
UN48J5300AG
UN50J5300AG
UN55J5300AG

SERVICE Manual

LED TV

UN**J5300AG

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2. Product specifications
3. Disassembly and Reassembly
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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

WARNING

For continued safety, do not attempt to modify the circuit board.

Disconnect the AC power and DC power jack before servicing.

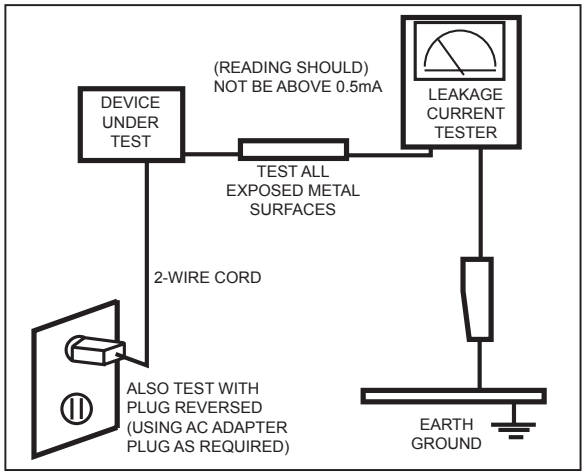
1-1-2. Servicing the LED TV

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 resistorcapacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check:



WARNING

Do not use an isolation transformer during this test.

Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

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

1-2. Servicing Precautions

WARNING

An electrolytic capacitor installed with the wrong polarity might explode.

CAUTION

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

NOTE

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

1-2-1. General Servicing Precautions

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

1-3. Static Electricity Precautions

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

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

CAUTION

Be sure no power is applied to the chassis or circuit and observe all other safety precautions.

8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

1-4. Installation Precautions

1. For safety reasons, more than 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.
8. If an equipment is provided with a replaceable battery, and if replacement by an incorrect type could result in an explosion (for example, with some lithium batteries), the following applies:

CAUTION

- Risk of explosion if battery is replaced by an incorrect type dispose of used batteries according to the instructions.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble or overheat the batteries.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Do not be exposed to excessive heat such as sunshine, fire or the like.

2. Product Specifications

2-1. Product information

<table>
<tr><th>Model</th><th colspan="3">UN**J5300AG</th></tr>
<tr><td>Front View</td><td colspan="3">

* W : Width H : High</td></tr>
<tr><td>Detail View</td><td colspan="3"> </td></tr>
<tr><td>Color</td><td colspan="3">Front Color : Black, Stand Color : MATT BLACK, Deco Color : BLACK(HAIR LINE)</td></tr>
<tr><td rowspan="10">Dimensions
(W x H x D)</td><td rowspan="2">40"</td><td>With Stand</td><td>907.6 x 586.1 x 288.0 mm / 35.7 x 23.1 x 11.3 inches</td></tr>
<tr><td>Without Stand</td><td>907.6 x 529.7 x 66.9 mm / 35.7 x 20.9 x 2.6 inches</td></tr>
<tr><td rowspan="2">48"</td><td>With Stand</td><td>1076.1 x 683.8 x 310.5 mm / 42.4 x 26.9 x 12.2 inches</td></tr>
<tr><td>Without Stand</td><td>1076.1 x 624.4 x 67.1 mm / 42.4 x 24.6 x 2.6 inches</td></tr>
<tr><td rowspan="2">50"</td><td>With Stand</td><td>1117.8 x 706.1 x 310.5 mm / 44.0 x 27.8 x 12.2 inches</td></tr>
<tr><td>Without Stand</td><td>1117.8 x 647.9 x 67.1 mm / 44.0 x 25.5 x 2.6 inches</td></tr>
<tr><td rowspan="2">55"</td><td>With Stand</td><td>1231.6 x 773.1 x 310.5 mm / 48.5 x 30.4 x 12.2 inches</td></tr>
<tr><td>Without Stand</td><td>1231.6 x 711.9 x 67.7 mm / 48.5 x 28.0 x 2.7 inches</td></tr>
<tr><td rowspan="10">Weight</td><td rowspan="2">40"</td><td>With Stand</td><td>8.5 kg / 18.7 lbs</td></tr>
<tr><td>Without Stand</td><td>7.5 kg / 16.5 lbs</td></tr>
<tr><td rowspan="2">48"</td><td>With Stand</td><td>12.5 kg / 27.6 lbs</td></tr>
<tr><td>Without Stand</td><td>11.4 kg / 25.1 lbs</td></tr>
<tr><td rowspan="2">50"</td><td>With Stand</td><td>13.4 kg / 29.5 lbs</td></tr>
<tr><td>Without Stand</td><td>12.3 kg / 27.1 lbs</td></tr>
<tr><td rowspan="2">55"</td><td>With Stand</td><td>14.7 kg / 32.4 lbs</td></tr>
<tr><td>Without Stand</td><td>13.6 kg / 30.0 lbs</td></tr>
<tr><td>Panel Type</td><td colspan="2">All</td><td>Slim LED</td></tr>
<tr><td>DDR</td><td colspan="2">All</td><td>768 Mbtye (Panama:1 G btye)</td></tr>
</table>

2-2. Product specification

2-2-1. Detailed Specifications

NOTE

Design and specifications are subject to change without prior notice.

Item		UN**J5300AGXPR
General Information	Product	LED
	Series	5
	Country	PARAGUAY
Display	Screen Size	40"/48"/50"/55"
	Resolution	1,920 x 1,080
	Ultra Clear Panel	N/A
Video	Picture Engine	HyperReal
	Clear Motion Rate	120
	Motion Refresh Rate	60Hz
	Dynamic Contrast Ratio	Mega Contrast
	Micro Dimming	N/A
	Precision Black (Local Dimming)	N/A
	Nano Crystal Color	N/A
	Wide Color Enhancer (Plus)	Yes
	PurColor	N/A
	Auto Depth Enhancer	N/A
	Contrast Enhancer	N/A
	Auto Motion Plus	N/A
	Film Mode	Yes
	Natural Mode Support	Yes
	Peak Illuminator	N/A
Audio	Dolby Digital Plus	Yes
	Virtual Surround	DTS Studio Sound
	DTS Codec	DTS Premium sound
	3D Sound	N/A
	Sound Customizer	N/A
	Sound Output (RMS)	20W(L:10W, R:10W)
	Speaker Type	2CH(Down Firing + Base Reflex)
	Woofer	N/A
	HD Audio	N/A
	Wallmount Sound Mode	Yes

Item		UN**J5300AGXPR
Audio	Multiroom Link	N/A
	TV SoundConnect	N/A
Smart TV	Samsung SMART TV	Yes
	Apps	Yes
	Game	N/A
	Soccer App	N/A
	Multi-Link Screen	N/A
	ACR (Advertisement)	N/A
	Info Widget	N/A
	Vertical Enhancement	N/A
Smart Interaction	Voice Interaction	N/A
	Voice Control	N/A
	Face recognition	N/A
	Motion control	N/A
Convergence	TV to Mobile - Mirroring	N/A
	Mobile to TV - Mirroring, DLNA	Yes
	RVU	N/A
	Samsung SMART View	N/A
	Wireless TV On - Samsung WOL	N/A
	Notification - BLE	N/A
	Briefing On TV	N/A
	WiDi	N/A
Tuner/Broadcasting	Digital Broadcasting	ISDB-T
	2 Tuner	N/A
	CI/CI+/2CI+	N/A
	Analog Tuner	Yes
	MHP / MHEG / HbbTV / ACAP / GINGA / OHTV	GINGA(UY Only)
Connectivity	HDMI	2
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (Common Use for Component Y)
	Ethernet (LAN)	Yes
	Headphone	N/A
	Audio Out (Mini Jack)	1
	Digital Audio Out (Optical)	1

Item		UN**J5300AGXPR
Connectivity	RF In (Terrestrial / Cable input / Satellite input)	1/1/0
	Ex-Link (RS-232C)	N/A
	IR Out	N/A
	CI Slot	N/A
	Scart	N/A
	MHL	Yes
	Dongle Ready (3G / LTE)	N/A
	HDMI 3D Auto Setting	N/A
	HDMI A / Return Ch. Support	N/A
	HDMI Quick Switch	N/A
	Wireless LAN Adapter Support	N/A
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	R-Chamfer
	Bezel Type	VNB
	Slim Type	Slim
	Front Color	Black
	Light Effect (Deco)	N/A
	Stand Type	V-Stand
	Swivel (Left/Right)	N/A
Additional Feature	Samsung 3D	N/A
	3D Converter	N/A
	Instant On	N/A
	Camera Built-in	N/A
	Wireless Copy	N/A
	Processor	N/A
	PX Ready	N/A
	21:9 Immersive Picture Mode	N/A
	SCSA Support	N/A
	Salatuna Mode	N/A
	Party Mode	N/A
	Photo Board (Wechat)	N/A
	Cricket Prediction	N/A
	Accessibility	Yes(Zoom)
	Digital Clean View	Yes

Item		UN**J5300AGXPR
Additional Feature	One Connect (Jack)	N/A
	Auto Channel Search	Yes
	Auto Power Off	Yes
	BD Wise Plus	N/A
	Caption (Subtitle)	Yes
	Channel List USB-Clone	N/A
	Connect Share™ (HDD)	Yes
	Connect Share™ Transfer	N/A
	ConnectShare™ (USB 2.0)	Yes
	AC/DC TV	N/A
	Sports Mode	Basic
	Screen Capture	N/A
	Sound Capture	N/A
	Story Replay	N/A
	Embeded POP	Yes
	EPG	Yes
	Extended PVR	N/A
	Game Mode	Yes
	IP Video Closed Caption	N/A
	OSD Language	Local
	Picture-In-Picture	Yes
	BT HID Built-in	N/A
	USB HID Support	Yes
	Smart Evolution Support	N/A
	Teletext (TTXT)	N/A
	Time Shift	N/A
	Analog Clean View	N/A
	Ultra Clean View	N/A
	Triple Protector	N/A
Eco Feature	Eco Mark	N/A
	Eco Label	N/A
	Eco Sensor	Yes
	Energy Efficiency Class	N/A
	Mercury Content	0.0 mg
	Lead Presence	Yes

Item		UN**J5300AGXPR
Accessory	3D Active Glasses (Included)	N/A
	Remote Controller Model	TM1240A
	Batteries (for Remote Control)	Yes
	Samsung Smart Touch Control (Included)	N/A
	PX (Included)	N/A
	Ultra Slim Wall Mount Supported	N/A
	Mini Wall Mount Supported	Yes
	Vesa Wall Mount Supported	Yes
	Floor Stand Support	N/A
	TV Camera (Included)	N/A
	IR Extender Cable (Included)	N/A
	Wireless Keyboard (Included)	N/A
	Wireless PC Mirroring Adaptor (Included)	N/A
	Composite to Scart Gender (Included)	N/A
	User Manual	Yes
	E-Manual	Yes
	ANT-Cable	N/A
	Power Cable	Yes
	Slim Gender Cable	N/A

2-2-2. Feature & Specifications

■ Feature

- Digital-TV, RF, 1-HDMI(DVI/MHL), 1-HDMI(STB), 1-USB Dongle(HDD/1A), 1-USB(0.5A), Digital Audio Out(Optical), Audio Out, Ethernet (LAN), 1-Component, 1-A/V(for Southwest Asia model), 2-A/V(for Africa model)
- Brightness : 300 cd/m^2
- Dynamic Contrast Ratio : Mega Contrast
- Response Time : 32" /40" 6 ms, 48" /50" 8 ms
- CMR : 100

■ Specifications

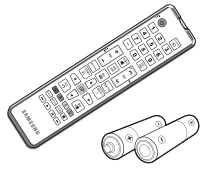
Model	UN**J5300AG

Item	Description			
Screen Size (Diagonal)	40 inches	48 inches	50 inches	55 inches
LCD Panel	FHD 60Hz			
Display Colors	16.7M color			
Display Resolution	1,920 x 1,080			
Input Signal	Analog 0.7 Vp-p ± 5% positive at 75Ω, internally terminated			
Input Sync Signal	H/V Separate, TTL, P. or N.			
AC Power Voltage & Frequency	AC100-240V 50/60Hz			
Environmental Considerations	Operating Temperature: 50˚F ~ 104˚F (10˚C ~ 40˚C) Operating Humidity: 10% ~ 80%, non-condensing Storage Temperature: -4˚F ~ 113˚F (-20˚C ~ 45˚C) Storage Humidity: 5% ~ 95%, non-condensing			
Sound (Output)	20W (10W X 2)			

2-3. Accessories

NOTE

- The items' colors and shapes may vary depending on the model.
- Cables not included in the package contents can be purchased separately.
- The part code for some accessories may differ depending on your region.

Product	Description	Code. No	Remark
	Remote Control & Batteries (AAA x 2)	BN59-01199S	-
		4301-000121	
	Power Cord	3903-000851	
	Manual Users	BN68-06948Q	
	Warranty Card (Not available in some locations)	6801-001157	
	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.

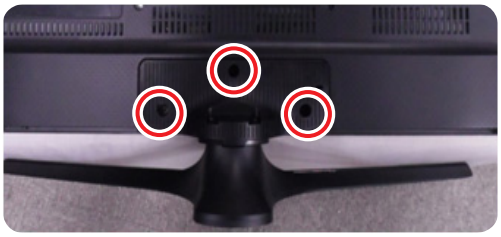
WARNING

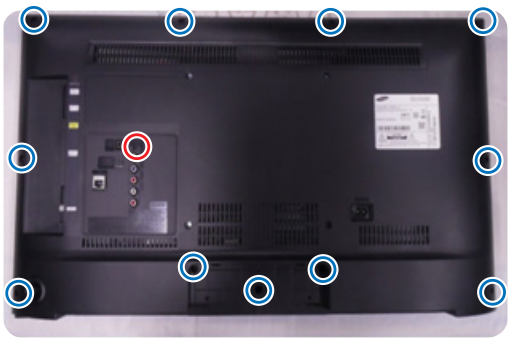
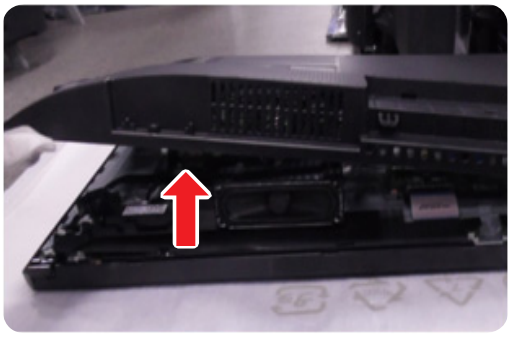
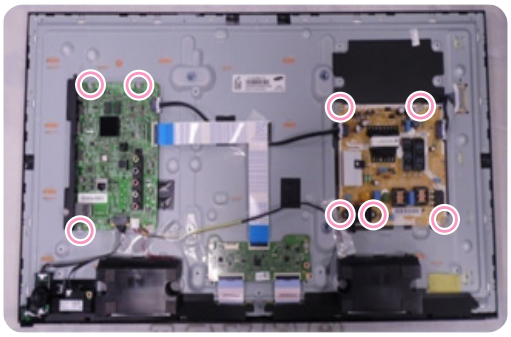
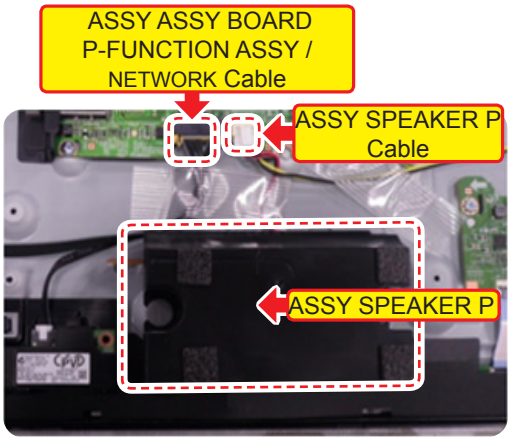
This LED TV contains electrostatically sensitive devices. Use caution when handling these components.

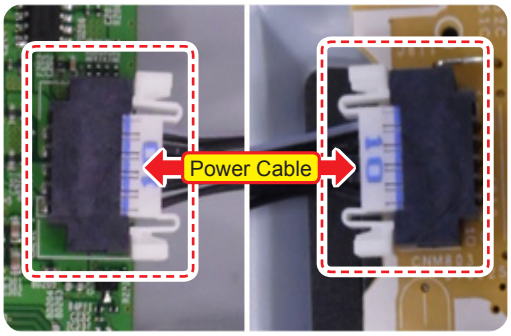
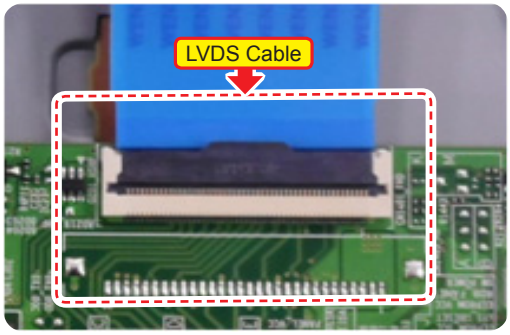
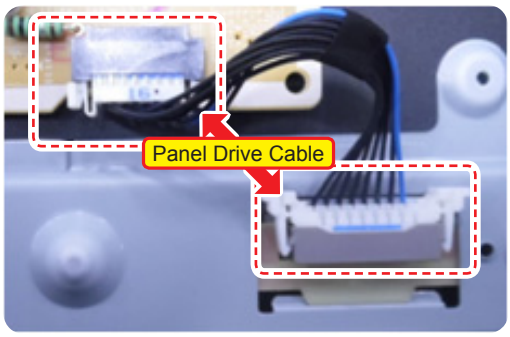
3-1. Disassembly and Reassembly

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 coment, it is same for all inches.

Description	Picture Description	Screws
1 Place TV face down on cushioned table.		
2 Remove 3 Screws from the ASSY GUIDE P-STAND.		6003-001782
3 Remove ASSY GUIDE P-STAND.		

Description	Picture Description	Screws
4 Remove the Screws of ASSY COVER P-REAR.		6003-001782 6003-002755
5 Remove the ASSY COVER P-REAR.		
6 Remove the Screws		6001-003016
7 Remove the ASSY SPEAKER P and Power Cables.		

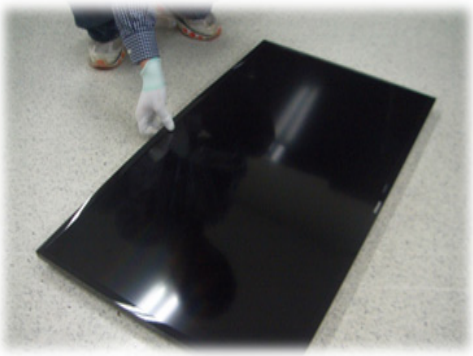
Description	Picture Description	Screws
		
8 Remove the LVDS Cable and Panel Drive Cable.	 	
9 Completed disassembly.		

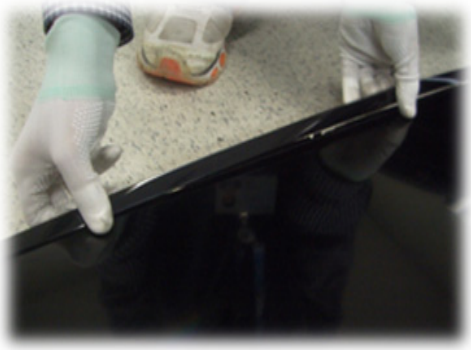
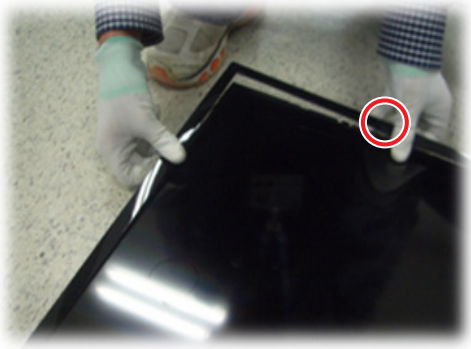
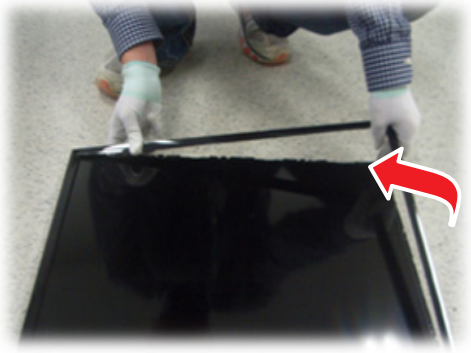
NOTE

Reassembly procedures are in the reverse order of disassembly procedures.

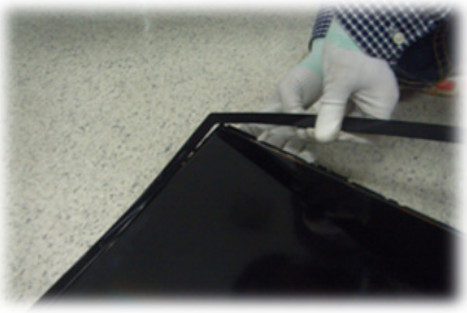
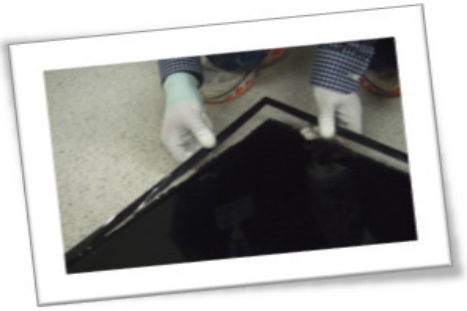
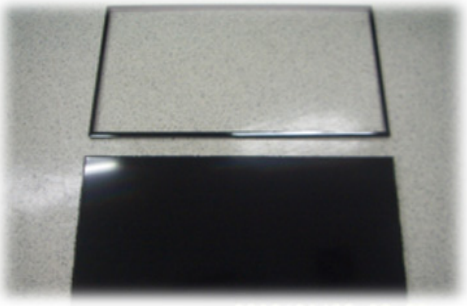
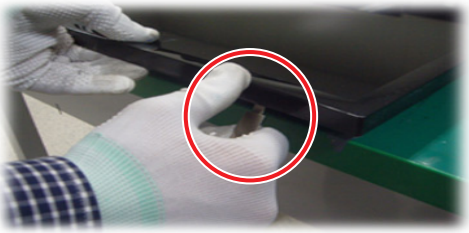
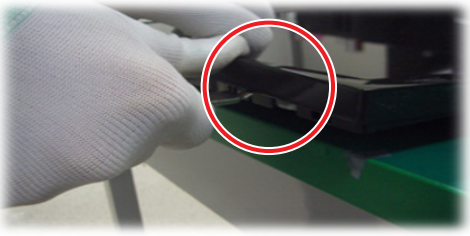
3-2. Disassembly(PTC)

■ 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.	 	

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

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

Description	Picture Description	Refer
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.	 	
9 Disassembly is complete.		
CAUTION To use JIG : Does not lift the chassis by hand, JIG using the lift.	 	

NOTE

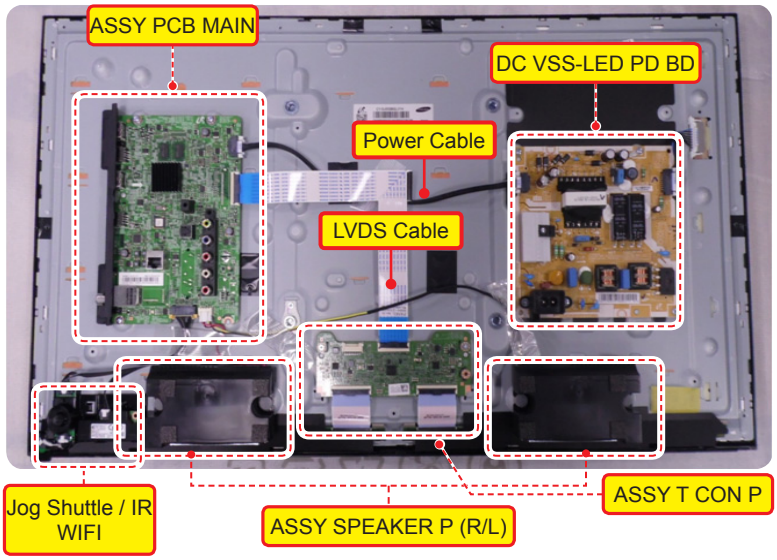
Reassembly procedures are in the reverse order of disassembly procedures.

4. Troubleshooting

4-1. Troubleshooting

■ Previous Check

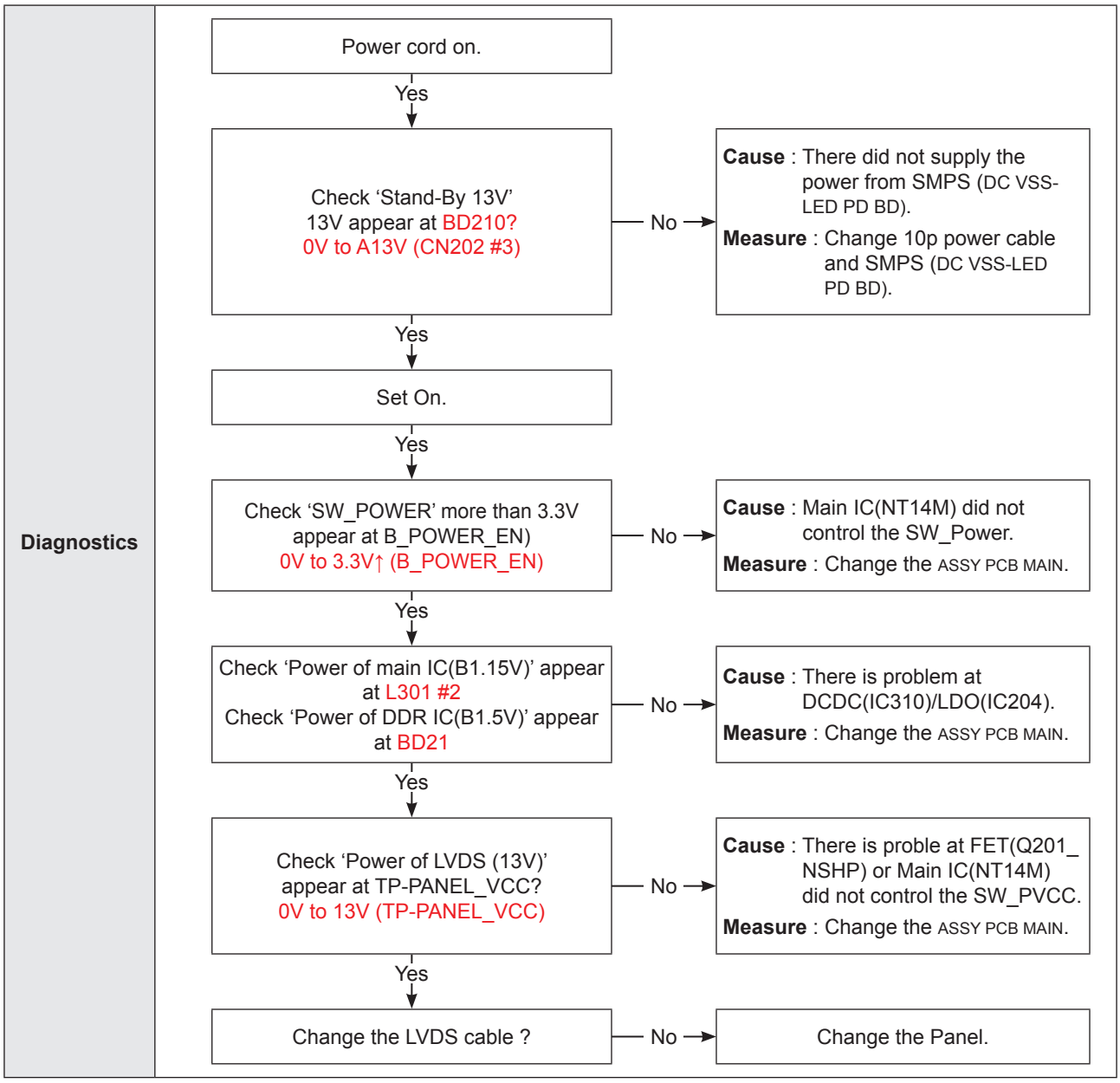
1. Check the various cable connections first.
   - Check to see if there is a burnt or damaged cable.
   - Check to see if there is a disconnected or loose cable connection.
   - Check to see if the cables are connected according to the connection diagram.
2. Check the power input to the ASSY PCB MAIN Board.



ASSY PCB MAIN Board Assy (CN202)			
9	A13V	10	UNDER_DRIVER
7	A13V	8	PWM_DIM
5	A13V	6	SW_POWER_TO _SMPS
3	A13V	4	GND
1	GND	2	GND

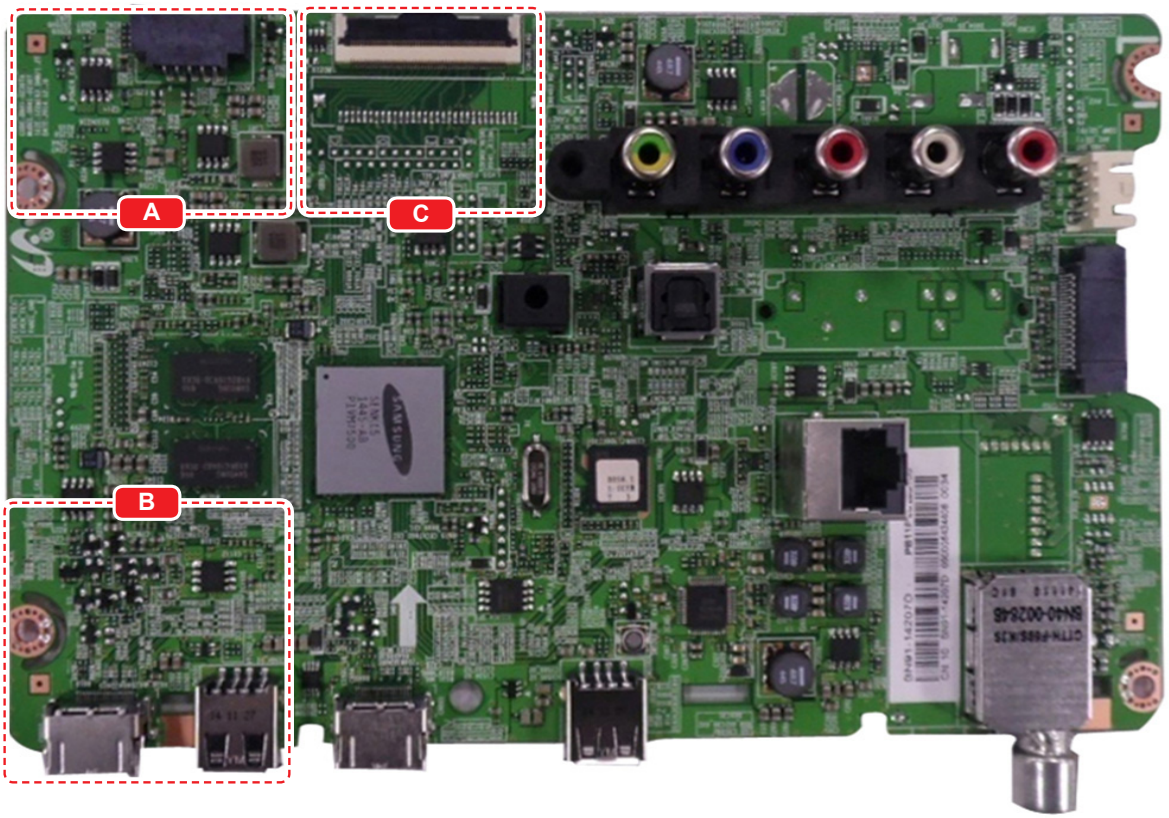
3. Check the power in & output between SMPS (DC VSS-LED PD BD) & ASSY PCB MAIN, ASSY PCB MAIN & Panel, IP & Panel.

4-2. How to Check Fault Symptom



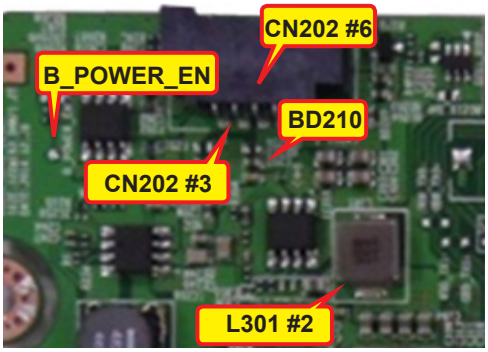
■ Location of Parts

ASSY PCB MAIN Board_Front

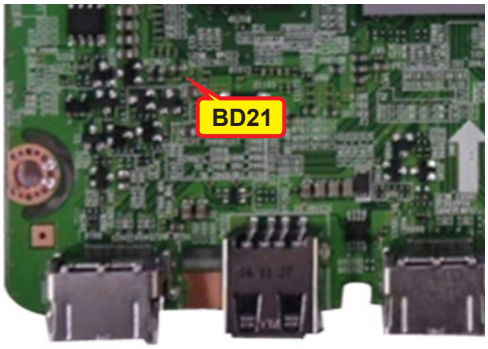


Detail

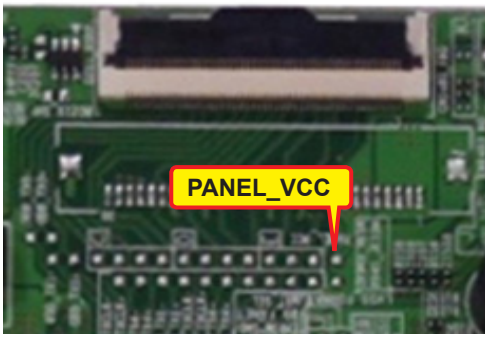
A



B



C



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**".

■ UN**J5300AGXPR

Inches		40"	48"
PANEL	Vendor	SDC	SDC
	Code	BN95-02022U	BN95-02024P
	Spec.	CY-GJ040BGLVBV/H	CY-GJ048BGLVBV/H
SMPS BOARD	Vendor	SEM	SEM
	Code	BN44-00703G	BN44-00703G
	Spec.	L48S1_FSM	L48S1_FSM
MAIN BOARD	Chassis Ass'y	BN91-15300A	BN91-15369A
	PBA Ass'y	BN94-08834A	BN94-08894A

Byte	Item		
0	Factory Reset	-	
1	Type	40A6AF0VJ	48A6AF0VJ
2	Local set	PAR_DTV	
3	SW Model	UJ5300	
4	BOM Model	5300	
5	Tuner	ISDB-T	
6	Ch table	NONE	

■ UN**J5300AGXPR

Inches		50"	55"
PANEL	Vendor	AUO	AUO
	Code	BN07-01414B	BN07-01413A
	Spec.	GJ050BGA-B2	GJ055BGA-B1
SMPS BOARD	Vendor	HANSOE	HANSOE
	Code	BN44-00704E	BN44-00704E
	Spec.	L55S1_FHS	L55S1_FHS
MAIN BOARD	Chassis Ass'y	BN91-16650A	BN91-15377A
	PBA Ass'y	BN94-10231A	BN94-08854A

Byte	Item		
0	Factory Reset	-	
1	Type	50R6AF1VJ	55R6AF0VJ
2	Local set	PAR_DTV	
3	SW Model	UJ5300	
4	BOM Model	5300	
5	Tuner	ISDB-T	
6	Ch table	NONE	

4-3-2. Entering Factory Mode

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

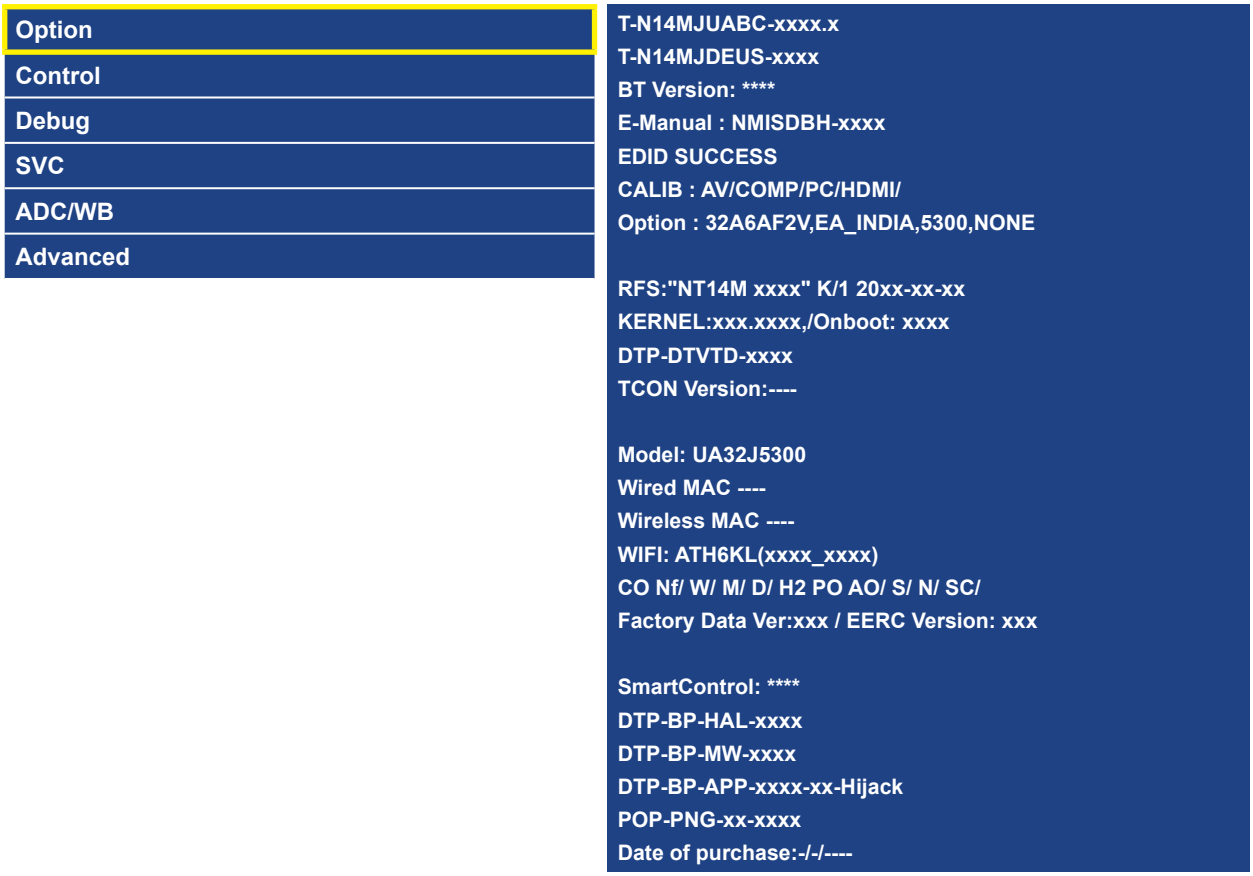
- If you do not have Factory remote control

  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 menus.



4-3-3. Factory Data

■ Option

Factory Menu Name	Data	Range
Factory Reset	-	
Type	32A6AF0VJ	32A6AF0VJ/32A6AH0SJ/40A6AF0VJ 48B6AF0VJ/55R6AF0VJ
Local Set	Local Set	Select Local
SW Model	UJ5300	UJ4300/UJ5300
BOM Model	5300	4300/5300
TUNER	S-TC	Not Detected/S_TC/S-T2C/S_TCS2/S_T2CS2
Ch Table	NONE	
MRT Option		
Front Color	U-S-C-5K	
Lvds Format	JEIDA	
Language_Arabic	WEST ASIA	EU/AUSTRAILIA
Region	-	
PnP Language	ENG	
WIFI REGION	AB	A~Z/AA/AB
OTN Support	OFF	ON/OFF
OTA Support	OFF	ON/OFF
MediaPlay DLNA	…	
TTX	ON	ON/OFF
China HD	OFF	ON/OFF
NT Conversion	OFF	ON/OFF
Num of DTV DECODER	0	0~2
Num of AV	1	0~2
Num of COMP	1	0~2
Num of HDMI	2	0~4
Num of SCART	0	0~2
Num of USB Port	2	0~4
Num of USB3.0	0	0~3
Num of RVU	0	0~1
Num Of Display	2	1~2
Num of IPTV	0	0~1
Num of RUI	0	0~1
Num of PVR RECORD	0	0~2
TOOLS Support	1848	
LNA Support	OFF	0~1

Factory Menu Name	Data	Range
24Px4 Support	OFF	ON/OFF
BD Wise Support	OFF	ON/OFF
Data Service Support	OFF	ON/OFF
JAVA Data Service Support	OFF	
PVR Support	OFF	ON/OFF
CI Support	OFF	ON/OFF
LEDMotionPlus Support	ON	ON/OFF
Natural Mode Support	ON	ON/OFF
Relax Mode Support	OFF	ON/OFF
HDMI/DVI SEL	2	0~4
Select LCD/PDP	LCD	LCD/PDP
Wall Mount	OFF	ON/OFF
HV Flip	HV Flip	OFF/HV Flip/V Flip/H Flip
FRC HV Flip	0	0~1
Light Effect	OFF	ON/OFF
e-POP Default	ON	ON/OFF
CAMERA Support	OFF	ON/OFF
NETWORK Support	Int-wifi	Not Support/Cable/Ext-Wifi/Int-Wifi/ExtOnly-Wifi
EcoSensor Support	ON	ON/OFF
3D Support	OFF	ON/OFF
BT Support	OFF	ON/OFF
BT ADDRESS	Not Support	Not Support
HP LINE	LineOut	Headphone/LineOut/NONE
Smart Control Support	OFF	ON/OFF
Motion Recog	OFF	ON/OFF
Voice Recog	OFF	ON/OFF
Virtual Remocon Color	1	0~2
Local Dimming Panel	OFF	ON/OFF
Wifi Vendor	QCA	NONE/MTK/QCA/BRCM
Capture Recording Support	OFF	ON/OFF
African Cinema Mode Support	OFF	ON/OFF
Indian Cinema Mode Support	ON	ON/OFF
Cricke Score Game Support	ON	ON/OFF
Engineer option		
Type Of PANEL KEY	None	Horizontal/Vertical/PDPVertical/PDPHorizon/ ONE KEY/None
5 Way Function Key	R_BACK	L_BOTTOM/R_BOTTOM/L_BACK/R_BACK
Contents Bar	OFF	ON/OFF

Factory Menu Name	Data	Range
Cable Modulation	…	
Standby led on/off	OFF	ON/OFF
Recognition Support	OFF	ON/OFF
IF AGC	0	0~10
D AGC	0	0~10
PH BW	0	0~10
FQ BW	0	0~10
PH RATE	0	0~10
PD EN	0	0~10
PEQ Inx	229	
WF Scale		
WF Type	0	0~7
Num of Network Stream	1	0~1
DP V Size	0	0~1
Backend Device		
BT_AUDIO_ON_OFF	OFF	ON/OFF
Config_AV_PATH		
V_HDMI IDENT TYPE	1234	
V_HDMI PATH TYPE	CABD	
V_EDID TYPE	LCD_FHD	
V_ATV	CVBS_PORT_2	
V_AV1	AV_COMP_G1	
V_AV2	AV_COMP_G2	
V_COMP1	ADC_PORT_1	
V_COMP2	None	
V_PC	ADC_PORT_0	
V_SCART1_CVBS	CVBS_PORT_3	
V_SCART1_RGB	ADC_PORT_2	
V_SCART2_CVBS	None	
V_SCART2_RGB	None	
A_ATV	SIF	
A_DTV	DECODER	
A_AV1	AUIN0	
A_AV2	AUIN1	
A_COMP1	AUIN0	
A_COMP2	None	
A_PC	AUIN0	
A_SCART1	AUIN1	

Factory Menu Name	Data	Range
A_SCART2	None	
A_DVI	AUIN0	
A_HDMI	SPDIF	
A_Media	DECODER	
USING_PSI_UPDATE	…	
ECO Standby	OFF	
Fast Logo Delay	0	0~20
Num Of PANEL KEY	6	0~20
Panel Detail	0	
Panel Init Time	250	
Tcon Init Time	460	
WRITE MAC Address		

■ Control

Factory Menu Name	Data	Range
EDID		
EDID ON/OFF	ON	ON/OFF
EDID WRITE ALL	Success	
EDID WRITE PC	…	
EDID WRITE HDMI	Success	
EDID WRITE HDMI1	…	
EDID WRITE HDMI2	…	
EDID WRITE HDMI3	…	
EDID WRITE HDMI4	…	
EDID Ver	HDMI 1.2	
EDID Port	NONE	
EDID WRITE DVI	…	
Sub Option		
RS-232 Jack	UART	Debug/UART
Serial Log On/Off	OFF	ON/OFF
Watchdog	ON	ON/OFF
FRC Monitoring	OFF	
Checksum	0x0000	
Fast Boot in Production	OFF	ON/OFF
UART ENABLE	OFF	ON/OFF
Eeprom Reset		
EER Reset	0	

Factory Menu Name	Data	Range
NVR All Clear	OFF	ON/OFF
ECO IC TYPE	MC8121	NONE/CT802FN/NLS1106/MC8121/MC8121_REV
Info Link Server Type	operating	operating/development/developing
Info Link Country	None	
TTX Group	UserOSD	WestEurope/EastEurope/Russian/Greek/Turkey/Arabic/Farsian/Arab/Hbrw/UserOSD
Visual Test	…	
MediaPlay DB	…	
OPTION_SWU	operating	operating/development
OTN Server Type	OFF	ON/OFF
OTN Test Server		
SWU Reset	OFF	ON/OFF
SWU Duration	OFF	ON/OFF
SWU Fail Test		
SWU_Diag_Code		
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 PVR RECORD	0	
RF Remocon Support	OFF	ON/OFF
CDD mode	…	
DPMS Support	OFF	ON/OFF
Num of IPTV CIP	0	0~1
Num of CI	0	0~1
Num of HYBRID TV	0	0~1
T-CON Device		
BOARD CONTROL	OFF	ON/OFF
RM		
Server Type	Operating	operating/development
RTS Mode	OFF	ON/OFF
PSA		
FKP Download1	0	
FKP Download2	0	

Factory Menu Name	Data	Range
LMK threshold	4	
Low threshold	10	
High threshold	15	
CSB	ON	ON/OFF
CLB	ON	ON/OFF
EEPG Enable	0	0~1
Last Screen	OFF	ON/OFF
App resume	OFF	ON/OFF
BP PMS Reset	1	0~1
FAnet Thread	5	0~5
ACM_MC	OFF	ON/OFF
Support Mini Browser	ON	ON/OFF
Hotkey List	Basic_Smart	
UNIQUE TRIPLET	ON	ON/OFF
MBR Flag	1	0~1
Support NonSmart	OFF	ON/OFF
PDP Option		
Pixel Shift Test	OFF	ON/OFF
Logic SW	0	
Panel Temperature	0	
LOGIC Waveform Day	0	
Logic Check Sum	0	
MRT	0	
SAPC Timer		
APC Speed		
HOTEL Option		
Hospitality Mode	OFF	ON/OFF
Power On		
Mychannel		
Menu OSD		
Operation		
Music Mode		
External Source		
Eco Solution		
Cloning		
Shop Option		
Shop Mode	OFF	ON/OFF
Exhibition Mode	OFF	ON/OFF

Factory Menu Name	Data	Range
Asia Option		
Unbalance	OFF	ON/OFF
AF Level adjust	3	0~7
TX Power Level	0	0~3
Mono Last Memory	OFF	ON/OFF
H Shaking	OFF	ON/OFF
SOUND		
Carrier_Mute	OFF	ON/OFF
High Devi	ON	ON/OFF
Speaker Delay Normal	10	
SPDIF PCM Gain	-9dB	
FM M Prescale	48	
FM Prescale	0x19h	
AM Prescale	0x1Ch	
NICAM Prescale	0x1Dh	
BTSC Mono Prescale	15	
BTSC stereo Prescale	29	
BTSC SAP Prescale	43	
A2 Ident High Thld	15	
A2 Ident Low Thld	4	
Pilot Level High Thld	0x13h	
Pilot Level Low Thld	0x09h	
Carrier2 Amp High Thld	16	
Carrier2 Amp Low Thld	14	
Carrier2 SNR High THR	32	
Carrier2 SNR Low THR	15	
Sig Error On	35	
Sig Error Off	41	
Amp Model	TAS5745	
Amp Volume	0xc9h	
Amp Scale	0x35h	
Amp Check Sum	0x0035CB72	
Woofer Type	0	0~7
Woofer Volume	0xcbh	
Woofer Scale	0x8ah	
Woofer Check Sum	NONE	
Woofer Local Check Sum	0	
Speaker EQ	ON	ON/OFF

Factory Menu Name	Data	Range
PEQ Test	Ready	Ready/Set1~Set5
Lacal Speaker EQ	0	
Local EQ Checksum	0	
SRS Tuning Parm	5	
Subwoofer Support	0	
India Sound	ON	ON/OFF
AudioDock BT delay	50	
Wall Filter Type	0	
Bottom Checksum	0	
Bottom Local CHeckSum	0	
Lipsync Inx	5	
Lipsync checkSum	OK:0x5560	
Lipsync USB Test	Ready	
Lipsync BT Checksum	OK:0x6341	

■ Debug

Factory Menu Name	Data	Range
Spread Spectrum		
LVDS Spread	ON	
LVDS Period	200K	
LVDS Amplitude	1.5	
LVDS Strength	4	
DDR Spread	ON	
DDR Period	20K	
DDR Amplitude	0.3	
HD SSC ON/Off	OFF	
HD SSC Value	1	
LVDS SSC ON/OFF	OFF	
LVDS Value	0	
DDR SSC ON/OFF	OFF	
DDR SSC Value	1	
FRC Vx1 SSC ON/OFF	OFF	
FRC LVDS SSC ON/OFF	OFF	
FRC LVDS SSC MRR	10	
FRC LVDS SSC MFR	1	
FRC Vx1 SSC Period	0	
FRC Vx1 SSC Modulation	0	

Factory Menu Name	Data	Range
FRC DDR SSC ON/OFF	ON	
FRC DDR SSC MRR	15	
FRC DDR SSC MFR	1	
FRC DDR SSC Period	0	
FRC DDR SSC Modulation	0	
DDR Margin		
A CTRL_OFFSET_0_3	0x0	
A CTRL_OFFSET_D	0x0	
B CTRL_OFFSET_0_3	0x0	
B CTRL_OFFSET_D	0x0	
MICOM POWER OFF	OFF	
RF Mute Time	6ms	
CI +1.3	OFF	
FRC		
Tuner Margin	10	
MPEG Margin	100	
H.264 Margin	100	
CAM Wait Time		
TS Clock delay	0	
TCON_TEMP_READ	0	
TEMP LAST	60	
DCC VERSION	0x0000	
DCC CHK SEL	0	
DCC CHECK LOCAL	0x00	
DCC CHECK TOTAL	0x00	
MultiACC Checksum	0	
IIC Bus Stop	OFF	
Tuner Status		
Cert Option	SHOW	
RM_BIST_DTV	0	
RM_BIST_ATV	0	
Voice Debug	OFF	

■ SVC

Factory Menu Name	Data	Range
Self Test		
Loop Back		

Factory Menu Name	Data	Range
CPU		
DDR		
FLASH		
EEPROM		
HDMI Switch IC		
USB HUB IC		
WIFI		
LVDS		
T-CON/FRC		
PCB Test		
MOIP		
App Self Test		
Device Self Test		
Voltage		
EcoSensor		
BT		
EXT Sound Inspection		
Woofer Sound Inspection	NONE	
ATV CH Inspection	Failure	
DTV CH Inspection		
Satellite CH Inspection		
UHD OSD TEST		
Aging Line Test		
Tweeter Sound Inspection	NONE	
Info		
SVC Info	0	
LOG(View Log)		
ER Count		
Panel Display Time	1Hr	
Factory Entry Number	3	
Factory Execution History		
Factory Reset History		
Upgrade		
T-CON Usb Download		
T-CON CheckSum	N/A	
Logic Usb D/L	…	
SUBMICOM UPGRADE	Ready	
BT UPGRADE		

Factory Menu Name	Data	Range
BT FREEPAIRING	on	
Function Upgrade		
FRC3D FW UPGRADE		
FRC3D LD UPGRADE		
Camera Upgade		
Mic Upgrade		
CPLD USB Download		
JP MICOM UPGRADE		
DP MICOM UPGRADE		
Jump UPGRADE		
IR Blaster Upgrade		
IR Blaster delay time	50	
CPLD Download		
LDC PROFILE UPGRADE		
Pic Data USB Update	0	
Audio Data USB Update	0	
Eco Data USB Upate	VER:0x0028	
SC ADK Upgrade		
SC MBR Upgrade		
Reset		
App Reset	0	
EEPROM Rst	0	
SPI Flash Reset	Failure	
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	

Factory Menu Name	Data	Range
HDMI Switch	NONE	
DVI SET TIME	300ms	
HDMI Sync	DE	
HDMI 3D DET	0	
HOTPLUG OFF HOLD TIME		
HDMI Stable Count	1	
HDCP UPDATE SPI		
SPI VERSION	0	
DVB CI		
TS Clock delay TC	0	
TS Clock delay S	0	
CI Control Buf ON	ON	
TS Clock delay CPU	-1	
Test Pattern		
Pattern Sel	OFF	
Logic Pattern Sel	…	
Logic Level Sel	…	
FRC Pre Test Pattern	0	
FRC Post Test Pattern	0	
SOC TCON Test Pattern	0	
SOC TCON Pattern Level	255	
SOC TCON FRC Pattern	0	
HDMI WB Pattern	OFF	
HDMI Pattern Sel	0	
Parma Pre Test Pattern	0	
Parma Port Test Pattern	0	
FRC OSD PRE PATTERN	0	
FRC OSD POST PATTERN	0	
Other Setting		
Delete S/N	0	
IPERF	stopped	
Expert		
CAL Data Backup	…	
CAL Data Restore		
ATV IF AGC SPEED	0	
App Update	LAST POWER	
SVC Panel	ORIGINAL	
S/N		

Factory Menu Name	Data	Range
Serial number	0	
Writing S/N	0	

■ ADC/WB

Factory Menu Name	Data	Range
ADC		
AV Calibaration		
Comp Calibration		
PC Calibration		
HDMI Calibration		
ADC Result		
1st_Y_GH	138	
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		
R-Offset	128	
G-Offset	128	
B-Offset	128	
R-Gain	143	
G-Gain	128	
B-Gain	162	
WB-W2_R_Offset	128	
WB_W2_B_Offset	128	
WB_W2_R_Gain	162	
WB_W2_B_Gain	103	
WB-N_R_Offset	128	
WB_W2_N_Offset	128	
WB_W2_N_Gain	158	

Factory Menu Name	Data	Range
WB_W2_N_Gain	144	
MGA		
MGA On/Off	OFF	
R1_Gain	498	
G1_Gain	482	
B1_Gain	494	
R2_Gain	508	
G2_Gain	492	
B2_Gain	504	
R3_Gain	508	
G3_Gain	494	
B3_Gain	506	
R4_Gain	510	
G4_Gain	496	
B4_Gain	508	
R5_Gain	514	
G5_Gain	502	
B5_Gain	508	
R6_Gain	518	
G6_Gain	508	
B6_Gain	506	
R7_Gain	520	
G7_Gain	512	
B7_Gain	506	
R8_Gain	518	
G8_Gain	512	
B8_Gain	508	
R9_Gain	514	
G9_Gain	512	
B9_Gain	510	
R10_Gain	512	
G10_Gain	512	
B10_Gain	512	

■ Advanced

4-4. White Balance

4-4-1. MGA(Multipoint Grayscale Adjustment)

MGA(Multipoint Grayscale Adjustment)

DEVICES	Type
CA-210	32A6AF0VJ

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	0.40
20 IRE	O	0.020	0.020	0.40
30 IRE	O	0.020	0.020	0.40
40 IRE	O	0.020	0.020	0.40
50 IRE	O	0.020	0.020	0.40
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

Gray Check			Adjust Spec(xyL)			Adjust Target offset(xyL)		
Levels	Code	Check	x(±)	y(±)	L(±)	x(±)	y(±)	L(±)
10 IRE	0x01	X	0.007	0.007	0.11	0.000	0.000	0.000
20 IRE	0x02	O	0.007	0.007	0.08	0.000	0.000	0.000
30 IRE	0x03	X	0.007	0.007	0.06	0.000	0.000	0.000
40 IRE	0x04	O	0.005	0.005	0.05	0.000	0.000	0.000
50 IRE	0x05	X	0.005	0.005	0.04	0.000	0.000	0.000
60 IRE	0x06	X	0.005	0.005	0.03	0.000	0.000	0.000
70 IRE	0x07	O	0.004	0.004	0.02	0.000	0.000	0.000
80 IRE	0x08	X	0.004	0.004	0.01	0.000	0.000	0.000
90 IRE	0x09	X	0.004	0.004	0.01	0.000	0.000	0.000
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

Color Tone Target			Spec.	
High	x	y	x(±)	y(±)
COOL	0.280	0.303	0.004	0.004
NORMAL	0.279	0.309		
WARM2	0.321	0.353		
Low	x	y	x(±)	y(±)
COOL	NA	NA	NA	NA
NORMAL	NA	NA		
WARM2	NA	NA		

Panel Spec.		±	
Gamma	2.20	0.35	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	

10IRE Gamma target	2.30
RetryCount	6

DEVICES	Type
CA-310	32A6AF0VJ

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	0.40
20 IRE	O	0.020	0.020	0.40
30 IRE	O	0.020	0.020	0.40
40 IRE	O	0.020	0.020	0.40
50 IRE	O	0.020	0.020	0.40
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

Gray Check			Adjust Spec(xyL)			Adjust Target offset(xyL)		
Levels	Code	Check	x(±)	y(±)	L(±)	x(±)	y(±)	L(±)
10 IRE	0x01	X	0.007	0.007	0.11	0.000	0.000	0.000
20 IRE	0x02	O	0.007	0.007	0.08	0.000	0.000	0.000
30 IRE	0x03	X	0.007	0.007	0.06	0.000	0.000	0.000
40 IRE	0x04	O	0.005	0.005	0.05	0.000	0.000	0.000
50 IRE	0x05	X	0.005	0.005	0.04	0.000	0.000	0.000
60 IRE	0x06	X	0.005	0.005	0.03	0.000	0.000	0.000
70 IRE	0x07	O	0.004	0.004	0.02	0.000	0.000	0.000
80 IRE	0x08	X	0.004	0.004	0.01	0.000	0.000	0.000
90 IRE	0x09	X	0.004	0.004	0.01	0.000	0.000	0.000
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

Color Tone Target			Spec.	
High	x	y	x(±)	y(±)
COOL	0.280	0.292	0.004	0.004
NORMAL	0.279	0.298		
WARM2	0.321	0.342		
Low	x	y	x(±)	y(±)
COOL	NA	NA	NA	NA
NORMAL	NA	NA		
WARM2	NA	NA		

Panel Spec.		±	
Gamma	2.20	0.35	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	

10IRE Gamma target	2.30
RetryCount	6

4-5. Software Upgrade

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

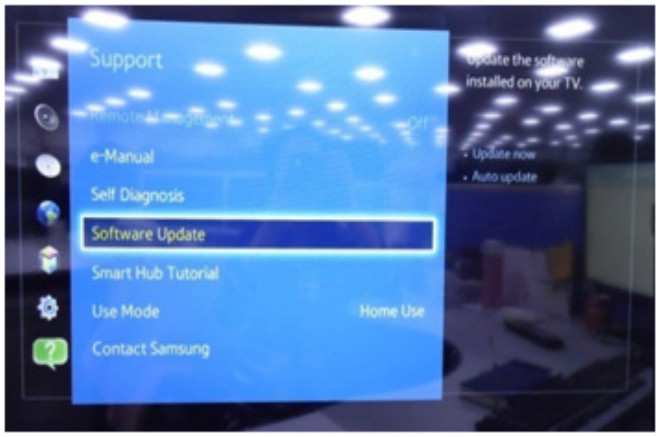
- Current Version - The software already installed in the TV.

Software is represented as ‘Year/Month/Day_Version’.

4-5-1. 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

Access the factory mode

Option
Control
Debug
SVC
ADC/WB
Advanced

T-N14MJUABC-xxxx.x
T-N14MJDEUS-xxxx
BT Version: ****
E-Manual : NMISDBH-xxxx
EDID SUCCESS
CALIB : AV/COMP/PC/HDMI/
Option : 32A6AF2V,EA_INDIA,5300,NONE

RFS:"NT14M xxxx" K/1 20xx-xx-xx
KERNEL:xxx.xxxx,/Onboot: xxxx
DTP-DTVTD-xxxx
TCON Version:----

Model: UA32J5300
Wired MAC ----
Wireless MAC ----
WIFI: ATH6KL(xxxx_xxxx)
CO Nf/ W/ M/ D/ H2 PO AO/ S/ N/ SC/
Factory Data Ver:xxx / EERC Version: xxx

SmartControl: ****
DTP-BP-HAL-xxxx
DTP-BP-MW-xxxx
DTP-BP-APP-xxxx-xx-Hijack
POP-PNG-xx-xxxx
Date of purchase:-/-/----

4-5-2. How to Upgade 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.

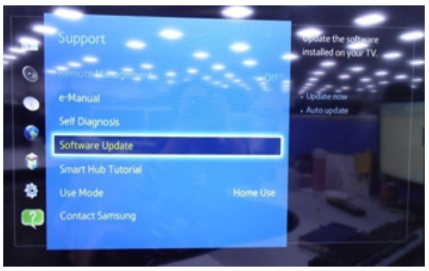
■ Main Software Upgrade

1. Store the sw program named "T-N14MJUABC" in USB memory stick.

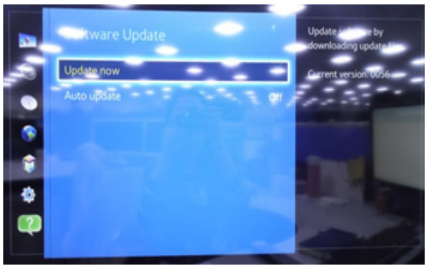
- Connect the USB.

2. Click the "MENU" key in Remote Controler.

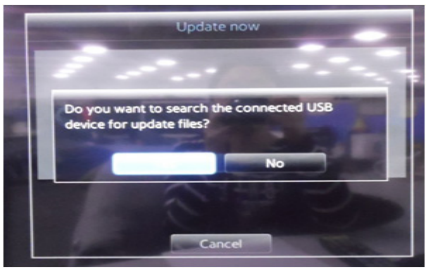
3. Select "Support" menu.
Locate the menu cursor "Software Update" menu.



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



5. Click the "ENTER" key.

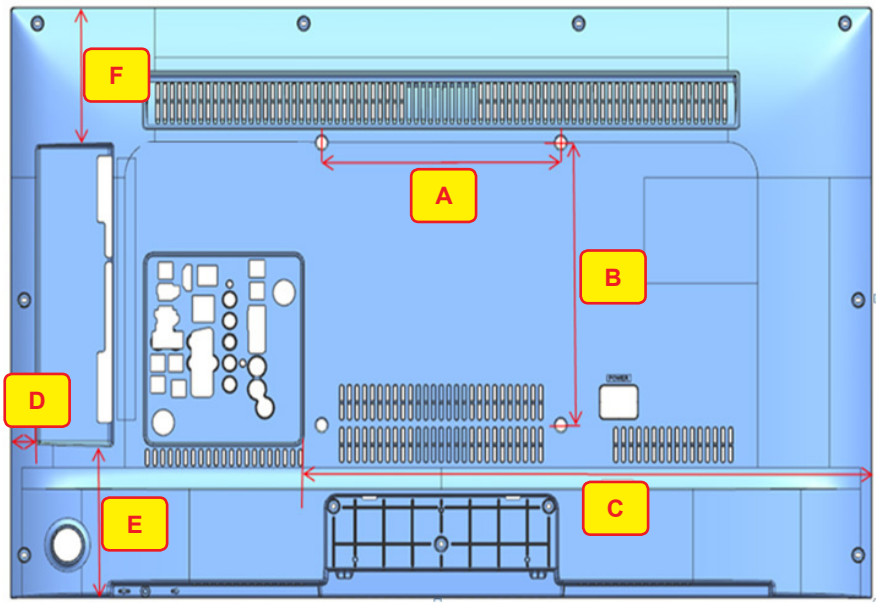


6. Click the "ENTER" key.

- Wait for upgrade complete.
- Check the Software Version.

4-6. The Dimension of J5300 Models

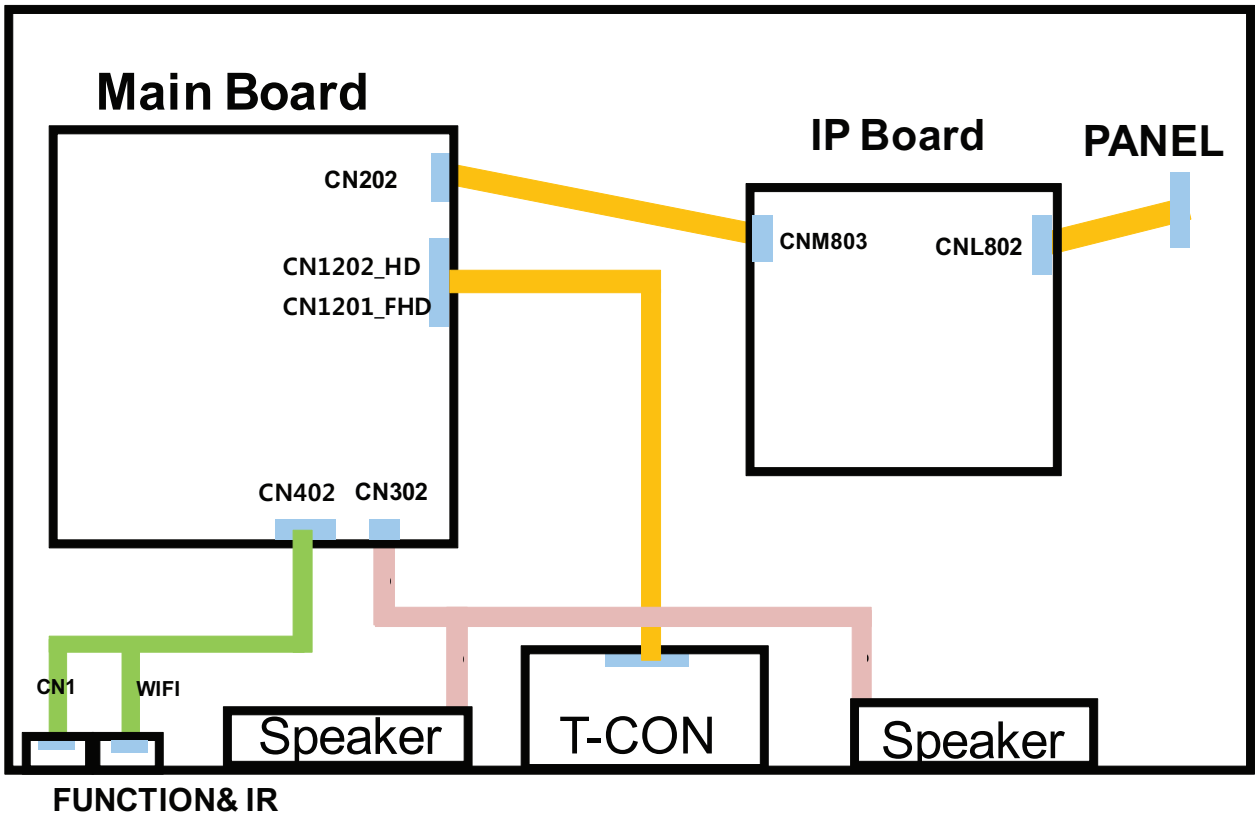
■ UN**J5300AG

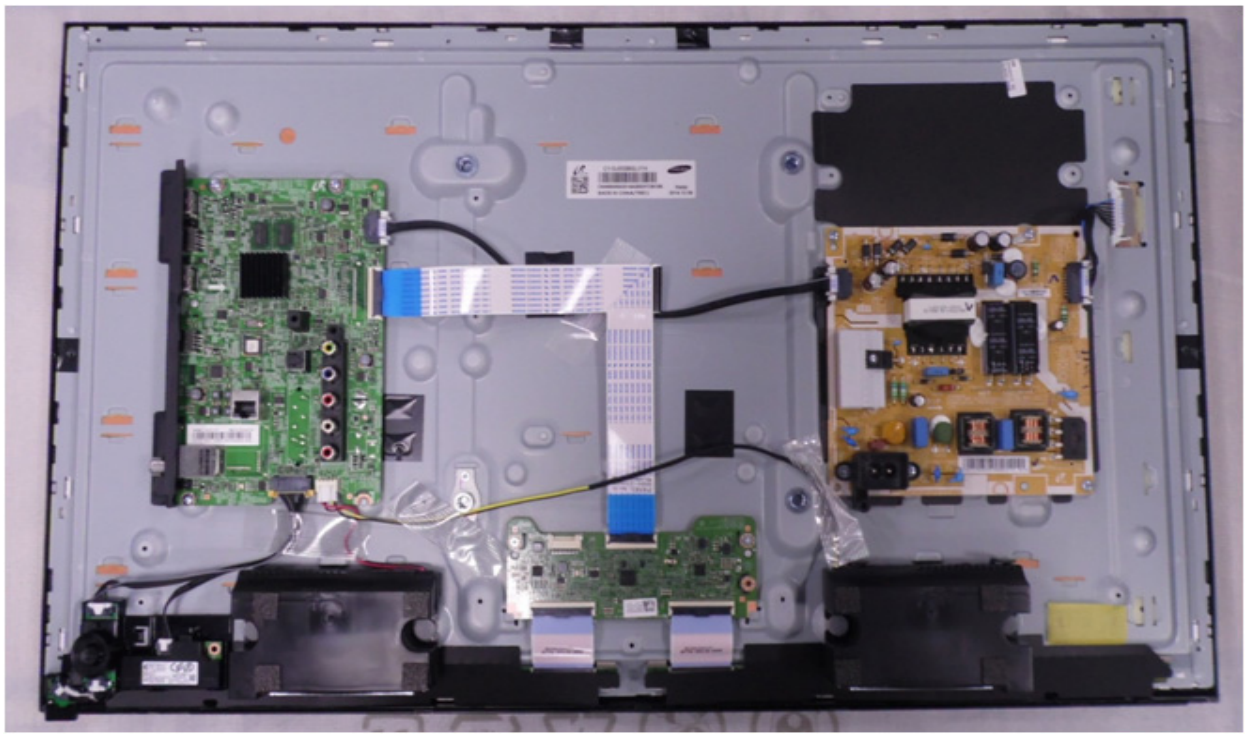


Rear Cover Dimension	J5300			
	40"	48"	50"	55"
A	200	400	400	400
B	200	400	400	400
C	620.9	768.2	823	872.8
D	32	41.5	31.7	92.7
E	194.5	221.7	206.5	235.5
F	115.8	184	222.8	256.7

5. Wiring Diagram

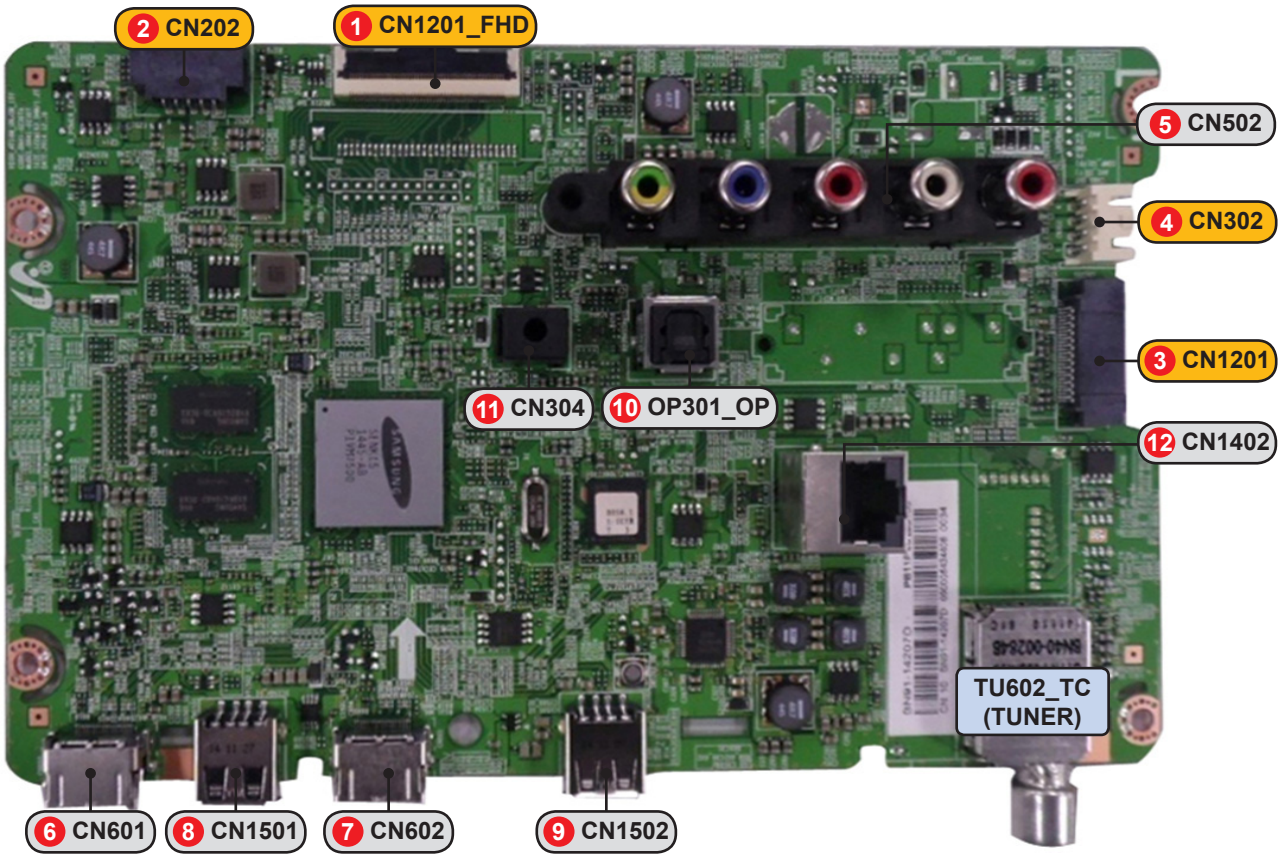
5-1. Wiring Diagram





5-2. Connector

■ Main Board



■ Main Board Pin Map

1 CN1201_FHD (to Panel)			
1	NC	18	GND
2	GND	19	EVEN_TXCLK+_LVDS
3	FRC_SDA	20	EVEN_TXCLK-_LVDS
4	PWM_DIM1_FRC	21	GND
5	FRC_SCL	22	EVEN_TX2+_LVDS
6	FRC_NRESET	23	EVEN_TX2-_LVDS
7	LVDS_FORMAT	24	EVEN_TX1+_LVDS
8	TCON_SDA	25	EVEN_TX1-_LVDS
9	TCON_WP	26	EVEN_TX0+_LVDS
10	NC	27	EVEN_TX0-_LVDS
11	UPDATE_CHECK	28	GND
12	TCON_SCL	29	ODD_TX4+_LVDS
13	GND	30	ODD_TX4-_LVDS
14	EVEN_TX4+_LVDS	31	ODD_TX3+_LVDS
15	EVEN_TX4-_LVDS	32	ODD_TX3-_LVDS
16	EVEN_TX3+_LVDS	33	GND
17	EVEN_TX3-_LVDS	34	ODD_TXCLK+_LVDS

1 CN1201_FHD (to Panel)			
35	ODD_TXCLK-_LVDS	44	GND
36	GND	45	GND
37	ODD_TX2+_LVDS	46	NC
38	ODD_TX2-_LVDS	47	Panel_13V_PW
39	ODD_TX1+_LVDS	48	Panel_13V_PW
40	ODD_TX1-_LVDS	49	Panel_13V_PW
41	ODD_TX0+_LVDS	50	Panel_13V_PW
42	ODD_TX0-_LVDS	51	Panel_13V_PW
43	GND		

2 CN202 (to Power board)			
1	GND	6	SW_POWER_TO_SMPS
2	GND	7	A13V
3	A13V	8	PWM_DIM
4	GND	9	A13V
5	A13V	10	UNDER_DRIVER

3 CN1201 (FUNCTION_BT_WIFI)			
1	IR	14	A3.3V
2	GND	15	LED_STB
3	GNC	16	NC
4	FRAME_SYNC_IN	17	GNC
5	A3.3V	18	POWER_DET
6	NC	19	NC
7	MSCL_I2C	20	NC
8	GNC	21	GNC
9	MSDA_I2C	22	WIFI_DP_WIFI
10	NC	23	WIFI_DM_WIFI
11	KEY_INPUT1	24	B5V_DC_PW
12	NC	25	NC
13	KEY_INPUT2	26	WIFI_RESET

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

5 CN502 (COMPONENT)			
1	GND	9	TEST_PR
2	COMP1_Y_CVBS	10	GND
3	IDENT_VIDEO1	11	COMP1_AV1_SL_IN
4	GND	12	TEST_SL
5	COMP1_PB	13	GND
6	IDENT_COMP1	14	COMP1_AV1_SR_IN
7	GND	15	TEST_SR
8	COMP1_PR		

6 CN601 (HDMI INPUT1) (STB/ARC)			
1	HDMI1_RX2+	11	GND
2	GND	12	HDMI1_RX_CLK-
3	HDMI1_RX2-	13	CEC
4	HDMI1_RX1+	14	NC
5	GND	15	HDMI1_SCL
6	HDMI1_RX1-	16	HDMI1_SDA
7	HDMI1_RX0+	17	GND
8	GND	18	HDMI1_5V
9	HDMI1_RX0-	19	STB_CHECK
10	HDMI1_RX_CLK+		

7 CN601 (HDMI INPUT2) (MHL)			
1	HDMI2_RX2+	11	GND
2	GND	12	HDMI2_RX_CLK-
3	HDMI2_RX2-	13	CEC
4	HDMI2_RX1+	14	NC
5	GND	15	HDMI_SCL
6	HDMI2_RX1-	16	HDMI_SDA
7	HDMI2_RX0+	17	GND
8	GND	18	HDMI2_5V
9	HDMI2_RX0-	19	STB_CHECK
10	HDMI2_RX_CLK+		

8 CN1501 (USB1)			
1	B5V_USB1	3	USB_DP
2	USB_DM	4	GND

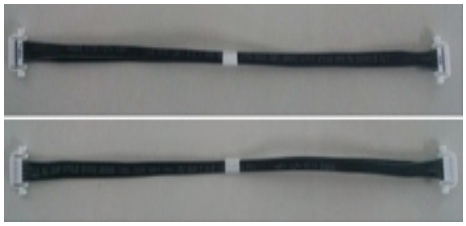
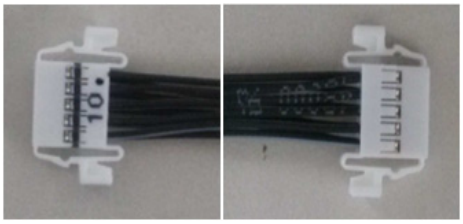
9 CN1502 (USB2)			
1	B5V_USB2	3	USB_DP
2	USB_DM	4	GND

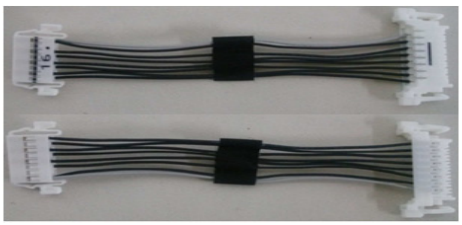
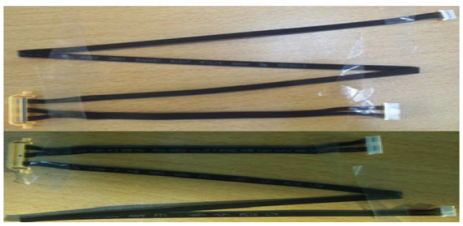
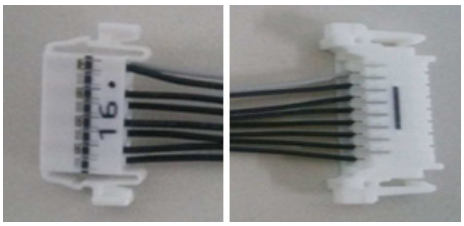
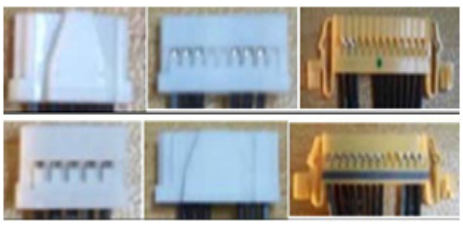
10 OP301_OP (OPTICAL)			
1	SPDIF_OUT	3	GND
2	B5V		

11 CN304 (Headphone)			
1	GND	5	TEST_SR
2	SL_OUT	6	IDENT_HP
3	SR_OUT	7	GND
4	TEST_SL		

12 CN1402 (SCART)			
1	LAN_TXD+	5	GND
2	GND	6	LAN_RXD-
3	LAN_TXD-	7	NC
4	LAN_RXD+	8	GND

5-3. Cables

USE		LVDS CABLE (Main - panel)	Power Harness (PD - Main)
		ASSY CABLE P-FFC	LEAD CONNECTOR
Code	40"	BN96-27044N	BN39-01885C
	48"	BN96-31530P	BN39-01885H
	50"	BN96-31530R	BN39-01885N
	55"	BN96-36243E	BN39-01885N
Photo			
			

USE		LED Harness (PD - panel)	LED Harness (Function)
		LEAD CONNECTOR	LEAD CONNECTOR
Code	40"	BN39-01884B	BN39-02065B
	48"	BN39-01884B	BN39-02065A
	50"	BN39-01884B	BN39-02065B
	55"	BN39-01884B	BN39-02065E
Photo			
			

NOTE

The code number of cable can be changed, see "Exploded Views and Parts List".