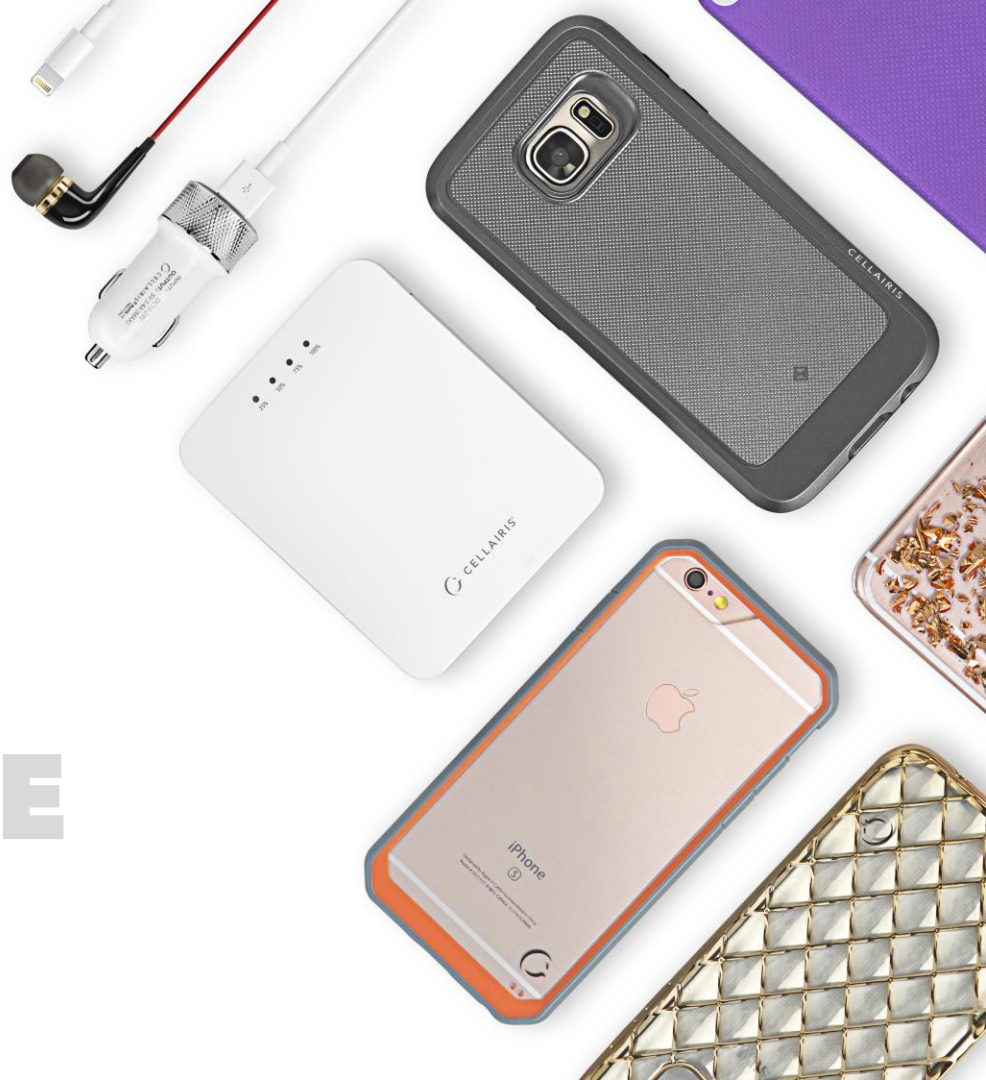




iPHONE 6 REPAIR GUIDE

Version 1
2016 Edition





IPHONE 6 REPAIR GUIDE LCD AND DIGITIZER REPLACEMENT

RiAna Soto
Repair Training Specialist
rsoto@cellairis.com



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
- Pentalobe screwdriver
- Magnetic Mat
- Heat Gun
- iPhone 6 Digitizer/LCD



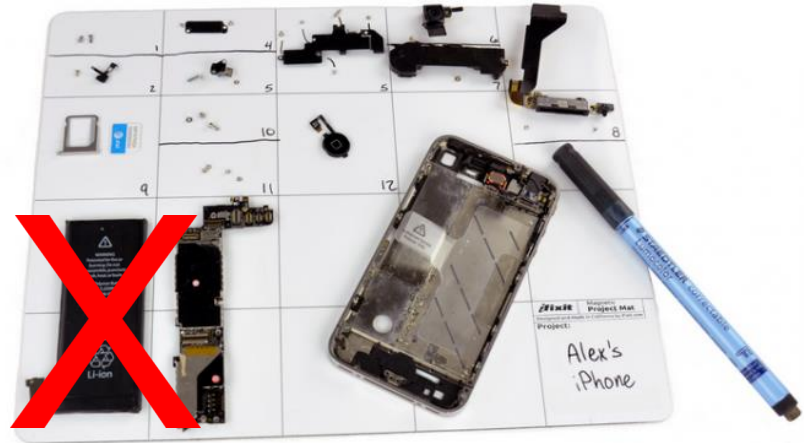
HEAT-GUN PRECAUTIONS

- 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!



DISASSEMBLY OF DEVICE



STEP 1

Disassemble the device

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



Tips:

There is an adhesive strip around the screen some might want to heat around the edge of the iPhone. In a quick motion around the frame of iPhone but do not let heat sit in one spot. Do this process for 5 to 6 seconds angling the heat gun!



Tools: Isesamo

STEP 2

Disassemble the device

- Take the isesamo tool and slide the tip with round edge in between the digitizer and frame of the iPhone. Start on the bottom left side of the iPhone because there is an indentation in that area to get underneath the screen. Take your time as you slide the isesamo tool around the frame of the phone. Flex the isesamo in a left to right upward motion to pry phone open as you go around frame. Phone will open from bottom to top.



STEP 3

Disassemble the device

Tools: Philips screwdriver,
spudger

Tips:

Keep organization of the screws especially on the EMI shield some are different sizes and need to be put back in the correct space.

- Once the screen is pried open next step is to disconnect the battery connector but first you must remove metal bracket covering the battery. Use the Philips screwdriver and remove the two (2) screws holding it down then disconnect. After that we will unscrew all five (5) Philips screws on the EMI shield.



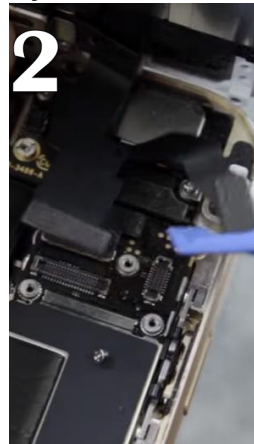
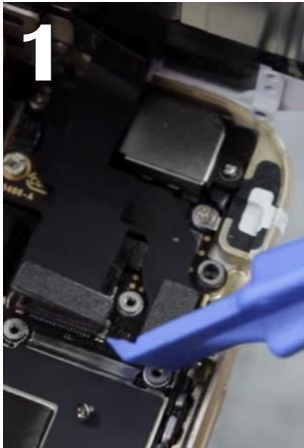
Tools: Spudger, fingers

STEP 4

Disassemble the device

- After the EMI Shield is removed you will see the Digitizer/LCD, proximity sensor, and home button cable disconnect those four (4) using the spudger. The old assembly will now be separated from back housing. We will only be working with old assembly now.

Tips: As you lift up these cables using the spudger be cautious not to be rough gently pry up with either side of spudger. Last thing you want to do is break a pin connector on logic board. Those pins are soldered on so not an easy fix!



STEP 5

Disassemble the device

- Take the Philips screwdriver and remove all seven (7) screws holding down LCD heat plate.



STEP 6

Disassemble the device

- Next we will remove metal bracket covering the home button and the final screw holding the LCD heat plate will relieve the plate so it can be pulled off. Remove the two (2) Philips screws holding down home button bracket. Then you will remove metal plate to expose home button flex cable. Disconnect the flex cable using the spudger be gentle you don't want to disconnect to swiftly and, strong can possibly tare the cable.
- Remove home button.

Tips:

Open flex cable connector to the left gently to remove home button. Also removing heat plate there are two strips of black tape near proximity sensor peel those back using tweezers but not all the way off to remove heat plate.

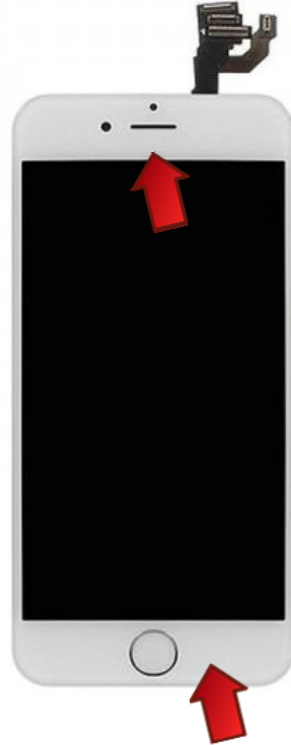
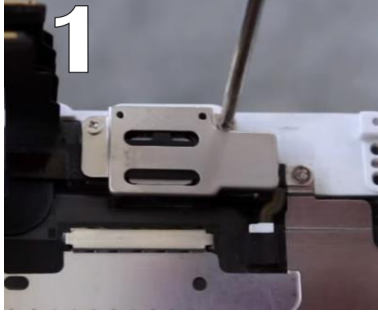
Tools: Philips screwdriver, spudger



Tools: Heat gun, Philips screwdriver, spudger

STEP 7

Disassemble the device



- Remove the metal bracket covering the proximity sensor by unscrewing the three (3) Philips screws Exposing the ear speaker remove, until we heat phone don't remove proximity sensor yet.
- The next step is to heat the front of the old Digitizer/LCD near the ear speaker and bottom right side near the home button to help loosen the adhesive. Take the heat gun and heat the designated areas for 5 to 6 seconds in a constant left to right motion. Heat gun should be at a angle when doing so and, should have a few inches of space between heat gun and screen.
- Remove the proximity sensor using spudger.
- Then remove LCD heat plate.



ASSEMBLY OF DEVICE



STEP 1

Reassemble the device

Tools: Tweezers, Philips screwdriver, spudger

- Now that all the components are out and ready to be transferred to the new Digi/LCD. We will start with putting the LCD heat plate into place.
- Next lay home button into place by using your fingers or tweezers. Reconnect the flex cable you should feel a snap to make sure it is connected properly. Place home button metal bracket over the home button and screw down the two (2) Philips screws to hold it in place.



Tip:

Do not screw plate too tight and flip screen over after being tightened and test home button functionality to make sure it is working good.



Tools: Philips screwdriver

STEP 2

Reassemble the device

- Then screw all seven (7) screws back into heat plate on new Digi/LCD. One screw will have to wait until the metal bracket covering the proximity sensor is reassembled.



Tools: Philips screwdriver, spudger, Fingers

STEP 3

Reassemble the device

- Next step we will put the proximity sensor on new assembly. Starting with the microphone flex, place it's hole over the white prong sticking up and lay down. Then align the camera and proximity sensor into place. Next place the ear speaker in between the front facing camera and rubber gasket. Then put metal bracket over the proximity sensor and ear speaker and screw the three (3) Philips screws in.



Tips: Do Not screw the metal bracket to tight it can muffle the sound or the gold prongs won't line up properly.

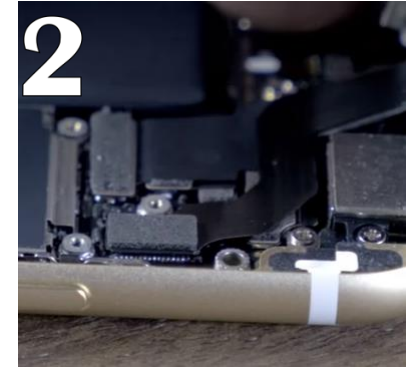


Tools: Philips screwdriver,
fingers

STEP 4

Reassemble the device

- Now that every component is now assembled to the new Digi/LCD it is time to connect Digi/LCD, proximity sensor, and home button cables to logic board. Starting with the Digi/LCD cable snap it down into place. After that then the proximity sensor cable is to be snapped down into place. After that the home button cable. Then take your time placing these cables do not force them if they don't feel flush pull them up gently then try again last thing you want to do is bend or break a pin connector.
- Then place EMI shield over the reassembled cables. Screw down the five (5) Philips screws.



Tips: Do not screw them to tight can result in damaging the logic board and make sure to not mix the screws up they need to be put back exactly in correct place because they are different sizes.

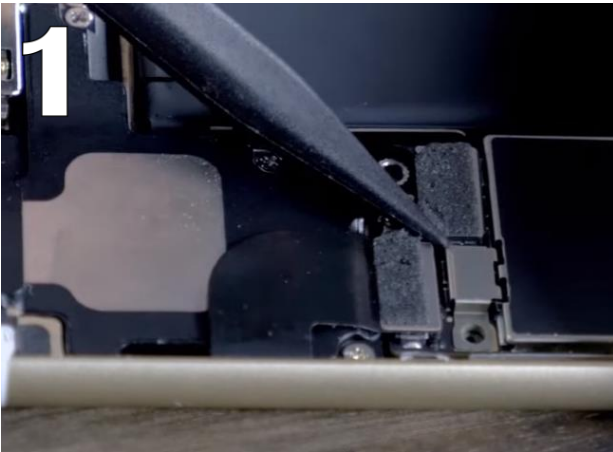


Tools: Philips screwdriver

STEP 5

Reassemble the device

- Next step involves connecting battery cable to pin connector. Then place metal bracket back over the connector and screw in the two (2) Philips screws.



STEP 6

Reassemble the device

- Now it is time to lay screen into the housing unit. Beginning from the top you will slide the new Digi/LCD in between the frame of the phone and the brackets on the plastic frame around the new Digitizer.
- Once the top is flush you will run your fingers along each side pushing down on the screen to fit into frame.

Tips: Do Not force the screen in if your having trouble lift it back up could be a chance that a screw is loose along the sides or a screw or something is blocking the process take your time.



STEP 7

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

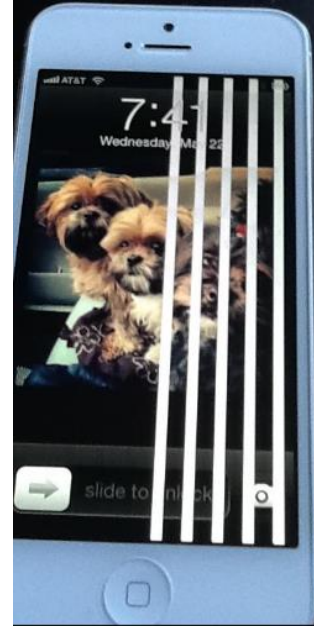
First Name:													
Last Name:													
Phone Number (212) 234 4 4 of the Device being serviced:					Phone Number to Device being serviced:								
Email Address:													
Service Requested:							Price Quoted:						
Customer Address													
	Address			City			State			Zip			
Device Information:	Phone 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	<input type="checkbox"/> N/A				<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				<input type="checkbox"/> Yes	<input type="checkbox"/> NO	<input type="checkbox"/> N/A				
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				



STEP 8

Troubleshooting

- Troubleshooting does happen from time to time. Some things you might encounter after a repair, if the phone says searching were it should show service just turn the phone on airplane mode and, then turn it off simultaneously. This should correct the issue.
- If the phone has lines in the lcd, could possibly be defective screen or, the connectors are not properly connected needs to be adjusted power off phone and disconnect cables then reconnect.
- If the front facing camera seems to not be working, as in not flipping to back camera or, frozen do a hard reset on the phone by holding down home button and power button at the same time until you see the apple logo pop up and release. Then test the camera again this should fix the issue.



CONTACT

**REPAIR
TRAINING**

Riana Soto
678.513.4020 x400
rsoto@cellairis.com



