

iPhone 1st Gen Disassembly Procedure

Disclaimer: Opening the case will void the manufacture warranty if any remains. TopTechies is not responsible for damage or problems that may result from following the disassembly and replacement procedures. Please observe all static safe precautions while working inside your iPhone. These instructions require a high level of technical ability and proficiency in the use of hand tools as well as a general understanding of electronic components. Buyer assumes full responsibility for the installation of this replacement battery.

Preparation: Start with a clean, open table that has good light. Ensure the location you selected has access to a wall outlet for the soldering iron. Make note if you've had issues with static electricity in the environment. If yes, you may want to use a static wrist band or ground yourself prior to starting disassembly.

Tool Reality Check: You will need additional tools to open the case. iPhone case tolerances are extremely tight making the case removal difficult. The plastic opening tool is mainly used to release connectors and leverage the battery from the case. You will need a small flat head screw driver to leverage the iPhone case open. We'll show you a few case opening techniques in these instructions.

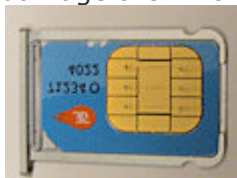
Battery Replacement Approach Options: TopTechies uses the battery splice technique for all of our Pro Installations. The reason being the battery connectors (metal connector tabs) on the system boards are very delicate. They are so sensitive that Apple has glue covering the connectors to help prevent them from pulling up. If you have a connector that pulls up during the battery replacement process you will need a new system board.

The wire splice technique involves clipping the old battery wires up near the battery to keep the maximum length and then splicing in the new battery. We use a wire heat shrink wrap to cover and protect the splice. You would need the smallest heat shrink wrap you can find and it can be purchased at Radio Shack. The technique we explain in this document is the slightly more risky option of unsoldering the connections on the system board. You'll need to make a decision on the technique you want to use. Of course, it's never to late to have TopTechies replace the battery for you.

Required Tools: Soldering iron, flat head screw driver, case opening tool, & small paper clip

☐ **Step #1 - Power Off iPhone & Remove SIM Card**

Hold down the power button for 5 seconds and shut down. Remove the SIM card and holder using a small paper clip or pin. If the SIM card holder is not removed you will damage the iPhone upon case removal.



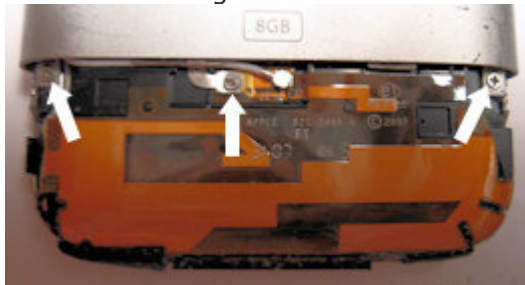
□ **Step #2 - Remove Back Plastic Panel**

Using the case opening tool or small flat head screw driver leverage it into the edge where the plastic meet's the aluminum backing. It's usually best to start near the side or edge of the iPhone. The black plastic piece should pop-off after enough pressure is applied. Set this piece aside in a safe area.



□ **Step #3 - Remove Case Screws**

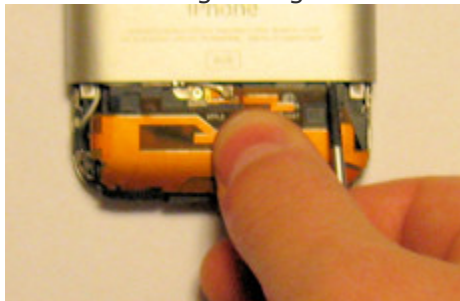
After the plastic back piece is removed it will reveal 3 small screws that holds down the aluminum casing. Remove these screws and set them aside in a safe area.



□ **Step #4 - Remove Aluminum Case**

This is one of the most difficult steps of the iPhone battery replacement process. Take your time and use a combination of the methods listed below. Keep working it until the case pops open.

a. There are 2 different techniques for removing the aluminum back cover. The power thumb technique involves an upward motion of a small screwdriver as you press down with your thumb. Start on the right hand side away from the antenna wire and apply pressure using your pointing finger as a fulcrum. After enough pressure is applied on right side and it's worked long enough the case should pop open.



The 2nd technique involves using the flat head screw driver and leveraging it between the back case and the front bezel. This technique has a tendency to leave marks on the aluminum surfaces so should be used with caution. In some instances, you may need to employ a combination of techniques to crack the case.

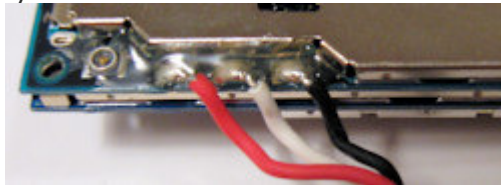


b. Once it's loose, carefully lift the aluminum backing off the iPhone and pay attention to the ribbon cable that is still connected to the aluminum case. Set the two halves side by side and you should have a clear view of the battery at this point.



□ Step #5 - Unsolder Battery

a. Make note of the order of the colored battery wires and where they plug into the system board. This is also documented in the battery installation step below.



b. Carefully remove the clear rubber glue covering the battery connections on the system board. You can use the small screw driver to break it up or a finger nail clipper to help remove it. Tweezers or needle nose tool could also help in the process. You don't need to remove all of it but just enough to unsolder the connections. **Important:** These soldered connections are very delicate and that why there's glue holding them down. If the actual connector completely lifts up you'll need a new system board. Do not pull up on the wires!

c. Plug in your soldering iron and let it come up to temperature which takes roughly 10 minutes. Touch the iron to each area where the battery wires connect to the system board. Make sure you touch the iron on the solder joint where the wire connects to the board. The battery wires should release after a short period of time. The battery should now be disconnected from the main system board and ready for the replacement battery.

Battery Replacement Procedure



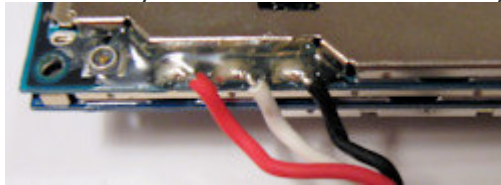
Battery Replacement Precaution: The new battery has the red (+) live wire covered with heat shrink wrap. Do not remove this heat shrink wrap until the white and black wires are already soldered into place. If this red wire accidentally touches the other wires or the iPhone ground (any metal) you'll short out the replacement battery.

□ Step #1 - Tin the Battery Wires

The "tinning" process involves putting a thin layer of solder on the ends of the new replacement battery wires. This is done by placing the hot iron on the end of the wire and putting on a thin layer of solder. The solder layer should be so thin that it's not noticeable. Don't tin the last red wire until the other 2 wires are already soldered into place. This is to prevent the replacement battery from shorting out by accident.

□ Step #2 - Solder in the New Replacement Battery

Verify the wire order to ensure the wires go into the correct connections. Start with a single wire and place it while heating the solder joint. Try and heat the wire along with the solder joint at the same time. If necessary, add additional solder but don't use too much as it should only be a small bead on the system board. Repeat the process for each wire.



□ Step #3 - Reassemble and Test

Reassemble and install the system board and battery back into place. Reassemble all parts and connections working backwards from the disassembly process. Test the iPhone functionality prior to installing the final covers. Remember to charge the battery a minimum of 3 hours for the first charge. If possible, charge the battery up overnight to ensure you battery is off to a great capacity start.

Congratulations! You've completed the iPhone battery replacement procedure

Troubleshooting Tips: Visit iPhoneBatteryRepair.com and there's a troubleshooting link embedded within the on-line iPhone installation instructions.