



2016 OLED UHD Training

OLED65G6P WebOS^{3.0} UHD OLED TV

In-Start Service Menu Screens

*Published May 21st, 2016
Updated February 1st, 2017*



OLED65G6P IN-START Service Menu First Page

OLED65G6P (2016) Service Menu Section

Bring up the Service Menu using the Service Remote and pressing "In-Start" enter password 0413.

Status Plane: (Snap Shot) Not accessible	Selection Plane	This section will change dependant upon which item was selected in the Selection Plane	
Instart Model Name : OLED65G6P-UA Serial Number : 601RMSS7N414 S/W Version : 03.00.07.01 Micom Version : V3.06.1 Boot Version : 4.02.16/4.02.16 UHD BE Version : OK(50.03.02.00) Chip Type : : LG1210 Wi-Fi Channel : 6 Wi-Fi MAC : E8:F2:E2:81:EA:F2 Wi-Fi Speed : USB 2.0 MAC Address : C8:08:E9:D9:43:C2 IP Address : 192.168.1.75 SFU Key : OK Widevine : LGTY16CLG3001240758 ESN Num. : LGTV20161=11001033327 HDCP1.4 : OK HDCP2(Miracast/HDMI) : OK/OK DTCP : B0009E0238 RF Receiver Version : 1.3.4.110 Wi-Fi/Magic Search : OK/NG Camera Ver. : NULL Debug Status : RELEASE SIGN Key : PRODKEY Eye Check : NG Control Key : NG Access USB Status : 1◎ UTT : 34 OLED Comp. Count(OffRS/JB) : 0/0 APP History Version : 1790204 (deathvalley) PQL DB : LGD_OLED-S12178B_XXXX65 Demo : OLED_UHD_HDR_02 OLED_UHD_2_01	SW Version 1. Adjust Check 2. ADC Data 3. Power On/Off Status 4. System 1 5. System 2 6. System 3 7. Model Number D/L 8. Test Option 9. Spread Spectrum 10. Stable Count 11. SDP Server Selection 12. RF Remocon Test 13. OLED 14. Access Code ESN: Electronic Serial Number M-Remote Receiver Version WiFi Board Communication	Country Group 1. Country Group (Press OK to Save) Country Group Code 02 Country Group US Country US 2. Area Option Area 22282 3. Tool Option Tool Option 1 99089 Tool Option 2 14176291 Tool Option 3 136453 Tool Option 4 64774 Tool Option 5 37320 Tool Option 6 133387 Tool Option 7 920747 Tool Option 9 1770112 Tool CRC 48562 4. Adjust White Balance: OK(0) 5. Adjust ADC(OTP): OK Component OK 6. EDID: OK HDMI1 OK (0x9F,0x8B) HDMI2 OK (0x9F,0x7B) HDMI3 OK (0x9F,0x6B) OK (0x9F,0x5B)	Adjust Check US

Note 1: Many of the Tool Options are "Locked" in 2016 models EZ-Adjust Menu. (They can not be adjusted)

Note 2: While in the In-Start Menu, the Cursor Right or Cursor Left does not work. Use the Customer's Remote control cursor keys.

OLED65G6P Power On/Off Status (IN-START) Screen

OLED65G6P (2016) Service Menu Section

Bring up the Service Menu using the Service Remote by pressing "In-Start" enter password 0413 or 0000.

Note: You can scroll up or down to reveal the last 126 reasons for Turn On or Off.

Instart

Model Name : OLED65G6P-UA
 Serial Number : 601RMSS7N414
 S/W Version : 02.00.07.04
 Micom Version :
 Boot Version : 4.02.16/4.02.16
 UHD BE Version : OK(50.03.02.00)
 Chip Type : : LG1210
 Wi-Fi Channel : 6
 Wi-Fi MAC : E8:F2:E2:81:EA:F2
 Wi-Fi Speed : USB 2.0
 MAC Address : C8:08:E9:D9:43:C2
 IP Address : 192.168.1.75
 SFU Key : OK
 Widevine : LGTY16CLG3001240758
 ESN Num. : LGTV20161=11001033327
 HDCP1.4 : OK
 HDCP2(Miracast/HDMI) : OK/OK
 DTCP : B0009E0238
 RF Receiver Version : 1.3.4.110
 Wi-Fi/Magic Search : OK/NG
 Camera Ver. : NULL
 Debug Status : RELEASE
 SIGN Key : PRODKEY
 Eye Check : NG
 Control Key : NG
 Access USB Status : 1/-1(T)/-1©
 UTT : 34
 OLED Comp. Count(OffRS/JB) : 0/0
 APP History Version : 1790204 (deathvalley)
 PQL DB : LGD_OLED-S12178B_XXXX65
 Demo : OLED_UHD_HDR_02 OLED_UHD_2_01

3. Power Off Status

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. Stable Count
11. SDP Server Selection
12. RF Remocon Test
13. Access Code

Power On/Off Status

Most Recent

0. POWER_ON_BY_REMOTE_KEY(0x20)
1. POWER_OFF_BY_INSTOP_KEY(0x15)
2. POWER_ON_BY_POWER_ONLY(0x25)
3. POWER_OFF_BY_LOCAL_KEY(0x1C)
4. POWER_OFF_BY_COOLING(0x65)
5. POWER_OFF_BY_PNWASHDONE(0x63)
6. POWER_ON_BY_REMOTE_KEY(0x20)
7. POWER_OFF_BY_REMOTE_KEY1(0x10)
8. POWER_ON_BY_REMOTE_KEY(0x20)
9. POWER_OFF_BY_LOCAL_KEY(0x1C)
10. POWER_ON_BY_LOCAL_KEY(0x22)
11. POWER_OFF_BY_REMOTE_KEY(0x20)
12. POWER_ON_BY_LAST_POWERON(0x2B)
13. POWER_OFF_BY_ACDET(0x03)
14. POWER_ON_BY_LOCAL_KEY(0x22)
15. POWER_OFF_BY_LOCAL_KEY(0x1C)
16. POWER_ON_BY_LOCAL_KEY(0x22)
17. POWER_OFF_BY_LOCAL_KEY(0x1C)
18. POWER_ON_BY_LOCAL_KEY(0x22)
19. POWER_OFF_BY_REMOTE_KEY(0x20)
20. POWER_ON_BY_LAST_POWERON
21. POWER_OFF_BY_ACDET(0x03)
22. POWER_ON_BY_LOCAL_KEY(0x22)
23. POWER_OFF_BY_ACDET(0x03)

The WebOS In-Start menu now includes the Power Off/On Status. In other words, the reason the TV turned On or Off the last time.

Example: POWER_ON_BY_LAST_POWERON indicates the TV was ON when AC was removed. When AC was returned, the TV turned on into the Last State in was in before power loss. So just below that entry should be POWER_OFF_BY_AC_DET.

In Start Menu OLED “Power Off Status” Details (1 of 3)

OLED65G6P OLED (2016) Service Menu Section

Status	Power Off List	Explanation
Normal	POWEROFF_BY_REMOTEKEY	Power Off by REMOTE CONTROL
	POWEROFF_BY_OFFTIMER	Power Off by Off Timer in Customer's Settings
	POWEROFF_BY_SLEEPTIMER	Power Off by SLEEP TIMER
	POWEROFF_BY_INSTOP	Power Off by INSTOP KEY on the Service Remote
	POWEROFF_BY_NO_POLLING	Power off when receiving no ack (acknowledge) Debug Status : Release Mode RESULT : TV power off/on (Reboot) CONDITION : There is no I2C response from CPU for 15 seconds. ==> if warm standby (Compensation), power off occurs.
	POWEROFF_BY_AUTO_OFF	Power off by auto off function 1. When it lasts for 15 minutes that no signal and no remote key input. 2. When screen mute status lasts for 2 hours.
	POWEROFF_BY_RESET	Power off by Micom Reset CONDITION 1 : Run 'Initialization' through Smart TV setting CONDITION 2 : Run 'App initialization'. CONDITION 3 : Reset is required for InStart Setting change.
	POWEROFF_BY_ON_TIMER	Power off by On timer Power off when no remote and local key input for 2 hours after power on by On timer.
	POWEROFF_BY_RS232C	Power off by RS232C command
	POWEROFF_BY_KEYTIMEOUT	Power off when TV is not turned off during a certain time RESULT : Micom force to trigger TV power off. CONDITION : When pressing power key while power on status, CPU does not response within 10 seconds or send delay command.
	POWEROFF_BY_FAN_STOP	Fan rotation is monitored. If the Fan fails to start, after two minutes the TV shuts off.

In Start Menu OLED “Power Off Status” Details (2 of 3)

OLED65G6P OLED (2016) Service Menu Section

Status	Power Off List	Explanation
Normal	POWEROFF_BY_20V_DET	Note: This is not used in this model. This allows the Boards in the Stand to run without the Panel for testing purposes.
	POWEROFF_BY_SWDOWN	Power Off by SOFTWARE DOWNLOAD
	POWEROFF_BY_UNKNOWN	Power Off by Unknown Status (Except Listed Case)
	POWEROFF_BY_ACDET	Power Off by AC OFF (Loss of AC) when the TV is in Compensation Mode. Micro Logs this entry Twice. SMPS is operational in Compensation, with AC loss, the Micro shuts off the SMPS then the TV.
	POWEROFF_BY_PNWASH_END	During Compensation (RS or JB), TV is turned off but Power Supply continues to Run. When OLED Compensation is Successfully Completed the Power Supply is turned Off and Micro Logs PNWASH_END
	POWEROFF_BY_COOLING	During JB Compensation, the Panel is cooled down before JB runs. Approximately 53 minutes.
Abnormal	POWEROFF_BY_ABNORMAL1	Power Off by Abnormal Status (Except CPU Trouble) Replace Main Board
	POWEROFF_BY_VERIFY_FAIL	RESULT : System shut down. CONDITION : Verification for LG application fails.
	POWEROFF_BY_CPUABNORMAL	Power Off by CPU Abnormal Replace Main Board
	POWEROFF_BY_OVERHEATING	Panel Temperature Excessive. (Check air circulation)
	POWEROFF_BY_INV_ERROR	Power Off by BDP (Burnt Detection). Replace Panel (Note: See page 03-07 for additional details).

In Start Menu OLED “Power Off Status” Details (3 of 3)

OLED65G6P OLED (2016) Service Menu Section

Power Off List	Explanation
POWER_ON_BY_REMOTE_KEY	Power On by remote Power Key.
POWER_ON_BY_ON_TIMER	Power On by the Customer's settings in the On Timer menu.
POWER_ON_BY_LOCAL_KEY	Power On by Local Key, (Power On by Joy Stick long press).
POWER_ON_BY_RS232	Power On by RS232 command.
POWER_ON_BY_POWER_ONLY	Power On by Power only.
POWER_ON_BY_SWDOWN	Power On after software download.
POWER_ON_BY_LAST_WARM	String for Wake up from Cold status to Warm status
POWER_ON_BY_LAST_POWERON	When Power is lost due to AC loss, Micro stores current status in EEPROM. (In general, AC loss and then Recovery) TV turns on in last known state.
POWER_ON_BY_HDMI_CEC	Power On by HDMI CEC message "image view on".
POWER_ON_BY_CPU_ABNORMAL	Power On by CPU after abnormal behavior 1. Power off (Last Cold, Last Cool, Last Warm) CONDITION : When power on and checking Power on Mode, abnormality appears. 2. Power off in CPU Abnormal Case (Exception) (Release Mode : Reboot, Debug, Event Mode : Power off)
POWER_ON_BY_STORE_POWERON	Power On by Store-Only remote.
POWER_ON_BY_MICOM_PWR_OFF_ON	String for Auto Power Off/On (Micom Reboots by PLL_FAIL / COMP_FAIL / RESET and so on.)
POWER_ON_BY_OPERATOR_SEARCH_TIMER	Power On at reservation time for CI plus operator search.
POWER_ON_BY_WOL_ONOFF	Power On by Wake On LAN from external device through network.
POWER_ON_BY_WOW_ONOFF	Power On by Wake On WiFi from external device through network.
POWER_ON_BY_CAM_ONOFF	Power On by voice recognition through CAM.

POWER_OFF_BY_INV_ERROR (Cracked or Burnt Panel):

Power Off by BDP (Burnt Detection). Panel Defect.

Note1: If this happens 3 consecutive times, Main board locks. Power LED blinks 10 times, TV will not turn on. (In Locked condition, Main board will not work in any TV until unlocked).

To Unlock Main board and bypass Burn Det, Turn on TV using "P_ONLY" key on Service Remote.

Check In-Start for 3 consecutive INV_ERROR logs, if found replace the Panel.

After panel replacement, the Main board must exit P_ONLY mode permanently. To do this, turn on the TV using "P_ONLY" key, after full white raster picture appears, press "EXIT" then "Power Off" quickly. Note2: TV can turn off intermittently due to this error. Look in Power Off History to confirm.

POWER_OFF_BY_20V_DETECT (Panel 24V is loaded down):

This monitoring circuit is not installed in the OLED65G6P. The reason is so that the TV can be serviced without the Panel being attached, since all boards but the T-CON are located in the Stand.

POWER_OFF_BY_20V_DETECT (Power Off because AC Power disappears During Run):

Indicates a loss of "AC". Because the 20V/24V to the T-CON (used by the Panel) drops faster and is detected quicker than the 3.5V which is monitored for AC_DET.

Power Off History will look like the following;

POWER_OFF_BY_20V_DETECT

POWER_OFF_BY_AC_DETECT (Twice) (Power Off because AC Power disappears During Compensation):

If the AC Power is lost while the TV is performing Compensation, it will log AC_DET twice.

Power Off History will look like the following;

POWER_OFF_BY_AC_DET

POWER_OFF_BY_AC_DET

POWER_OFF_BY_PNWASH (Panel Wash):

The Term "Compensation" entry into the Power Off History screen has changed for the 2016 webOS 3.0 Models.

Now it is labeled as PNWASH.

There is a PNWASHSTART (When Compensation Starts) and PNWASHEND (When Compensation completes).

POWER_OFF_BY_PNWASHEND (Compensation Completed):

In-Start Compensation Count increments by 1. Interval Setting 4.

Indicates "Compensation" has run and completed successfully. Compensations can run in multiple ways;

RS Compensation (Real Time Sensing) can be run in three circumstances:

- (1) **AUTO:** After 4 hours of consecutive viewing. Happens immediately after Power Off.
- (2) **AUTO: STORE MODE:** Happens immediately after Power Off. If AC is removed in Store Mode while the unit is "On", when AC is reapplied, after about 90 seconds a Pop-Up window will appear notifying the viewer that the TV is about to Shut-Off so that Panel Noise can be removed from the Panel. The TV shuts-off automatically, Compensation is run and then the TV Turns back on. Power Off History will look like the following; POWER_OFF_BY_PNWASHEND
- (3) **FORCED: HOME MODE:** Change Compensation Interval from 4 to 0 in the In-Start Menu. Power Off, Compensation Runs. After 90 seconds, Power On and change Interval back to 4. Power Off History will look like the following; POWER_OFF_BY_PNWASHEND
Note: During Compensation, the Power Supply voltages all remain active. 24V to the T-CON and 12V, 24V and 3.5V to the Main. So after compensation ends, the Micro shuts off the Power Supply.

POWER_OFF_BY_PNWASHSTART (JB Compensation Begins):

JB Compensation (JB: Jansang Bosang; Korean for Image Sticking Compensation).

Called "Clear panel Noise" in the Customer's Menu:

JB Compensation is Customer controlled and it is UTT count controlled (when UTT reaches 2000).

JB Compensation will run under two sets of criteria: Takes approximately 1 hour to complete (See Run Sequence below).

- (1) If the Customer runs "Clear Panel Noise" from the Customer's menu. Either immediate or an next turn off.
- (2) According to the In-Start Menu → OLED → JB Compensation Interval settings. Set at 2000 hours of operation.

RUN SEQUENCE: JB compensation begins (PNWASHSTART entered in Power Off History) → TV Off → RS runs (needs less than 10 minutes) → Cooling (takes about 53 minutes) (COOLING entered in Power Off History) → JB compensation (takes 1 minute) (PNWASHEND entered in Power Off History) . *Note: When JB begins testing the output elements of the Panel (last 1 minute), OLED drive is activated. So in this case, White lines may appear only during JB compensation and the form is running though first line of panel to last line in 1 minute (Top to Bottom).*