

SVC Model (Product code)	55EC9300-U* (EC93 Series)
Subject	[EA42D][M14_US OLED models] Improved Auto Power Off / No Power issue
Applicable Serial No.	All serial No.

Symptom Details:

- Case 1) TV Powers Off (See Below)

Defective symptom is intermittent and Power on/off Status has either
“POWER_OFF_BY_20V_DETECT” or “POWER_OFF_BY_INV_ERROR” error entries.

- Case 2) TV Won't Power On (See Page 2)

Solution 1 TV Can Be Turned On:

1. If The TV Can Be Turned On:

(a) Please check “Power On/Off Status” in the “IN-START” menu.

(IN START → Power On/Off Status; look for “20V_DETECT” or “INV_ERROR”).

IN START	Power Off/On Status
Model Name: 55EC9300-UA Serial Number: 401RMFPCC843 SW Version: : 04.45.04.01 MCOM Version: : V3.00.2 BOOT Version: : 3.04.07 EDID (RGB/HDMI): : NULL/0.02 Chip Type: : LG1311 Wi-Fi Channel: : 11 Wi-Fi MAC: : 84:9C:A6:B6:E5:DA Wi-Fi Speed: : CC:2D:8C:05:84:2A IP Address: : 192.168.1.7 SFU Key: OK Widevine: LGTV14CLGE002622029 ESN Num.: LGTV20142=21002003896 HDCP1.4: OK HDCP2.0: OK DTCP: OK RF Receiver Version: : 1.2.7.57 Wi-Fi Magic Search: : OK/OK Camera Ver.: NULL Debug Status: : RELEASE SIGN Key: : PRODKEY Access USB Status: 1/-1(T)/-1(C) UTT: 22 OLED Last Compensation Done UTT: 4 OLED Compensation Count: 1 APP History Ver.: 30737 Driver History Ver.: 3246 PQL DB.LGD_OLD_S12178B_XXXXXX	1. Adjust Check 2. ADC Data 3. Power Off Status 4. System 1 5. System 2 6. System 3 7. Model Number D/L 8. Test Option 9. Spread Spectrum 10. Sync Level 11. Stable Count 12. Local Dimming 13. SDP Server Selection 14. RF Remocon Test 15. OLED 16. Access Code
	0. POWER_ON_BY_REMOTE_KEY 1. POWER_OFF_BY_COMP_END 2. POWER_ON_BY_LAST_POWERON 3. POWER_OFF_BY_20V_DETECT 4. POWER_ON_BY_LOCAL_KEY 5. POWER_OFF_BY_SVMNT 6. POWER_OFF_BY_INV_ERROR 7. POWER_ON_BY_REMOTE_KEY 8. POWER_ON_BY_REMOTE_KEY 9. POWER_OFF_BY_LOCAL_KEY 10. POWER_ON_BY_LAST_POWERON 11. POWER_OFF_BY_20V_DETECT 12. POWER_OFF_BY_COMP_END 13. POWER_OFF_BY_AUTO_OFF 14. POWER_OFF_BY_REMOTE_KEY 15. POWER_OFF_BY_COMP_END 16. POWER_ON_BY_MICRO_POWER_OFF_ON 17. POWER_OFF_BY_COMP_FAIL 18. POWER_ON_BY_MICRO_POWER_OFF_ON 19. POWER_OFF_BY_RESET 20. POWER_ON_BY_LAST_POWERON 21. POWER_OFF_BY_ACDET 22. POWER_ON_BY_LAST_POWERON 23. POWER_OFF_BY_SWDOWN 24. POWER_ON_BY_LAST_POWERON

POWER_OFF_BY_ “20V_DETECT”

POWER_OFF_BY_ “INV_ERROR”

POWER_OFF_BY “ INV_ERROR ”
(Random entries)

2. To solve problem, please update the Software via USB to V05.00.55.

Use caution when downloading to make sure you have the right Software file.

starfish-atsc-secured-m14tv-25.ashley.m14tv-2515-05.00.55-prodkey_usb.oled_V3_SECURED.epk

(See page 3 for USB Software Update instructions.)

Note 1: Check to make sure that the Software version is at least 05.00.55 after completion.

Note 2: TV “Must” be updated via USB, it can not be updated via the internet.

Solution 2: TV Won't Power On, but will Come On using P-Only Button

2. If you can't turn on the TV (No Power Up)

- (1) Using Service Remote, push the "POWER ON" (P Only) button.
- (2) When the TV comes on in White Raster, push the 'EXIT' button.
- (3) Go to the "In-Start Menu" and check "Power on/off Status" at least 3 consecutive times.
IN START → Power On/Off Status → "INV_ERROR" (3 consecutive times).

IN START		Power Off/On Status	
Model Name: 55EC9300-UA	1. Adjust Check	0. POWER_ON_BY_REMOTE_KEY	
Serial Number: 401RMFPCC843	2. ADC Data	1. POWER_OFF_BY_COMP_END	
S/W Version: : 04.45.04.01	3. Power Off Status ▶	2. POWER_ON_BY_LAST_POWERON	
MICOM Version: : V3.00.2	4. System 1	3. POWER_OFF_BY_20V_DETECT	
BOOT Version: : 3.04.07	5. System 2	4. POWER_ON_BY_LOCAL_KEY	
EDID (RGB/HDMI): : NULL/0.02	6. System 3	5. POWER_OFF_BY_REMOTE_KEY	
Chip Type: : LG1311	7. Model Number D/L	6. POWER_ON_BY_POWER_ONLY	
Wi-Fi Channel: : 11	8. Test Option	7. POWER_OFF_BY_INV_ERROR	→ POWER_OFF_BY " INV_ERROR " (3 consecutive times)
Wi-Fi MAC: : 84:9C:A6:B6:E5:DA	9. Spread Spectrum	8. POWER_OFF_BY_INV_ERROR	
WiFi-Speed	10. Sync Level	9. POWER_OFF_BY_INV_ERROR	
MAC Address: : CC:2D:8C:05:84:2A	11. Stable Count	10. POWER_ON_BY_LAST_POWERON	
IP Address: : 192.168.1.7	12. Local Dimming	11. POWER_OFF_BY_20V_DETECT	
SFU Key: OK	13. SDP Server Selection	12. POWER_OFF_BY_COMP_END	
ESN Num: : LGTV14CLGE002622029	14. RF Remoon Test	13. POWER_OFF_BY_AUTO_OFF	
HDCP1.4: : OK	15. OLED	14. POWER_OFF_BY_REMOTE_KEY	
HDCP2.0: : OK	16. Access Code	15. POWER_OFF_BY_COMP_END	
DTCP: : OK		16. POWER_ON_BY_MICRO_POWER_OFF_ON	
RF Receiver Version: : 1.2.7.57		17. POWER_OFF_BY_COMP_FAIL	
Wi-Fi/Magic Search: : OK/OK		18. POWER_ON_BY_MICRO_POWER_OFF_ON	
Camera Ver.: : NULL		19. POWER_OFF_BY_RESET	
Debug Status: : RELEASE		20. POWER_ON_BY_LAST_POWERON	
SIGN Key: : PRODKEY		21. POWER_OFF_BY_ACDET	
Access USB Status: 1/-1(TV-1C)		22. POWER_ON_BY_LAST_POWERON	
UTT: 22		23. POWER_OFF_BY_SWDOWN	
OLED Last Compensation Done UTT: 4		24. POWER_ON_BY_LAST_POWERON	
OLED Compensation Count: 1			
APP History Ver.: 30737			
Driver History Ver.: 3246			
PQL DB:LGD_OLD_S12178B_XXXXXX			

Note:
If INV_ERROR occurs 3 consecutive times the Main board will Lock in protective mode. The power LED will blink once a second for 30 seconds. The Main board is "Locked" and must be Reset to begin working again.
To reset Main Board, turn on set using "P-Only mode, Exit, In-Stop".

2. To solve problem, please update the Software via USB to V05.00.55.

Use caution when downloading to make sure you have the right Software file.

starfish-atsc-secured-m14tv-25.ashley.m14tv-2515-05.00.55-prodkey_usb.oled_V3_SECURED.epk

(See page 3 for USB Software Update instructions)

CAUTION: Failure to press "**IN-STOP**" after the TV has been turned on by the Power Only key will not take the TV out of "P-Only" mode. The Magic Remote will not pair and many other features will not function. After the Software has been updated, please press "**IN-STOP**".

Note: Check to make sure that the Software version is at least 05.00.55 after completion

Note 2: TV "Must" be updated via USB, it can not be updated via the internet.

Issues with Solution 2:

- **TV Won't Power On, even when using P-Only Button.**
- **TV Will not Power On to allow you to update the Software.**

See Appendix B (Page 6) Power Supply testing.

Appendix A. S/W Download Guide (1 of 4)

1. Applied Models & Notice:

◆ Applied Models:

- ✓ webOS1.0 M14 US OLED models:
55EC9300-UA (EC93 Series)

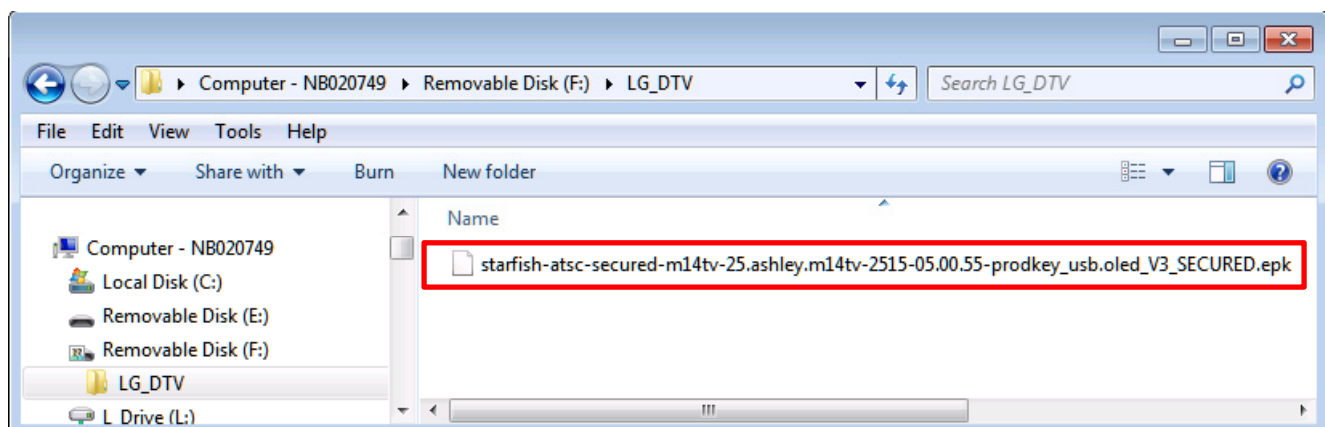
※ Notice

1. A few USB devices may not be compatible with the TV.

If the USB device isn't compatible, you use another USB device.

2. Software File copy:

- ✓ Copy the download software file to the **“LG_DTV”** folder of the USB device.
 - The TV system searches only the “LG_DTV” folder to find the download files.
 - If there are many other files in the folder, it may take a long time to find the correct downloaded software file.



[Figure] Software Update File on USB Drive

Appendix A. S/W Download Guide (2 of 4)

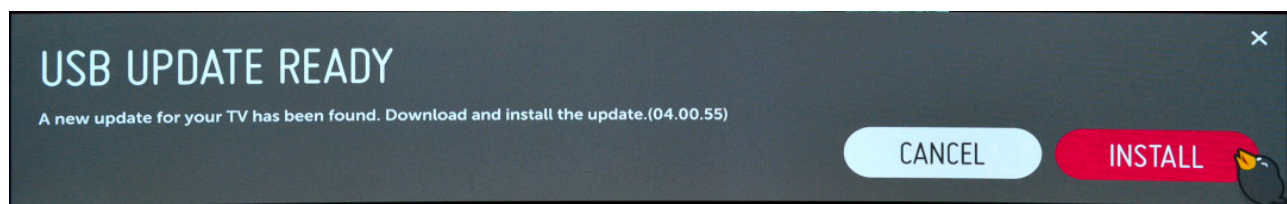
3. USB Download Installation:

- ✓ Insert the USB device into any of the USB ports of the TV.

Any USB port



- ✓ If the TV finds the **same model name** and **new version** file, it will display the below message.



[Figure] Software Update

- ✓ Click on “Install” and upgrade starts automatically.

(Images shown are generic, may not match your set)

Appendix A. S/W Download Guide (3 of 4)

4. USB Download Warnings:

- ✓ **Running USB Software Update**
Select [Start] button in “[Figure] Software Update” and press [INSTALL] Button. (“Enter Key”).
The USB Software Update will start in the background.
- ✓ *The below messages may not appear.*
- ✓ When the below message is displayed, **you must NOT remove the USB memory stick.**

Do not remove the memory card from the port!

- ✓ When the below message is displayed, do not unplug the TV power cord during the upgrade process.

Do not plug off!



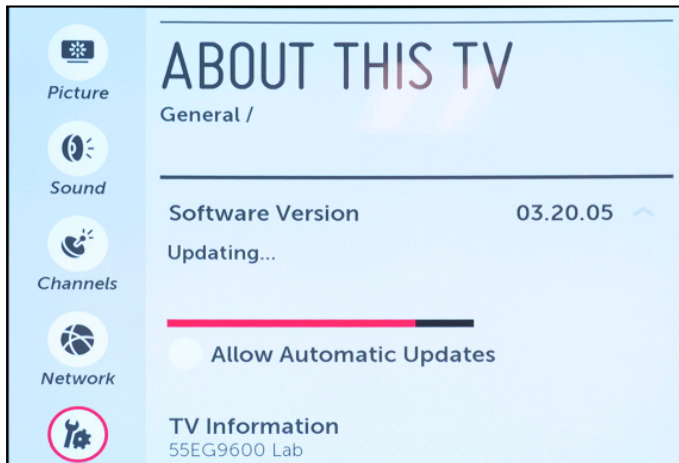
Figure 4: Software Update Starts

- ✓ Copying the update file from the USB memory stick to the TV system memory.
- ✓ During updating, all inputs of remote control and local key are not operated.



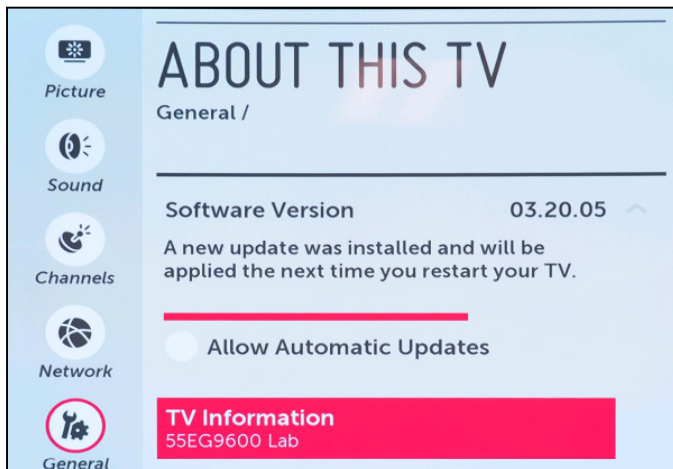
Appendix A. S/W Download Guide (4 of 4)

5. USB Download Progress and Completion:



✓ You can watch software upgrade progress message in the below menu:

- Settings → General → ABOUT THIS TV



✓ Software update complete message.

✓ Press “In-Stop” key on Service Remote.

✓ After TV power off/on, this software will be applied the next time

CAUTION: Failure to press “IN-STOP” will not take the TV out of “P-Only” mode, (If the TV was turned on by the 2nd Power Button “Power On”. The Magic Remote will not pair and many other features will not function.

(Images shown are generic, may not match your set)

Appendix B. TV Will Not Come On Even after pressing 2nd Power Button Guide (1 of 3)

1. Testing the Power Supply (12V/24V to the Main).

AC Should not be applied at any time while adding jumpers or While unplugging connectors as damage to the circuit Board may occur.

- a) When AC is applied, the SMPS “MUST” be producing STBY 3.5V on pins 3 and 5 of P201.

But, make sure AC is arriving at the connector SK100 and +3.5V_ST is not loaded down by the Main Board or the IR or the Joy Stick Boards. Disconnect the Main board. If 3.5V Standby is not being generated, the SMPS is Defective and must be replaced. There is no need to continue with the next test.

- (b) Unplug P2300 on the Main Board to make insertion of the Jumpers easier. Use P2300 side to insert resistors.

TEST 1: Testing the Power Supply Turn On Circuit.

- (1) Add a jumper (A) between (3.5V STBY) pin 3 or 5 and Pin 1 (PWR_ON).
Apply AC, (See Fig 1). This will turn on the SMPS.
- (2) Relay click will be heard. Check that the 24V and 12V power supplies are turned on.

Main Board Power:

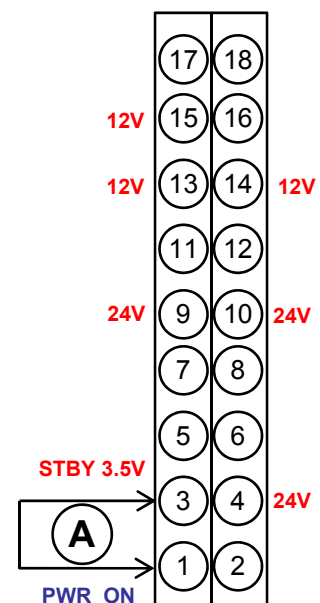
- P201 (12.07V pins 13, 14 and 15)
- P201 (23.28V pins 9, 10 and 16)

- (2) Remove AC power

No 24V to T-CON at this time.

SMPS TEST 1
Front pins on
Connector are
Odd number

P201



**Pin 1 is Bottom on
SMPS
Pin 1 is Top on Main**

Fig 1

TIP: If you are concerned that you may accidentally connect the jumpers in the incorrect locations, please use a 100 ohm 1/8W resistor instead.

Appendix B. TV Will Not Come On Even after pressing 2nd Power Button Guide (2 of 3)

2. Testing the Power Supply (24V to the T-CON).

Continue if Test 1 was OK. Leave original jumper (A) in place. AC Power is removed at this time.
The T-CON should be connected, SMPS P202 to T-CON.

TEST 2: T-CON 24V POWER SECTION TEST:

(3) Add another jumper (B) between (STBY_3.5V) pin 5 and (DRV_ON) Pin 2. (See Fig. 2), Simulating a PWR_ON and DRV_ON command.

(4) Apply AC Power.

(5) Check 24V on pins 8-14 on P202.

T-CON 24V Normal:

a) If normal, the SMPS is OK, T-CON 24V load test OK.

T-CON 24V Abnormal:

- Recheck all connections.
- Confirm the DRV_ON line pulling up to at least 3V.
- Check SMPS P202 pins 8-14 for an excessive load, normal diode check should be 0.29V.
Check CN7 pins 8-14 on the T-CON for an excessive load. Diode check should be "OL". (CN11 unplugged from the SMPS, the panel can be connected or not). Note: With Red lead on Chassis ground, reading is 0.64V with no panel and 0.38V with the panel.

See page 9 to test the 24V line using a light bulb load.

See Next page to Test the Power Supply's T-CON 24V line using a light bulb.

SMPS TEST 2
Front pins on
Connector are
Odd number

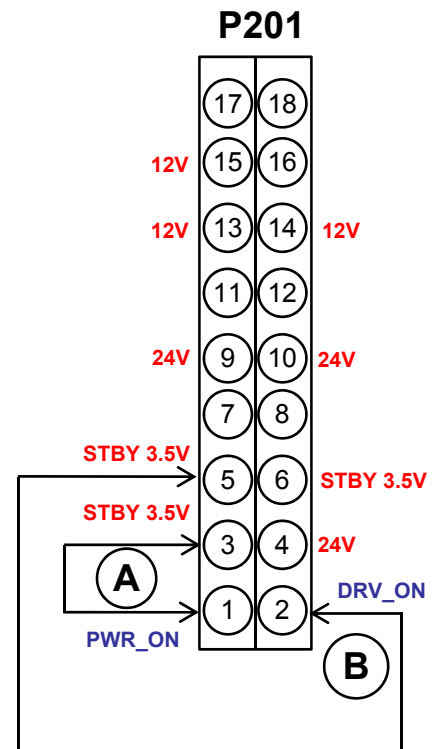


Fig 2

Pin 1 is Bottom on SMPS
Pin 1 is Top on Main

12V or 24V to
Main also remains.

TIP: If you are concerned that you may accidentally connect the jumpers in the incorrect locations, please use a 100 ohm 1/8W resistor instead.

Appendix B. TV Will Not Come On Even after pressing 2nd Power Button Guide (3 of 3)

3. Load Testing the Power Supply (24V to the T-CON).

In this case, the Power Supply needs to be tested to see if it can supply the T-CON 24V when loaded.

TEST 3: 24V T-CON POWER LOAD CHECK: (24V checks good with no load).

- (1) Leave all Jumpers in place on P2300 to P201 of the Power Supply
- (2) Disconnect CN7 on the T-CON board.
- (3) Make a 24V load test jig by using a standard 1157 automobile light bulb, (dual element). Solder two wires from the buttons on the bottom of the bulb. Do not solder any wire to the actual ground (case) of the bulb. (See Fig 3).
- (4) Attach one end of the Jig to the 24V line from P202 pins 8-14 from the SMPS.

- (5) Attach the other wire from the Jig to Chassis Ground.
Tip: Cut the sharp end of a safety pin off and solder it to Each end of the wires coming from the light bulb Jig. Cover exposed ends with heat shrink tubing. Push one Needle end into any pin 8-14 of CN7 side, unplugged from The T-CON. Push the needle end of the other wire into any pin 1-7 of CN7.

- (6) Apply power, the light bulb should light and remain lit. Measure the 24V line to confirm it's correct. The bulb should be bright. Let the SMPS run for several minutes to confirm its operating correctly. (Do not let wires or light bulb touch any metal parts).

Warning: Bulb may get hot, do allow to touch plastic parts as damage may occur.

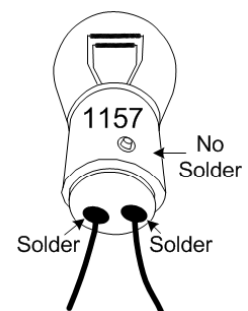
Note: You can also use two single element automotive bulbs (each 6W) tied in series.

- a) If the SMPS still shuts off, Replace the Power Supply.

Note: See previous page to Diode Check the 24V line on the T-CON/Panel side.

- b) If the Light Bulb remains lit, the SMPS is good, the panel is defective because the T-CON and/or the panel is providing too much of a load causing the power supply to shut off.

Fig 3



See next page for additional notes

Appendix C, Special Notes: Software Installed is Same or Newer than the Bulletin Software, (v05.00.55).

- 1) If the Software that is already installed in the TV is the Same or a Newer version, then the Main board must be replaced.
- 2) If the Software that is already installed in the replacement Main Board is the Same or a Newer version, please contact Tech Support.