CELLAIRIS®

iPHONE 6S REPAIR GUIDE

Version 1
2016 Edition

IPHONE 6S REPAIR GUIDE
LCD AND DIGITIZER REPLACEMENT

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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
- Heat Gun
- IPhone 6S 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!

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 indention in that area to get underneath the screen. The screen is held down with adhesive so 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

- 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 four (4) Philips screws on the EMI shield.
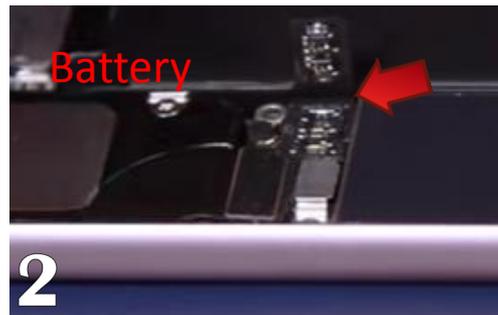
STEP 4
Disassemble the device

• After the EMI Shield is removed you will see the Digitizer/LCD, proximity sensor, and home button flex cables disconnect those three (3) using the spudger. The old assembly will now be separated from back housing. We will only be working with old assembly now.
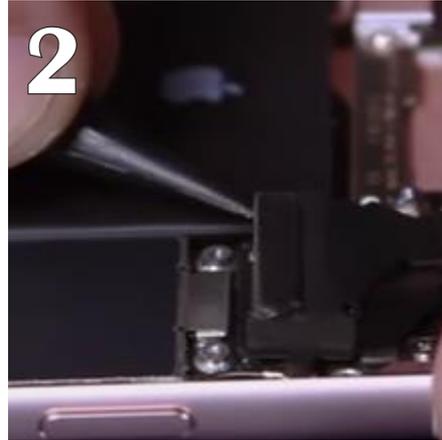
Tips: As you lift up these cables using the spudger be cautious not to be rough gently pry up with either side of spudger. Last thing you want to do is break a pin connector on logic board. Those pins are soldered on so not an easy fix!

STEP 5
Disassemble the device

- Take the Philips screwdriver and remove all eight (8) 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 three (3) Philips screws holding down home button bracket. Then you will remove metal plate by sliding it down and up 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 or bend a pin connector.

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.

STEP 7

Disassemble the device

- Remove the metal bracket covering the proximity sensor by unscrewing the three (3) Philips screws Exposing the ear speaker. Until we heat phone don't remove proximity sensor yet.

- The next step is to use the heat gun to help remove home button as well as proximity sensor the most proficient way so we do not tare these cables. Put the heat gun on the lowest temperature. We will turn over the old Digi/LCD and heat in two places in a constant left to right motion never leaving the heat sitting on one spot on the screen. Do this motion for 5 to 6 seconds on both directed areas. Then turn the display back over and use the spudger to help remove the proximity sensor take your time of course so you do not tare cable then work your way down to the home button flex cable. Use the spudger or tweezers if easier for you to pull cable up and out. At this point everything should be removed.
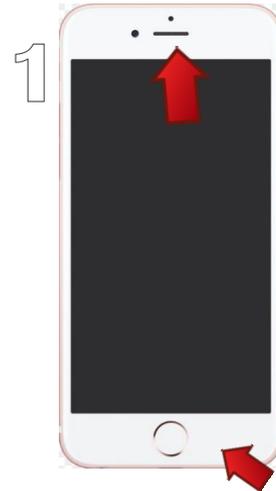
ASSEMBLY OF DEVICE

STEP 1
Reassemble the device

- Now that all the components are out and ready to be transferred to the new Digi/LCD. We will start with putting the 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 the 3rd screw will have to wait until we put the heat plate back on.
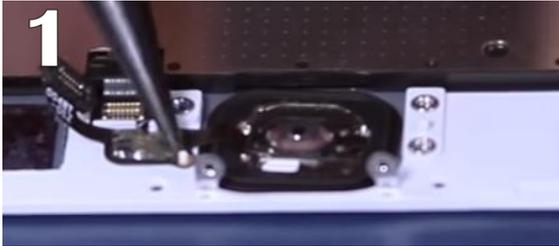
STEP 2
Reassemble the device

- Next we will put the heat plate on the new Digi/LCD by sliding it underneath tab but make sure to apply the two black stripes of tape back down. Then lay the heat plate down keep in mind the position of the screws so it lays flush. Then screw all eight (8) screws back to heat plate.

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. To assure this is done properly make sure to pull rubber gasket around metal rectangle. Be very careful not to force it, it stretches.
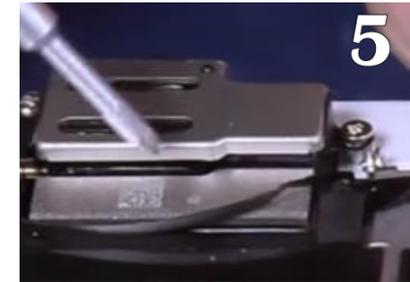
STEP 4
Reassemble the device

- Now that every component is now assembled to the new Digi/LCD it is time to connect Digi/LCD, proximity sensor, and home button extension cables to logic board. Starting with the home button extension then the Digi/LCD cable needs to be snapped down into place. After that the proximity sensor cable is to be snapped down into place. 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.
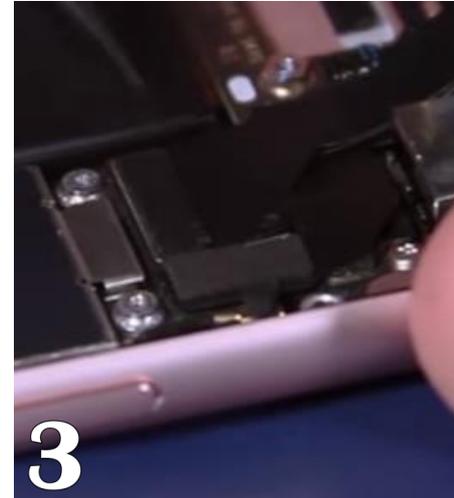
STEP 5
Reassemble the device

- 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.

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.
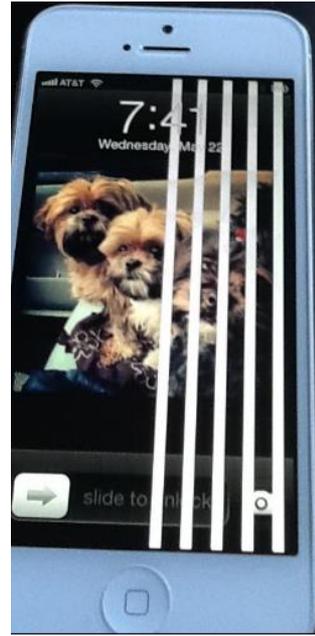
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