



iPhone 7 Chargeport REPAIR GUIDE

Version 1
2016 Edition





iPhone 7 Chargeport Repair Guide

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FOR EVERY REPAIR
MAKE SURE TO COMPLETE, INITIAL,
AND HAVE CUSTOMER SIGN THE CELLAIRIS
REPAIR LIABILITY WAIVER FORM



PRE-REPAIR DEVICE CHECK-IN

	Pre-Repair Device Inspection			Post-Repair Device Inspection		
Liquid Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Jailbroken or Rooted:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A			
Unlocked or Flashed:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A			
Previously Repaired:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A			
Frame Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Digitizer Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
LCD Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Device is unable to be turned on prior to repair for Device Inspection		<input type="checkbox"/> Yes	<input type="checkbox"/> NO			
	Yes (Working)	No (Not Working)		Yes (Working)	No (Not Working)	
Volume Button:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Mute Switch:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Vibration :	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Power Button:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Home Button:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
WiFi:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Cell Service/Call:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Proximity Sensor:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Ear Speaker:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Phone Microphone:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
External Speaker:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
External Microphone:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Headphone Jack:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Rear Facing Camera & Flash:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Front Facing Camera:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Charge Port:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A
Fingerprint Scanner:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A



TOOLS NEEDED

- Philips screwdriver
- Spudger
- Tweezers
- Isesamo
- Magnetic Mat
- Heat Gun
- iPhone 7 chargeport
- Tri-point #000 screwdriver



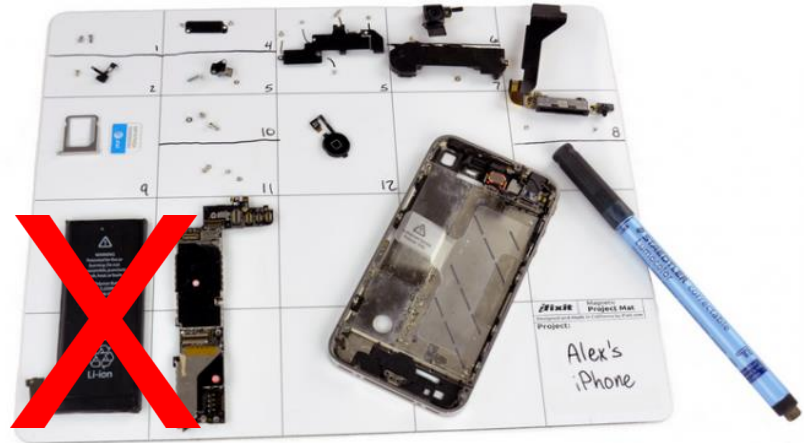
HEAT-GUN PRECAUTIONS

- Always operate the heat gun on the lowest setting.
- Keep face, hands, hair, and clothing away from the air stream.
- The air nozzle also becomes extremely hot. Never grab the heat gun by the nozzle.
- Never operate the heat gun by laying it on its side on a table. It should be firmly grasped in one hand at all times during usage.
- Never operate near flammable or explosive liquids and vapors. Cleaning supplies and the 3M #94 Primer are of concern. Make sure fumes are absent from the work area before operating the heat gun
- The heat gun nozzle should never get closer than 2" to the object being heated.
- Keep heat gun moving. Never stay in one spot.



ADDITIONAL PRECAUTIONS

- **Magnetic Pad:** During the repair, you will be utilizing a magnetic pad to organize the plethora of differing screws that you will be pulling out of the Samsung Galaxy S4. Below is a list of several internal components of the Samsung Galaxy S4 that should never be placed on the pad, or you risk damaging the hardware or erasing client data:
 - LCD/Digitizer Assembly
 - Cameras
 - Motherboard
 - Battery
 - Speaker



ADDITIONAL PRECAUTIONS

- **Power on/off:** To avoid any damage to the hardware during the repair, it is best to have the device powered off until you can get to and disconnect the battery.
- **Battery:** Never unplug any flex cables unless the battery has been completely disconnected to avoid frying your hardware. Do not plug the battery back until all cables have been reconnected.
- **Release Screws:** Apply pressure on the screw and twist counterclockwise to initially loosen it, then lighten the pressure and continue twisting until the screw is gently released. Make sure you have properly sized screwdrivers available for the repair.
- **Pin Connectors:** extremely fragile and must be plugged or unplugged with extreme caution.
- **Battery connector:** held down by light adhesive and solder. If not cautious it will come off the motherboard. Very time consuming to be repaired. Do not break it in the first place.
- **Motherboard:** small surface mount components can be easily damaged if they are nicked by the spudger. Always take your time and never touch the surface of the motherboard.



LET'S START!



Tools: Spudger, Fingers, isesamo, pentalobe screwdriver

Tips: Take your time opening the screen. Start from bottom left side there is a specific indentation. Might want to heat around the frame to loosen the adhesive but be careful.

STEP 1

Disassemble the device

- Remove the 2 pentalobe screws located at the bottom of the phone near chargeport, using the pentalobe screwdriver.
- Next use the isesamo tool and slide it in between the frame of phone and screen. Start at bottom left side of phone push the isesamo straight down between the two then flex down to pry screen up. After the screen is up on that side flex the isesamo from left to right in upward motion around frame of screen to pry phone screen up. However, Be careful the screen unlike any other iPhone opens left to right not from top to bottom.

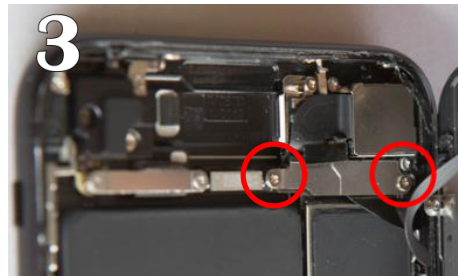


Tools: Spudger, Tri-point screwdriver

STEP 2

Disassemble the device

Tips: To test new chargeport before actually starting the repair you can disconnect the chargeport flex cable after the battery is disconnected, then plug in the new flex cable then battery power on phone and test chargeport by plugging it in to a data cable and see if the lightning signal shows on the screen.



- Once the phone is open we will begin by removing metal bracket covering the battery and Digitizer/LCD cables. Remove four (4) screws holding down plate with the tri-wing screwdriver. Remove plate.
- Disconnect battery with spudger then also using spudger disconnect Digitizer/LCD cables.
- Move your way up to the proximity sensor and notice a metal bracket holding that cable down unscrew two (2) screws with Philips screwdriver and remove metal bracket then disconnect cable. At this point screen should be completely disconnected from the motherboard. We will now be working with old assembly removing components that need to be transferred.

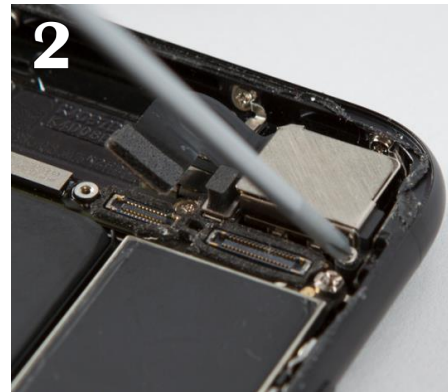
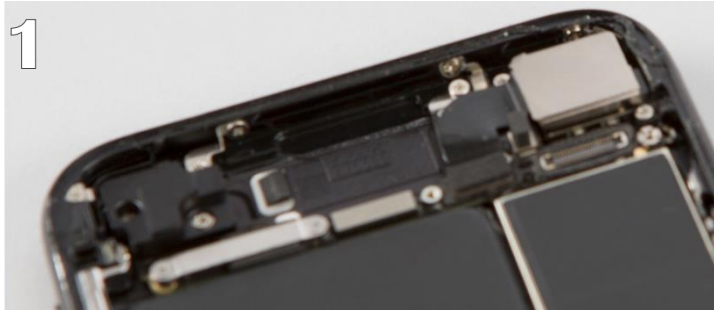


STEP 3

Tools: Spudger, Hands, tri-point screwdriver, Philips screwdriver, Flathead screw driver

Disassemble the device

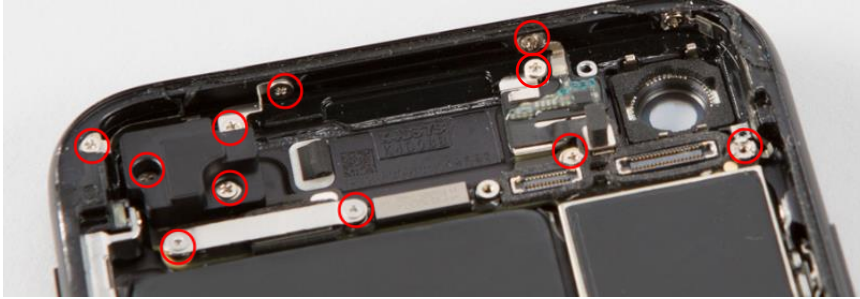
- Once the Digitizer/Lcd assembly is taken off we will begin the process of removing every component or, plate covering the motherboard so that can be taken out to expose the chargeport flex cable and connection.
- Remove sim card.
- Start at the top of the phone and remove two (2)Screws holding down metal plate covering the back camera. One is a Philips screw and one is a washer use the flathead screw driver.
- Disconnect the flex cable connected to the camera.



STEP 4

Tools: Spudger, Fingers, tri-wing screw driver, Philips screwdriver, flathead screwdriver

Disassemble the device



- Next to the flex cables you just disconnected is one more flex cable and a washer above that cable. Disconnect the cable then remove the washer with a flat head screw driver.
- Make sure to keep all screws organized on the magnetic Mat.
- Two (2) more Philips screws need to be removed in that area one attached to the actual iPhone frame and one on the metal bracket.
- Remove the two (2) Philip screws holding down the black plastic bracket then place piece to the side. This will expose one washer and one Philips screw that need to be removed.



Tools: spudger, Fingers, Flat head screwdriver

STEP 5

Disassembly of the device

- Looking below the area we just removed plastic bracket from underneath is a metal thin bracket covering a flex cable. Remove the two (2) Philip screws then remove bracket. Disconnect the flex cable with spudger.
- You will also notice one (1) washer below this area that needs to be removed then put aside on the magnetic mat.
- Look all the way to the right of the phone underneath the camera remove the washer in that area.

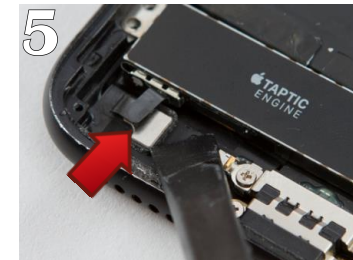
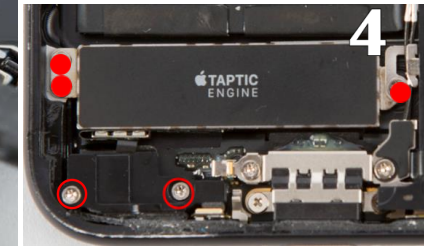
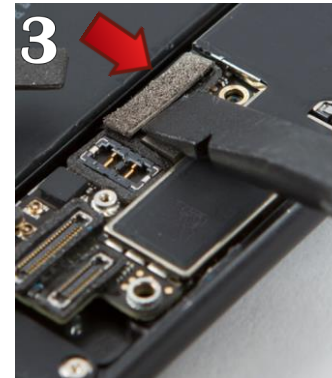
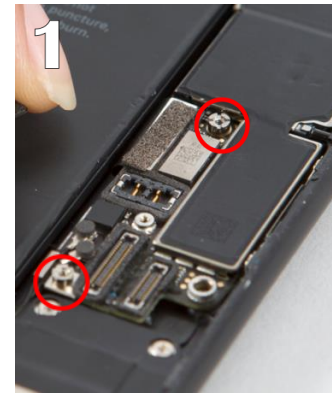


STEP 6

Disassembly of the device

Tools: Philips screwdriver,
Fingers, flathead screwdriver,
spudger

- Moving outwards from the motherboard remove the two washers above and below the cellular antennas.
- Disconnect the antennas.
- Disconnect Chargeport flex cable.
- Once everything that is holding down the motherboard is removed you can now pull the motherboard out. Be cautious as you pull out the board move any flex cables back to ease the board out. You will notice the metal bracket near the back camera comes off but when reassembling you will need to slide part of it underneath the board.
- Remove screws holding down the Taptic engine three (3) Philips screws.
- Before completely pulling out the taptic engine you will notice a black plastic bracket below the engine. Remove the two (2) Philips screws holding it in place then remove and put to the side.
- Underneath that bracket is a flex cable attached to the taptic engine disconnect then remove.

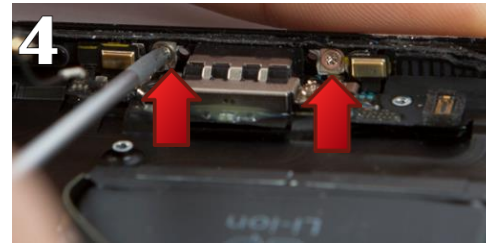
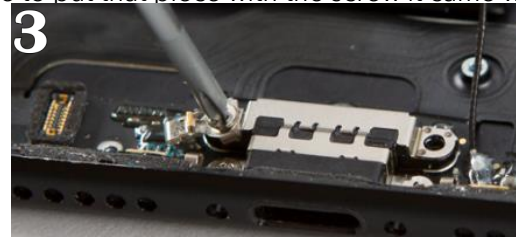
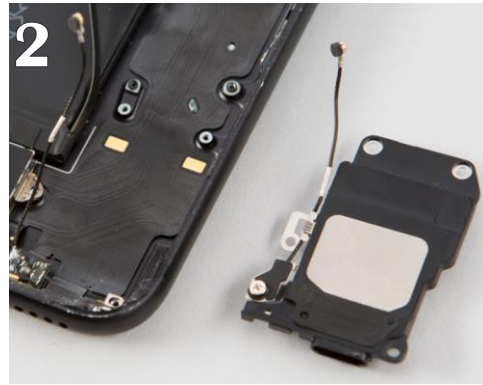
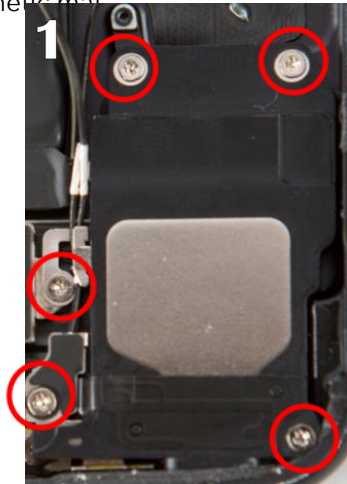


Tools: Philips
screwdriver, Fingers

STEP 7

Disassembly of the device

- Once the bottom cover is removed we can remove all screws holding down the chargeport and loud speaker. Make sure to keep them organized on the magnetic mat.
- Remove the loud speaker. Pull the second antenna not attached to the loud speaker away from bracket on the side of the loud speaker.
- Don't forget to remove the two (2) bottom screws below the chargeport along the frame, be aware they are covered in black tape so unscrew those and put to the side.
- One of the screws contains a metal bracket that's has a gold prong on it make sure to put that piece with the screw it came with on the magnetic mat.

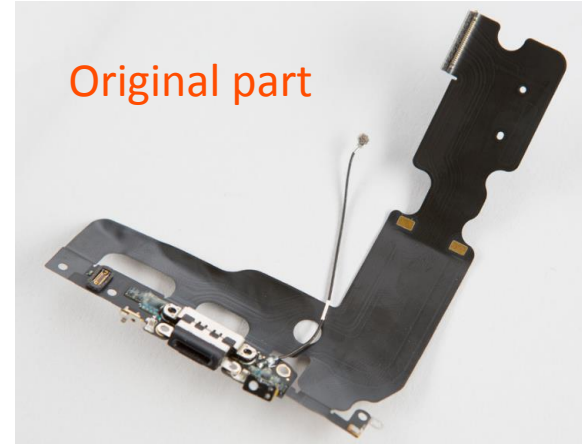


Tools: Philips
screwdriver, Fingers

STEP 8

Disassembly of the device

- Now that all the screws are out you can remove the chargeport. Start at the top and take your spudger and slide down the flex cable until you can use your fingers to slowly pull the bottom half of the cable up out of the chargeport socket.

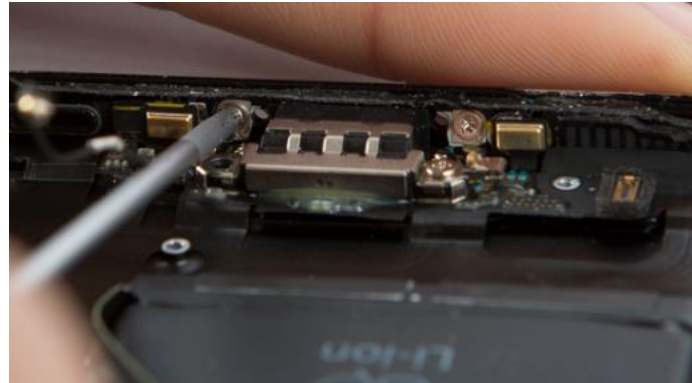


Tools: Heat gun, painters knife, spudger, Hands

STEP 1

Reassembly of the device

- Once the old part is removed we can take the new iPhone 7 chargeport and take plastic off the back of the adhesive to lay it into position in the device.
- Start with the chargeport and slide it into position until you feel it snap into place. Then smooth down the rest of the part on the frame of the device. Keep in mind the chargeport flex cable is underneath the motherboard so accurate position is important. If not done properly the flex cable won't reconnect due to it not reaching over the board to be snapped into place. Resulting in you having to re-do the position. Next screw in the bottom screws attached to

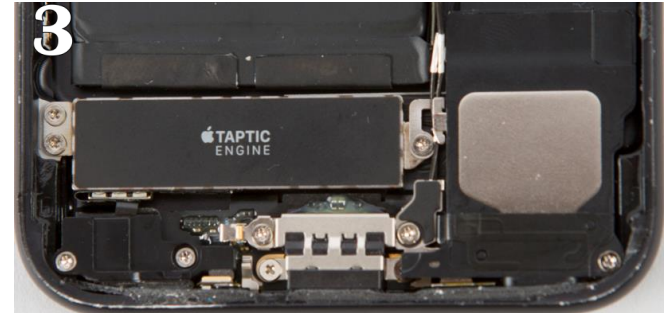
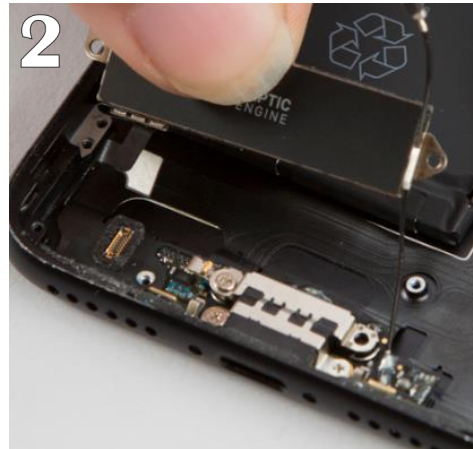
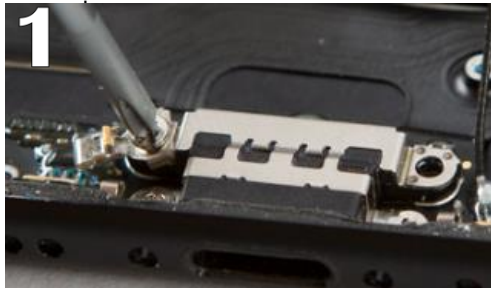


Tools: Heat gun, painters knife, spudger, Hands

STEP 2

Reassembly of the device

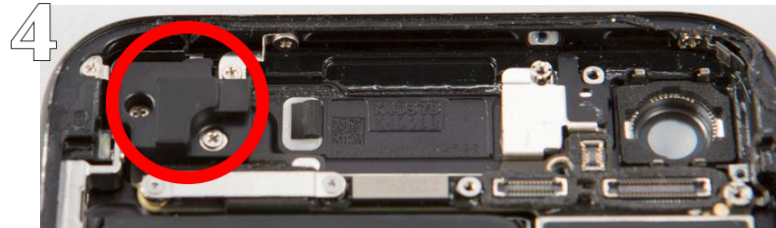
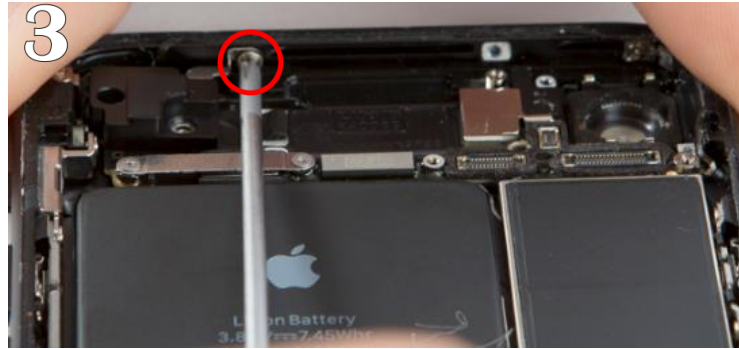
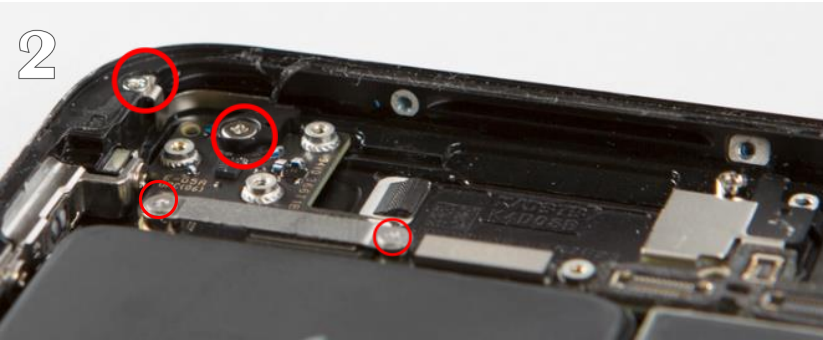
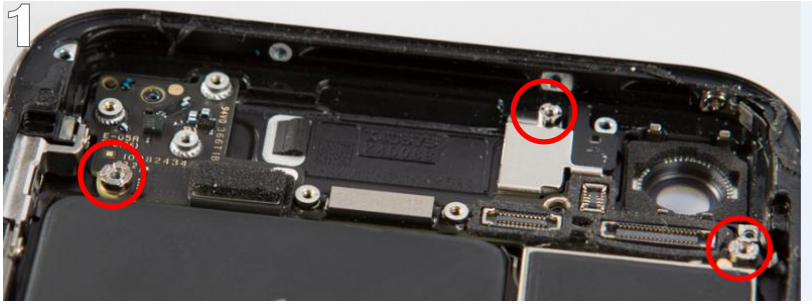
- Push the tact. engine back in and reconnect the flex cable.
- Then screw in the piece with the gold prong attached to the chargeport.
- After that put the loud speaker and plastic black bracket back in the device and screw all the screws back into place at the bottom pertaining to the chargeport. Make sure to align the antenna cables next to the loud speaker. They sometimes will get stuck underneath the loud speaker as you lay it in the frame of the



Tools: Heat gun, painters knife, spudger, Hands, flathead screwdriver

STEP 3

Reassembly of the



- Once the bottom portion of device is reassembled we can now put the motherboard back into the device.
- Put all necessary components we originally took out back into the phone. All screws and washers need to be placed back into the correct areas.

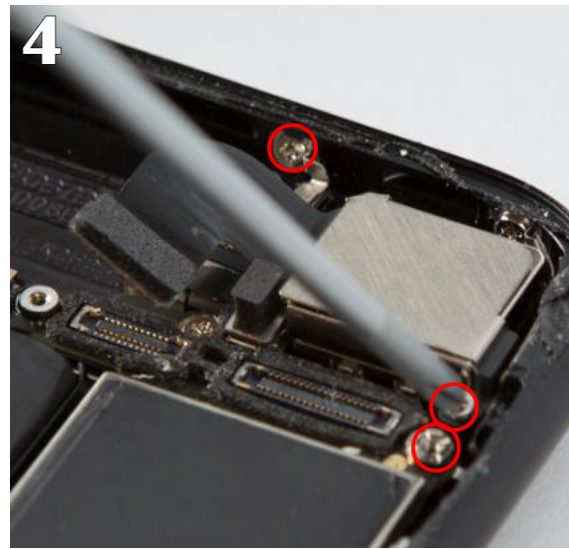
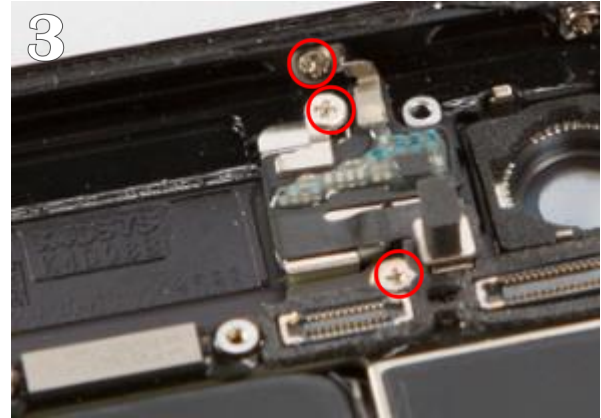
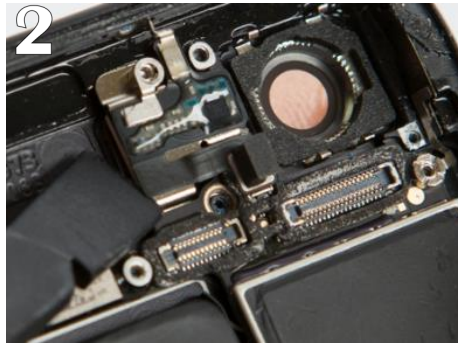


Tools: Heat gun, painters knife, spudger, Hands

STEP 4

Reassembly of the device

- Make sure to put the back camera back into the phone and reconnect flex cable for the camera. Also put the black thin tape back over metal bracket located next to the back camera. Screw in all necessary screws and washers.

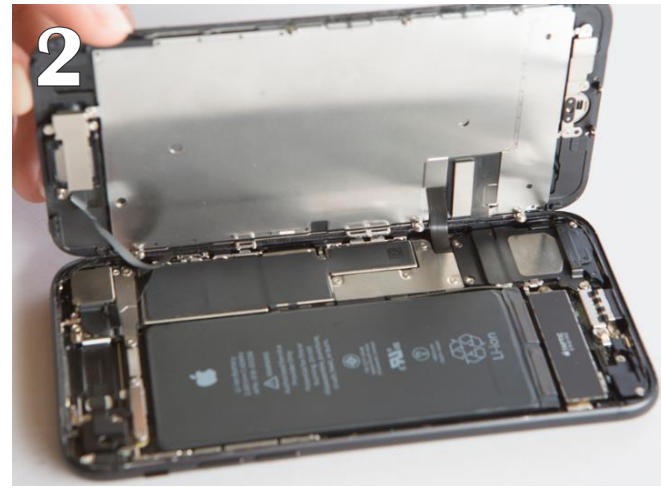


Tools: spudger, tri-wing
screwdriver

STEP 5


Reassembly of the device

- Now that all components are back in the device reconnect the Digitizer/Lcd, Proximity sensor, and battery (**always reconnect the battery last**).
- Put all the metal brackets back over those cables and screw them down with either the Philips screw driver or tri-wing just be aware of which screw driver goes with which screws.
- Close device and power on!
- Take a charger and immediately test the new part.



Troubleshooting

- Run through post test on Device check-in sheet!
- If you notice the front facing camera is frozen do a hard reset by holding down power button and home button at the same time until apple logo reappears.
- If the device still says searching after being powered on turn airplane mode on then turn it back off should bring the service back if not then could have been a antenna error during repair.
- Lines in the lcd either mean a defective part or the cables weren't properly installed power off device then disconnect cables and reposition make sure they are snapped down completely.

 **CELLAIRIS** CUSTOMER DEVICE INFORMATION SHEET AND LIABILITY WAIVER

First Name:								
Last Name:								
Phone Number (call this # if the device being serviced):					Phone Number to Device being serviced:			
Email Address:								
Service Requested:					Price Quoted:			
Customer Address								
	Address		City		State		Zip	
Device Information:	Phone Manufacturer:	<input type="checkbox"/> Apple <input type="checkbox"/> Samsung <input type="checkbox"/> LG <input type="checkbox"/> HTC <input type="checkbox"/> Other:						
	Model:	Storage Size:	Color:	Carrier:				
	IMEI/Serial Number:			Passcode:				
Remember to attach receipt to completed paperwork.	Today's Date:	Arrival Time:	Due/Pick-up Date:	Due/Pick-up Time:				
	Pre-Repair Device Inspection			Post-Repair Device Inspection				
Liquid Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Jailbroken or Rooted:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A					
Unlocked or Flashed:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A					
Previously Repaired:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A					
Frame Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Digitizer Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
LCD Damage:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Device is unable to be turned on prior to repair for Device Inspection:	<input type="checkbox"/> Yes <input type="checkbox"/> NO							
	Yes (Working)		No (Not Working)		Yes (Working)		No (Not Working)	
Volume Button:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Mute Switch:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Vibration :	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
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Home Button:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
WiFi:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Cell Service/Call:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Proximity Sensor:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Ear Speaker:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
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External Speaker:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
External Microphone:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
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Front Facing Camera:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Charge Port:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		
Fingerprint Scanner:	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A		



CONTACT

**BECOME A
MASTER
FRANCHISE**

678.513.4020 x2
info@cellairis.com





**THANK
YOU!**