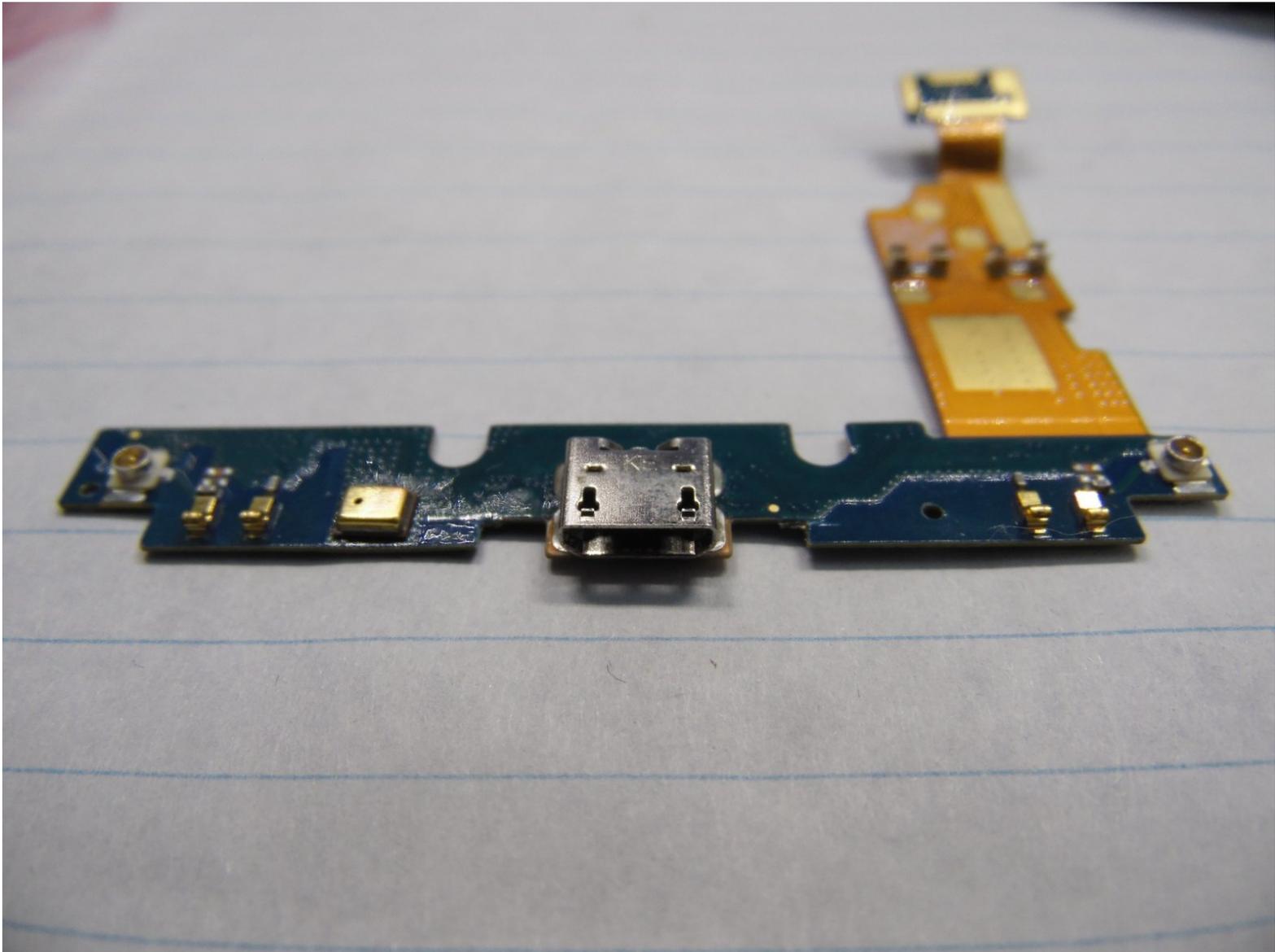




LG Optimus G Charging Port and Microphone Flex Cable Replacement

Simple disassembly instructions to replace charging port on LG Optimus G, specific model E971 (Canadian version), same basic principles on E970, E973 and E975

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INTRODUCTION

If your LG optimus G shows no signs of USB detection (it does not charge and does not connect to your computer), there is a high possibility that the charging circuit may be the culprit. Although somewhat rare, the charging ports are inexpensive and once the case is removed, installation is relatively straightforward

TOOLS:

- [T5 Torx Screwdriver](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Spudger](#) (1)
- [Phillips #000 Screwdriver](#) (1)

This is reported to be the best size for disassembly of E970 AT&T US, possibly others

PARTS:

- [LG E970, E973, E975 charging port flex cable](#) (1)

Flex Cable

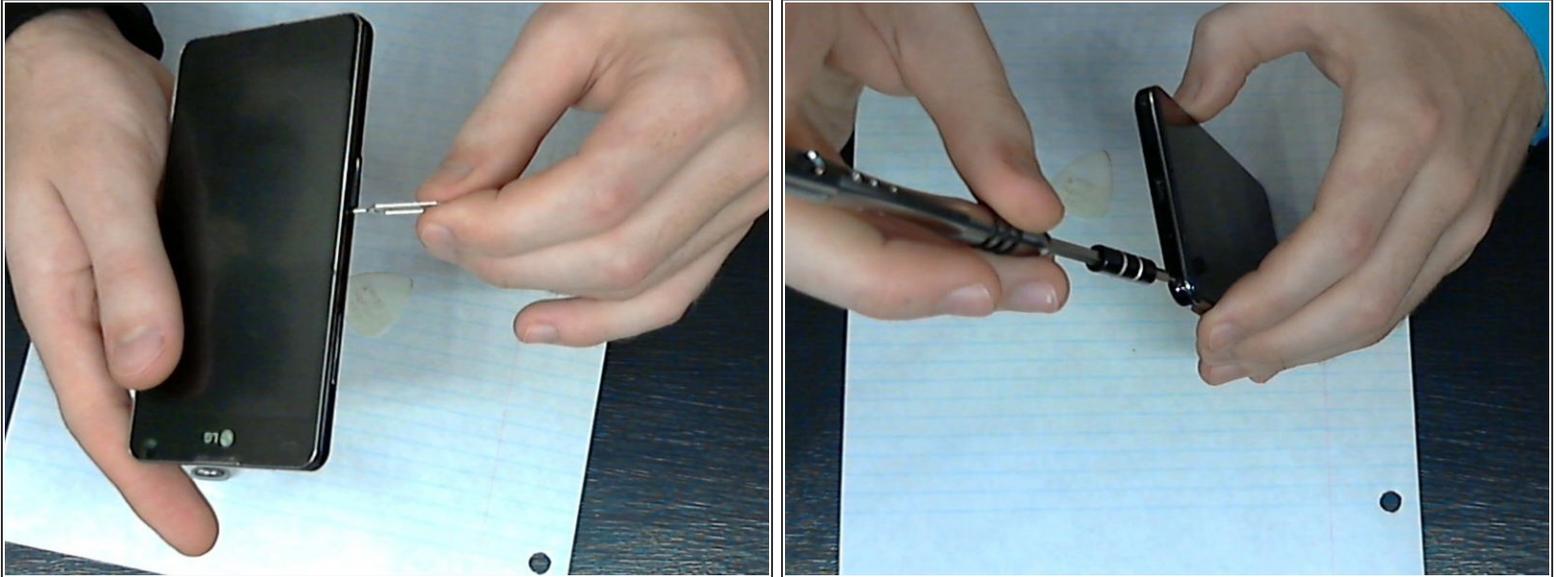
Match your phone's model (unless E971, these are impossible to find - use E970 and see notes)

Step 1 — Charging Port, Microphone Flex Cable



- Easily one of the most overlooked phones, the Optimus G has a great combination of power and affordability, with no obvious weaknesses... **EXCEPT** depending on your model, it could have a nasty tendency to forget that it's plugged in
- Although it could technically be one of a number of different problems, the best place to start is with a new **charging port assembly**, which is easiest obtained on eBay for a cost of \$15-25 depending on where you live
- **If you have an E973** you may find that the guide is slightly inaccurate (it's a slightly rounder shape), but from what I can tell the parts are roughly the same. Make sure you **buy a specific E973 charging port** and best of luck!
- Since I live in Canada, the model available to me is **E971** and unfortunately, not even eBay seems to have a market for these parts. I'll show you how to **modify your phone to use an E970 module** in later steps

Step 2



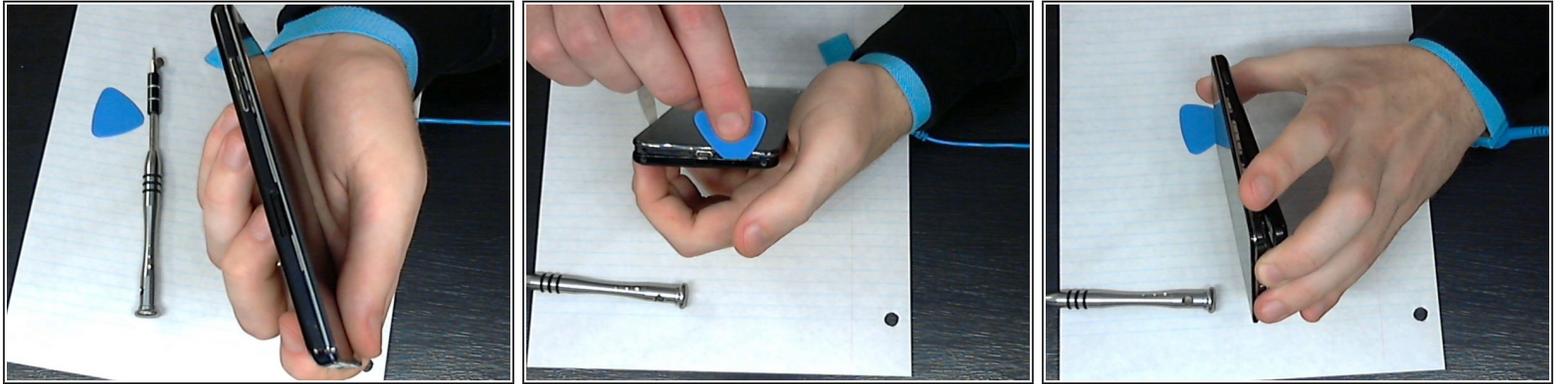
- The hardest part of this repair is, without question, removing the back phone case. Expect a bit of a battle, and keep in mind that the plastic is **surprisingly flexible**, and unless you are pulling extremely hard, you shouldn't have to worry about snapping pieces
- **Before you go further**, make sure you **remove the sim card & tray** - the case back will not come off without it. You can use a paperclip or a SIM removal tool - it's a relatively shallow slot
- Remove the 2 torx screws on the bottom of the phone (size 5)
- You may need to use pliers or a magnet to convince the screws to leave the phone case, they tend to get stuck

Step 3



- **To get started**, make sure you realize what you're trying to pry: **between the black back and the silver strip**. This may seem obvious, but if you attempt to separate between the front and the silver, you could break the frame or spend hours fruitlessly. Better safe than sorry.
- I used a real guitar pick (they're a little skinnier), and ran it along the edge with **some pressure**, on my phone the **weakest point was around the corner**, which gave just a hint of separation
- Once you slightly separate it, you'll need something a bit more sturdy (the blue pick in this case, or even a spudger) to run between the two pieces
- ⓘ If you pull the plastic phone **AWAY from the phone instead of DOWN**, you'll find the clips holding them together to be MUCH more cooperative. Don't worry - the plastic flexes quite a bit

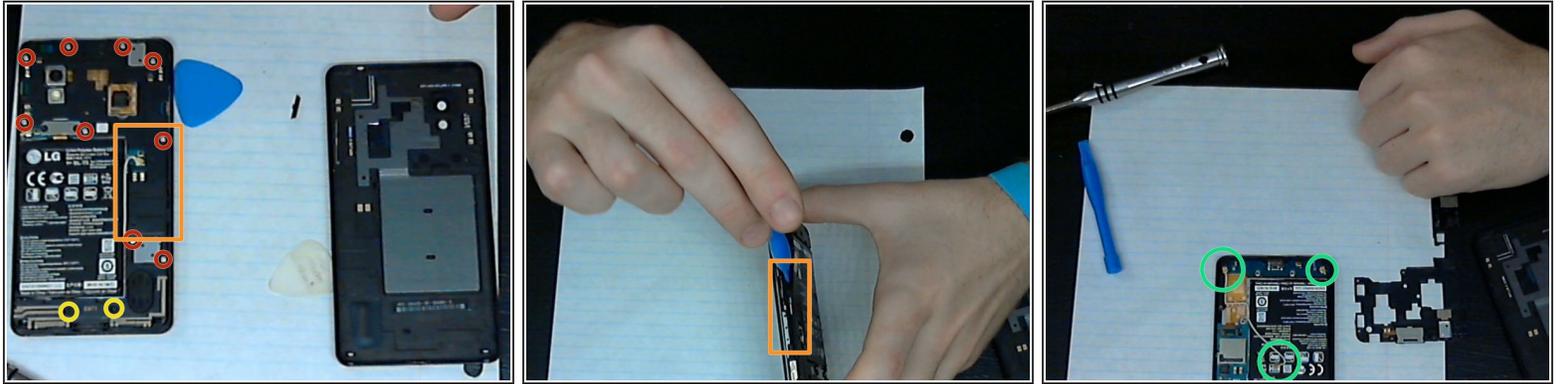
Step 4



- Once you get the side done, start on the bottom of the phone (around the charging port)
- There are 2 clips on either side of the charging port - you may have to pull away a little more than comfortable, but the plastic is quite malleable and as long as you do it with consistent pressure there should be no problem
- When the top is all that's left, wiggle the back cover towards the top of the phone and it should release all clips that are still intact

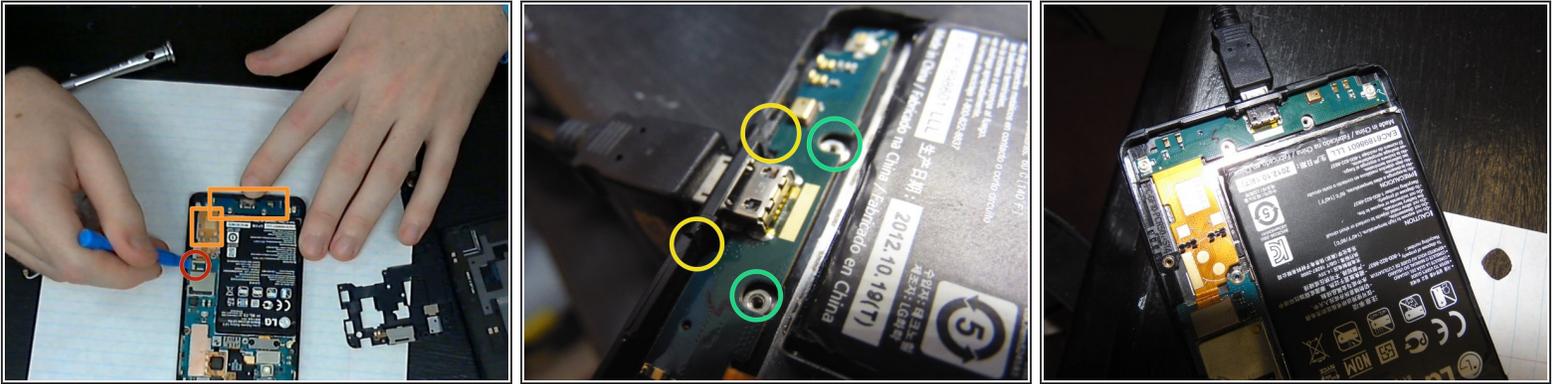
 Make sure you don't lose the **volume rocker** or **power button** as they are likely to fall out

Step 5



- There are 2 physical pieces that need to be taken off to get at the charging port: The logic board protector and the speaker assembly
 - Remove the 9 screws as shown. Once finished, slowly remove the piece of plastic. Remove slowly - there is quite a bit of adhesive (shown in rectangle) and could bend or snap if not careful
 - There are 2 black screws holding the speaker assembly to the phone. Remove these, and the assembly should relatively easily pop out when wiggled
 - There are also 2 antenna connector cords that should be removed, one grey and one black.

Step 6



- Remove the push connector from the motherboard; make sure the grey antenna connector has been removed
 - There is a significant amount of adhesive holding the back of the charging port circuit board to the phone in the 2 locations shown - you don't have to be too careful when removing, as this entire part is being replaced
 - If you have a phone model that **does not match the flex cable exactly**, you may have a problem fitting the new cable in its spot. Although the parts are (from what I can tell) completely compatible, you may have to modify your case slightly to make it fit
 - In this case, the circuit board slots beside the USB connector were a bit too small to allow the circuit board to fit in the slot - I used a utility knife to shave the plastic on either side of the charger.
 - Make sure the port is pushed far enough down that the screw holes in the phone case are not covered by the logic board (as shown)
- i** I never recommend permanently modifying devices when possible - in this case, it was not. One piece of advice - shave the plastic down in **small steps** and keep trying to fit the part until it is perfect. Removing large chunks may save some time, but there is a much greater chance at having to replace something much more costly.

Step 7



- Tips on putting back together:
 - Once the new charging circuit is installed, plug in all the cords (push connector, 2 antenna cables) and plug the phone into the charger - if the LED lights up red or the screen turns on (even for a second), it's a good sign that everything is done properly
 - There is a possibility that the sensors for the **back, home and menu functions will not light up [as much as they used to]** especially if you used a charging port that didn't exactly match - this is usually due to the small LED's on the charging port not perfectly lining up with the sensors on the front of the phone
 - This can be difficult to correct (unscrew speaker assembly, reseal circuit etc.), and sometimes it may be impossible - but I find a dim button is a small price to pay for a phone that works again
 - If it's not too much to ask, if you finish this instruction, press the button below saying it was a success, or feel free to write a comment if you think you have any improvements. Feedback is appreciated!

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