



# Motorola Moto E4 Plus Power and Volume Buttons Replacement

This guide shows the steps required to remove and replace the power and volume button flex, responsible for the sensitivity to the power and volume buttons.

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## INTRODUCTION

This guide will walk you through with replacing the power and volume buttons on your device. Accessing the buttons requires you to remove both the motherboard and the heavily glued-in battery. **Do not re-use the battery after it has been removed**, as the prying process could have bent the battery and compromise the internal structure.

You'll want to be careful with your tweezers, as the ribbon cables connecting the power and volume buttons to the device can be fragile and easily torn.

### TOOLS:

- [T3 Torx Screwdriver](#) (1)
- [Isopropyl Alcohol](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Spudger](#) (1)

### PARTS:

- [Moto E4 Plus Replacement Battery](#) (1)
- [Moto E4 Plus Battery Adhesive Strips](#) (1)

## Step 1 — Remove the back cover



*(i)* Power off your phone before beginning disassembly.

- Insert the edge of the spudger into the notch on the bottom right corner of the phone.
- Twist the spudger to start releasing the back cover from the phone.
- Slide the spudger along the bottom edge to separate the back cover from the phone.

## Step 2



- Lift the phone unit out of the back cover.

## Step 3 — Remove the midframe screws



- Remove the nineteen 3.2 mm long T3 screws securing the plastic midframe.

## Step 4 — Release the midframe clips



*(i)* The plastic midframe is still held in place with clips.

- Insert the flat end of a spudger into the midframe seam at the bottom left corner of the phone (near the microphone hole).
- Twist the spudger to release the plastic clip.
- Repeat the process for the clip near the top right corner of the phone.

## Step 5 — Remove the midframe



- Lift the bottom edge of the plastic midframe upwards until the clips along the top edge release.
- Remove the plastic midframe.

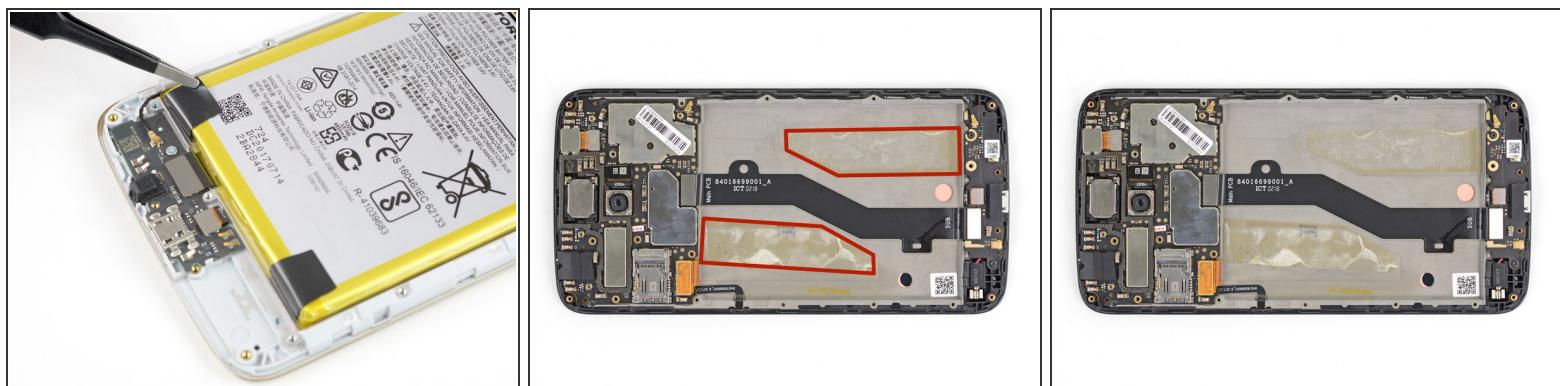
 To reattach the plastic midframe, line up the midframe to the phone and squeeze along the edges to engage the clips.

## Step 6 — Disconnect the battery



- Use the point of a spudger to pry up and disconnect the battery connector from its motherboard socket.

## Step 7 — Battery adhesives



- If your battery has two black tabs near the bottom corners, the battery is held in place by stretch-release adhesives. If that's the case, [follow this guide instead](#) to complete your battery replacement.
- Before you begin prying, note that the battery is held in place by two adhesive strips.

## Step 8 — Loosen the battery



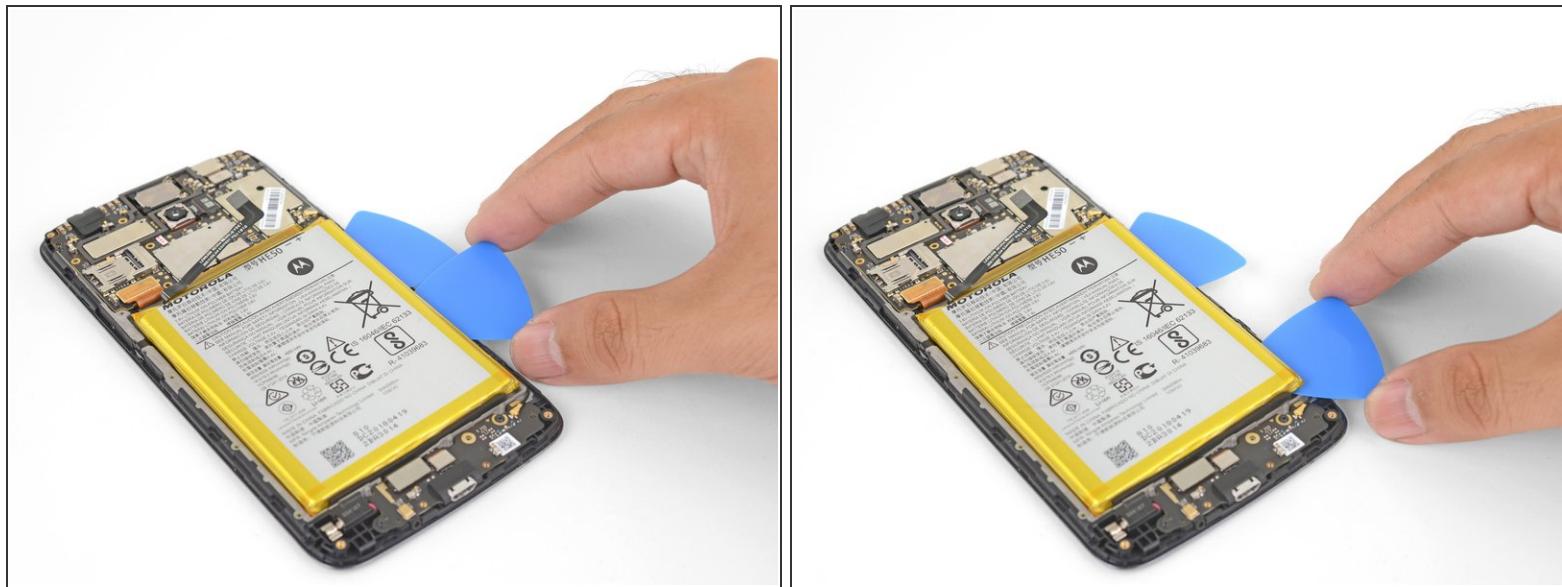
- Insert an opening pick into the top right edge of the battery.
- Push the opening pick in carefully until half of the pick is under the battery.

## Step 9



- Apply a few drops of high concentration (>90%) isopropyl alcohol along the right edge of the battery.
- Tilt the edge up slightly for a minute to allow the isopropyl alcohol to soften the adhesive.

## Step 10



*(i)* As you slice through the adhesive with the opening pick, try your best not to bend the battery pack. Soft shell lithium-ion batteries are highly susceptible to damage and can ignite when compromised.

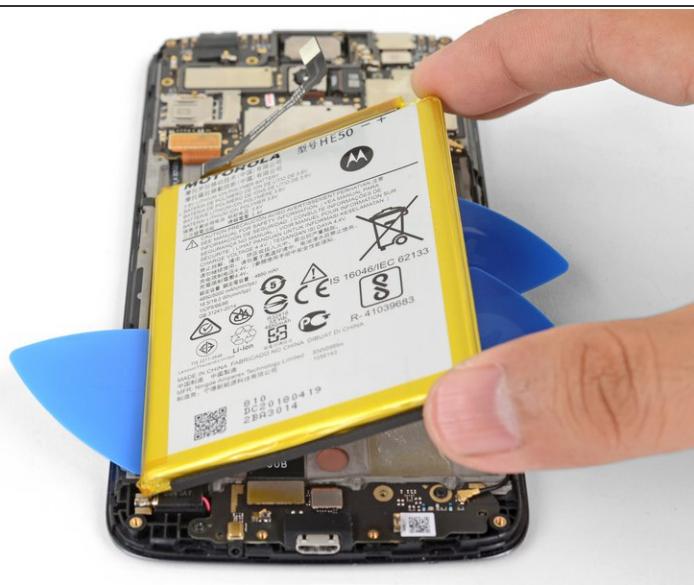
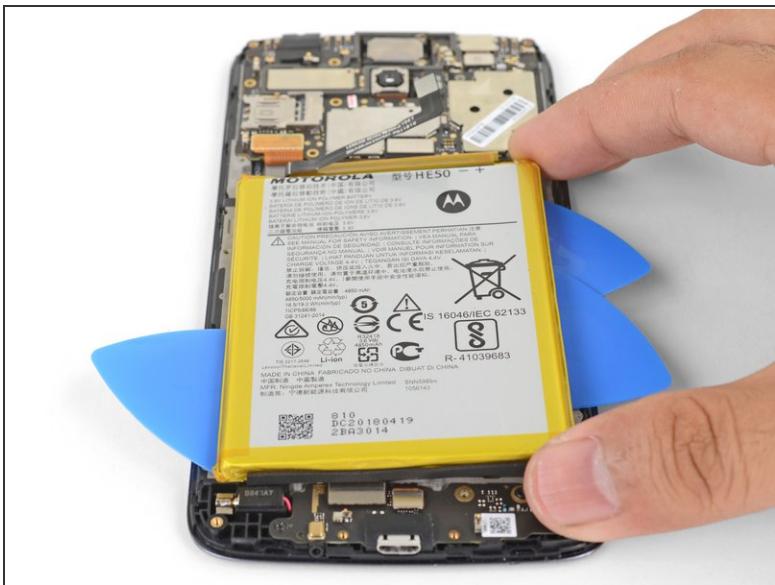
- Insert another opening pick into the right edge, near the first opening pick.
- Slide the opening pick down along the right edge to loosen the right adhesive strip.
- If the slicing feels difficult, apply a few more drops of isopropyl alcohol into the edge, wait a minute for it to seep in, and try again.

## Step 11



- Insert an opening pick into the bottom left edge of the battery.
- Push the opening pick until it is halfway under the battery.
- Apply isopropyl alcohol along the left edge and let it sit for a minute to weaken the adhesive.

## Step 12



- Grasp the battery along the right corners and slowly lift the right edge upwards.

**⚠** If the battery begins to bend significantly, **stop** and re-apply more isopropyl alcohol to the left adhesive strip.

## Step 13



- Remove the battery.

 Do not reuse the battery after it has been removed, as doing so is a potential safety hazard. Replace it with a new battery.

 To install a replacement battery:

- Remove the old adhesive from the phone frame.
- Apply new adhesive in the same general area as the old adhesive.
- Lay the battery lightly in place. Check that the battery connector is properly aligned with its motherboard socket.
- Press the battery firmly into the phone for thirty seconds.

## Step 14 — Disconnect the display cable



- Use the point of a spudger to pry up and disconnect the display cable from its motherboard socket, near the bottom left corner of the motherboard.

## Step 15 — Disconnect the antenna cable



- Use the point of a spudger to pry up and disconnect the antenna cable from its motherboard socket.

## Step 16 — Disconnect the interconnect cable



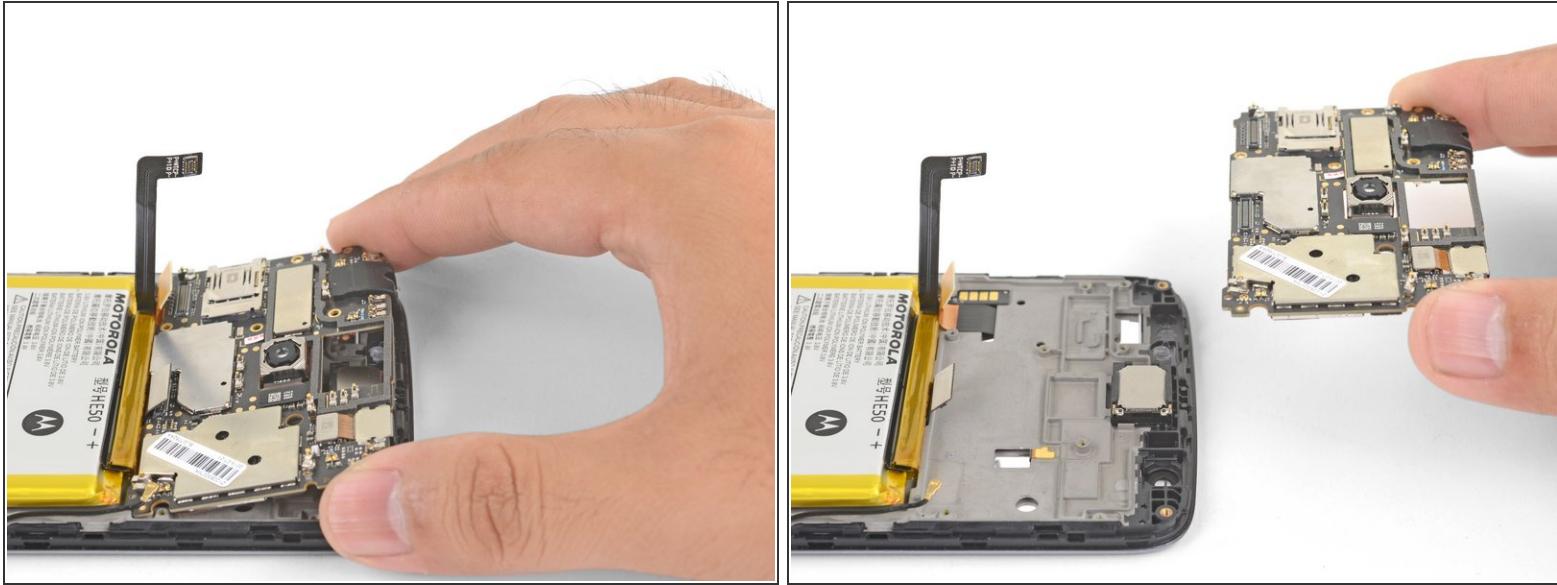
- Use the point of a spudger to pry up and disconnect the interconnect cable from its motherboard socket.

## Step 17 — Remove the motherboard screws



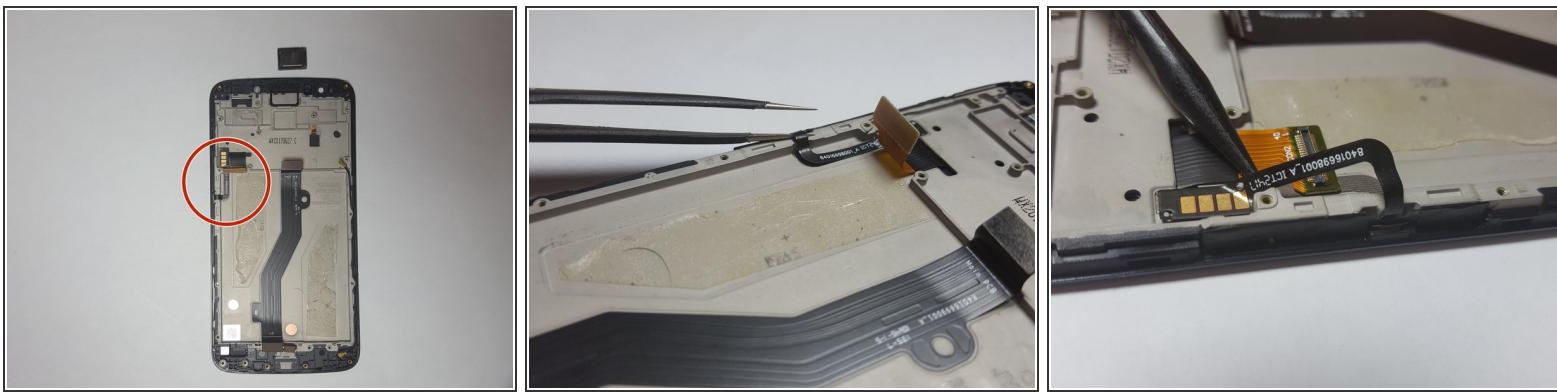
- Remove the two black 3.2 mm long T3 screws securing the motherboard.

## Step 18 — Remove the motherboard



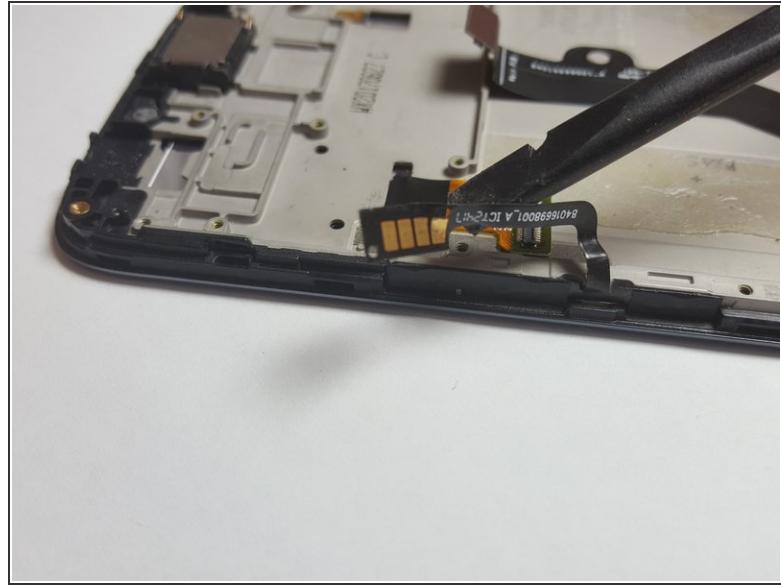
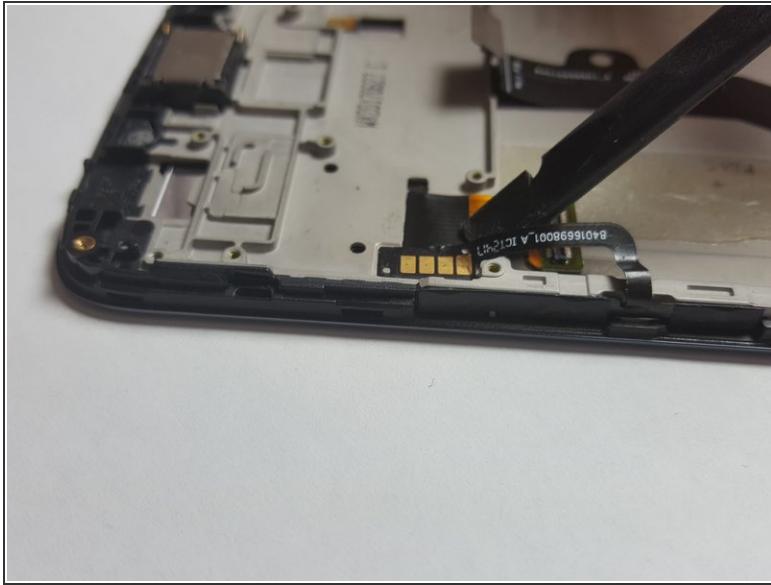
- Grasp the motherboard by the top corners and lift it out of the phone.
- Remove the motherboard.

## Step 19 — Power and Volume Buttons



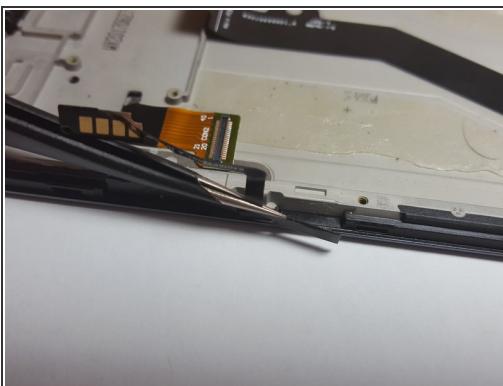
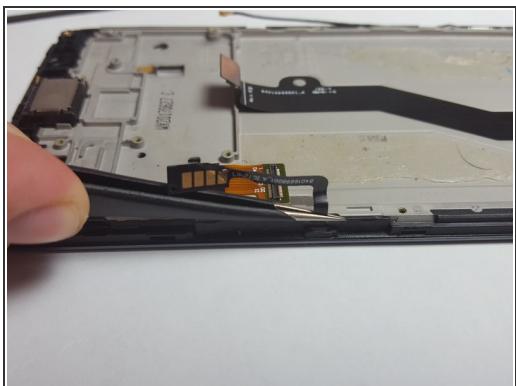
- Use the Precision Tweezer to detach the Power and Volume Buttons Flex. Start at the lip of the phone, as seen in Image 2, and lift up. Slide the precision tweezers under the power and volume buttons flex until you reach the gold plated section, detaching it from the phone.

## Step 20



- Use the Plastic Spudger to finish lifting the volume and power buttons flex from the base of the phone.

## Step 21



- Use the Precision Tweezers to pull the volume and power buttons off of the side of the phone, as seen in the pictures. It is all one piece and will be pulled off together.

**(i)** Do not be afraid to pull with some force to remove the buttons. The buttons are connected by an adhesive but can be pulled off easily, be confident in the strength of the buttons.

## Step 22



- This is the result of removing the volume and power buttons flex from the phone.

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