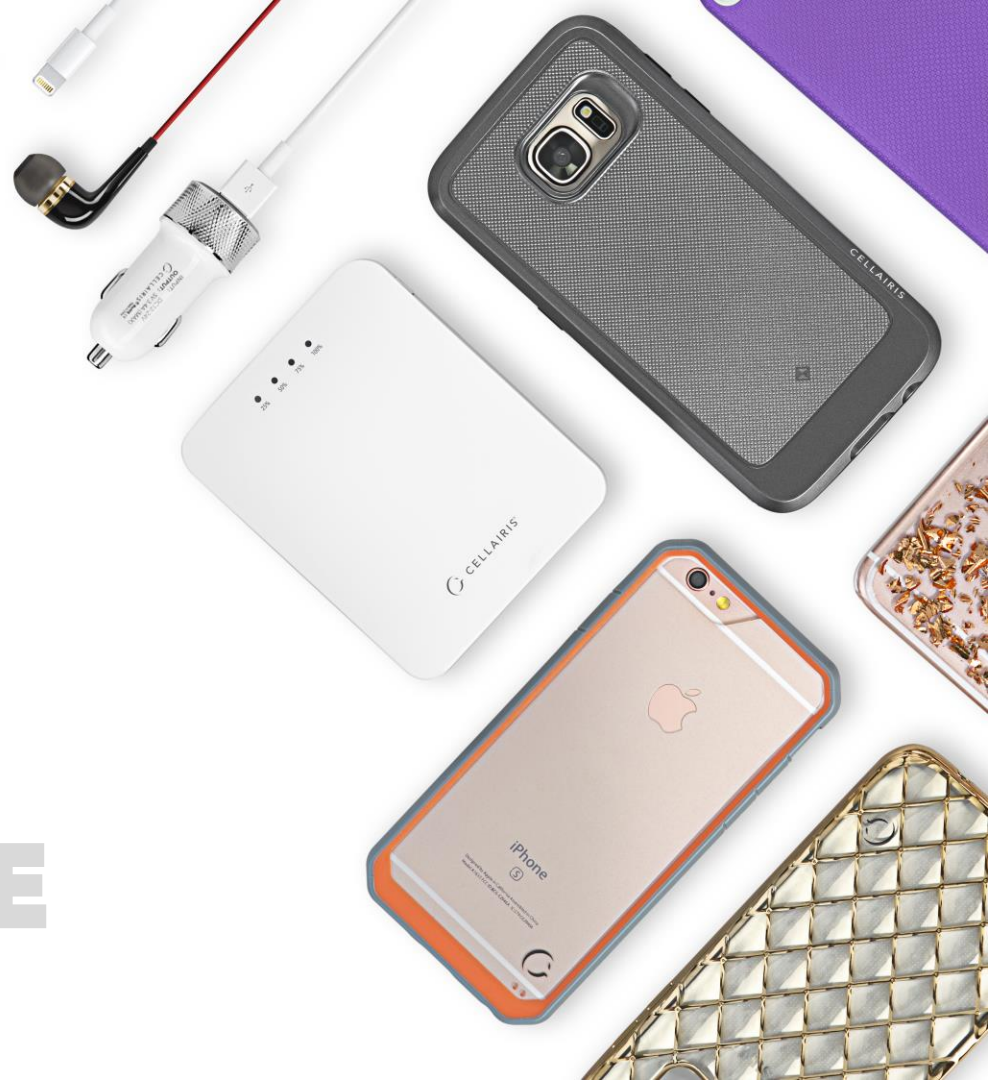




iPhone 5s Glass/Lcd REPAIR GUIDE

Version 1
2016 Edition





iPhone 5s Glass/LCd 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
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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
- iPhone 5/5s Digitizer/LCD Replacement



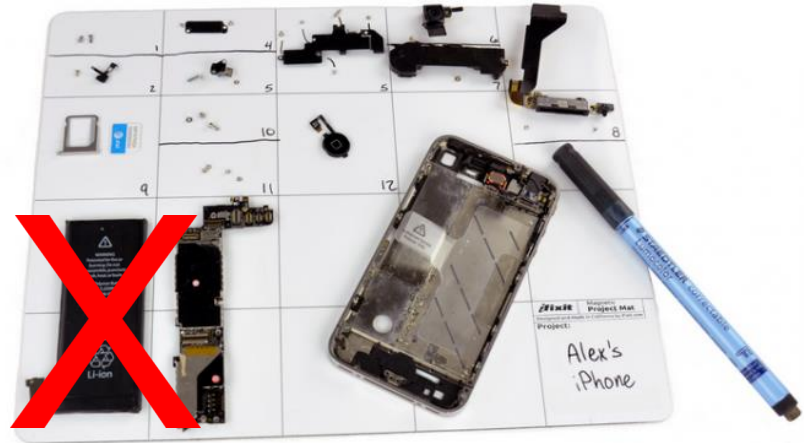
HEAT-GUN PRECAUTIONS

- 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!



Tools: Pentalobe screwdriver, Tweezers, Plastic spudger, Isesamo

STEP 1

Disassemble the device

- 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. Keep in mind the iPhone 5s has a home button flex cable attached to the screen so this needs to be disconnected before completely opening the screen. Use the spudger or tweezers to pop off the bracket and disconnect the cable. It's a simple removal but, still take your time and be gentle.



Tools: spudger, Philips screwdriver

STEP 2

Disassemble the device

- Once the home button flex cable is disconnected screen will be lifted open.
- Disconnect the battery by removing metal bracket covering battery cable and disconnect.
- Next, disconnect the Digitizer/LCD and proximity sensor cables to remove screen by taking off the EMI shield held down by four (4) Philips screws. Use flat end of spudger to disconnect cables. We will be working only with the back housing.

Tips: Be gentle disconnecting the flex cables.

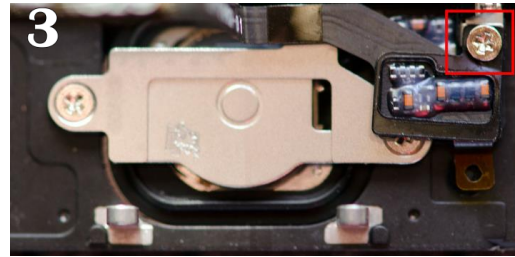
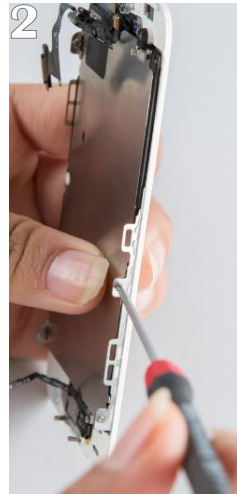


Tools: spudger, Philips screwdriver, fingers

STEP 3

Disassemble the device

- Now that the screen is removed from back housing we will focus on the screen display disassembly.
- Looking at the old assembly begin by removing the four (4) side Philips screws with the Philips screwdriver, they hold down the lcd heat plate.
- Then move down to the home button and loosen the single Philips screw holding down the flex cable. There is two (2) Philips screws holding down the home button metal bracket. Remove bracket, then use the flat end of plastic spudger to slide underneath the home button flex cable to remove home button.



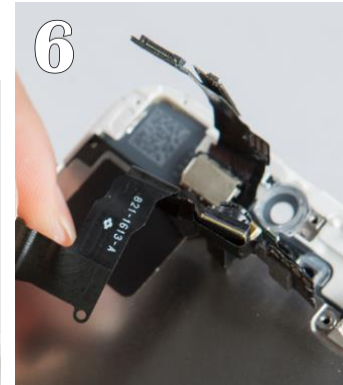
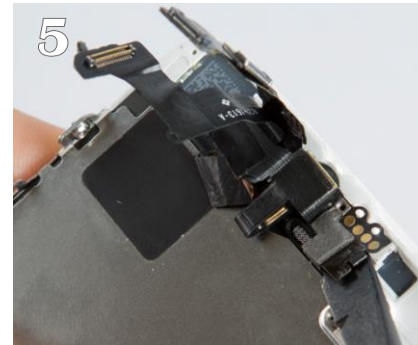
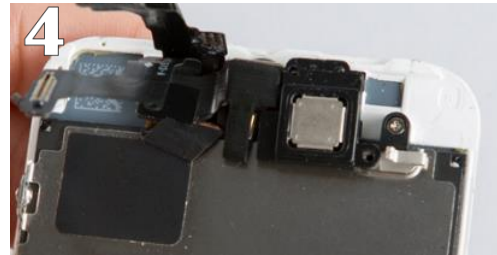
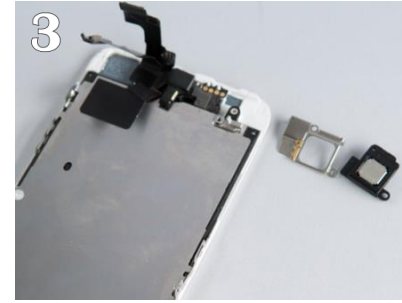
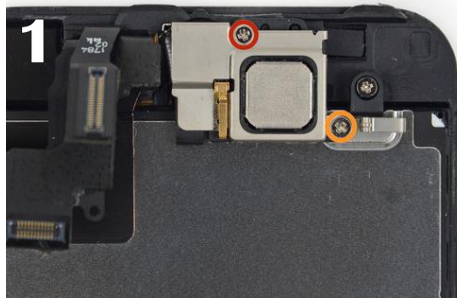
Tools: Spudger, fingers

Tips: make sure to keep screws organized on magnetic mat.

STEP 4

Disassemble the device

- Now that the bottom portion of the screen is done we will move up the screen assembly and unscrew the metal bracket covering the ear speaker and proximity sensor. Use the Philips screwdriver to remove the two (2) screws.
- Use your fingers to push the bracket left then up to slide it out under the ledge that has it locked in place.
- Then remove single Philips screw next to the proximity sensor.
- Use flat end of spudger to slide underneath the proximity sensor to remove.



Tools: spudger, fingers

STEP 5

Disassemble the device

- Now that the pieces that need to be transferred over to the new screen are removed and put to the side we can remove metal LCD heat plate.
- Grab new assembly and remove plastic cover over the lcd.

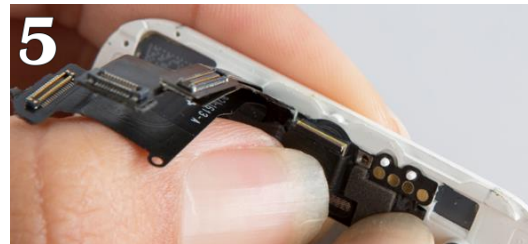
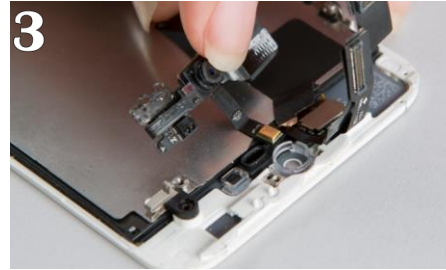
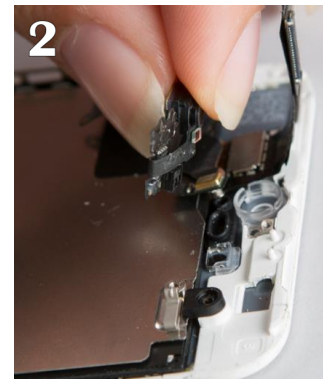


Tools: spudger, tweezers, fingers

STEP 1

Reassemble of the device

- The reassembly process requires you to transfer over the proximity sensor, ear speaker, and home button.
- After removing the plastic covering the LCD put the heat plate over the LCD. Screw the side Philip screws into the side of the plate. Then take the home button and put it into the home button cut out on screen. The original adhesive should be attached still so just lay it in place and push down to secure into position.
- Next, take the metal bracket covering the home button and position . Screw down the two (2) Philips screws to hold it down then flex the home button cable over top the metal plate to screw in the single screw to the LCD heat plate.



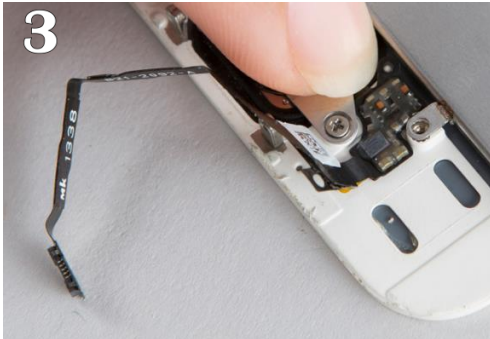
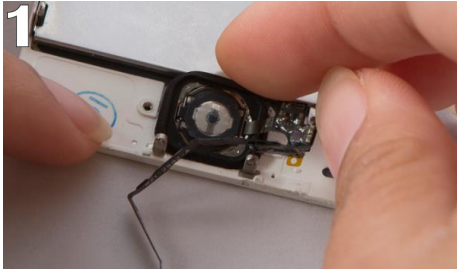
STEP 1

Reassemble the device

Tools: Philips screwdriver,
spudger

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

- Step 1 of reassembly continued

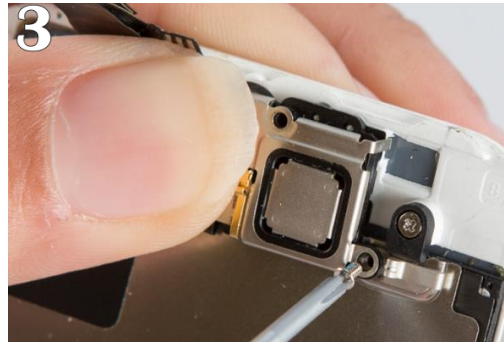
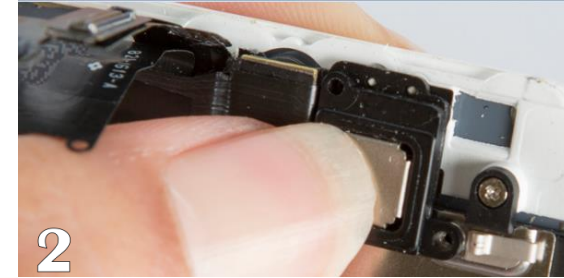
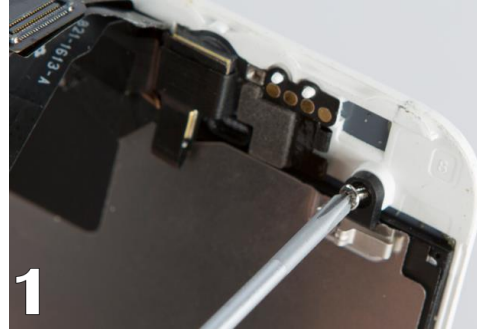


Tools: Philips screwdriver, spudger

STEP 1

Reassemble the device

- Those pieces are now transferred over to new assembly we will continue this process by adding the proximity sensor into the new assembly. Once that is in place its time to put the ear speaker over the proximity sensor then metal bracket.
- Once the bracket is back over the its time to screw in the two (2) Philips screws.

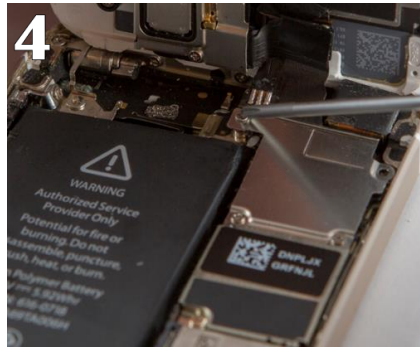
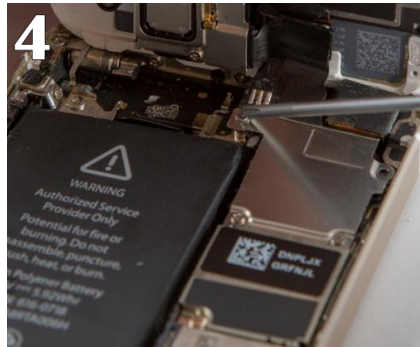
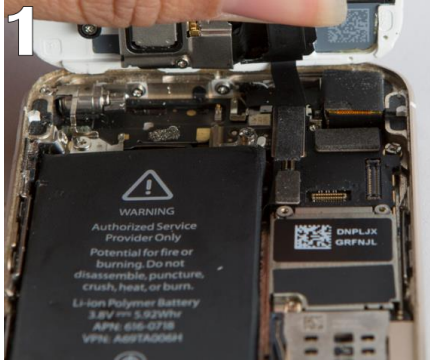


Tools: Philips screwdriver, spudger, Fingers

Tips: take your time so everything is fitting accordingly.

STEP 2

Reassemble of Device



- After the proximity sensor and ear speaker are in place we can take the new assembly and begin reconnecting the Digitizer/LCD and Proximity sensor cables.
- Take the assembly and turn it upside down so the cables are facing down. Use your fingers to push down on the connectors to reinstall those connections. Do not force it if it's not going down the first time lift back up and reposition then snap down. The pins on the connectors are fragile so it's important not to damage.
- Once that is attached take the metal EMI shield and screw it into place.



Tools: Philips screwdriver, spudger, Fingers

STEP 3

Reassemble of Device

- Connect battery and put metal bracket back over battery and screw in the two (2) Philips screws.



Tools: tweezers, spudger, Fingers

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 with the home button flex cable and reconnect to the connector. Make sure to place metal bracket back over the connector.
- Take the top of the screen and slide it under and up to fit into the top of frame. Then use your hands to slide down the frame and push down on the screen to lay it flush into the frame.



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 (include # 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										
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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													
	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				
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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				
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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				
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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 6

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 charge 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**

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