



Kindle Fire Ambient Light Sensor Replacement

Remove the ambient light sensor in an Amazon Kindle Fire.

Written By: Phillip Takahashi



INTRODUCTION

Use this guide to help you replace the ambient light sensor in the Amazon Kindle Fire.



TOOLS:

- [Phillips #00 Screwdriver](#) (1)
 - [iFixit Opening Tools](#) (1)
 - [Spudger](#) (1)
 - [Tweezers](#) (1)
-

Step 1 — Back Case



- Wedge a plastic opening tool into the lower right corner of the Kindle Fire.
 - Pry the case apart and run the plastic opening tool along the perimeter of the Kindle Fire to release the clips securing the case halves to each other.
- ⚠ If you are having extreme difficulty inserting the plastic opening tool, carefully use a metal spudger to undo the first clip, then switch back to the opening tool to avoid scratching your case.
- It is helpful to pry the bottom of the Kindle Fire away (and out from the side) from the top part. Exerting too much force attempting to split the two without pulling away can cause the tabs on the inside to crack.

Step 2



- Once you have freed all the plastic clips, pull the back case off the Kindle Fire.

Step 3 — Battery



- Fit the tip of the plastic opening tool between the right battery cell and the Kindle Fire's frame.
- Lever the battery up and work the plastic opening tool down along its edge to release the glue securing it to the frame.

Step 4



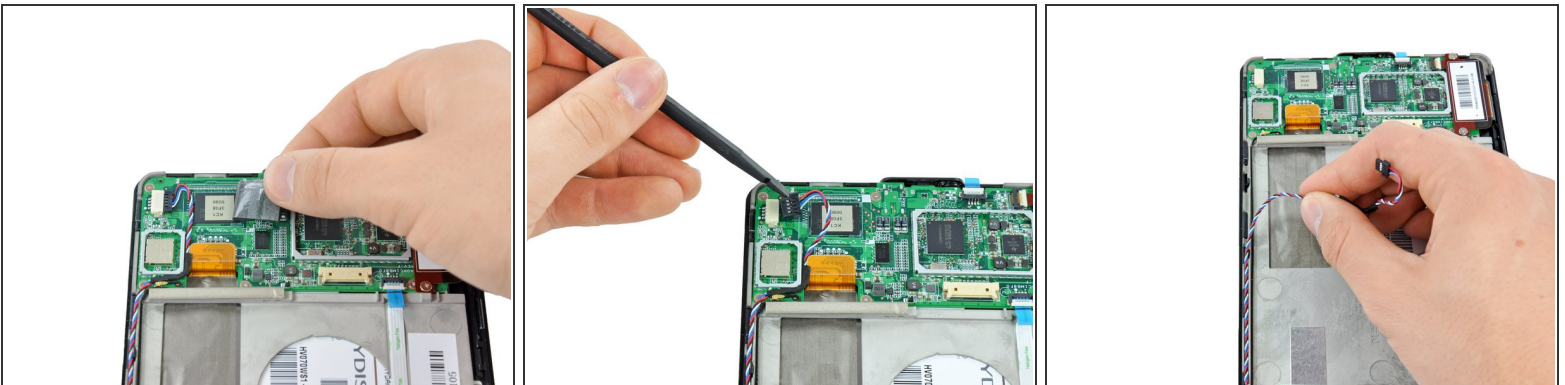
- Repeat the process from the previous step to free the left battery cell.

Step 5



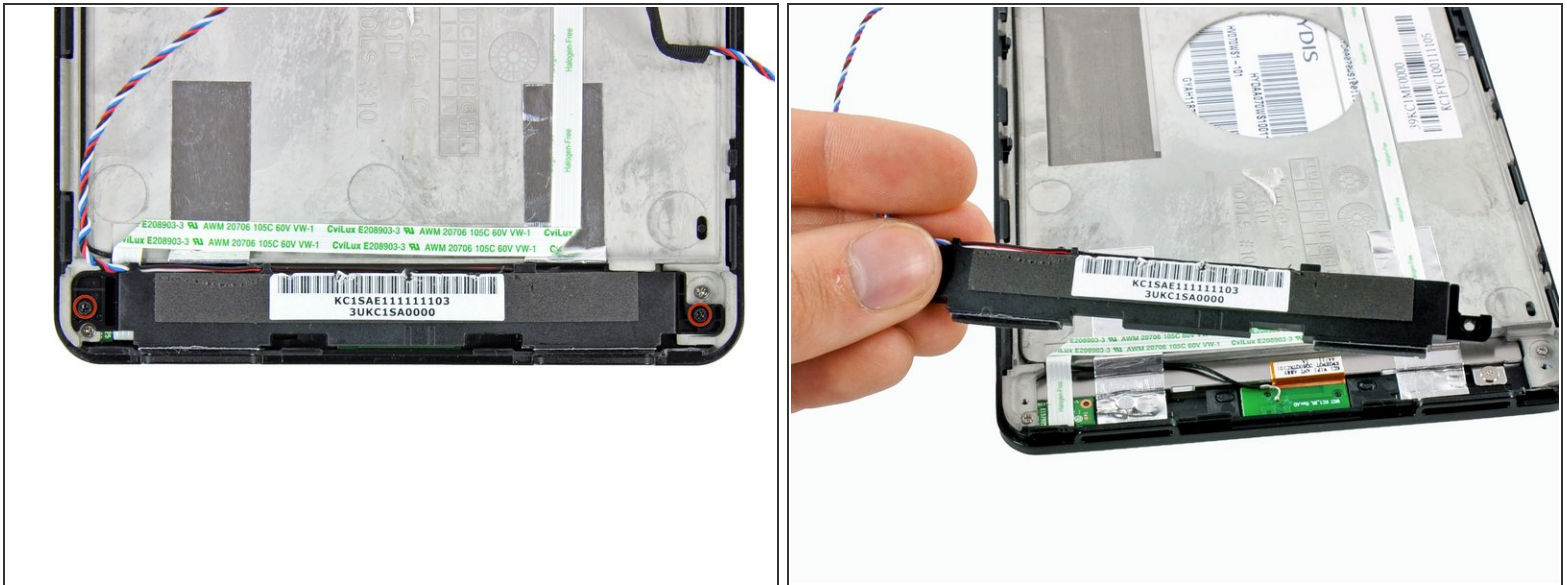
- Lift the back of the battery up to relieve any tension in the battery connector and simultaneously use a spudger to push the battery connector out of its socket.
- Pull the battery out of the Kindle Fire.

Step 6 — Speaker Assembly



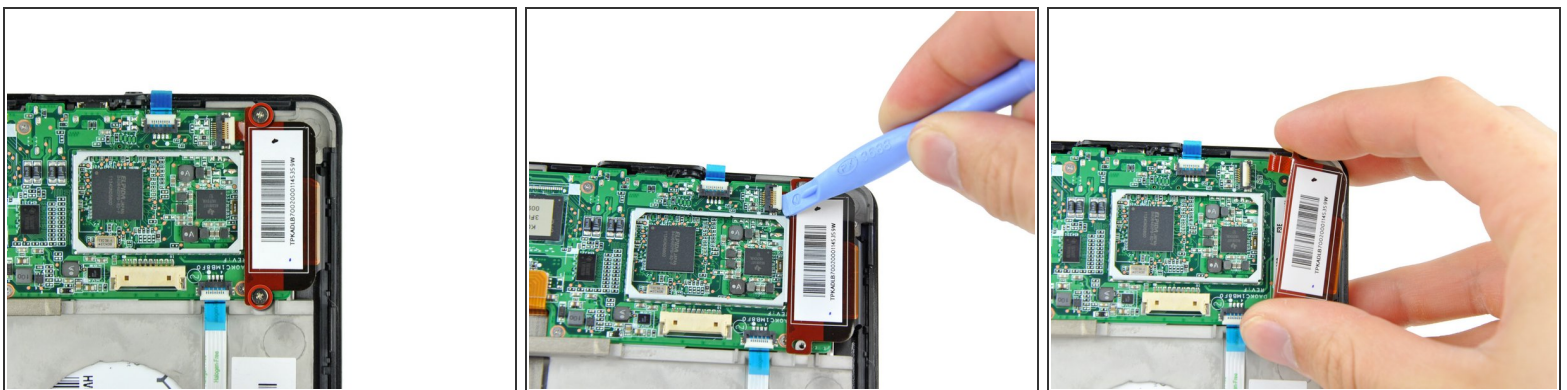
- Peel the tape on the upper-left IC that is securing the speaker cable.
- Use the flat end of a spudger to push the speaker connector out of its socket.
- Deroute the speaker cable.

Step 7



- Remove the two 3.3 mm Phillips #00 screws securing the speakers to the Kindle Fire.
- Lift the speakers out of the Kindle Fire.

Step 8 — Motherboard



- Remove the two 2.3 mm Phillips #00 screws from the touchscreen controller.
 - Use a plastic opening tool to release the touchscreen controller connector.
 - Gently remove the touchscreen controller by lifting it up and to the right.
- ⚠ Be careful not to rip the ribbon cable in doing so.

Step 9



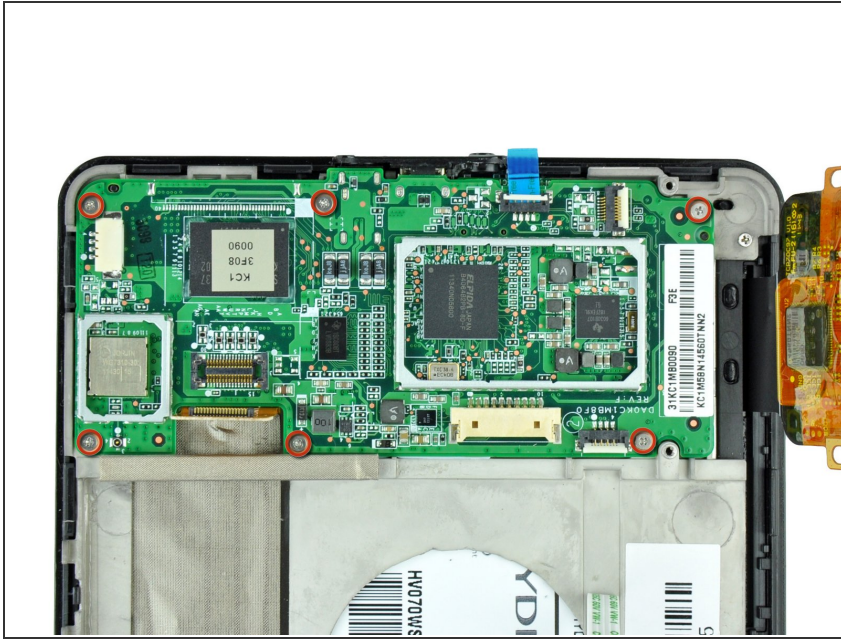
- Use a plastic opening tool to flip open the power button ZIF connector.
 - ❗ This connector will not be removed until the motherboard is free.
- Flip open the ambient light sensor ZIF socket with a plastic opening tool.
- Use a pair of tweezers to pull the blue tab on the ambient light sensor cable to remove it from its socket.

Step 10



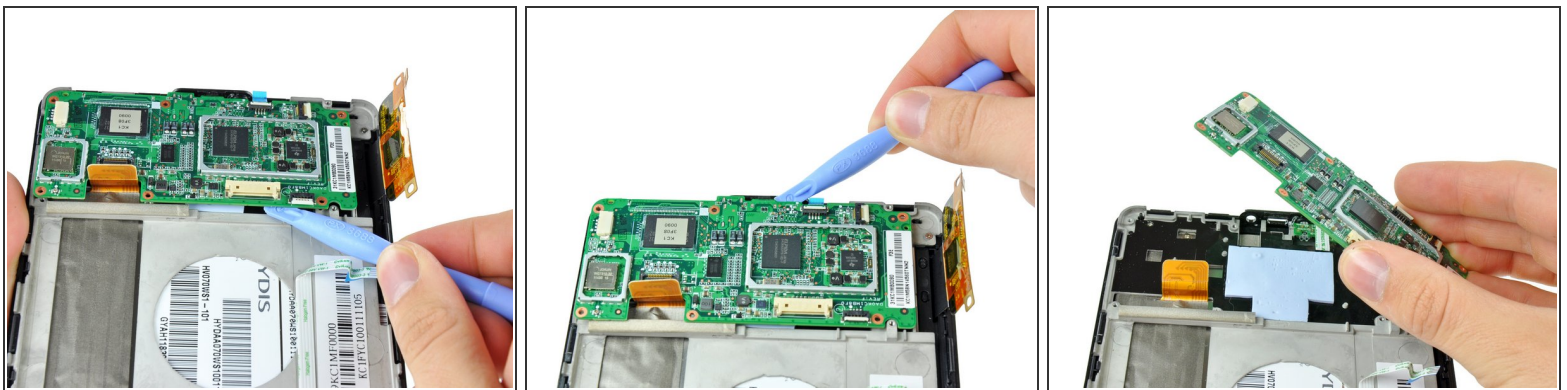
- Use a plastic opening tool to lift up and disconnect the display data cable.
- Lift up on the antenna connector with a plastic opening tool to disconnect it.
- De-route the antenna cable.

Step 11



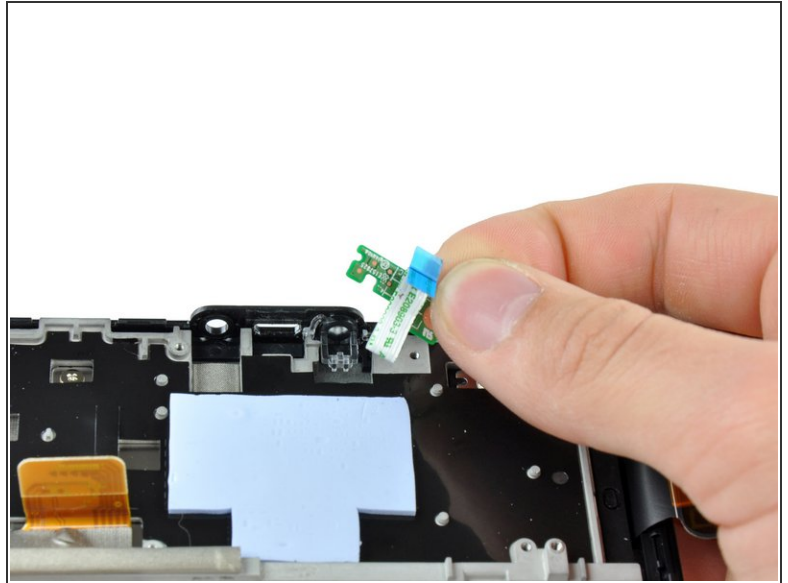
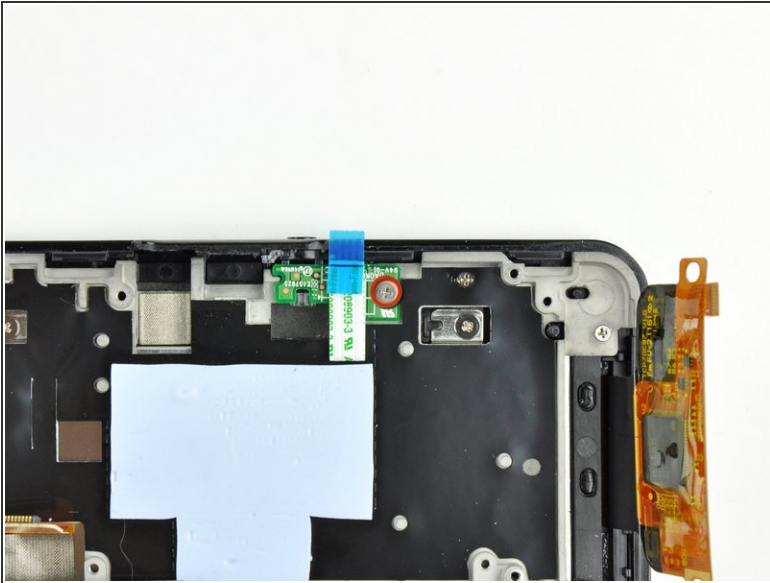
- Remove the six 2.6 mm Phillips #00 screws securing the motherboard to the frame.

Step 12



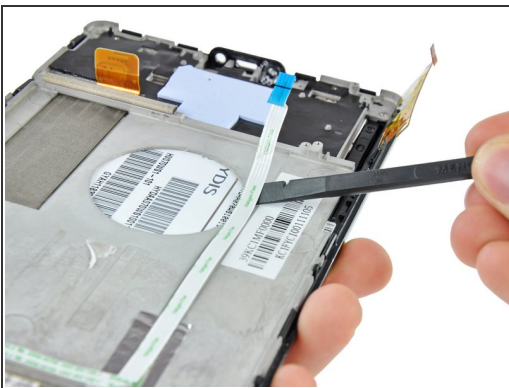
- Use a plastic opening tool to gently lever up the bottom side of the motherboard to free from the adhesive on its underside.
- Lever the top side of the motherboard up with a plastic opening tool until it comes free.
- Lift the motherboard out of the Kindle Fire, making sure that the power button cable from step 8 comes free from its connector.

Step 13 — Power Button Board



- Remove the 2.5 mm Phillips #00 screw securing the power button board to the Kindle Fire.
- Lift the power button board out of the Kindle Fire.

Step 14 — Frame Loosening



- Use the flat end of a spudger to peel the ambient light sensor cable off of the frame.
- ❗ You will need to peel up the silver tape in the cable's lower right bend. The silver tape under the lower left bend of the cable does not need to come up with it.

Step 15



- Use the flat end of a spudger to peel up the silver tape securing the antenna cable.

Step 16



- Remove the five 3.6 mm Phillips #00 screws securing the frame and ambient light sensor.

Step 17 — Ambient Light Sensor



- Slide the ambient light sensor out from under the frame and remove it from the Kindle Fire.
- ⓘ If the ambient light sensor will not easily come out, slightly lift the frame with a plastic opening tool to allow it to come free.

To reassemble your device, follow these instructions in reverse order.