

4. Troubleshooting

4-1. Diagnostic Guide

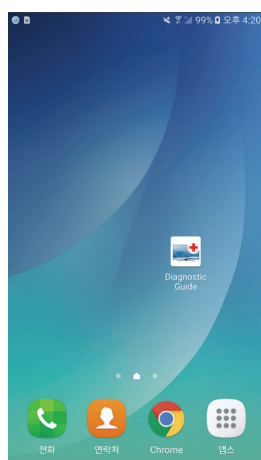
4-1-1. Using the Diagnostic Guide App

1. Download the free app from your Android phone called [Diagnostic Guide](#).

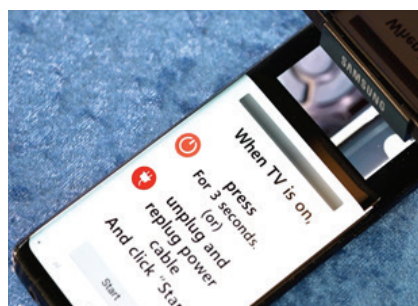


Diagnostic Guide

2. Select Diagnostic Guide.



3. TV **Power ON**.



Method 1.
When the TV is on, press the TV power button for 3 seconds.



Method 2.
Unplug the power cable and connect it again.



Power ON

4. Troubleshooting

4. Press the **Start** button.



5. The Diagnostics Results screen appears.

LED
90%
9:50

ver 0.99

LED Flash	Defect Block	LED Flashing Operation Spec				
LED Off	OCB SMPS	Flash Interval: 0.3sec, 1 Cycle Interval: 4sec, Repeat: times				
		No Blinking				
1 time	Main					
2 time	Panel					
3 time	SMPS					
4 time	BT Wi-Fi					
5 time	AOC					
LED On	1. AOC Main 3. SMPS	Always On (Stand by mode)				
LED Flash	Defect Block					
Click	QTV	UHD	FHD			
LED Off	OCB	SMPS	SMPS			
1 time	Main					
2 time	Panel	Panel	-			
3 times	SMPS (Main)					
4 time	BT/ Wi-Fi					
5 time	AOC	-	-	-		
LED On	AOC > Main > SMPS					

4-1-2. Flashing Symptom Codes

- After TV is "COLD BOOTED" (AC Power Re-Cycled), Flashing symptom codes will operate and show the defect block with number of LED flash.
- Place a mirror or phone directly under Standby LED to observe flashing.

■ Defect type and Number of LED flash

Defect Block	Detection Method	Number of LED Flash	
OCB	-	LED Off	No Blinking
Main Board	- Watch Dog Count > Reboot > Flash - Error > Flash	1 time	, Blinks 1 time when cold Boot
Panel	- Error > Reboot > Flash - Error > Flash (after 10m)	2 time	
SMPS	- Error > Reboot > Flash - Error > Flash	3 time	
BT/WiFi	Cold Boot > 30 sec after module starts	4 time	
AOC	- Cold Boot > 30 sec after module starts - Signal level below threshold	5 time	

↑ cold Boot

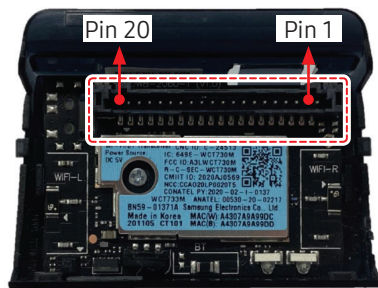
OCB – One Connect Box AOC – Active Optical Cable

■ Defect type and Number of LED flash (Additional Info)

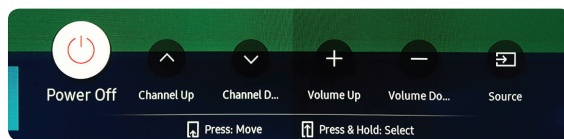
Defect Block	Detection Method	Detection method from Cold Boot	LED Flashes – Repeats 5 times after Cold Boot	
OCB	LED Off (A13V Not Detected)		LED Off	No Blinking
Main Board Hardware: (BT/WiFi, Function, etc.)	WD - Watch dog count: WiFi/BT/Function/etc. affecting Main CPU Bus	LED flashes with error / Cold Boot	LED Blinking 1 times	, Blinks 1 time when cold Boot
	T-CON Block error	LED flashes with error / Cold Boot		
Panel / USIT Cables	- PI_DSF_MON Error Count - OCP-PMIC / USIT-OVP detected	LED flashes after 10 minutes of Cold Boot	LED Blinking 2 times	
SMPS	A13V / B350 error / not detected	LED flashes with error / Cold Boot	LED Blinking 3 times	
BT/WiFi	BT detection error	LED flashes 20 seconds from Cold Boot	LED Blinking 4 times	
	WIFI detection error	LED flashes 30 seconds from Cold Boot		
AOC (Optical Cable)	Serdes error count	LED flashes within 60 seconds of Cold Boot	LED Blinking 5 times	
	RSSI signal error (TV side only) (Signal below threshold)			

4-2. Function Control Operation Test

4-2-1. FUNCTION/IR Control Test

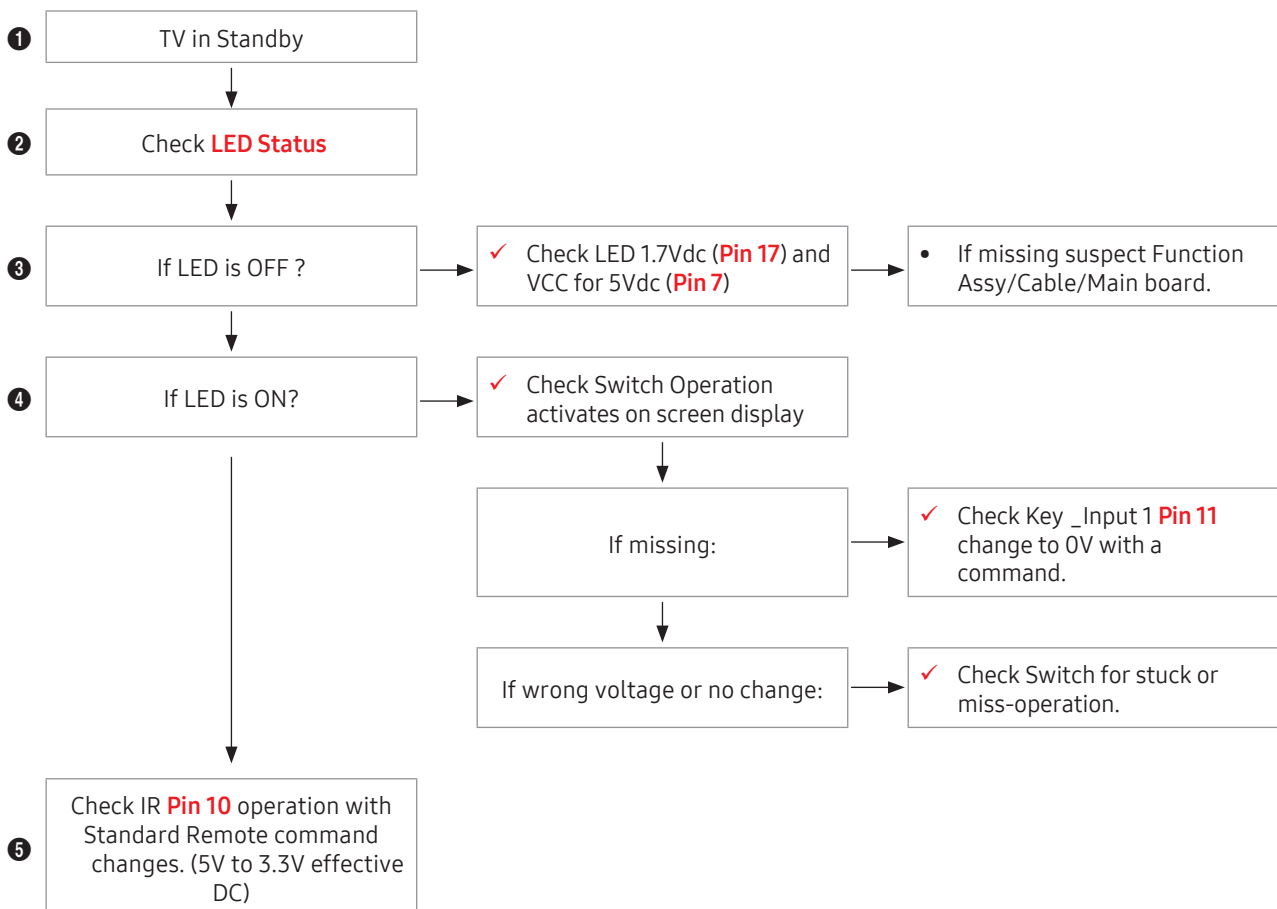
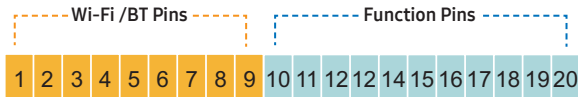


<NETWORK-WLAN CLIENT>



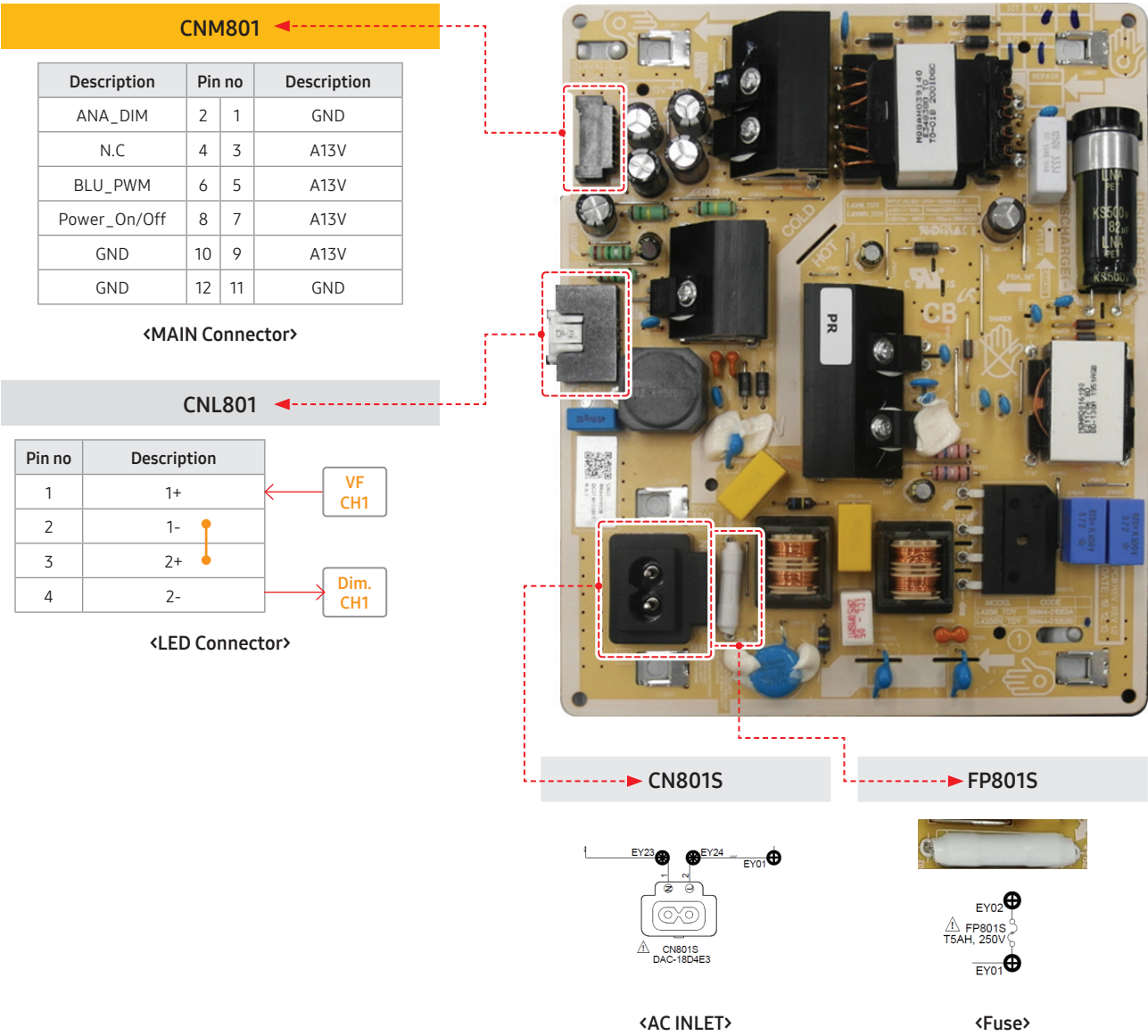
[On Screen Selections with Function Control]

WIFI/BT/Function Module (WCT730M)			
1	USB_DM	2	USB_DP
3	GND	4	UART_TX
5	BT_WAKE_UP	6	WIFI_USB_SUSPEND
7	5V	8	WIFI_WAKEUP
9	RESET	10	IR/RX
11	KEY1	12	NC
13	I2C_SCL	14	I2C_SDA
15	NC	16	NC
17	LED	18	GND
19	IR_LED1	20	IR_LED2



4-3. Power (DC VSS-POWER BOARD)

- 43 inches



- 50/55 inches

CNM801

Description	Pin no	Description
ANA_DIM	2 1	GND
N.C	4 3	A13V
BLU_PWM	6 5	A13V
Power_On/Off	8 7	A13V
GND	10 9	A13V
GND	12 11	GND

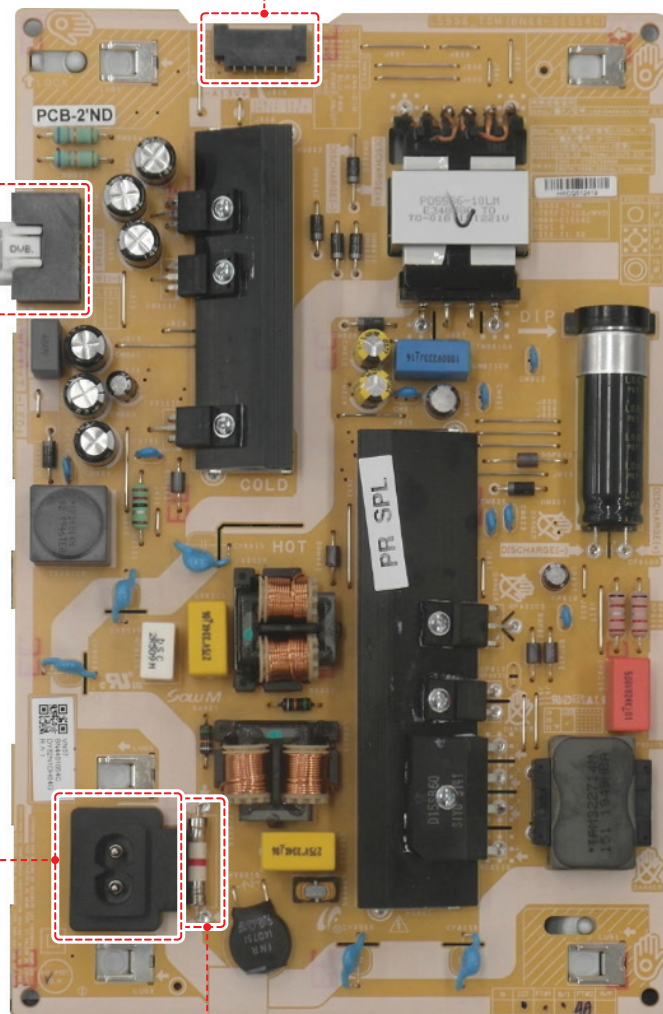
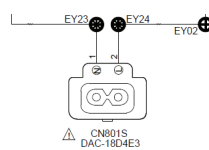
<MAIN Connector>

CNL801

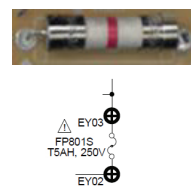
Pin no	Description
1	1+
2	1-
3	2+
4	2-

VF
CH1Dim.
CH1

<LED Connector>

**CN801S****FP801S**

<AC INLET>



<Fuse>

- 58 inches

CNM801

Description	Pin no	Description
GND	1 2	ANA_DIM
A13V	3 4	N.C
A13V	5 6	BLU_PWM
A13V	7 8	Power_On/Off
A13V	9 10	GND
GND	11 12	GND

<MAIN Connector>

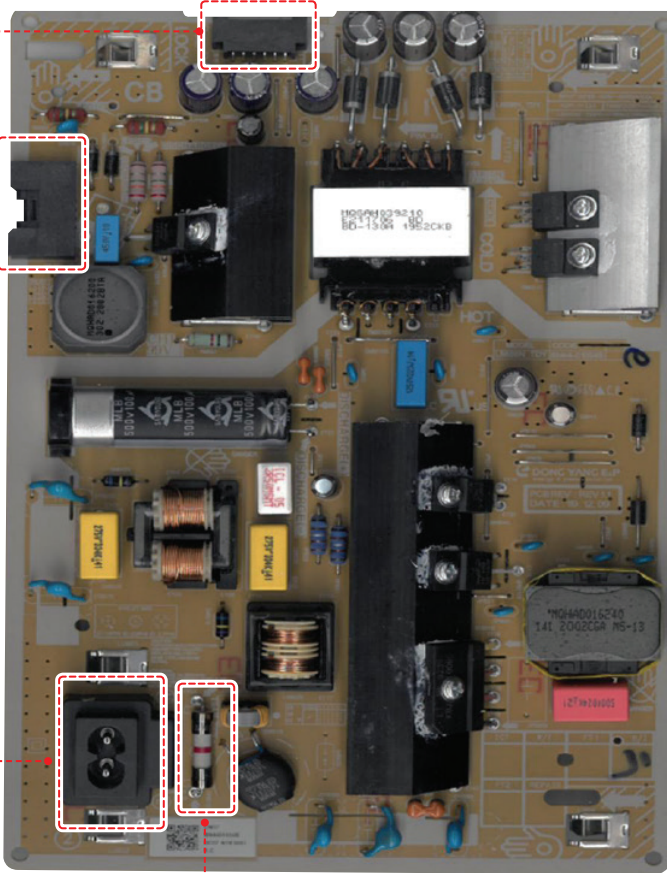
CNL801

Pin no	Description
1	1H-
2	1L-
3	1+
4	1+

VF
CH1

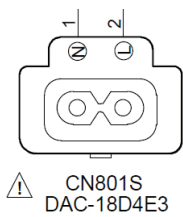
Dim
CH2

<LED Connector>



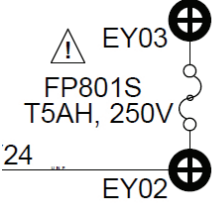
CN801S

FP801S



CN801S
DAC-18D4E3

<AC INLET>



<Fuse>

- 65 inches

CNM801

Description	Pin no	Description
GND	1 2	ANA_DIM
A13V	3 4	N.C
A13V	5 6	BLU_PWM
A13V	7 8	Power_On/Off
A13V	9 10	GND
GND	11 12	GND

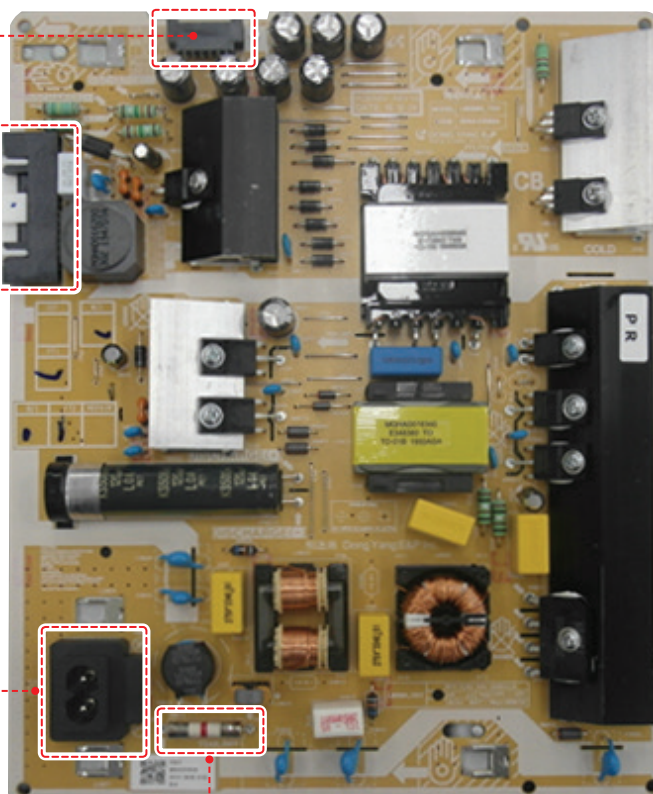
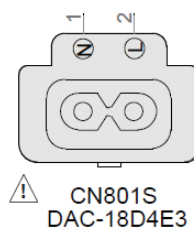
<MAIN Connector>

CNL801

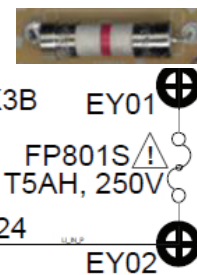
Pin no	Description
1	1+
2	1-
3	2+
4	2-
5	3+
6	3-
7	4+
8	4-
9	5+
10	N.C
11	N.C
12	5-

VF
CH1Dim
CH2

<LED Connector>

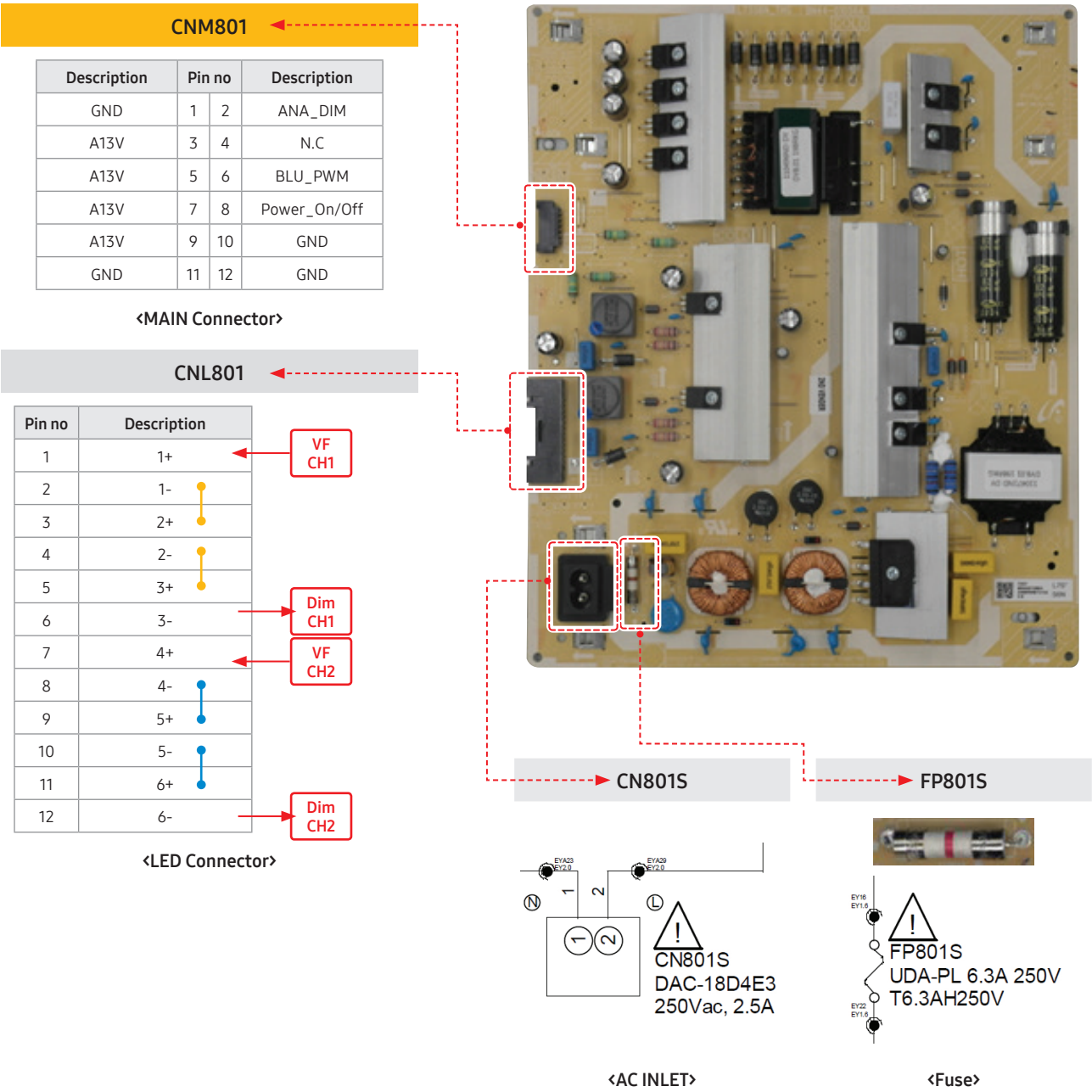
**CN801S****FP801S**CN801S
DAC-18D4E3

<AC INLET>


 3B EY01
 FP801S
 T5AH, 250V
 24 EY02

<Fuse>

- 70/75 inches



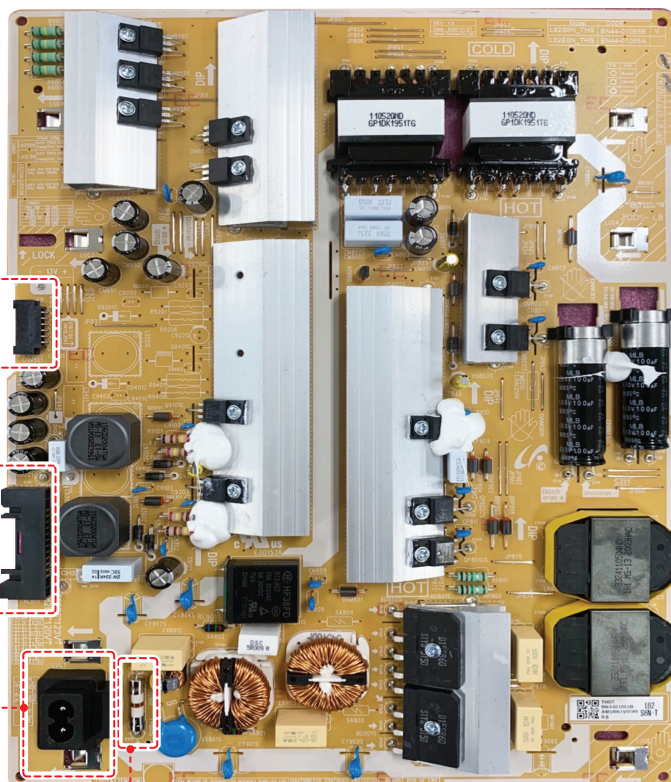
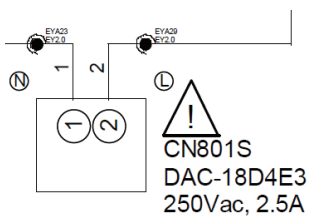
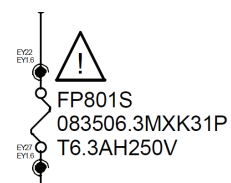
- 82/85 inches

CNM801

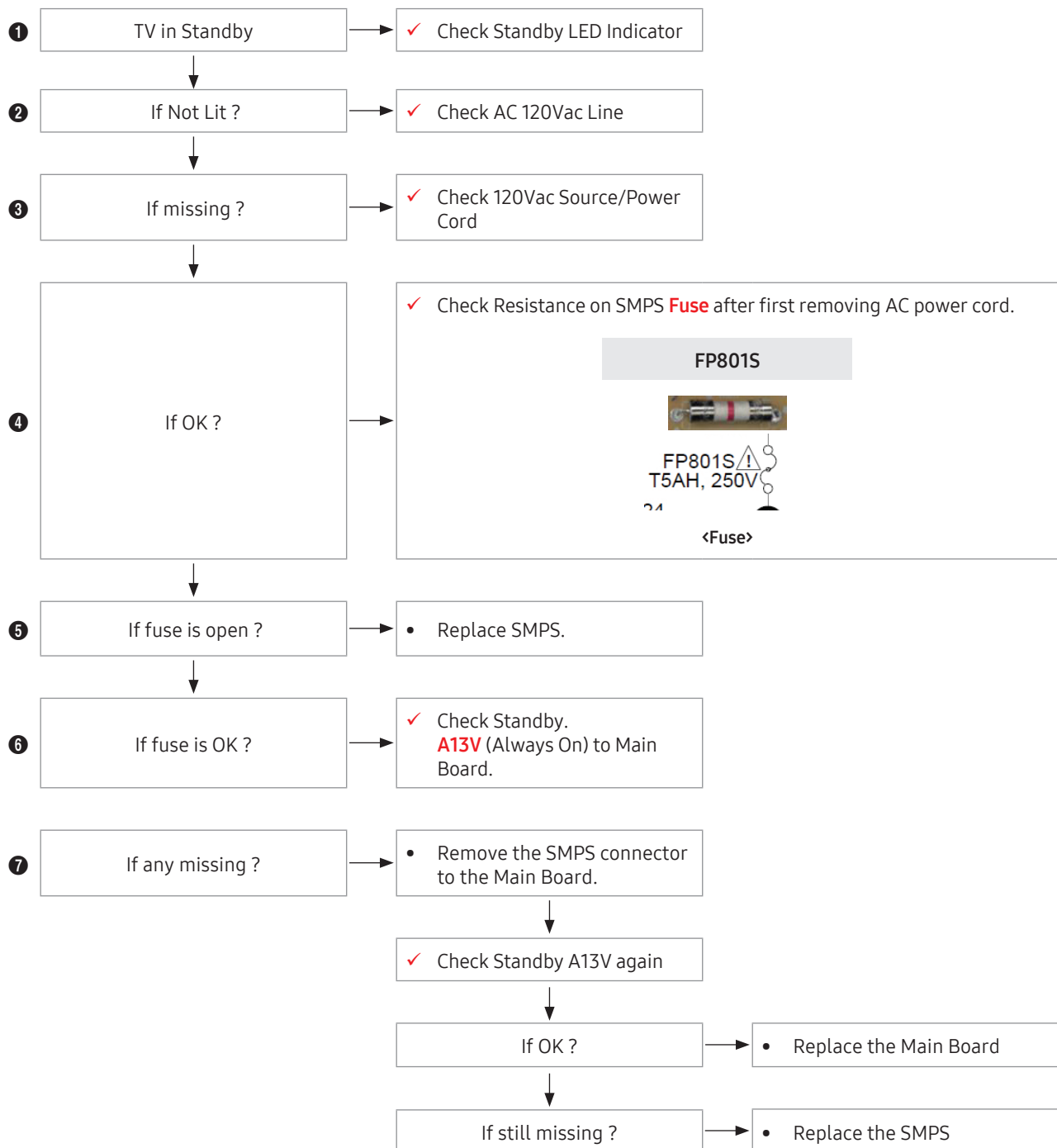
Description	Pin no	Description
GND	1 2	ANA_DIM
A13V	3 4	N.C
A13V	5 6	BLU_PWM
A13V	7 8	Power_On/Off
A13V	9 10	GND
GND	11 12	GND

<MAIN Connector>**CNL801**

Pin no	Description
1	1+
2	1-
3	2+
4	2-
5	3+
6	3-
7	4+
8	4-
9	5+
10	5-
11	6+
12	6-

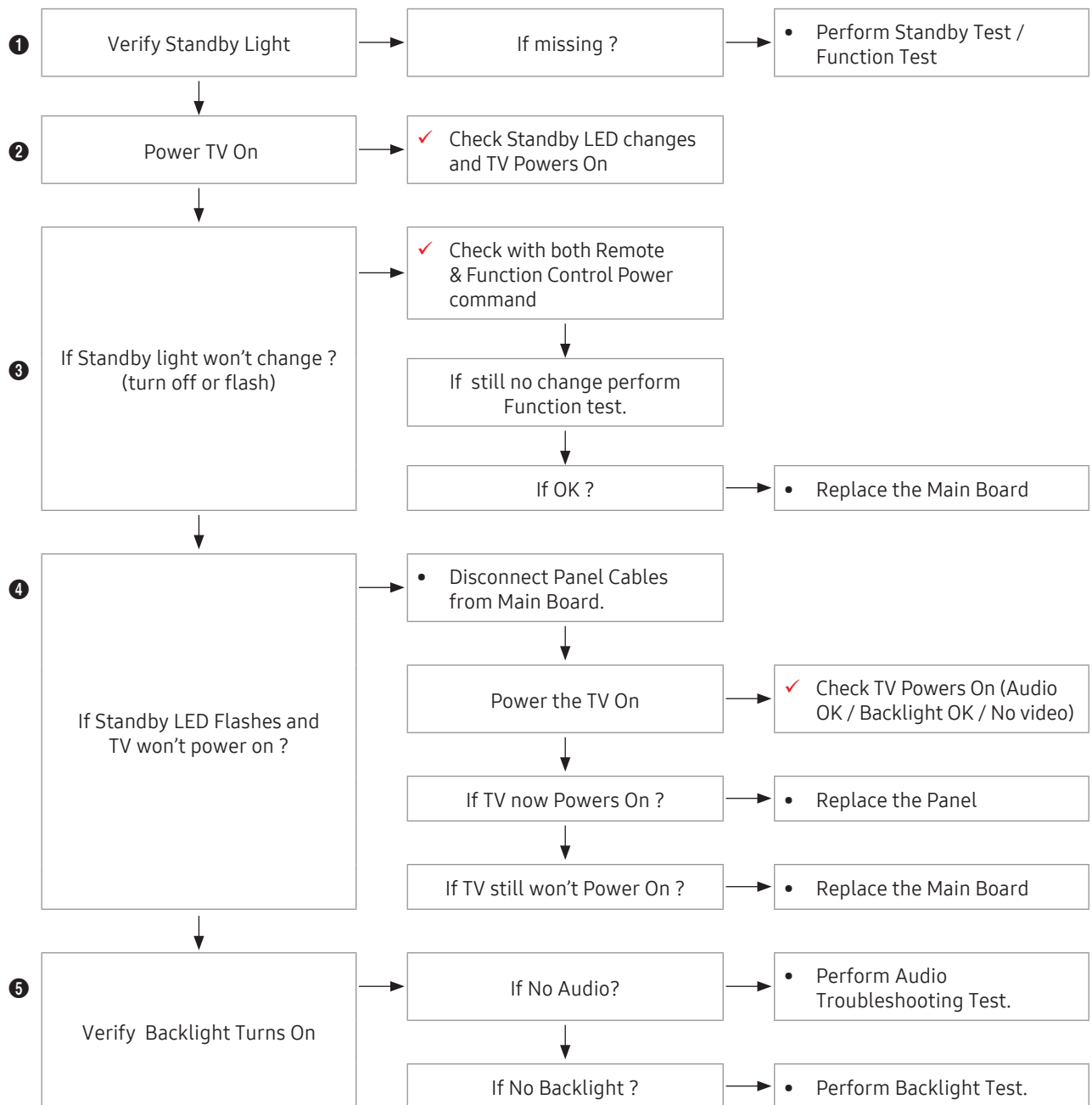
<LED Connector>VF
CH1Dim
CH1VF
CH2Dim
CH2**CN801S****FP801S****<AC INLET>****<Fuse>**

4-3-1. TV POWER STANDBY Test



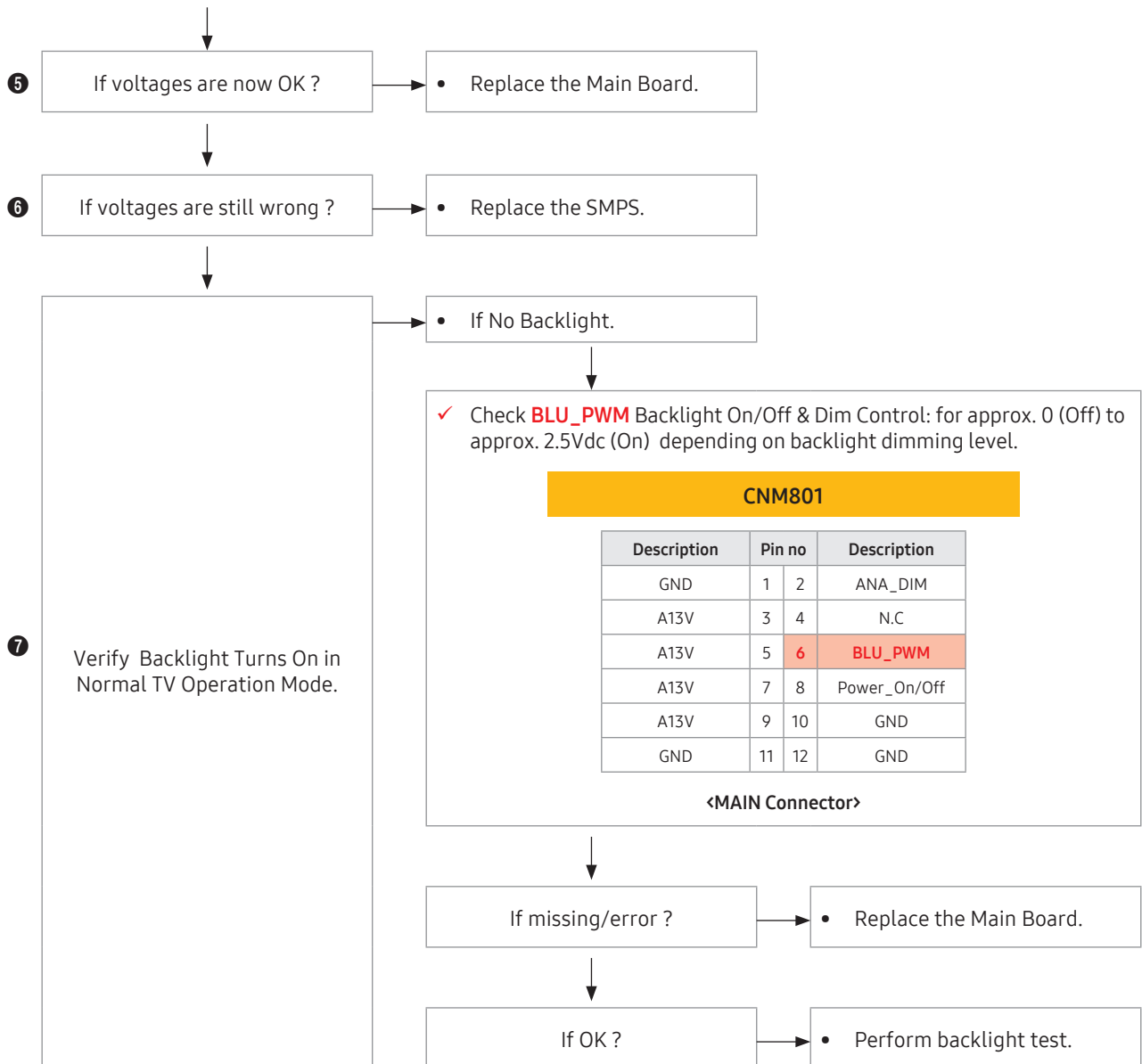
4-3-2. TV POWER ON SEQUENCE Test

■ Simplified Version

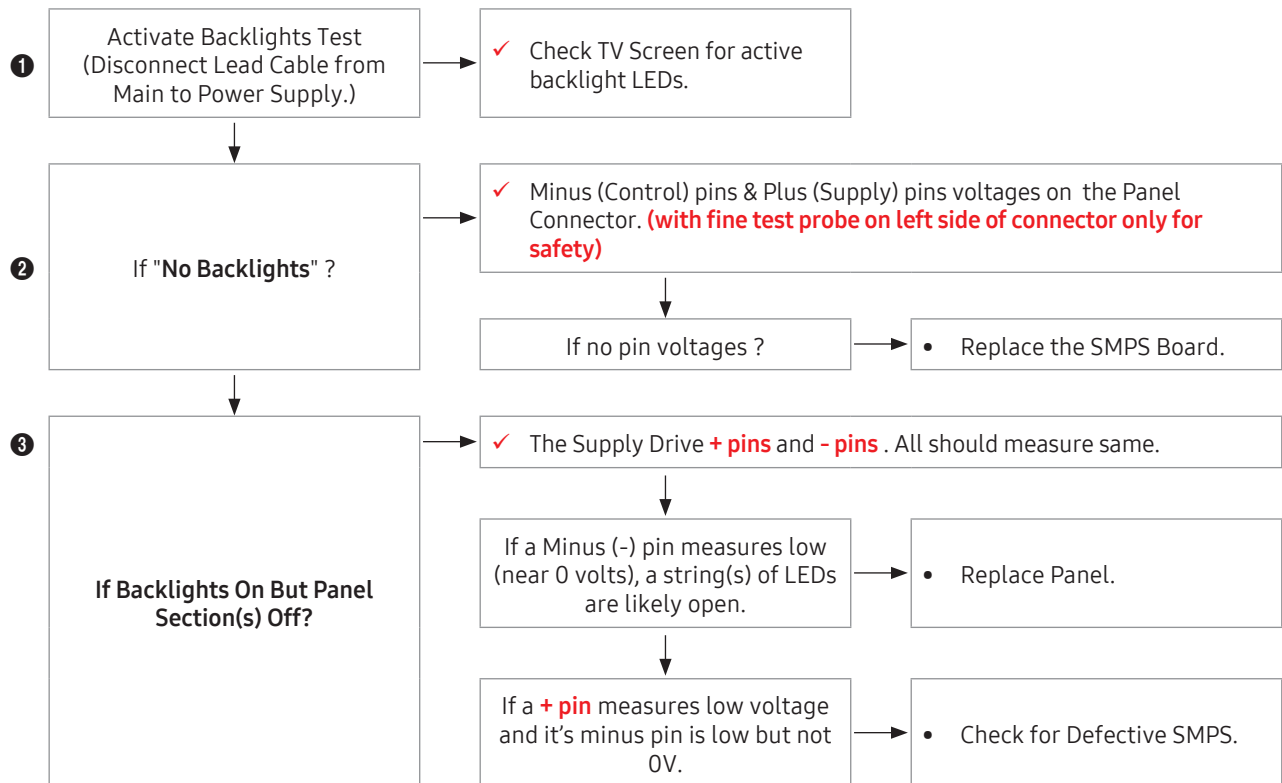


Extended Version

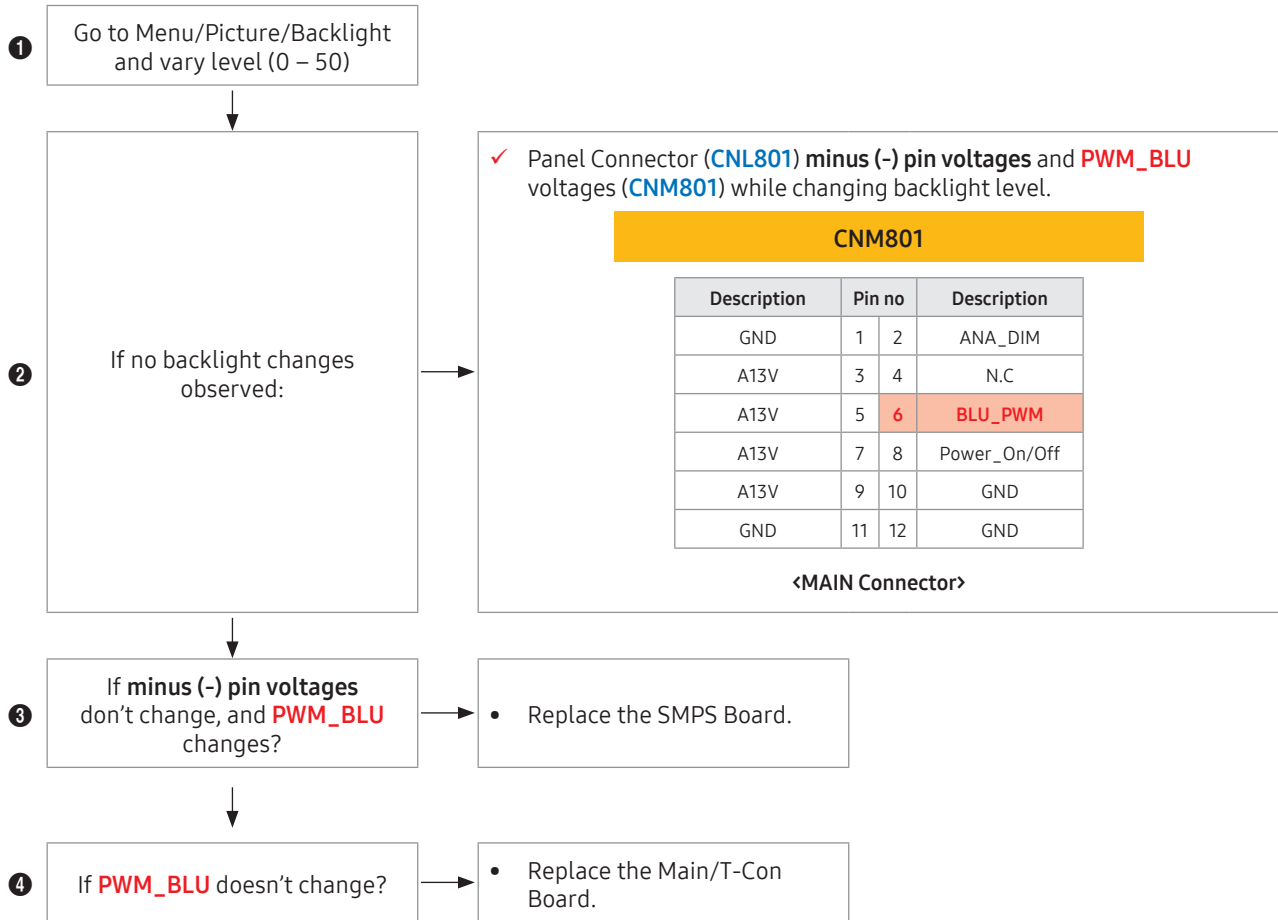




4-3-3. Backlight Test (Parallel Wired SMPS Panel Connections)



■ BACKLIGHT DIMMING PROBLEMS:



NOTE

- MUTE 419 EXIT to test Panel Vertical Backlight Sections in normal operation mode.

4-4. Video

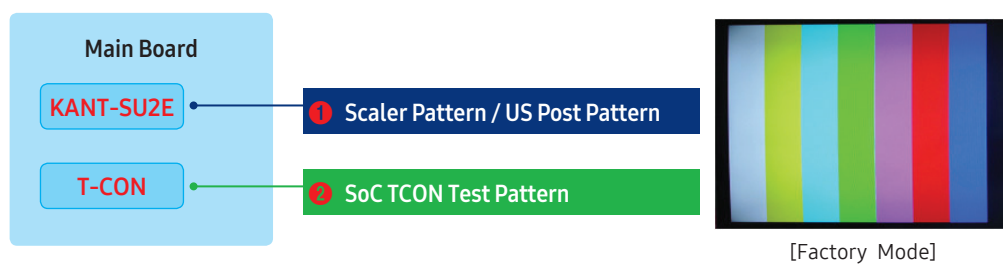
4-4-1. Customer Picture Test

■ MAIN/T-CON BOARD

Pre-FRC / Post FRC NOT AVAILABLE THIS MODEL (120 Hz / 240 Hz Models Only)

Main Section	Pre-FRC	Post FRC	Results	Problem
	Pre-FRC / Post FRC NOT AVAILABLE THIS MODEL (120 Hz / 240 Hz Models Only)			
Pass	Pass	Pass		Check Signal Source and other inputs
Fail	Fail	Fail		Replace Main/T-CON Board / Panel (verify by troubleshooting)

4-4-2. Test Patterns



■ Check Test Patterns

- ENTER : **Factory mode** > **SVC** > **Test Pattern**

1. Verify "Scaler Pattern" and "US Post Pattern".
2. Verify "SoC TCON Test Pattern".



NOTE

- No FRC Circuit or Patterns in this model (60 Hz refresh rate only)

4-4-3. MAIN BOARD

- Main Section > PRE FRC Section > POST FRC Section > T-CON Section > PANEL

■ Main Section



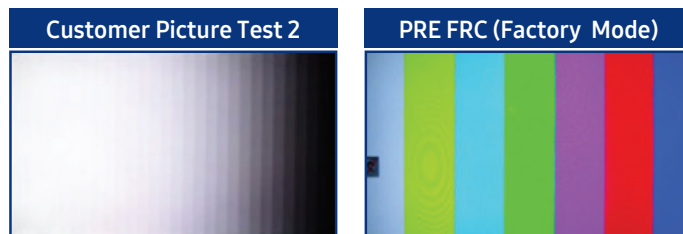
Video Operation

Generated on Main Section.

- If OK:
 - ✓ Source & Input Cables
 - ✓ Other inputs
- If Noisy:
 - ✓ Pre FRC Section Test Patterns

■ PRE FRC Section

FRC TESTS NOT AVAILABLE THIS MODEL (120 Hz / 240 Hz Models Only)



Video Operation

Generated at Pre FRC Section.

- If OK:
 - ✓ Replace Replace Main/T-Con Board
- If Noisy:
 - ✓ Post FRC Section

■ POST FRC Section

FRC TESTS NOT AVAILABLE THIS MODEL (120 Hz / 240 Hz Models Only)



Video Operation

Generated at Post FRC Section.

- **If OK:**
 - ✓ Replace Replace Main/T-Con Board
- **If Noisy:**
 - ✓ Mute > 3 > 6 > 9 > Mute

■ T-CON Section



[May not be available for Larger models over 70 inches.]

Video Operation

Generated at T-CON Section.

1. **If OK:**
 - ✓ Replace Main/T-Con Board
2. **If Noisy:**
 - ✓ Main/T-Con Board
 - ✓ Panel

■ PANEL



✓ Check Panel

- **If Noisy Video:**

- ✓ Soc T-CON Pattern in Factory Mode

- Use type of Noise observed (Bars, single lines, video distortion, etc to help.)
 - If noise is only on one half of screen check / swap panel cables.
 - Verify Defective Panel Cables, TV Main/T-CON or Panel.

4-5. Audio

• Source > Main Board > Speakers

- **The picture is good but there is no sound.**
 - ✓ Set Sound Output to TV Speaker.
 -  >  **Settings** > **Sound** > **Sound Output**
- **The speakers are making an odd sound.**
 - ✓ Run Sound Test.
 -  >  **Settings** > **Support** > **Device Care** > **Self Diagnosis** > **Sound Test**
- **If Sound Test Fails (Missing/Noisy Audio)**
 - ✓ Speakers (compare resistance/quality)
 - ✓ Main Board /Connector/Cable
 - ✓ With external Audio Generator (device or App)
 - ✓ Compare audio level out to speakers with multi meter.
 - Replace defective Speakers or Main Board or Cable
- **If Sound Test OK**
 - ✓ Audio Source & External Cables
 - ✓ Other Inputs
- **Optical Digital Out Errors**
 - ✓ Red light from Optical Digital Out.
 - If missing replace Main Board
- **No HDMI Audio**
 - ✓ Source / HDMI Cable
 - Swap with other HDMI Inputs/Sources.
 - Perform **EDID Write** in Factory Mode (Can restore missing HDMI Audio).
 - ✓ Bulletins and Latest firmware on TV.
 - If not restored replace Main Board
 - Check Audio Format PCM/Dolby based on external Receiver
- **ARC Issues**
 - ✓ HDMI Cable is input to the ARC Designated HDMI port.
 - ✓ ARC (HDMI Control) is enabled on the external Receiver.
- **Bluetooth Audio "Sound Share" Connection Issues**
 - ✓ Sound Bar is in TV Mode.
 - To Connect, Press & Hold Play Button until Sound Bar pairing mode begins.

4-6. Network

When the TV has difficulties connecting to the Internet, these steps may help resolve the problem.

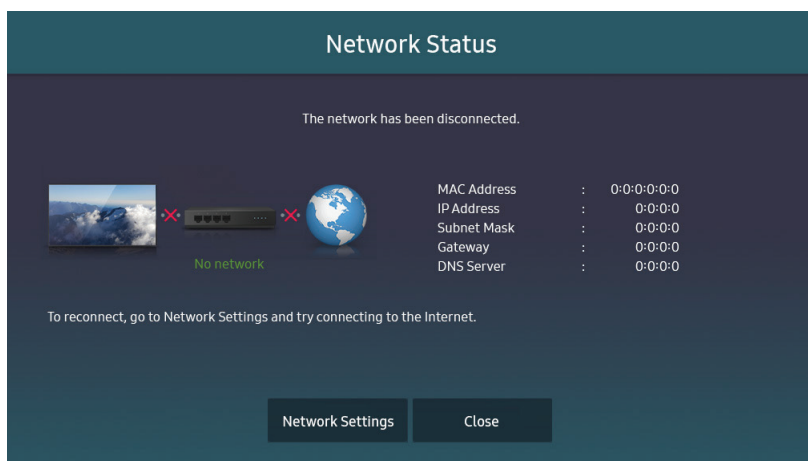


4-6-1. Checking the Internet connection status

• > **Settings** > **General** > **Network** > **Network Status**

■ TV to Router "Failure"

1. Select the **Network Status** menu.
 - View the current network and Internet status.

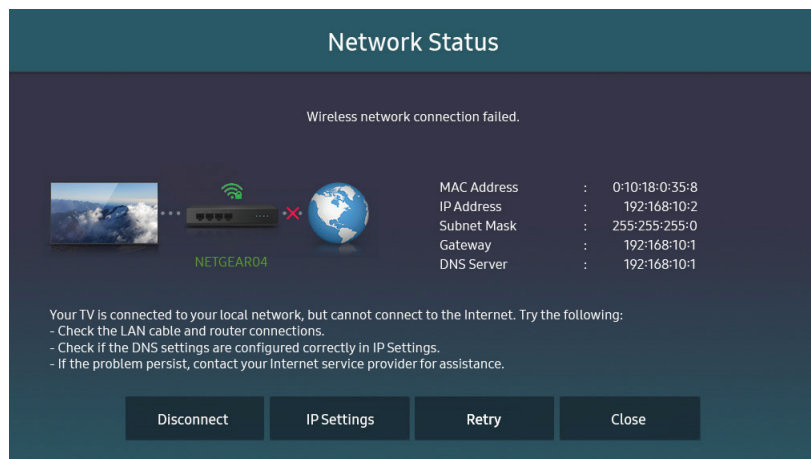


<Network Status : TV ~~✗~~ Router ~~✗~~ Internet>

2. Check the items.
 - ✓ Wired & Wireless MAC Address in **Customer Support** Menu.
 - No Wired MAC Address: Replace Main Board.
 - No Wireless MAC Address:
 - ✓ Module cabling & voltages from Main Board.
 - If operating voltages are OK but signal missing.
 - Replace WiFi Module (WiFi/Bluetooth Module).
 - ✓ Check the security passcode.
 - ✓ Check Wi-Fi signal strength at TV (use WiFi Analyzer or similar App).
 - Try another source (Hot spot or Test Router)
 - ✓ Check related Bulletins.
 - ✓ Check **Factory Mode** → **SVC** → **Info** → **WiFi Error Count** (replace module for high error counts).

■ Router to Network "Failure"

1. Select the **Network Status** menu.
 - View the current network and Internet status.
2. Check the connection status of your TV and network devices on the **Network Status** menu.



〈Network Status : TV —→ Router ~~✗~~ Internet〉

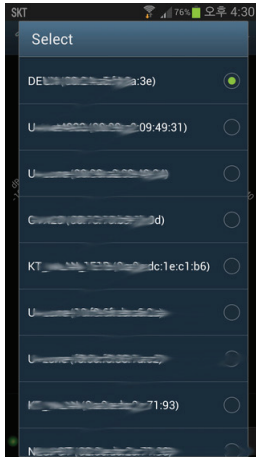
- ✓ Check that your **Network Device** operates normally with other devices.
 - Check your TV status
- ✓ Check that your **TV** operates normally with other Network Device (Hotspot).
 - Check your Network Devices

4-6-2. Using the Wifi Analyzer App

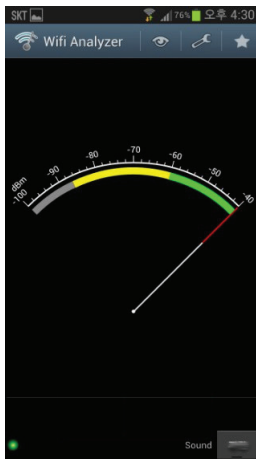
1. Download the free app from your Android phone called [Wi-Fi Analyzer](#).



2. Select Network under test.



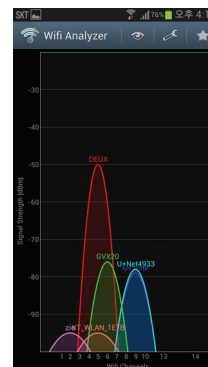
3. Check Signal Strength Meter at both router location and TV location.



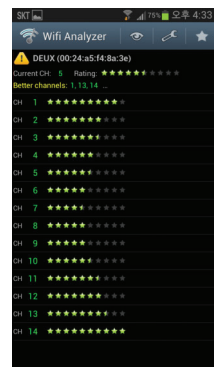
- ✓ Check other Wi-Fi Signals in the area.
- ✓ Check for competing adjacent channels.
- ✓ Check for current & recommended Channel Locations.



<Wi-Fi Signals>



<Competing>



<Ideal Channel Location>

4-6-3. Wired LAN Operation Test (TV to Router)

-  >  **Settings** > **General** > **Network** > **Network Settings** > **Network Type** > **Wired**

Use an external Router and LAN Cable for testing.



NOTE

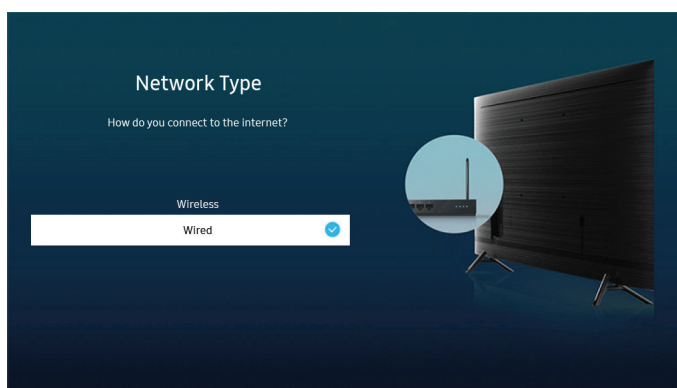
- No Internet connection is required or used in this example.

1. Connect a known good **External LAN Cable** and Router to the TV for testing.



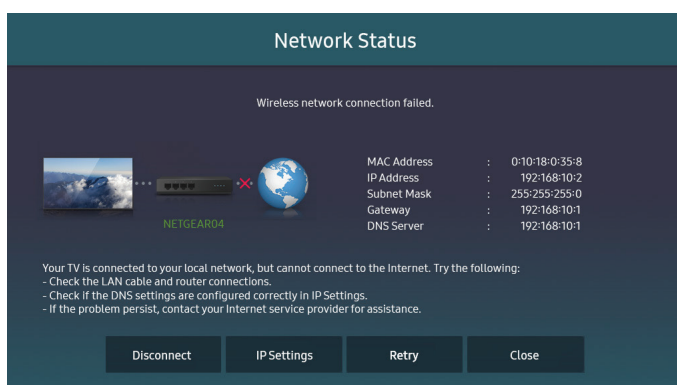
◀External Router And LAN Cable▶

2. Select the **Wired** menu.



- Verify connection : TV to router. (The Router to Internet will not connect in this test.)

3. The TV is **OK** if connection to the Router is verified.



→ Inform the customer to check their LAN Cable and Router.

4-6-4. Know Before Wireless Internet Connection

- ✓ Wi-Fi Security Key
- ✓ Distance between the wireless router and TV
- ✓ Go to TV Web Browser / Go to speedof.me / testmy.net
 - HD Video Streaming - 5Mbps and up
 - UHD Video Streaming - 25Mbps and up
 - Check Latency less than 50ms



4-7. Smart Hub

When the TV has difficulties connecting to the Internet, these steps may help resolve the problem.



4-7-1. Smart Hub Connection Test

- > **Settings** > **Support** > **Device Care** > **Self Diagnosis** > **Smart Hub Connection Test**

1. Select the **Smart Hub Connection Test** menu.
 - The Test Smart Hub Connection screen appears.



2. Select the number at the top of the screen to see the items below.
 - **Network / Gateway**
 - If there is a problem, test your TV and router connections as this is a network problem. (Network Trouble shooting)
 - **DNS Test**
 - ✓ If it Fails:
 - DNS setting in "Network Settings"
 - ✓ If DNS is set manually:
 - Settings are correct (may be set to 8.8.8.8 to prevent Netflix issues)
 - ✓ If it still fails:
 - DNS Test with setting to Auto Mode
 - ✓ If it fails both Manual & Auto problem is ISP or Router.

- **ISP Blocking**

- ✓ If it Fails:

- Internet Service Provider is Active.
 - With DNS setting at 8888.
 - With Hot Spot.

- **Samsung Server Test**

- ✓ If it Fails:

- Network Status.

- ✓ If OK:

- Reset Smart Hub.
 - Terms of Agreement are accepted.

- **Samsung Apps**

- ✓ If it Fails:

- Reset Smart Hub.
 - Samsung Apps load correctly.
 - Perform "Apps Reset" in Factory Mode.
 - Go to Smart Hub and complete Terms of Agreement and set up information.
 - Samsung Apps load correctly.
 - Before selecting an App, allow Apps to load or failure will occur.

■ For Netflix Operation/Connection Issues

Check **Certificate & Netflix** ESN Status in Factory Mode.



- ✓ If Certificate and ESN exists

- **CO, Nfo** - Change the DNS to 8.8.8.8.

- ✓ If Certificate is missing

- **C/** - Replace the TV's Main Board.

- ✓ If ESN number is missing

- **NF/** - Do not replace the Main Board.
 - Reset TV Clock and check for correct Time & Date. Netflix relies on correct settings.
 - Reset Smart Hub. / Reset Apps In Factory Mode.

■ For Streaming Issues

Go to TV Web Browser > speedof.me > testmy.net

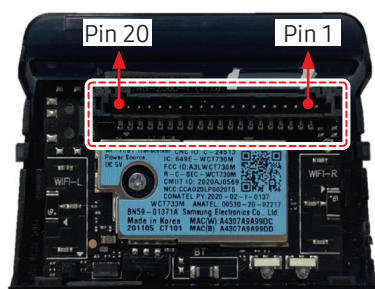
- ✓ Check Speed

- HD streaming : Minimum 5 Mbps
 - 4K Streaming : 25 Mbps

- ✓ Check Latency

- Up to 50 ms

4-8. BlueTooth/WiFi Module



<NETWORK-WLAN CLIENT>

CN1101(FUNCTION/IR/BT/WIFI)				WCT730M Pins			
1	USB_DM	2	USB_DP	1	USB_DM	2	USB_DP
3	GND	4	UART_TX	3	GND	4	UART_TX
5	BT_WAKE_UP	6	WIFI_SUSPEND	5	BT_WAKE_UP	6	WIFI_USB_SUSPEND
7	5V	8	WIFI_WAKE_UP	7	5V	8	WIFI_WAKEUP
9	RESET	10	IR_RX	9	RESET	10	IR/RX
11	KEY1	12	KEY2	11	KEY1	12	NC
13	I2C_SCL	14	I2C_SDA	13	I2C_SCL	14	I2C_SDA
15	DMIC_DATA	16	DMIC_CLK	15	NC	16	NC
17	LED	18	GND	17	LED	18	GND
19	IR_LED1	20	IR_LED2	19	IR_LED1	20	IR_LED2

<Main Board Pins>

<WCT730M Pins>

■ Pin Description

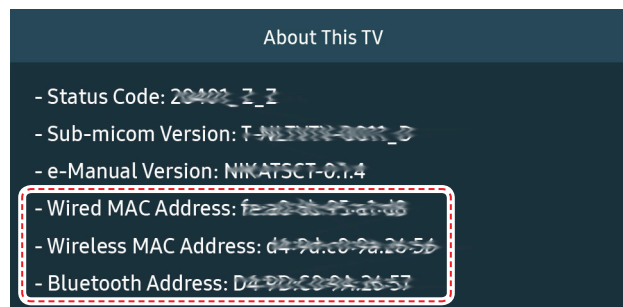
Pins	Name	Interface	I/O	Description
1	USB_DM	Digital	I/O	WiFi/BT USB interface negative
2	USB_DP	Digital	I/O	WiFi/BT USB interface positive
3	GND	Analog	-	Ground
4	UART_TX	Digital	I	
5	BT_WAKE_UP	Digital	I	BT host wake up
6	WIFI_USB_SUSPEND	Digital	O	WiFi USB PHY On/Off Ctrl
7	5V	Analog	I	DC + 5V Power supply input
8	WIFI_WAKEUP	Digital	I	WiFi host wake up
9	RESET	Digital	I	WiFi/BT Reset
10	IR_RX	Digital	I	
11	KEY1	Digital	I	
12	NC	-	-	Not Connection
13	I2C_SCL	Digital	I/O	I2C Clock
14	I2C_SDA	Digital	I	I2C Data
15	NC	-	-	Not Connection
16	NC	-	-	Not Connection

4. Troubleshooting

Pins	Name	Interface	I/O	Description
17	LED	Digital	O	
18	GND	Analog	-	
19	IR_LED1	Digital	O	
20	IR_LED1	Digital	O	

■ About This TV to check

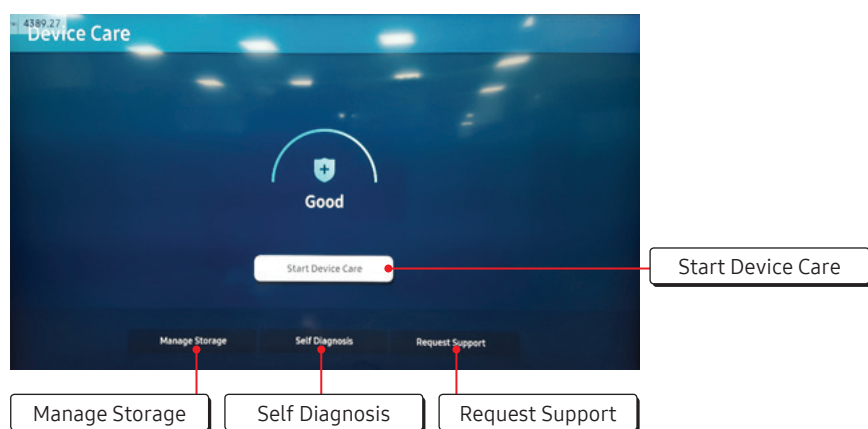
-  >  **Settings** > **Support** > **About This TV**



- ✓ **Wired MAC Address :**
→ If missing or error : Replace Main Board.
- ✓ **Wireless MAC Address**
- ✓ **Bluetooth Address**
→ If Bluetooth Address or Wireless MAC Address are missing or errors exist.
- ✓ **BT & Wi-Fi Connector Voltages**
→ If Voltages are OK but no BT or Wi-Fi Signals voltage(s) : Replace defective Module.

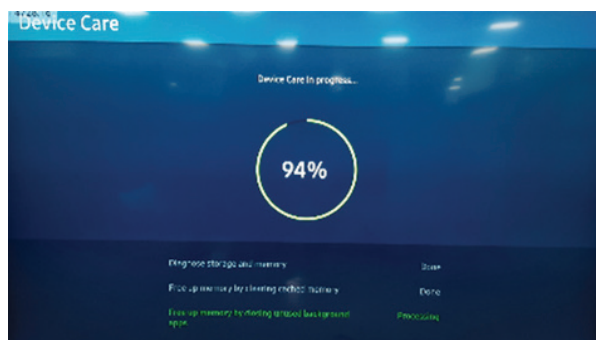
4-9. Device Care

You can run Device Care to diagnose and optimize your TV. Device Care can also check and optimize the TV's storage. If any problem is found, the TV needs technical support.

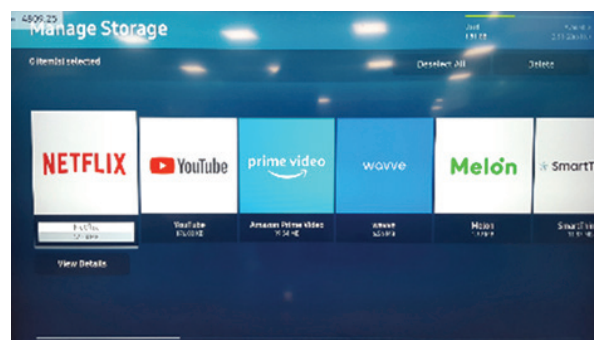


Start Device Care

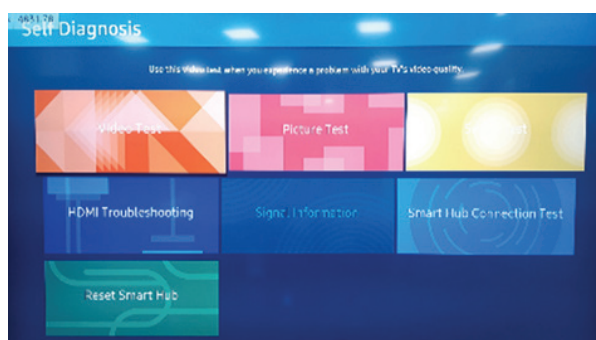
Manage Storage



Self Diagnosis

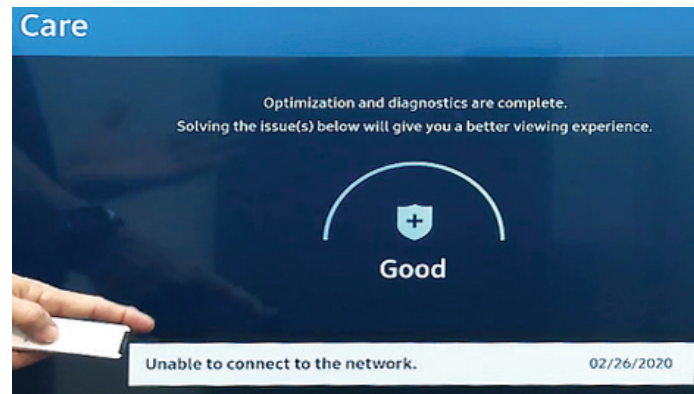


Request Support



■ Start Device Care

-  >  **Settings** > **Support** > **Device Care** > Start Device Care



Auto Status Test: Start Device Care

- Diagnose power on/off
- Diagnose picture quality
- Diagnose sound quality
- Diagnose external device connection
- Diagnose network connection
- Diagnose TV remote
- Diagnose broadcast signal and channel status
- Diagnose HDMI Inputs Status
- Diagnose storage and memory
- Free up memory by clearing cached memory
- Free up memory by closing unused background apps

4-10. Factory Mode

4-10-1. Setting TV into Factory Mode



AA81-00243A
(Service Remotes)

Factory Remote

1. Power TV ON.
2. Select TV Source.
3. **Info** → **Factory**.
4. Use **MENU** for return.



AA81-00243B
(Recommended)

Samsung IR Remote

1. TV Power Standby.
2. Press as follows.
 - Remote Button

NTSC	MUTE → 1 → 8 → 2 → POWER
PAL	INFO → MENU → MUTE → POWER

4-10-2. Important Items to check and perform

- **Option** (must set Option Bytes when replacing Main Board.)
- Option → **Factory Reset** (returns TV to out of box condition.)
 - Must perform when replacing Main Board or Full One Connect)
- SVC → Info → **ER Count** (Important to check for errors.)
 - Resets to 0 with Factory Reset.
 - ✓ Check before resetting TV
- SVC → **Test Patterns** (Use to check / troubleshoot) videos errors.
- Control → **EDID** (Use to Reset HDMI Operational Errors)

■ Setting Option Bytes Table

1. Enter Factory Mode with **Service Remote** (only).
2. Check "Option Bytes Table" located on **GSPN** (Fast Track or Tips).
3. Select **Option**.
4. Select each item to change.
5. Can Use new **Writing Type** to enter model.
(if entered wrong it will not change.)
6. Soft power TV Off to load.

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type		
Local Set	BRA_DTV	
SW Model	UAU7700	
Front Color	AU7000C-U75AC1	
Writing Front Color		
Model Code	UN75AU7700GXZD	
TUNER	-	
Ch Table	NONE	

■ Performing Factory Reset

1. Enter Factory Mode.
2. Select **Option** ➤ **Factory Reset**
3. TV will power off.
4. Perform ALL TV Settings. (New out of box condition)

First Screen Appearing in Factory Mode

- Sample : QN65QN900ATXZA

MODE : CATV, RES : NOSIGNAL

Navigation Menu: Home, Updates, Exit, **Option**, Control, Debug, SVC, FMS, ADC/WB, Advanced

System Information (Highlighted areas):

- OSCPAKUC-0123.60
OSPOCTV-0009
OSPOCIP-1310_C07
OCP-162016.2012181.0000000
TIZEN-ONEMAIN-OscaP-RELEASE_20201223.6
- BT Version : BLUETOOTH-VER-20120916
E-Manual : OSNATSCA-1.0.1
Blaster Version : Not Support
E-POP Version : OSCARUHD-1.7.0
EDID SUCCESS
HDCP SUCCESS
HDMI SW : 0.90-53077
Option : 85L1ZF9TA US QAO000 NONE
- FRC-[OSCAR-P][120Hz][HW05]
DIMMING-[FA-65X36][02]
LD FW1 : 2180110C
LD FW2 : ----
[OSCAR-T][B][0002]FW[0A000015/F-0A000015]
- Model : QN65QN900ATXZA
Wired MAC SUCCESS
Wireless MAC SUCCESS
WiFi Version : mt7921u-MTK-FC2.1.1-20201218
CO NF/ NID/ WO H2 PO AO O WS/ DI/ I/ SSO MO
Co/ SIX UX 00
NSOO.00000020b6000001.0000
- SmartControl : 00000000/000000
Board Info : NA/RC/1/NA
Factory Reset In Production : ----
SID : others
Date of purchase : --/--/----

QUICK TIPS:-

- * Set value of HV Flip from shell prompt without launching factory app. For detail check Updates window
- * Launch Factory:- "org.tizen.factory"
- * Get value of any item from shell prompt without launching factory app. For detail check Updates window
- * Launch Factory:- "org.tizen.factory"
- * Set value of type localset model and front color from shell prompt along with factory reset :- "launch_app org.tizen.factory type value localset value model value color value"
- * Use channel up/down to toggle items when at last depth
- * Use arrow right/left to toggle values when at last depth
- * Home button can be used to jump directly to home screen of factory app from any level
- * Exit button can be used to Exit factory app without launching aging app

■ Important Screen Info

1

T-OSCPAKUC-0123.60
T-OSPOCTV-0009
T-OSPOCJP-1310_C07
T-OCp-162016.2012181.0000000
TIZEN-ONEMAIN-OscarP-RELEASE_20201223.6
(Debug)

- Micom Version
- Sub Micom
- Tizen Platform info

2

BT Version : BLUETOOTH-VER-20120916
E-Manual : OSNATSCA-1.0.1
Blaster Version : Not Support
E-POP Version : OSCARUHD-1.7.0
EDID SUCCESS
HDCP SUCCESS
HDMISW : 0.90-53077
Option : 85L1ZE9TA,US,QAQ900,NONE

- BT Version
- E-Manual
- Blaster Version
- E-POP Version
- EDID Success (Status)
- HDCP Success (Status)

3

FRC-[OSCAR-P][120Hz][HW:05]
DIMMING-[FA-65X36][02]
LD FW1 : 2180110C
LD FW2 : ----
[OSCAR-T]B[0002]FW[0A000015/F:0A000015]
MD[A85LBQ0F1F/F:A85LBQ0F1F]

- FRC
- Dimming
- T-CON

4

Model : QN85QN900AFXZA
Wired MAC SUCCESS
Wireless MAC SUCCESS
WiFi Version : mt7921u-MTK-FC2.1.1-20201218
CO Nf/ NfD/ WO H2 PO AO O WS/ DI/ I/ SSO MO D/ S/
Co/ SIX UX (X)
NSOO,00000020b6000001,0000
Fixed: 19000 / WB: 2

- Model
- Wired MAC Success
- Wireless MAC Success
- WiFi Version
- CO Status ("O" Operational)

5

SmartControl : 00000000/000000
Board Info : NA/RC/1/NA
Factory Reset In Production : ----
SID : others
Date of purchase : --/--/----

- Factory Data Version
- EERC Version
- Date of Purchase - Initial set up date
(Resets with Factory Reset)

■ Replacing Main Board

When replacing Main Board, certain values needs to be manually input in Factory menu to complete the replacement.

Steps to Replace Main Board

1. Enter Factory Menu (Use Factory Remote only).
 - Power TV on : Select **TV Source** > **Info/Factory** > **Option**
2. Change Each value according to the TV Model.
 - **Type**, **Writing Type**, Local Set, **SW Model**, **Front Color**, **Model Code** must be set to correct value.

- Sample Model : UN75AU7700GXZD

Type

- Check Panel label (located in the back chassis of panel) and choose same Type code from the list.



<Panel Label>

Home	Updates	Exit														
Factory Reset																
Type	75S6AUAGT															
Writing Type																
Local Set	BRA_DTV															
SW Model	UAU7700															
Front Color	AU7000C-U75AC1															
Writing Front Color																
Model Code	UN75AU7700GXZD															
TUNER	-															
Ch Table	NONE															
<table><tr><td>55A1QU7QN</td><td>55L1QU7QN</td></tr><tr><td>75L1QU7QN</td><td>55A1QU8XN</td></tr><tr><td>55L1QU7QN</td><td>55A1QU7QN</td></tr><tr><td>65A1QU9TR</td><td>75S6AUAGT</td></tr><tr><td>65L1QU9TR</td><td>65L1QU7QN</td></tr><tr><td>65A1QU8XN</td><td>65L1QU8XN</td></tr><tr><td>55A6AU0NN</td><td>82A1QU9TR</td></tr></table>			55A1QU7QN	55L1QU7QN	75L1QU7QN	55A1QU8XN	55L1QU7QN	55A1QU7QN	65A1QU9TR	75S6AUAGT	65L1QU9TR	65L1QU7QN	65A1QU8XN	65L1QU8XN	55A6AU0NN	82A1QU9TR
55A1QU7QN	55L1QU7QN															
75L1QU7QN	55A1QU8XN															
55L1QU7QN	55A1QU7QN															
65A1QU9TR	75S6AUAGT															
65L1QU9TR	65L1QU7QN															
65A1QU8XN	65L1QU8XN															
55A6AU0NN	82A1QU9TR															

<Type list in the Factory Menu>

Writing Type

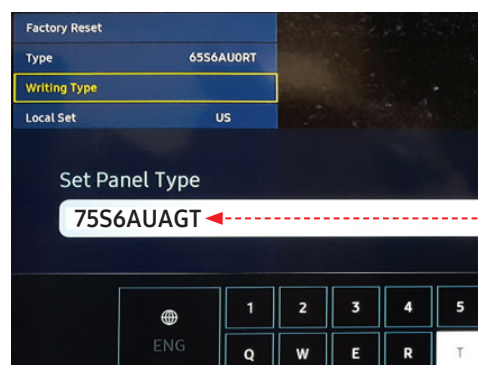
- For Quick Entry of Type.
 - Confirm **Type** from Option Byte Table for your TV.
 - Select **Writing Type**.
 - "**Set Panel Type**" appears.
 - Enter exact Model Type using cursors.
 - Select **OK**.
 - Writing Type Success** appears in the Option Table.
 - If the model Type you entered doesn't exist it will not load.
 - If you entered over 10 digits an Information screen box is full appears.
 - Complete rest of Option Byte Table info.
 - Press soft power off with remote to enter settings.

**NOTE**

- If you made a mistake you can unplug the TV to prevent info from changing options.

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type		
Local Set	BRA_DTV	
SW Model		

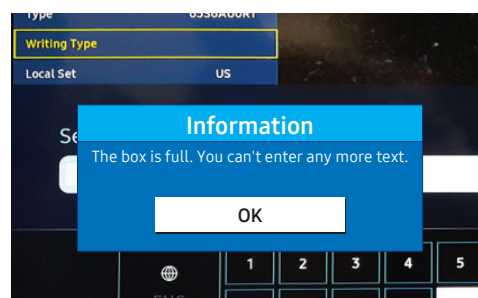
<Select Writing Type>



<Set Panel Type>

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type	Success	
Local Set	BRA_DTV	
SW Model		

<Writing Type Success>



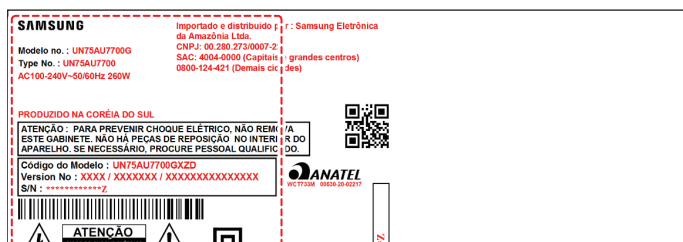
<Writing Type digits exceeded>

Local Set

- Set according to Local region(country).

SW Model

- Check Label Rating of the TV (located on the **Rear Cover**).
 - SW Model is digits **after "/"** in **Version No.**
 - Choose same SW Model code from the list.



<"SW Model" in Label Rating>

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type		
Local Set	BRA_DTV	
SW Model	UAU7700	
Front Color	AU7000C-U75AC1	
Writing Front Color		
Model Code	UN75AU7700GXZD	
TUNER	-	
Ch Table	NONE	

<Select SW Model>

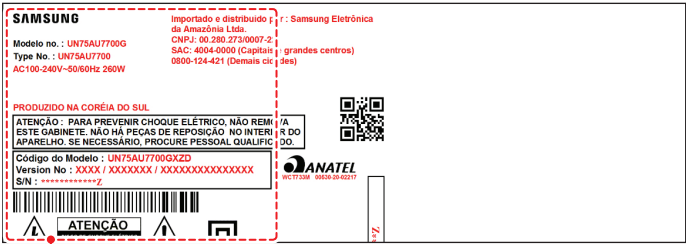
URU7300R	QNNQ6F
QRQ60T	QNNQ75C
URU8000F	QRQ80C
QRQ70D	UAU7700
QNNQ8FB	QNNQ7F
URU7000JJ	QRQ900Z
URU7100H	QRQ90B

<SW Model list in the Factory Menu>

4. Troubleshooting

Front Color

- Check Label Rating of the TV (located on the **Rear Cover**).



<"Front Color" in Label Rating>

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type		
Local Set	BRA_DTV	
SW Model	UAU7700	
Front Color	AU7000C-U75AC1	
Writing Front Color		
Model Code	UN75AU7700GXZD	
TUNER	-	
Ch Table	NONE	

<Select Front Color>

QTQ80D-Q49TD1	QTQ950SA-Q85TA1
QTQ80D-Q55TD1	QTQ800B-Q65TB1
QTQ80D-Q65TD1	QTQ800B-Q75TB2
QTQ80D-Q75TD1	AU7000C-U75AC1
QTQ80D-Q85TD1	QTQ60F-Q43TF1
QTQ90C-Q55TC1	QTQ60F-Q50TF1
QTQ90C-Q65TC1	QTQ60F-Q55TF1

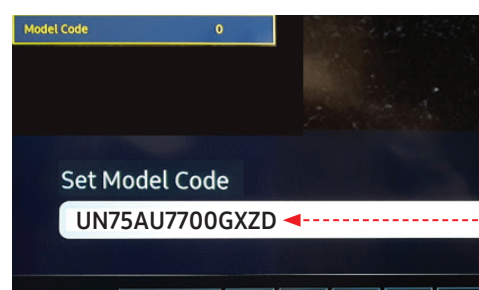
<Front Color list in the Factory Menu>

Model Code

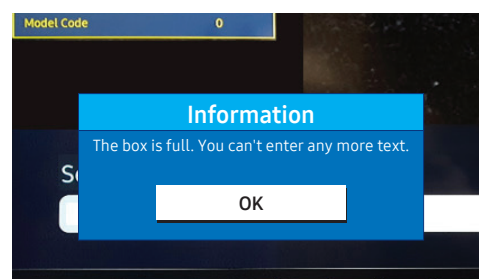
- For Quick Entry of Model Code.
 - Confirm **Model Code** from Option Byte Table for your TV.
 - Select **Model Code**.
 - "Set Model Code" appears.
 - Enter exact Model Code using cursors.
 - If you entered over 19 digits an **Information** screen **box is full** appears.
 - IMPORTANT:** It will accept wrong model code, be sure to enter correct code
 - Complete rest of Option Byte Table info.
 - Press soft power off with remote to enter settings.

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type		
Local Set	BRA_DTV	
SW Model	UAU7700	
Front Color	AU7000C-U75AC1	
Writing Front Color		
Model Code	UN75AU7700GXZD	
TUNER	-	

<Select Model Code>



<Set Model Code>

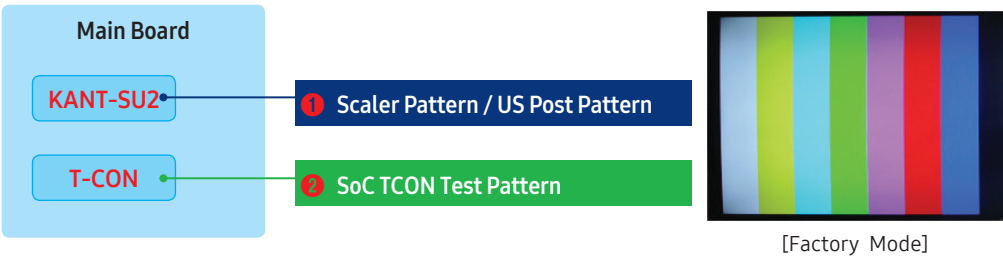


<Model Code digits exceeded>

Home	Updates	Exit
Factory Reset		
Type	75S6AUAGT	
Writing Type		
Local Set	BRA_DTV	
SW Model	UAU7700	
Front Color	AU7000C-U75AC1	
Writing Front Color		
Model Code	UN75AU7700GXZD!1	
TUNER	-	

<Wrong Model Code Entry>

■ SVC ➤ Test Patterns



IMPORTANT

FRC PRE / FRC POST Test Patterns
May be available (120 Hz / 240 Hz Models Only)

- 1. Verify "Scaler Pattern" and "US Post Pattern"
- 2. Verify "SoC TCON Test Pattern"

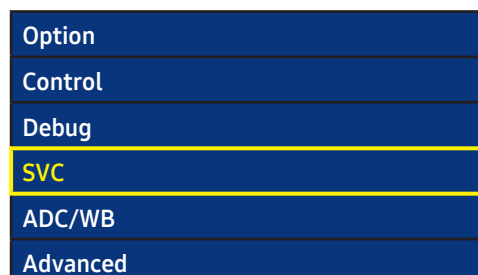
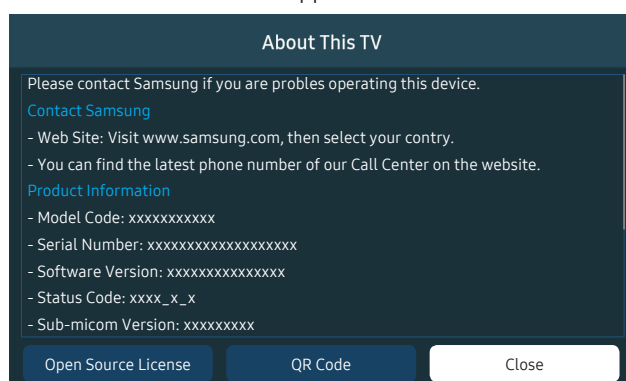
Scaler Pattern	OFF
US Post Pattern	OFF
FRC Pre Pattern	0
FRC Post Pattern	0
SOC TCON Pattern	0
SOC TCON Pattern Level	255
FRC OSD Pre Pattern	0
FRC OSD Post Pattern	0
FRC2 Pre Pattern	0
FRC2 Post Pattern	0
SOC TCON2 Pattern	0
SOC TCON2 Pattern Level	255
SOC TCON3 Pattern	0
SOC TCON3 Pattern Level	255

■ SVC > S/N > Writing S/N

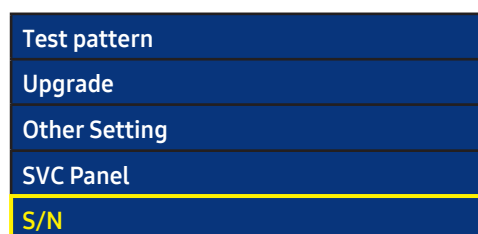
Writing Serial Number

When replacing the main board, the replacement mainboard may have a serial number already entered. This serial number is invalid and must be replaced with the serial number from the label on the back of the TV. After replacing the main board, turn on the TV and go to **Settings > Support > About This TV**. If a serial number exists, it must first be erased, follow the instructions below to enter the correct serial number.

1. Take a picture of the serial number on the label on the back of TV.
2. Enter the Factory Menu using a Factory remote.
3. Select **SVC > S/N > Writing S/N**.
4. When the soft keypad is displayed, if a serial number already exists, select **"Delete All"** to erase the existing serial number.
5. Use the soft keypad to enter the correct serial number from the Back Cover label.
 - **Carefully Check** each digit to make sure all digits are entered correctly.
 - You must enter all 15 digits.
6. Click **"Done"** on the soft keypad to exit and save the serial number.
7. Power off the TV, and then power it back on.
8. Go to **Settings > Support > About This TV**, and then verify that the correct serial number now appears in the **About This TV** screen.



<Select SVC>



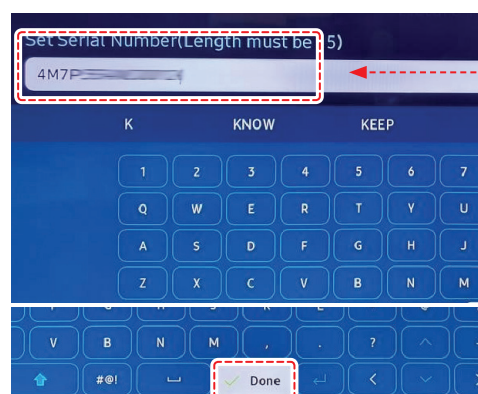
<Select S/N>



<Select Writing S/N>



<Back Cover label>



<Soft keypad>

■ SVC > Info > ER Count

Check each item listed.

WD Count	0	FRC3D Emergency Reboot On/Off ON	7915 DETACHMENT COUNT	0
AR Count	0	FRC3D ER Count		
RS Count	0	TCN PMIC Fault Count		
RS-FG Count	0	Fan Error Count		
RS-Launch Count	0	TV20C Serdes Reset Count		
RS-BG Count	0	OC2TV Serdes Reset Count		
WIFI NO DETECTION COUNT	0	AOC Diagnosis		
WIFI DETACHMENT COUNT	0	Serdes History		
BT NO DETECTION COUNT	0	Serdes History Reset		
BT DETACHMENT COUNT	0	Serdes WatchDog On/Off	OFF	
BT MGT OPEN FAIL COUNT	0	Vcc Fail Count	0	
BT MGT DISCONNECT COUNT	0	HDMI No Signal		
BT TV AUDIO DROP	0	HDMI Blinking		
BT AUDIO TIMER EXP	0	HDMI Color Space		
Camera ER Count	0	7915 NO DETECTION COUNT	0	

Important Items

- ✓ **WD Count:** Watch Dog
→ Hardware related issue.
- ✓ **AR Count:** Auto Reset
→ Software (i.e. Apps) related.
- ✓ **WiFi Count:** Check all listed items
- ✓ **BT Count:** Check all listed items
- ✓ **VCC Fail Count**
→ Check all listed items.

■ Factory Mode > Control > EDID

1. Remove ALL **HDMI** connections.
2. Factory Mode > Control > **EDID**. (→ Enter Key)

Option	EDID
Control	Sub Option
Debug	Hotel Option
SVC	Shop Option
FMS	Asia Option
ADC/WB	Sound
Advanced	

3. Select **EDID/OFF** to ON. (→ Right Arrow Key)

EDID ON/OFF	ON
-------------	----

4. Select **EDID WRITE ALL**. (→ Enter Key)

EDID WRITE ALL	Success
----------------	---------

5. Wait to Success. (→ Right Arrow Key)

EDID WRITE ALL	Wait
----------------	------

6. Confirm EDID WRITE ALL Success. (→ Menu Key)

EDID WRITE ALL	Success
----------------	---------

4-11. 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**".
- "**Option Setting Table**" depends on the models or region.
 - After checking the exact model information, select the values for the "**Option Setting Table**".

- UN**AU7700GXZD information only. (** : 43/50/55/58/65/70/75 inches)

■ PANEL Information

PANEL	• UN43AU7700GXZD	Side Version	CG02
		Vendor	CSOT
		Code	BN95-06368G
		Spec	CY-BT043HGHV3G
		Type	43S6AUAGT
PANEL	• UN50AU7700GXZD	Side Version	XG02
		Vendor	HKC
		Code	BN95-06726K
		Spec	CY-BT050HGCV1G
		Type	50K6AUAGT
PANEL	• UN55AU7700GXZD	Side Version	CD02
		Vendor	CSOT
		Code	BN95-07454D
		Spec	CY-BT055HGHVAG
		Type	55S6AUBGT
PANEL	• UN58AU7700GXZD	Side Version	XD02
		Vendor	HKC
		Code	BN95-06739C
		Spec	CY-BT058HGCV1G
		Type	58K6AUAGT

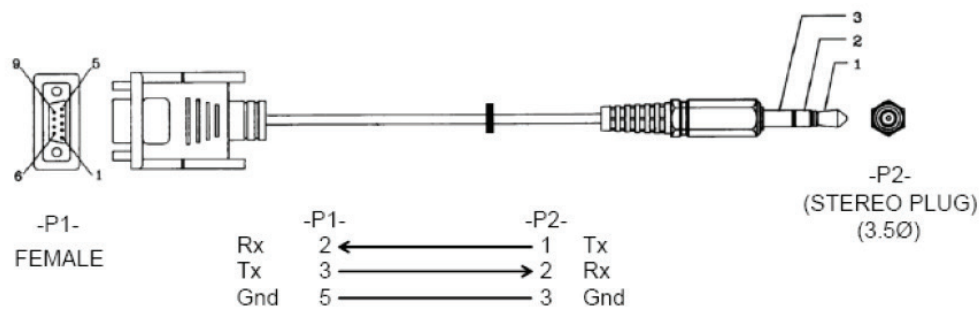
• UN65AU7700GXZD	Side Version	BC02
	Vendor	BOE
	Code	BN95-07156B
	Spec	CY-BT065HGEV4G
	Type	65B6AUAGT
• UN70AU7700GXZD	Side Version	UD02
	Vendor	SDP
	Code	BN95-07046D
	Spec	CY-BT070HGSV1G
	Type	70Y6AUAGT
• UN75AU7700GXZD	Side Version	CD02
	Vendor	CSOT
	Code	BN95-06911C
	Spec	CY-BT075HGHV2G
	Type	75S6AUAGT
S/W Model		UAU7700

4-12. RS-232C

■ To RS232C Control

- Port : COM#(Serial)
- Baud rate : 9600
- Data Bit : 8 bit
- Parity : None
- Stop Bits : 1
- Flow Control : None

■ Description of RS232C



Pin#	Name	Full Name	Pin#	Name	Full Name
1	CD	Carrier Detect	6	DSR	Data Set Ready
2	RxD	Received Data	7	RTS	Request To Send
3	TxD	Transmitted Data	8	CTS	Clear To Send
4	DTR	Data Terminal Ready	9	RI	Ring Indicator
5	GND	Signal Ground			

4-13. Updating the TV's Software

View your TV's software version and update it if necessary.



DO NOT turn off the TV's power until the update is complete. The TV will turn off and on automatically after completing the software update. Video and audio settings will be reset to their defaults after a software update.

- > **Settings** > **Support** > **Software Update**

■ Updating through the Internet

- > **Settings** > **Support** > **Software Update** > **Update Now**



Updating from the Internet requires an active Internet connection.

■ Updating through a USB device

- > **Settings** > **Support** > **Software Update** > **Update Now**

After downloading the update file from the Samsung website and storing it on a USB device, connect the USB device to the TV to update.



To update using a USB device, download the update package from Samsung.com to your computer. Then, save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

■ Updating the TV automatically

- > **Settings** > **Support** > **Software Update** > **Auto Update**

If the TV is connected to the Internet, you can have the TV update its software automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is turned on.

If you agree to the Smart Hub terms and conditions, **Auto Update** is set to **On** automatically. If you want this function disabled, use the Select button to turn it off.



This function may take a longer time if another network function is running concurrently.



This function requires an Internet connection.