iPad Wi-Fi Display Frame Replacement

Written By: Andrew Bookholt

INTRODUCTION

Use this guide to replace a broken display frame. To replace a broken glass panel, use our front panel assembly guide.

TOOLS:

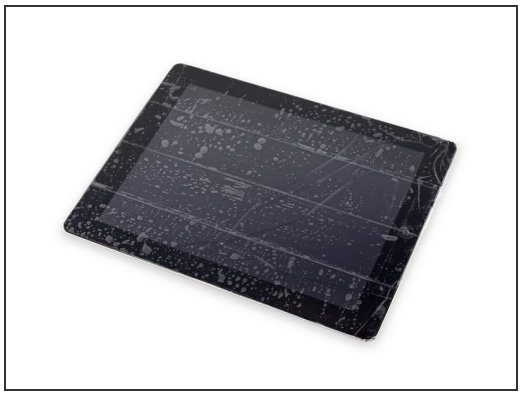
- Precision Utility Knife (1)
- Heat Gun (1)
- Metal Spudger (1)
- Spudger (1)
- T5 Torx Screwdriver (1)
- iFixit Opening Tool (1)

PARTS:

- iPad Adhesive Strips (1)
- iPad Display Clip Set (1)
- iPad Display Clip (1)
- iPad Frame (1)

Step 1 — Display Assembly





- If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping the glass.
- Lay overlapping strips of clear packing tape over the iPad's display until the whole face is covered.

  This will keep glass shards contained and provide structural integrity when prying and lifting the display.
- Do your best to follow the rest of the guide as described. However, once the glass is broken, it will likely continue to crack as you work, and you may need to use a metal prying tool to scoop the glass out.

Wear safety glasses to protect your eyes, and be careful not to damage the LCD screen.

Step 2

⚠ In this guide you will be prying the iPad's display assembly away from the aluminum body. Read ahead and follow the directions closely to avoid damaging the display assembly or the fragile clips holding it in place.

- There are 14 metal clips holding the display assembly in place, shown at left. As you pry in the following steps, do your best to pry *around* these clips and not slice *through* them with your opening tool.

ⓘ If you do happen to break some clips, you can buy replacements here.

Step 3

- Insert a metal spudger between the top edge of the display assembly and the rear panel assembly.
- Rotate the spudger away from you to release the tabs along the top edge of the display.
- Insert a second metal spudger between the top edge of the display assembly and the rear panel assembly to keep the tabs from snapping back into place.

Step 4

- With one spudger, work your way along the right edge of the iPad.
- The front panel is held to the aluminum back by metal clips on the top, bottom, and left sides. The right side has plastic tabs which slide into recesses in the backplate.
- Once the clips are released, lift the left side of the front panel up and slide it to the left to clear the tabs from the aluminum backplate.

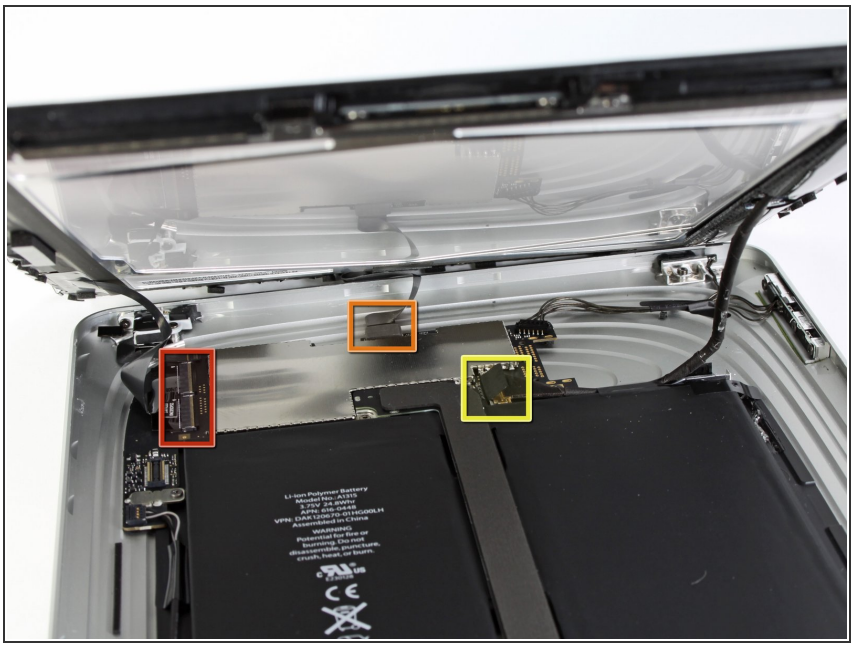
⚠ Pry carefully and gently—if you feel resistance, stop and pry at another spot.

Step 5

- Lift the display assembly away from the rear panel assembly by its bottom edge.

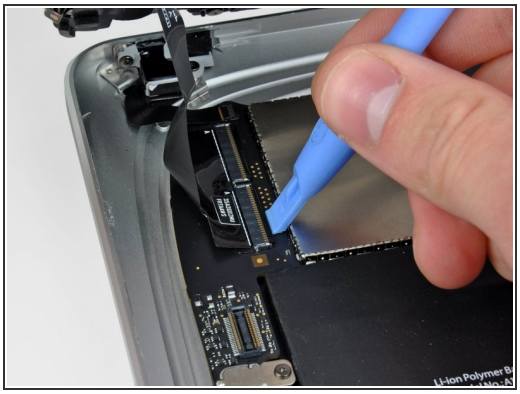
⚠ Do not attempt to remove the display at this time, as it is attached to the rear panel assembly.

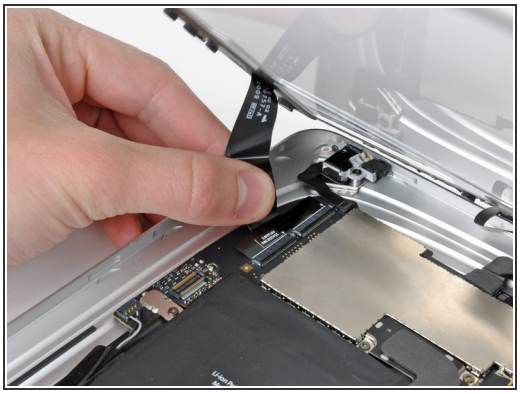
Step 6



- In the following steps, you will disconnect the three cables attaching the display assembly to the logic board. The cables are for the following components:
  - Digitizer
  - Ambient Light Sensor
  - Display Data Cable

Step 7





- Use the edge of a plastic opening tool to flip up the retaining flaps holding the digitizer ribbon cables in their sockets on the logic board.

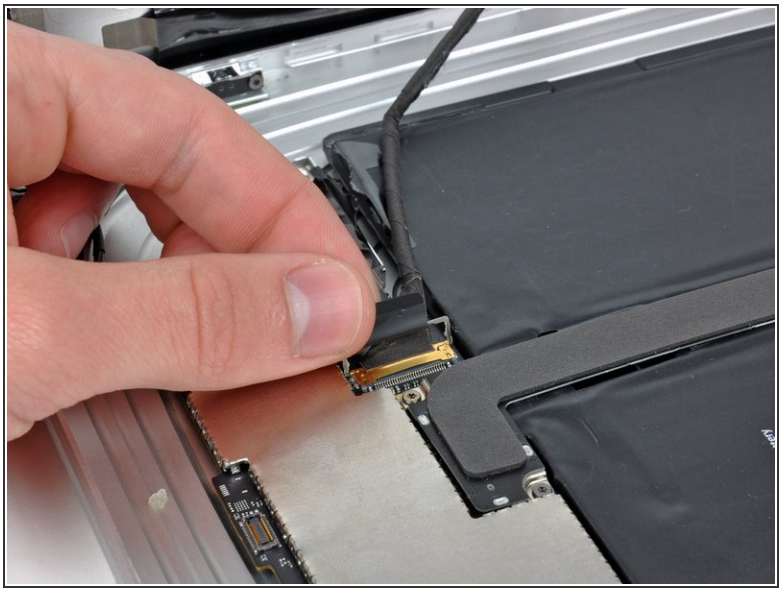
⚠ Be sure you are flipping up the retaining flap, **not** the socket itself.

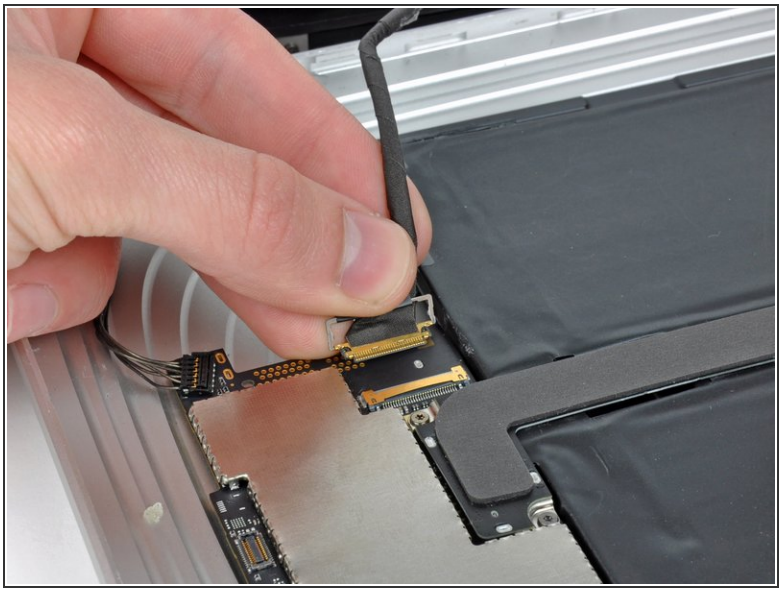
- Pull the digitizer ribbon cables straight out of their sockets.

Step 8

- Use a plastic opening tool to remove the ambient light sensor connector from its socket by gently prying upward.

Step 9

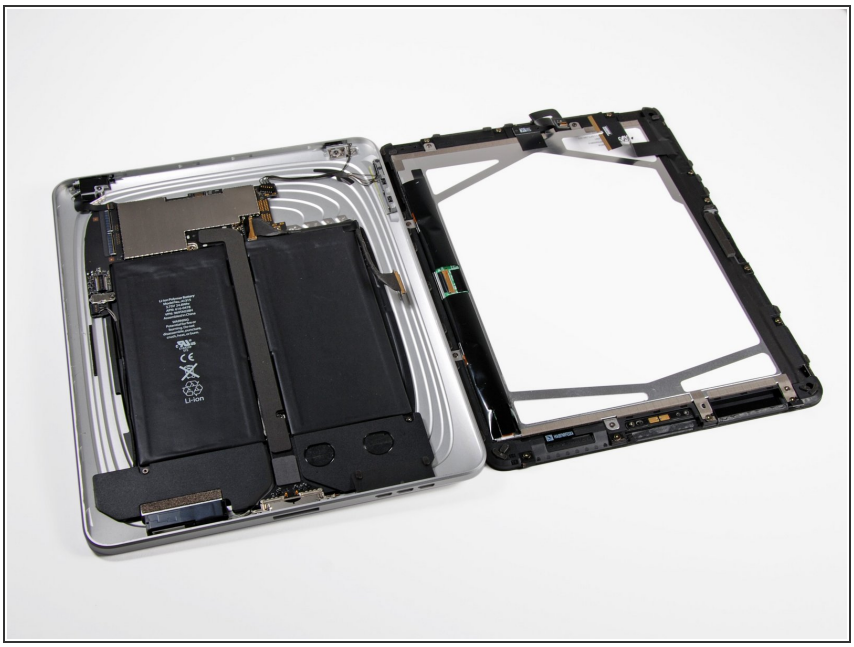




- Disconnect the display data cable from the main board by flipping up the metal retainer by its black plastic pull tab.
- Pull the cable connector away from its socket.

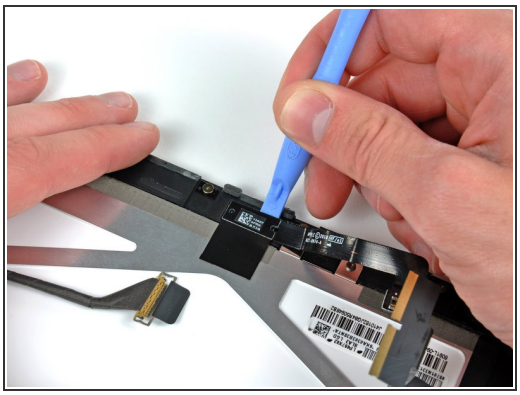
Pull the connector parallel to the face of the logic board.

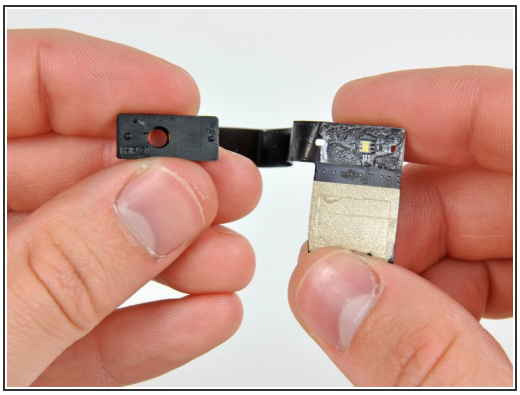
Step 10



- Remove the display assembly from the rear panel assembly.

Step 11 — Ambient Light Sensor





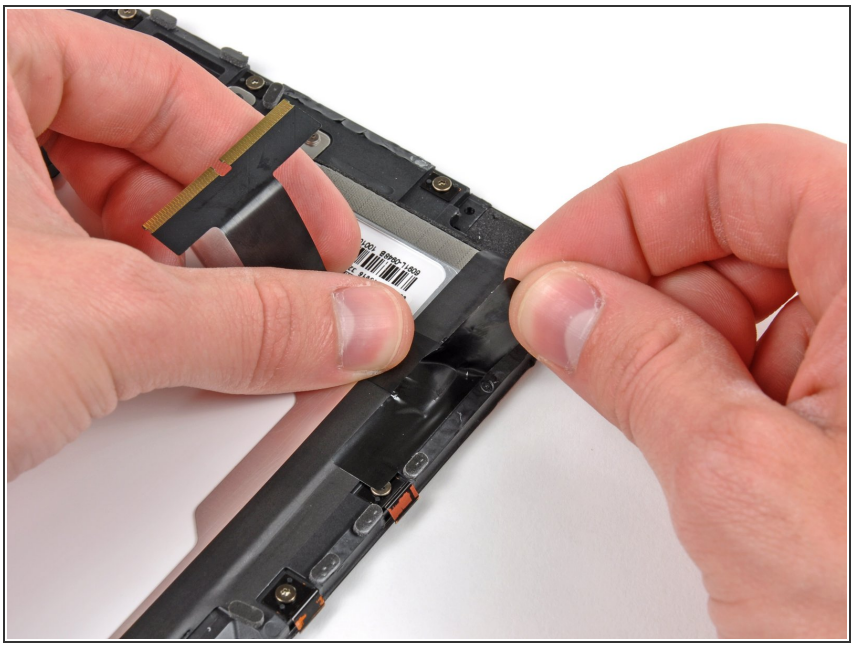
If you are reusing the LCD, it is not necessary to peel the ambient light sensor off the back face of the LCD.

- Use the edge of a plastic opening tool to carefully pry the ambient light sensor board off the adhesive securing it to the display frame.
- Once you've gained enough clearance, peel the ambient light sensor off the LCD.

Be careful not to crease the ambient light sensor below its top section, as the portion with adhesive applied may break off.

If necessary, attach the plastic view window to your new ambient light sensor before installation.

Step 12 — LCD



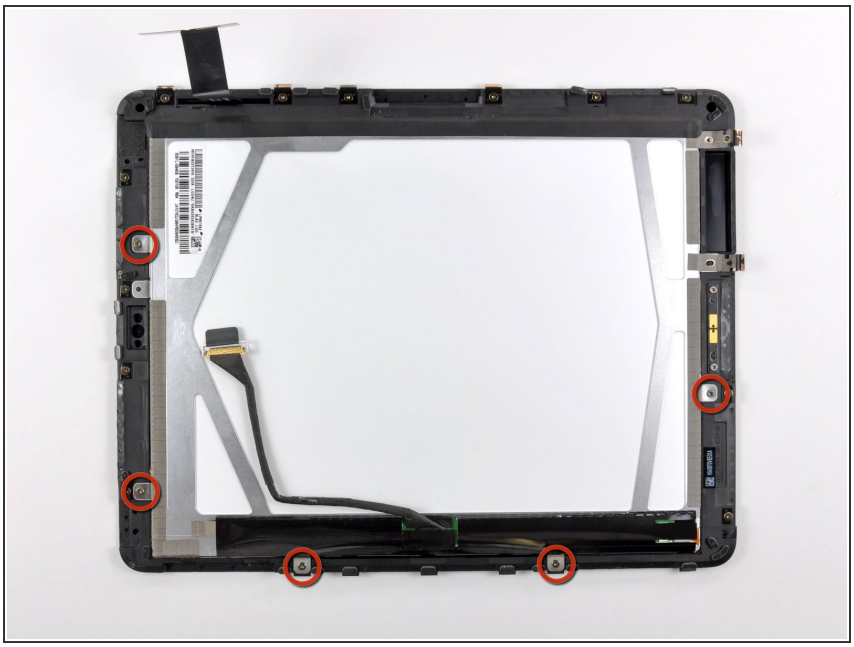
- While holding the digitizer cable down, carefully peel back the piece of tape connecting the digitizer cable to the display frame.

Step 13

- Remove the three T5 Torx screws securing the clips and LCD brackets covered in EMI tape near the home button switch.
- Carefully peel the display clip and its attached tape off the black plastic display frame.

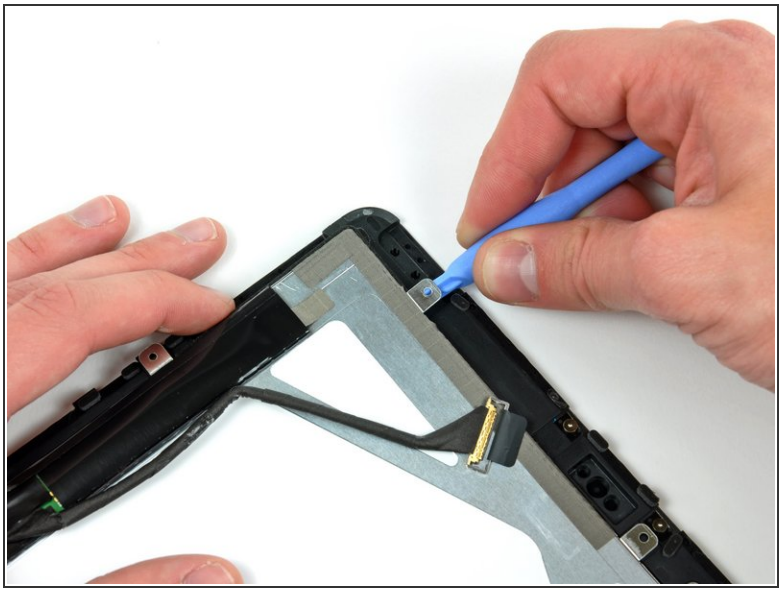
If you are replacing the LCD, be sure to transfer these pieces of EMI tape and their attached clips to the new LCD.

Step 14



- Remove the remaining T5 Torx screws securing the LCD to the black plastic display frame.

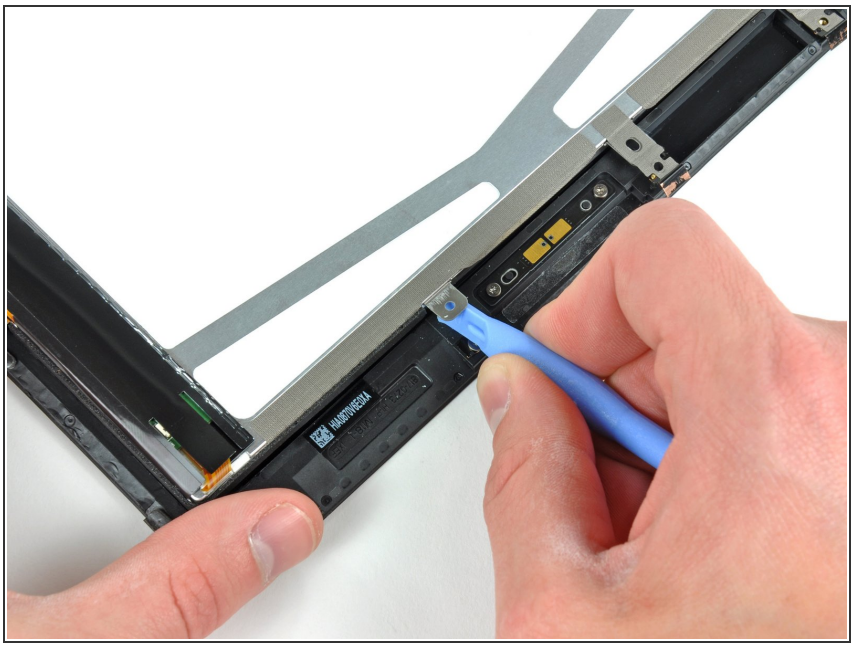
Step 15



- Insert the edge of a plastic opening tool under one of the ears attached to the steel LCD frame.
- Twist the plastic opening tool to gently pry the LCD up off the adhesive securing it to the front glass panel.

⚠ Be sure not to excessively bend the LCD, as it is made of glass.

Step 16



- Repeat the process detailed on the previous step to pry up the display around the three sides opposite the digitizer cable side of the display.

Step 17

- Lift the LCD from its free end, and remove it from the display frame.
- Carefully peel the adhesive securing the long side of the LCD to the display frame, then remove the LCD.

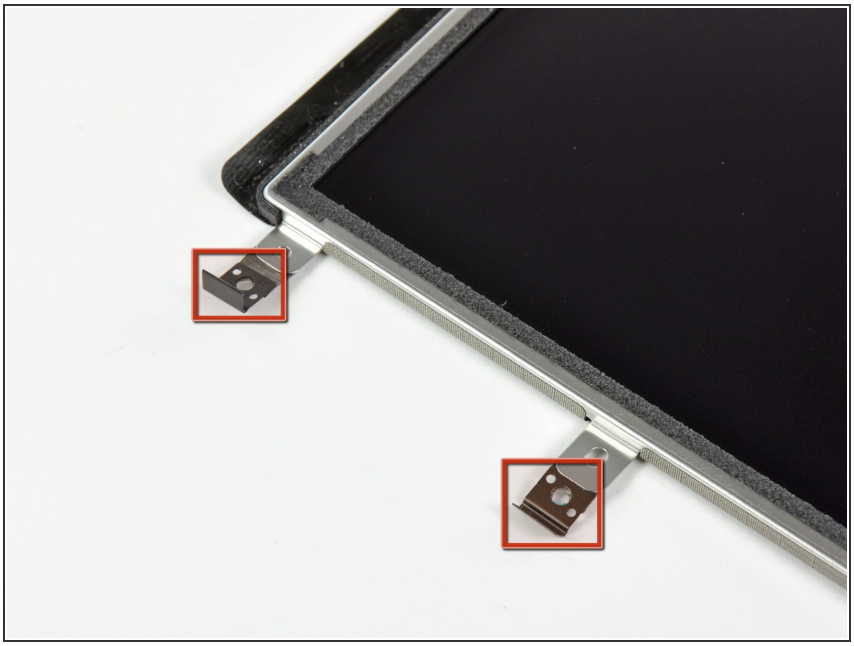
Step 18

- If it is still stuck to the front panel, remove the strip of EMI tape near the ambient light sensor socket.

If necessary, transfer this to your new LCD.

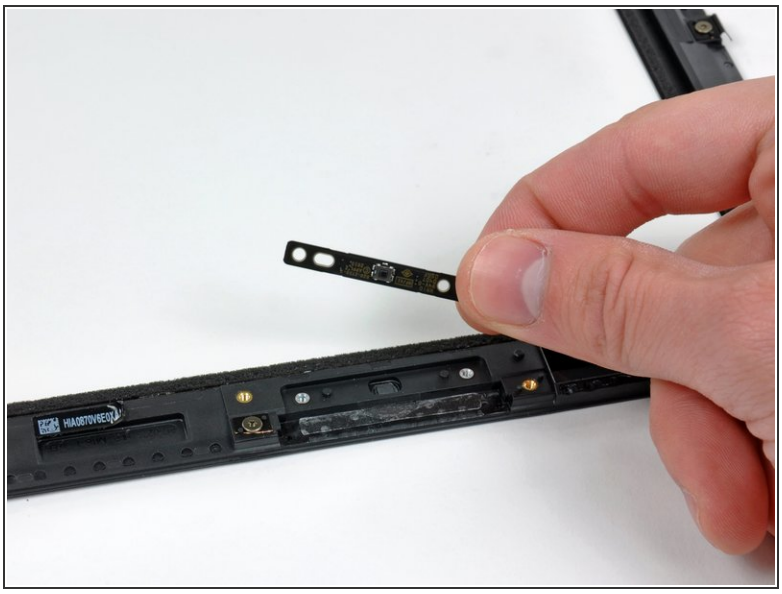
If it is attached to the LCD and you are reusing the LCD, skip this step. If you are replacing the LCD as well, transfer the strip of EMI tape to your new LCD.

Step 19



- If they are still in good shape, transfer the clips and EMI tape near the bottom of the LCD to your new LCD.

Step 20 — Front Panel Assembly

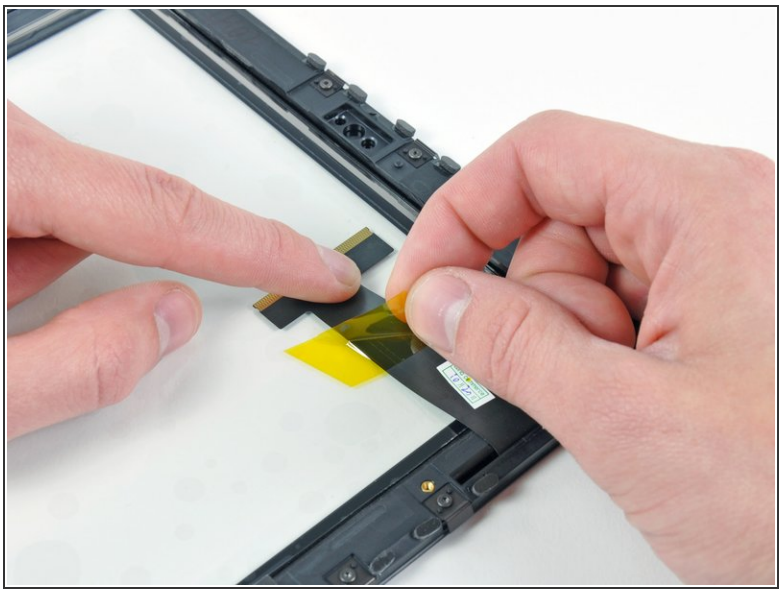


- Remove the two T5 Torx screws securing the home button switch to the plastic display frame.
- Remove the home button switch board from the front panel assembly.

Step 21

- If you are reusing your LCD, use the edge of a plastic opening tool to lift up a corner of the foam tape attached to the LCD.
- Remove the tape from the perimeter of the glass face of the LCD.

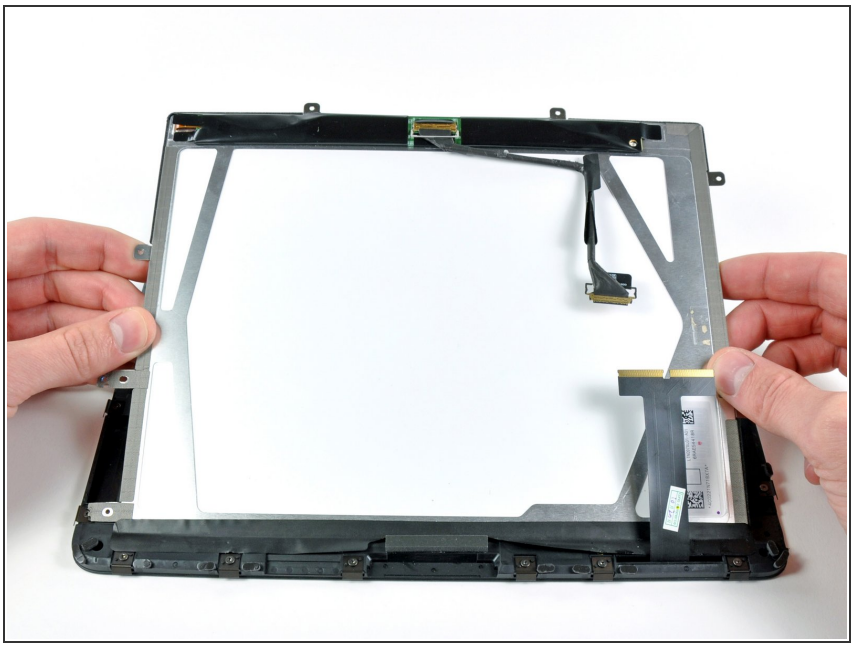
Step 22



- Remove the piece of yellow tape securing the digitizer cable to the inner face of the front panel assembly, being careful not to rip the cable in the process.
- Peel the protective sheeting off the inner face of the front panel assembly.

⚠ Be careful not to get any fingerprints or dust on the inner face of the front panel, as they will be annoyingly visible when the device is turned on.

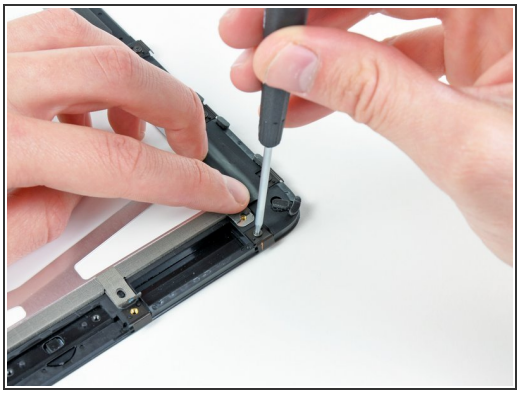
Step 23

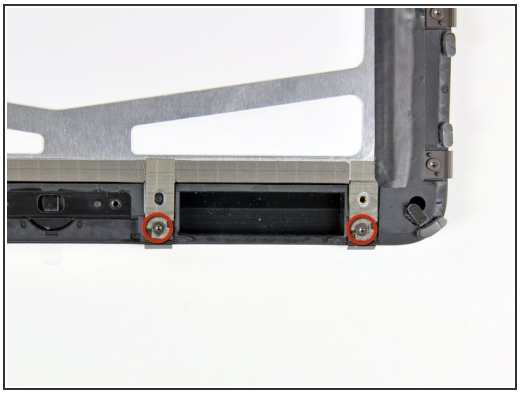


⚠ Be sure the face of the LCD is perfectly clean before proceeding.

- Stick the tape down along the long edge of the LCD to the frame of the front panel assembly.
- Carefully lower the LCD down into its recess in the front panel frame, being sure it is properly positioned.

Step 24





- Hold back the strips of EMI tape along the lower edge of the LCD as you remove the two T5 Torx screws securing the retaining clips shown.
- Stick the tape down against the new clips and reinstall the two T5 Torx screws.

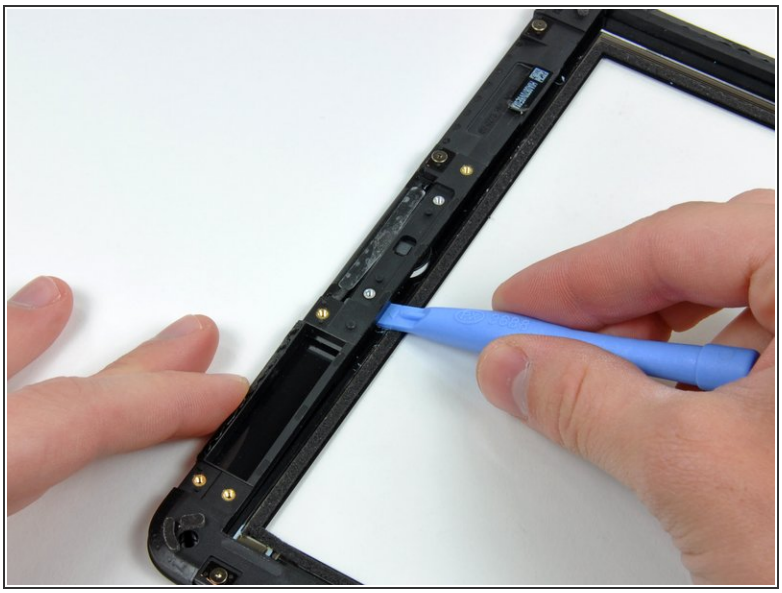
ⓘ If you are replacing your panel with a new one, be aware that the new panel may have a protective film on the outside and/or inside of the frame. This needs to be removed.

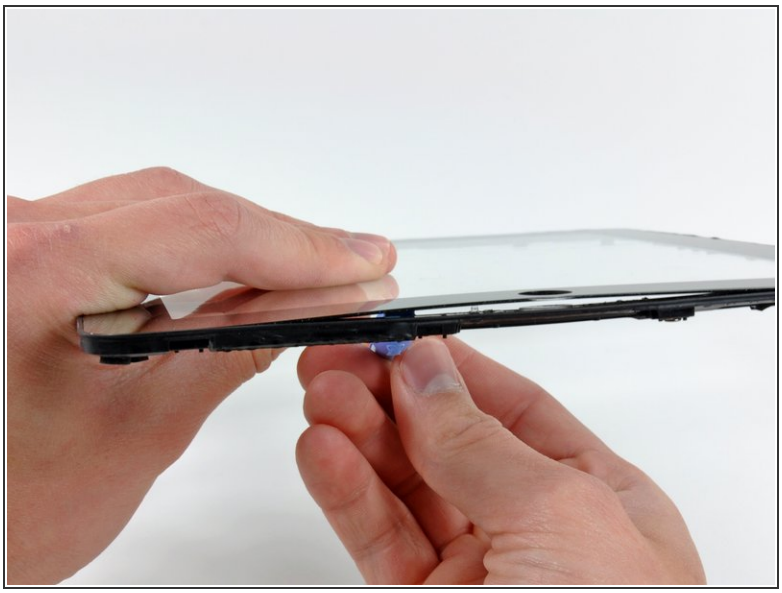
Step 25 — Display Frame

⚠ In the following steps you will use a heat gun to soften the adhesive securing the black plastic frame to the front glass. Do not allow the stream of hot air to contact the thin rubber strip around the outer perimeter of the front glass as it may melt, permanently deform, and lose texture.

- Use a heat gun to gently heat the plastic display frame near the home button from the inner side of the front glass panel.

Step 26





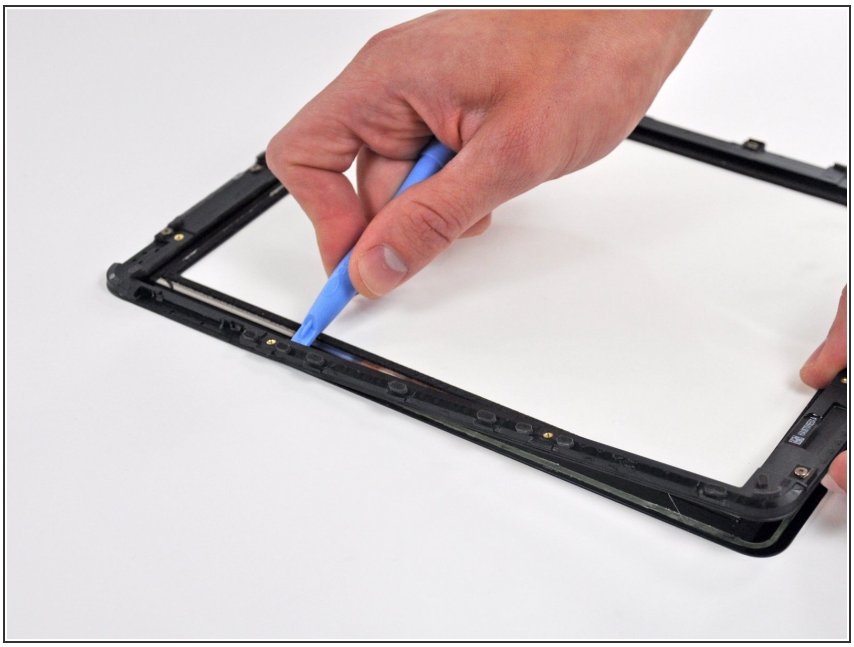
- When the adhesive has been adequately heated, use the edge of a plastic opening tool to gently pry the plastic display frame away from the front glass panel.
- Run your tool under the plastic display frame to separate it from the front glass near the home button area.

⚠ If the panel does not separate from the frame, reheat the area you are working on and try again. The adhesive must reach a certain temperature before it will yield, and reaching that point may require reheating the area several times. Once the adhesive has reached the right temperature, it should be fairly easy to run a plastic opening tool under the frame to separate it from the front glass panel.

Step 27

- Heat the lower right corner (as viewed from the front of the iPad) of the plastic display frame to soften the adhesive securing it to the front glass panel.
- Use your plastic opening tool to continue to pry the plastic frame away from the front glass panel, being careful not to damage the rubber strip around the glass panel's perimeter.

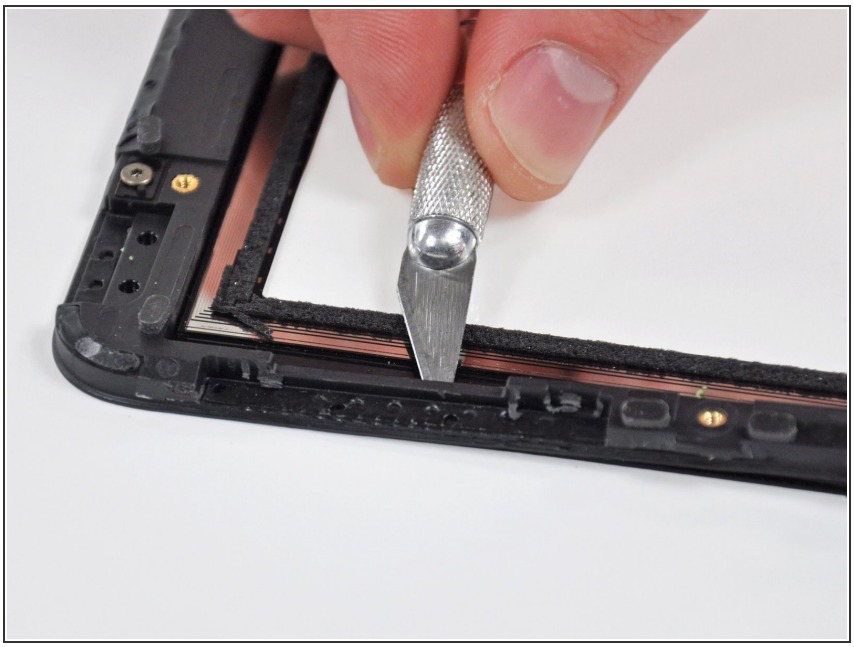
Step 28



- Continue to heat and pry the plastic display bracket along the lower half of its right edge until it is freed from the front glass panel.

⚠ Near the top right edge of the panel (as viewed from the front of the iPad), the frame is secured to the front glass panel by rubber between the two pieces. Use the following procedure to separate this section.

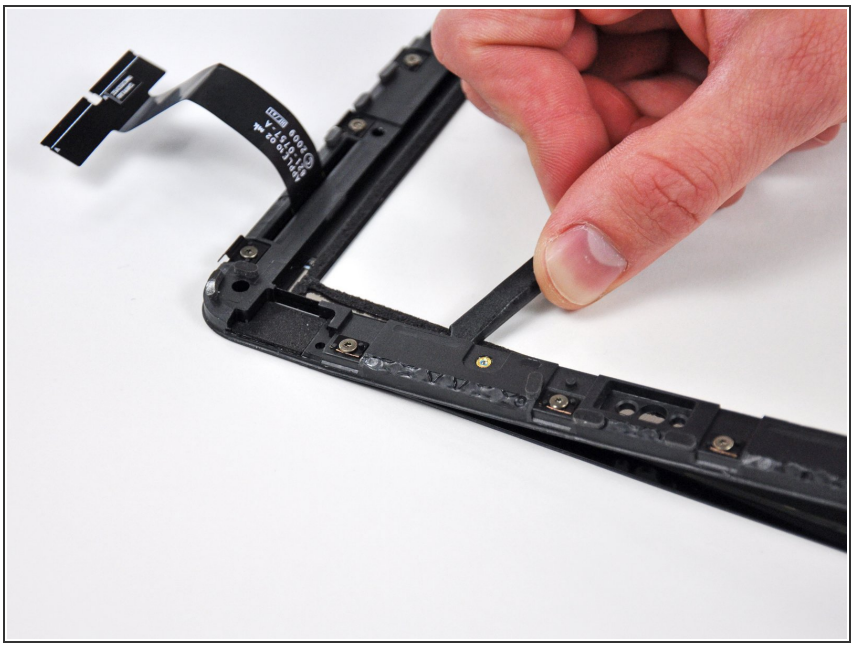
Step 29



- Lightly heat the rubber connection area. Use a plastic opening tool to separate the plastic display frame from the front glass panel enough to access the rubber area.
- While holding the display frame away from the front glass, use a razor blade to carefully cut through the many rubber "dots" attaching the frame to the front panel.

⚠ The razor blade may scratch the black painted border off the inside of the glass panel. If you are reusing your front glass panel, try not to scratch the glass while cutting. Also, to prevent cosmetic damage, avoid cutting through the outer rubber strip.

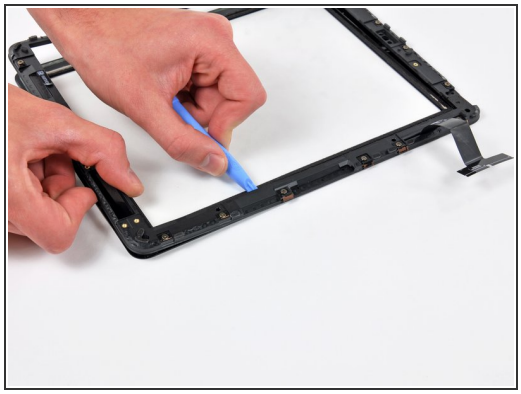
Step 30

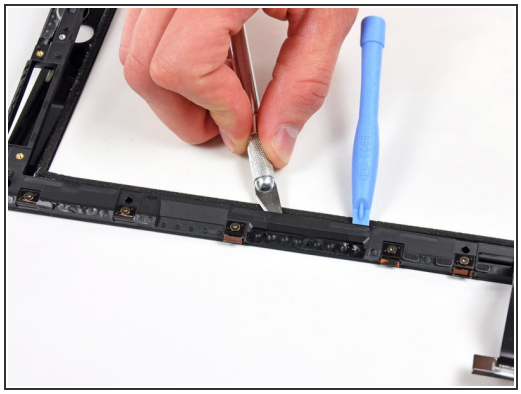


- Continue to heat and pry the top edge of the frame until it separates from the glass panel.

Due to the heavy construction of the display frame's top edge, it may be helpful to use the flat end of a normal spudger to pry it away from the front glass panel.

Step 31

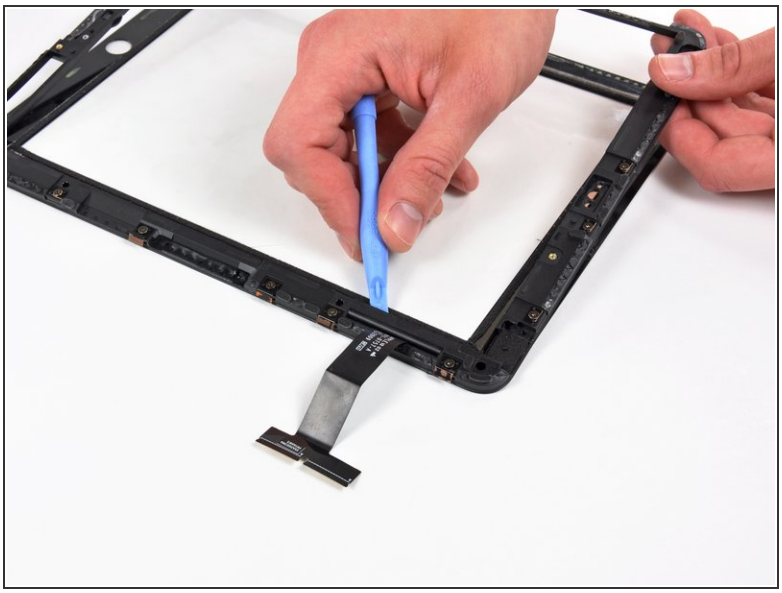




- To separate the ribbon cable side of the display bracket, begin by heating near the lower left corner of the panel (as viewed from the front of the iPad).
- Carefully separate the lower edge of the ribbon cable side of the frame until you reach another area where rubber connects the frame to the glass panel.
- Repeat the process outlined in previous steps to cut through the rubber "dots" connecting the two pieces.

Be careful when separating this side, as there is fragile ribbon running beneath the frame.

Step 32



⚠ In this step, you will heat and remove the plastic frame near the digitizer cable. Do not directly heat this ribbon cable, as it is extremely thin and sensitive to heat.

- Use a heat gun to soften the adhesive next to both sides of the digitizer cable, being careful not to melt the cable.
- Pry the final section of the plastic display frame away from the front glass.

Step 33

- Remove the display frame from the front glass, being careful not to rip the digitizer cable in the process.

To reassemble your device, follow these instructions in reverse order. For final re-assembly of the top to the base make sure you fit the right side first which has fixed lugs as opposed to the clips. Failure to do this means you will need another set of retaining clips!