



LG 55UH6150 backlight LED replacement

Photos and brief explanation on how to disassemble a LG 55UH6150 Display. These are said to be "side lit" but actually are bottom/top lit.

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INTRODUCTION

One half (right) side of my LG55UH6150 was dark, black actually. This unit was given to me by my work. It was used as a computer monitor on the shop floor. From what I heard it was installed in late 2016 early 2017 and never turned off. If my math is right that's about 35,040 hours. The LED's have an advertised life of 30,000 hours so that seems right. The first thing I needed to do was 1) verify that it was indeed the LED strip that was bad and 2) see if replacements were available. I removed the back of the set which was pretty straight forward. I found the plug that powered the LED strips and checked for voltages to both. YES I have voltage going to the strips but only one side was lit. Next thing was to determine what type of LED strips were used. A quick google search, actually a 3 hour google search (darn youtube) I was able to determine that the two strips used were 6916L2318A and 6916L2319A both have 60 LED's per strip.



TOOLS:

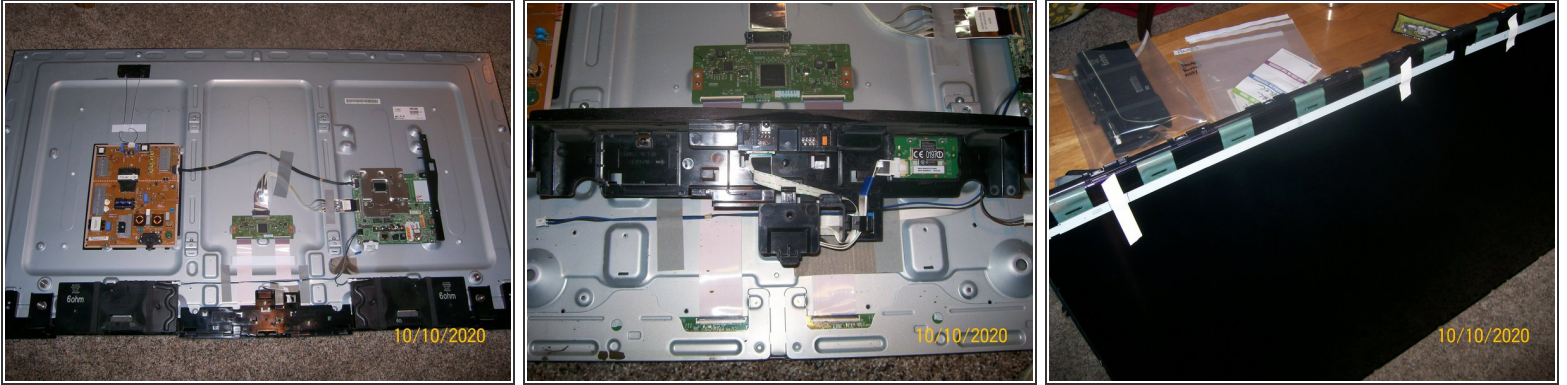
- [Phillips #1 Screwdriver](#) (1)
- [Phillips #2 Screwdriver](#) (1)
- [iFixit Opening Tools](#) (1)
- [Dolmar Plastic Bag 950-004-002](#) (1)
- [Pro Tech Toolkit](#) (1)



PARTS:

- [LG 6916L-2318A/6916L-2319A 55" V15 ART3 UD LED Backlight Bars/Strips](#) (2)

Step 1 — Remove back cover



- Back of set after rear cover removed. Bottom of TV at bottom of photo. The two speakers were removed by pulling up after disconnecting plug. Next is to remove the lower black panel that houses the power button and speaker mounts.

Step 2 — Remove lower speaker bracket and power button



- A few screws on the bottom and two plugs disconnected and the black bottom panel is removed. Now you can disconnect the display power connectors. There are 2 long green circuit boards (LCD drivers)strips at the bottom.

Step 3 — Disconnect the display cable



- Close up of the display connector disconnected. Typical flip back the black bar and remove the ribbon cable,

Step 4 — Remove bezel and plastic frame



- The next step has no photo but involves removing the screws from around the metal bezel. Make sure you get them all.

Step 5 — Secure PCB and cable to front of display



- Now you'll need to remove the plastic frame that holds the display and filters in place. A series of "snaps" need to be un-clipped . Carefully fold over the printed circuit boards and cables and tape them to the front of the display. This part is tricky as you'll need to stand up the display carefully without having the filters fall out.

Step 6 — Tape screen and filters together. KEEP THEM SAFE



- Tape all the filters and diffuser together. You don't want them falling out. By now I hope your putting all the pieces in a safe place. We will need to reassemble them, (I hope.) I marked them "B" for bottom.

Step 7 — LED's exposed



- Here we can finally see the LED strips attached to the bottom of the frame. You can see the connectors. You can disconnect these now as we will attempt to remove them. They are held in place with thin, double-sided tape.

Step 8 — Remove LED strip



- I started the removal process by inserting a thin metal tool between the strip and the frame. The tape came loose from the frame and stayed on the strip. I moved the tool down the length, prying very lightly. We'll be replacing these but I wanted to do the least amount of damage to them. I still need to read the part number off of them.

Step 9 — The LED strips are out!!



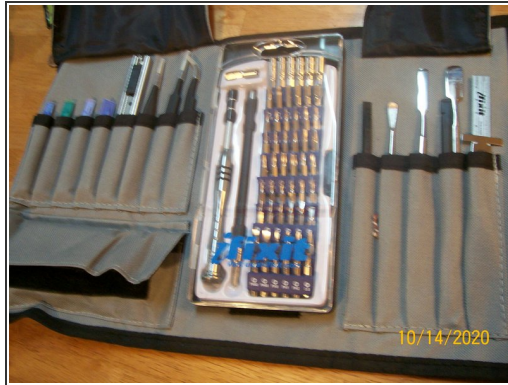
- As you can clearly see, LEDs 2 and 4 on the bottom strip are burnt out. I verified this with a magnifying glass. This strip was from the right side that went dark. Next step is to order strips 6916L2318A and 6916L2319A and replace them and put this TV back together.

Step 10 — Re-assemble with new LED strips



- The new LED strips came in today and I started to re-assemble the display. Thanks "shopjimmy.com" for having the strips and keeping me away from the Chinese ones on e-bay. The two strips cost me \$63.00 total. They arrived in good shape.

Step 11



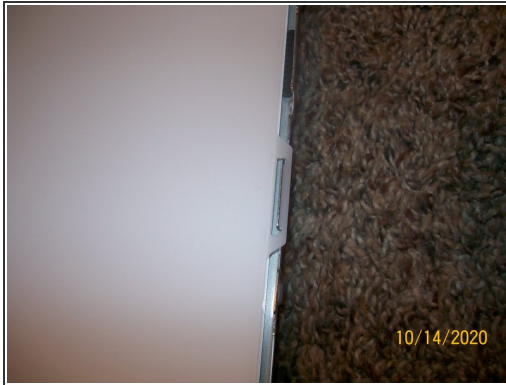
- The tools I used and the strips ready for installation. The fine people at LG make it fool proof to insert the new strips by putting a cutout in the strip and a tab in the frame. REMEMBER to test fit the plug into the connector. One side of my LED had misaligned pin that I had to straighten to get the plug to fit. Very difficult to do in frame.

Step 12 — Attaching the LED's to the frame



- Carefully peel the backing off of the strip and lay it in the position over the tabs. Make sure you keep the sticky side away from the frame for now. When the strip is lined up where it needs to be, carefully push it into position into the frame. This tape is not forgiving so make sure it perfectly straight and flat to the frame, top and bottom

Step 13 — Replace the filters and reflectors



- Snap in the black plastic frame. Again the fine people at LG helped with tabs on the frame and slots on the filters. You can't install them upside down. Carefully align the tabs with the slots and make sure they are flat and centered into the frame. You really can't mess this part up unless to forgot to tape them together when disassembling.

Step 14 — Replace the filters and black plastic frame



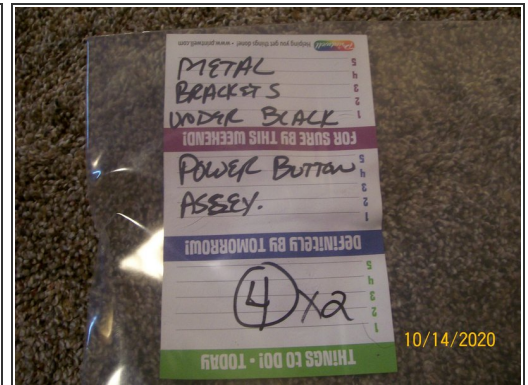
- Once the filters are in place, make sure the filters are flat and the snaps secure. Now comes the tricky part. Replacing the glass display panel. If this goes wrong forget about this TV. A new display cost's \$560.00! Lay the display into the frame **CENTERED**. If you find it's off center **DO NOT LIFT ONLY ONE CORNER** lift along the whole side.

Step 15



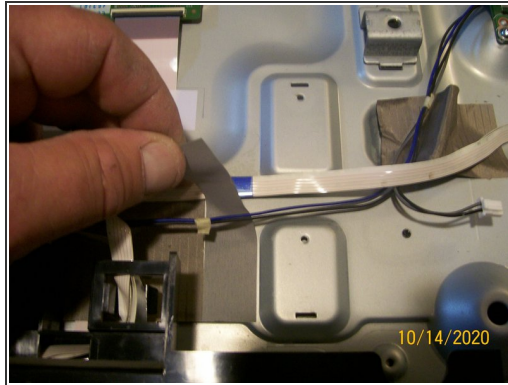
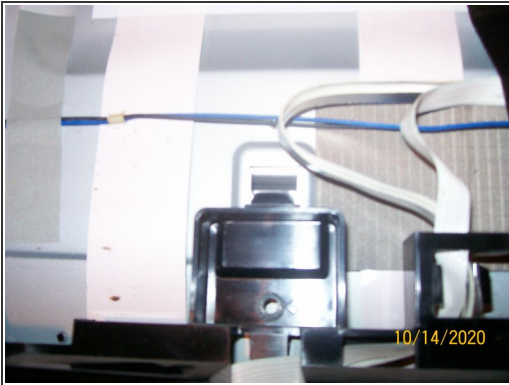
- If you made it this far, congratulations the hard part is done. From now on remember the display now has it's glass panel in place. Be careful if leaning over the display. Un-tape the PCB from the glass and fold them under the frame. The next step is to install the metal bezel that holds the glass panel in place. Easy does it from now on.

Step 16 — Attach the display PCB cables



- The display PCB fit under a raised tab on the frame. Slide the PCB into place and attach the ribbon cables. The stiffness of the cables make it easy to get them into the connector. They kinda just want to jump in. Snap the hinge over to secure. Repeat on the other side. I kept the screws in plastic bags with labels.

Step 17 — Plug in power connector and speakers



- Now we install the bottom black panel that holds the power button and speakers. This photo shows the tab in the center that fits into a cutout in the frame. Slide the assembly into place and attach with 3 screws. Plug in any other connectors you may have disconnected. Check carefully, the back is going on soon and we do want this to work.

Step 18 — Replace the speakers



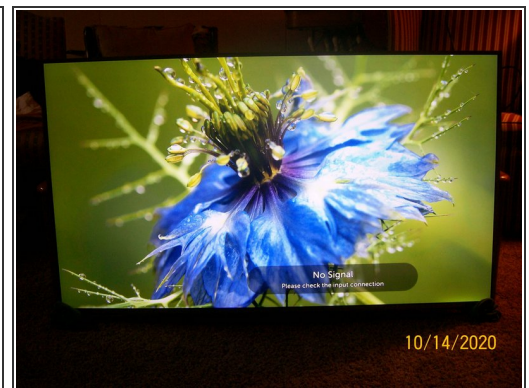
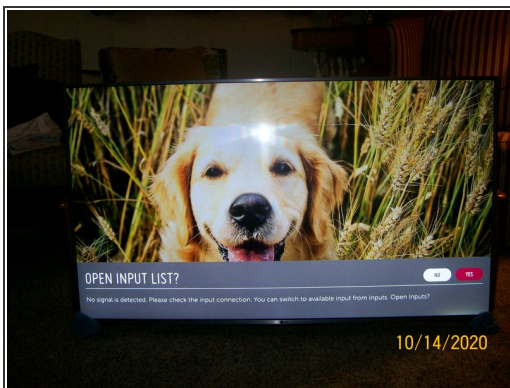
- The speakers are held into place with a tab at the top and 2 rubber pins in the back. Slide the tab into the slot and GENTLY push in the speakers, remember the glass display is in! Plug in the 2 connectors.

Step 19 — Finished panel ready for test



- Here is the finished panel ready for testing. I kept the back off for now until I power up the unit. No telling if I forgot a cable. I stood the set up and put a couple of folded rags under each corner to hold it up off the floor so I can operate the power button. Now plug in the power cord and turn on the power.

Step 20 — WOW we have a picture on BOTH sides.



- Hopefully you will see a well lit, beautiful picture like this. If you don't, check the power cord and connections at the display ribbon cable. Enjoy the TV YOU fixed. This has been a fun and rewarding project. Truth is, this set is too big for my living room. I can't use it, it was truly a labor of love. I'll leave it in the basement for now.

Document the disassembly with as many photos and notes as you can. It's easy to get caught up in the process and forget. It's best to have all the parts needed before you start so you can start and finish in a timely manner.

