



Fluke 77 Series III PCA Board Replacement

Replacement of the PCA board on the Fluke 77 Series III Multimeter.

Written By: Jessica Bombardier Shaw

INTRODUCTION

This guide helps you replace the Fluke 77 Series III Multimeter's PCA. The PCA is the main circuit board of the Multimeter and is therefore its most important part.



TOOLS:

- [Phillips #2 Screwdriver](#) (1)
- [Phillips #1 Screwdriver](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [iFixit Opening Tools](#) (1)

Step 1 — Front Panel



- ⚠ Be sure any test leads are out and the multimeter is off before opening the device.
- Turn the multimeter so it is display side down.
- Lift up the back stand of the device by putting your thumb in the curved well at the bottom of the device, so you have access to the two covered screws below.

Step 2



- Use your Phillips #2 Screwdriver to remove the four black 21 mm Phillips #2 screws.


Step 3



- Turn the Fluke 77 Series III Multimeter back over so that it is display side up.
- Pry the front panel from the back panel at the seam.
- If the front panel does not come off easily, move a plastic opening tool along the seam until the panels separate completely.

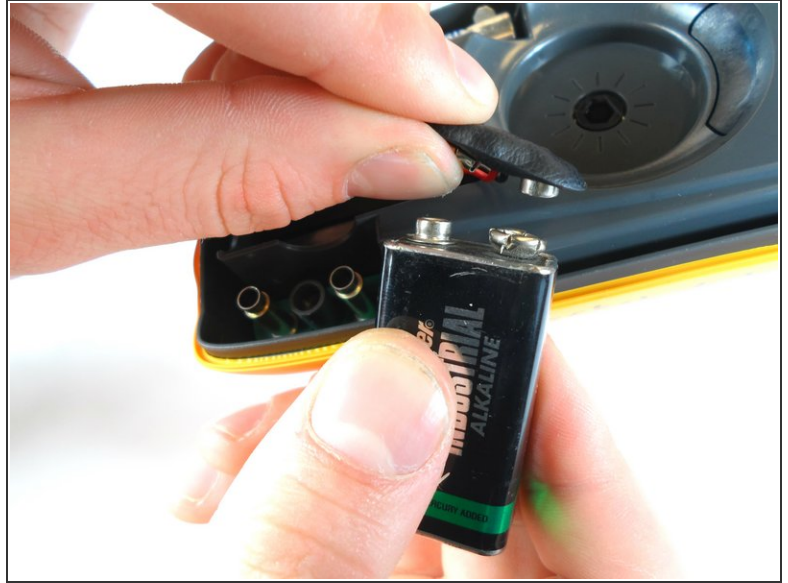
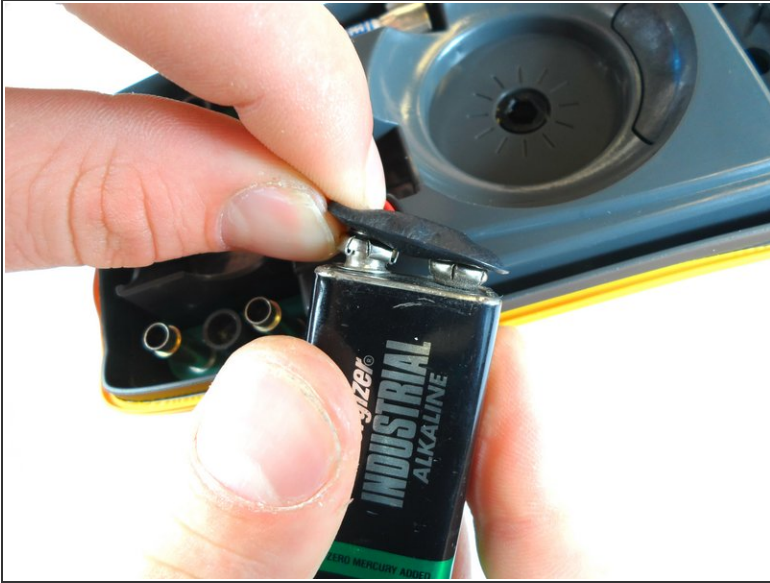
Step 4 — Battery



 When doing this next step, make sure to remove the battery slowly, so you don't damage the wires connecting the battery to the device.

- Locate the 9V battery in the lower right corner of the device.
- Pull the battery out of its terminal.

Step 5





 Only pull on the metal snaps and battery. Pulling the cords may damage them.

- Detach the two metal snaps from the battery.

Step 6 — Fuse



 Replace a fuse only with a fuse identical in type, voltage rating, and current rating as specified by the back panel fuse rating label or the [Fluke 77 Series III Service Manual](#). Inserting the wrong replacement fuse could create a fire hazard.

- Locate the fuses near the bottom left corner inside the device.
-  Take note of which fuses belong in which location before removal. They are **NOT** interchangeable.
 - The .440 Amp fuse is located in the upper left hand fuse holder.
 - The 11 Amp fuse is located in the lower right hand fuse holder.
- Lift the rounded edge of the fuse with one finger until that side is completely out of its holder.

Step 7



- Grab the lifted edge of the fuse between your thumb and forefinger and pull it the rest of the way out of the device.
- ⓘ The fuse in the upper left corner can be tricky to remove. Use a plastic opening tool if needed.
- Repeat steps 4 and 5 to remove the other fuse if you are replacing both fuses or if you are replacing a different part further on.

Step 8 — Range/Hold Buttons



- Locate the rubber range and hold buttons in the internal assembly. These are found just below the LCD screen on the left hand side.
- ⓘ The buttons are attached so they will come out of the multimeter as a single part.
- Remove the rubber range and hold button part with your thumb and forefinger.

This document was generated on 2019-09-16 02:59:47 PM (MST).

Step 9 — Back Panel



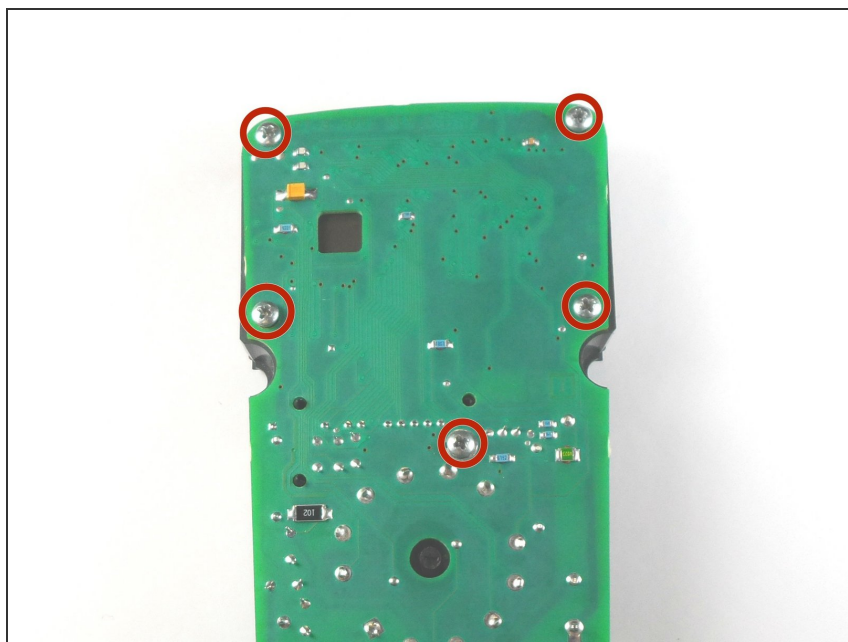
- Locate the silver 7 mm screw found underneath the 11A fuse.
- Using the Phillips #0 Screwdriver, unscrew and remove the silver 7 mm Phillips #0 screw that attaches the back panel to the internal cover.

Step 10



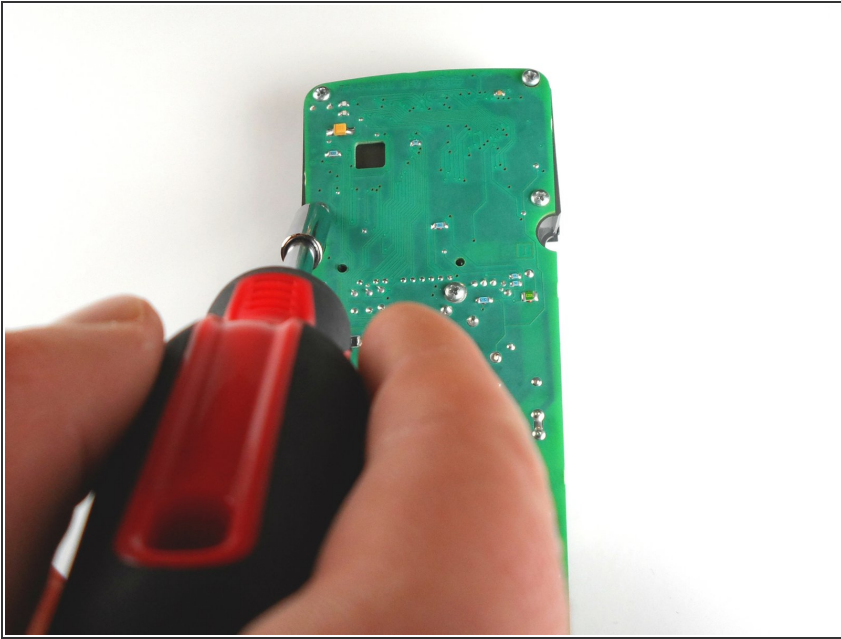
- Lift the grey internal cover out of the back panel.
- ① You should now have the grey internal cover that's connected to the PCA circuit board and the plastic back panel in two separate pieces.

Step 11 — PCA Board



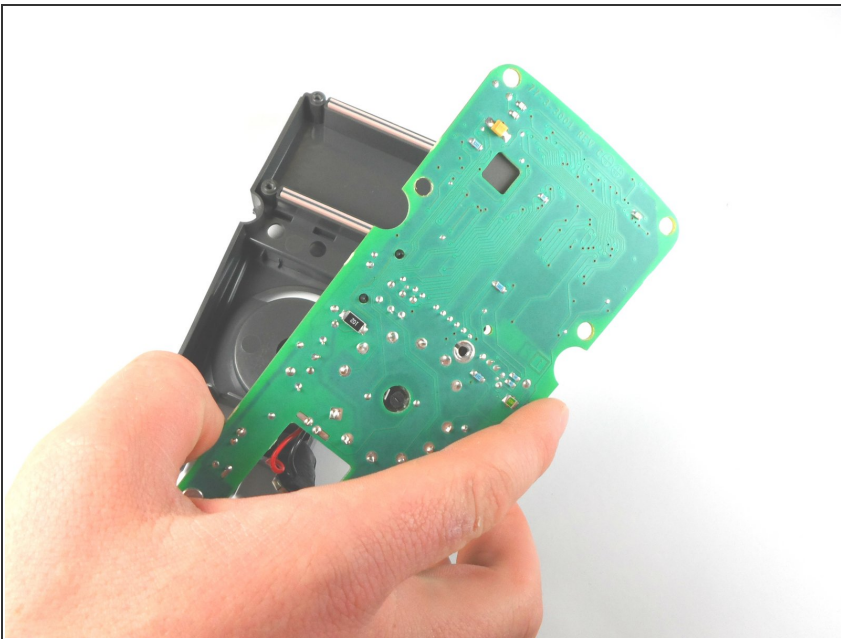
- Turn the internal assembly over so that the green circuit board (PCA) is visible.
- Locate the five silver 11 mm Phillips #1 screws on the upper part of the circuit board that hold it to the the grey plastic internal cover.

Step 12



- Use the Phillips #1 Screwdriver to remove the five silver 11 mm Phillips #1 screws attaching the green circuit board to the grey plastic internal cover.

Step 13



- ⚠ Do not touch any of the chips on the underside of the circuit board because static electricity on your hands could damage them.
- Carefully lift the circuit board up and away from the internal cover.

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