CELLAIRIS®

IPhone 5c Glass/Lcd REPAIR GUIDE

Version 1
2016 Edition

IPhone 5c Glass/LCd REPAIR GUIDE

RiAna Soto
Repair Training Specialist
rsoto@cellairis.com

REMINDER

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

TOOLS NEEDED

- Philips screwdriver
- Spudger
- Tweezers
- Isesamo
- Pentalobe screwdriver
- Magnetic Mat
- IPhone 5c Digitizer/LCD Replacement

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 iPhone 6S. Below is a list of several internal components of the iPhone 6S 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!

STEP 1

Disassemble the device

- Identifying the 5c devices should be easy they have different colored plastic backs.

- Power off device.

- Remove the bottom two (2) pentalobe screws using the pentalobe screwdriver.

- Take the isesamo tool and slide it in between frame of phone and bezel to open device. Once in between the frame and bezel slide around the frame with opening tool. Slide the tip of the tool underneath the glass and flex from left to right gently. This will help lift the screen.

- Once the screen is lifted a great deal grab the screen and slide down then lift up to open.

STEP 2
Disassemble the device

- Now that the screen is lifted and open we can begin by disconnecting the battery. Remove the metal battery shield held down by two (2) Philips screws. Underneath you will see the flex cable. Use the flat end of the spudger to flex cable up and open.

- Move up the motherboard next step will be removing the EMI shield.

STEP 3
Disassemble the device

- Use your Philips screwdriver to remove the four (4) Philips screws. They are different sizes so make sure to keep them organized on the magnetic mat. Now to the flat end of the spudger and on the right side of shield push to the left with the spudger to help release the EMI shield from the hook that is holding it into place.

STEP 4
Disassemble the device

- Once those are disconnect we can move the back housing to the side we will only be working with the old assembly.

- We will be transferring the home button, ear speaker, proximity sensor, and Lcd heat plate to the new assembly.

Tools: spudger, fingers, Philips screwdriver

STEP 5

Disassemble the device

- Start at the bottom we will unscrew the single screw near home button attached to the LCD heat plate.
- Then unscrew the two (2) Philips screws attached to the home button metal bracket using the Philips screwdriver.
- Next use your flat end of the spudger or, flat head screw driver to get underneath the adhered gold prong flex cable to successfully remove the metal bracket because it is all attached. Once removed use your finger to push the home button through the front of the screen and remove the home button.
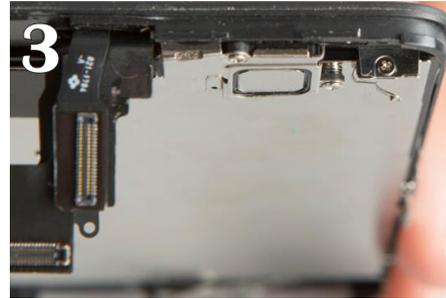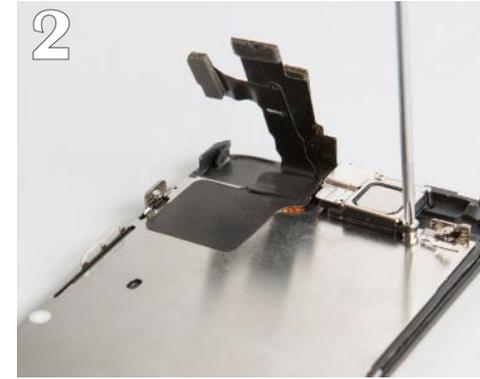
STEP 6
Reassemble of the device

- Now, since the home button is removed we can go up the old assembly and start removing the screws on and around the proximity sensor.

- Once the two (2) Philips screws are removed we should be able to remove the metal shield as well as the ear speaker.

- After those are removed it's time to remove the proximity sensor. Use the flat end of spudger and slide it underneath the extended black end of the sensor. Slowly slide in and flex up on the cable to help relieve it from the plastic gaskets that the camera and proximity sensor are locked in. Once the proximity sensor is loose before completely removing pull the black cable that has a gold backing out of the rubber gasket.

- Now that the proximity sensor is out we can now remove the LCD heat plate by unscrewing the five (5) Philips screws.

Tip: Make sure to lay metal bracket in properly with rounded edge on the bottom. Then screw down the flex cable. Not to tight on any of the screws if so, with the screws to tight on the plate the home button won't click it will feel stiff.

STEP 7
Reassemble the device

- Step 6 of disassembly continued.
- Take proximity sensor off.
- Remove the LCD heat plate.

Tip: Make sure to lay metal bracket in properly with rounded edge on the bottom. Then screw down the flex cable. Not to tight on any of the screws if so, with the screws to tight on the plate the home button won't click it will feel stiff.

STEP 8
Reassemble the device

- Step 7 of disassembly continued.

- Remove LCD heat plate.

Tools: Philips screwdriver, spudger

STEP 1
Reassemble the device

- Now that all necessary pieces are removed we can take the replacement part and begin the reassembly process. Remove plastic covering the lcd.

- Put the Lcd heat plate onto new screen.

- Place the home button into designated area. Then place the metal bracket over the home button and screw in the two (2) Philips screws.

- Also screw in the single bottom screw on the LCD heat plate.

STEP 2

Reassemble of Device

- Next, we will be putting the proximity sensor on the new screen assembly.

- Start by taking the Proximity sensor and stick the bottom flex cable and stick it into rubber gasket hole.

- Then align the camera and proximity sensor into the plastic gaskets. Then press into position, it should be laying flush against the frame. If it doesn't feel flush then pull it back up and try again.

- Take the black ear speaker and place it over top of the proximity sensor. Hold it while placing the metal shield over top of the ear speaker. Until you begin screwing in the two (2) Philips screws hold down the two pieces otherwise they will fall off or, move from correct position.

STEP 3

Reassemble of Device

- The necessary components are now transferred over to the new screen assembly. It's time to screw in the four (4) Philips screws on the side of the of the heat plate.

- After we do that we can take the new assembly and begin to reconnect the Digitizer/LCD and proximity sensor cable to the back housing.

- Put the EMI shield over those cables and screw in the three (3) Philips screws.
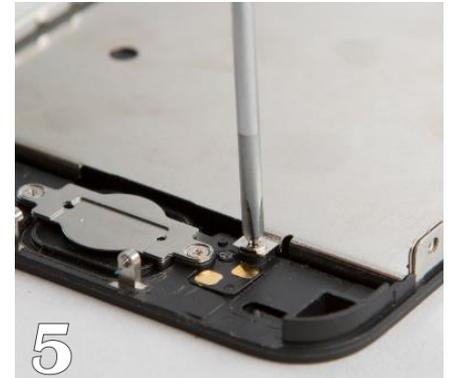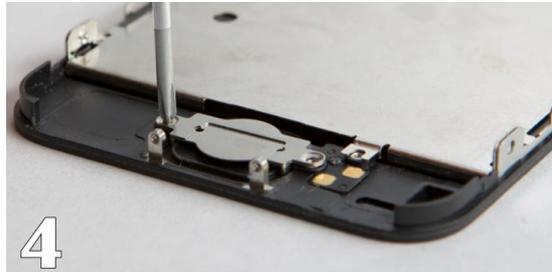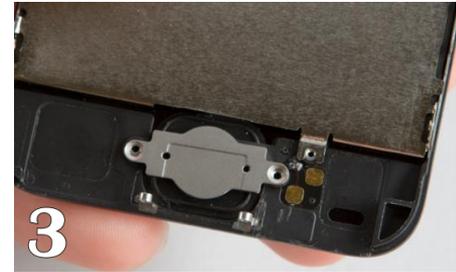
STEP 4
Reassemble of Device

- After all brackets and components are now back in place it's time to lay the screen back into the frame.

- Start at the top of the device and slide the screen under then up into the frame. There is hooks at the top of the screen that needs to be cleared first before it can be laid down into position.

- Take your hands and push down on the slides as you slide down the phone to the bottom. The screen should snap into the frame. If it is not going down pull it back up and check if there is something in the way or reposition .

Tools: Fingers
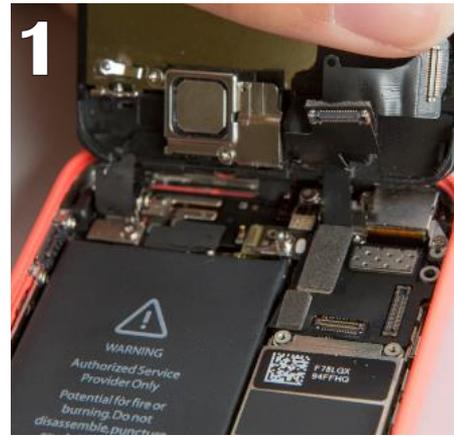
STEP 5
Reassemble of Device

- Reassembly continued step 4.

- Take your hands and push down on the slides as you slide down the phone to the bottom. The screen should snap into the frame. If it is not going down pull it back up and check if there is something in the way or reposition .

STEP 5
Reassemble the device

- Final step is to screw the two (2) pentalobe screws into the bottom of the phone with the pentalobe screwdriver. At this point power on device and run a post test to check functionality and make any notes on customer check-in device sheet.

- Do Post test actions.

CELLAIRIS CUSTOMER DEVICE INFORMATION SHEET AND LIABILITY WAIVER

First Name:	
Last Name:	
Phone Number (NOT the # of 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 Manufaturer: ☐ Apple ☐ Samsung ☐ LG ☐ HTC ☐ 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:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Jailbroken or Rooted:	☐ Yes	☐ NO	☐ N/A			
Unlocked or Flashed:	☐ Yes	☐ NO	☐ N/A			
Previously Repaired:	☐ Yes	☐ NO	☐ N/A			
Frame Damage:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Digitizer Damage:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
LCD Damage:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Device is unable to be turned on prior to repair for Device Inspection	☐ Yes	☐ NO				

	Yes (Working)	No (Not Working)		Yes (Working)	No (Not Working)	
Volume Button:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Mute Switch:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Vibration :	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Power Button:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Home Button:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
WiFi:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Cell Service/Call:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Proximity Sensor:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Ear Speaker:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Phone Microphone:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
External Speaker:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
External Microphone:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Headphone Jack:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Rear Facing Camera & Flash:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Front Facing Camera:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Charge Port:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A
Fingerprint Scanner:	☐ Yes	☐ NO	☐ N/A	☐ Yes	☐ NO	☐ N/A

Troubleshooting

- If you notice the charger won't snap all the way into the connector most likely the charging port isn't all the way in. This will result in you opening the phone back up and adjusting the port push all the way in.
- If it does not charger at all make sure the flex cable is connected to motherboard properly.
- Now, if the replacement part doesn't work at all possibly be defective try a new part.

CONTACT

REPAIR
TRAINING

Riana Soto
678.513.4020 x400
rsoto@cellairis.com