



motorola  
a *lenovo* company

# DROID TURBO / Moto MAXX



## DROID TURBO / Moto MAXX Level 2 – Service & Repair Manual

# REVISION HISTORY

Revision	Date	Notes
1	10/21/2014	Initial Release
2	01/02/2015	Revised the Earpiece Speaker Press Tool part number. Updated the cover page header according to current Motorola/Lenovo brand standards. Corrected the body page header title. Deleted orphaned step number from Rear Housing Assembly on p. 136.
3	03/20/2015	Added notes regarding Top Battery Spacer adhesion to the Rear Housing in Rear Housing Removal step 5 and Top Battery Spacer Removal. Added note regarding the Headset Jack Adhesive remaining adhered to the Headset Jack. Added Press part number (19501980) to the Tools Required for Assembly list and in the applicable press steps. Added N·m torque value to Top Carrier and Bottom Carrier Assembly. Revised Rear-Facing Imager Lens Removal photos. Added Rear-Facing Imager Lens assembly photo in Top Carrier Preparation.

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# SAFETY INFORMATION

## Cautions and Warnings

### Electrostatic Discharge

The phone components may be damaged by electrostatic discharge (ESD). Always use an ESD mat and ground strap when working with internal components.

## Battery Safety Guidelines

Handle Battery with care. Ensure Battery edges and surfaces are not dented or deformed. If the Battery Pack is dropped to the floor, it may be internally damaged and must be scrapped.

Ensure all surfaces, fixtures, and phone components contacting the Battery are smooth and clean.

- Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.
- Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.
- Ensure screws and screwdrivers do not contact the Battery.
- Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer.

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# INTRODUCTION

## External Views



**Figure 1. External Views**

**Table 1. External Views Parts List**

Reference #	Description
1	Earpiece
2	Front-Facing Imager
3	Main Display Lens
4a	Power Key
4b	Volume Key/SIM Card Tray
5	Rear-Facing Imager Lens
6	Rear-Facing Imager
7a, 7b	LED Flash
8	Motorola Medallion
9	Main Microphone
10	Front Housing
11	Rear Housing
12	Headset Jack
13	USB Port



## PSCD Gaps

All dimensions are in millimeters (mm). The following gaps are considered maximum allowable without further approval from a supervisor. Measure gaps at an angle perpendicular to the surface/area being measured. Feeler Gauges must not be used at an angle as they will give false-positive results.



**Figure 2. PSCD Front View**



**4**  
X Skew:  
 $|X1-X2| = 0.25 \text{ mm max}$

**5**  
Y Skew:  
 $|Y1-Y2| = 0.25 \text{ mm max}$

**Figure 3. Display Alignment**



Figure 4. PSCD Rear View

Top View



Bottom View



Figure 5. PSCD Top and Bottom View

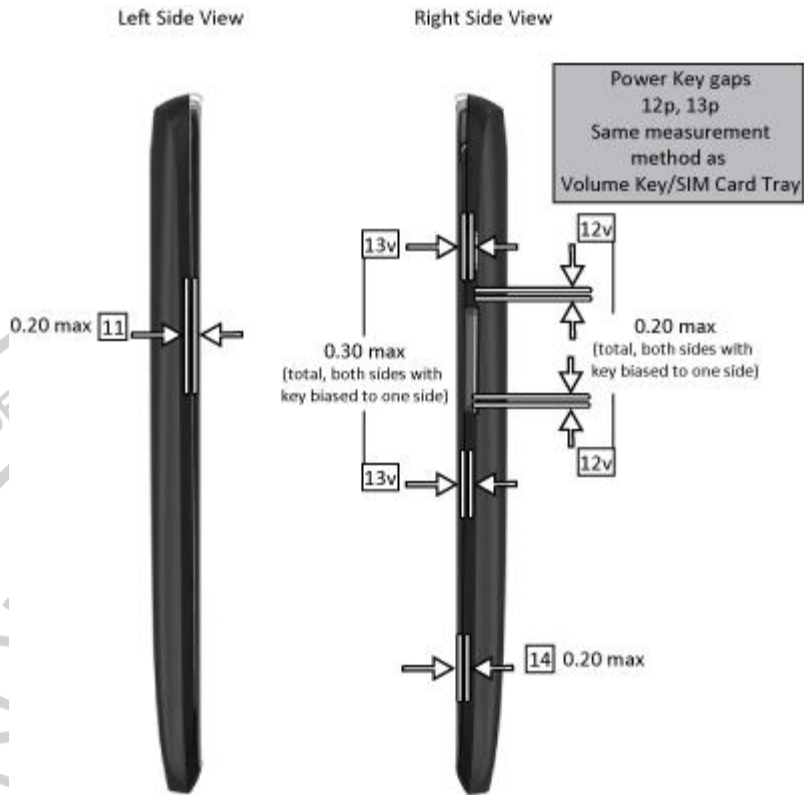
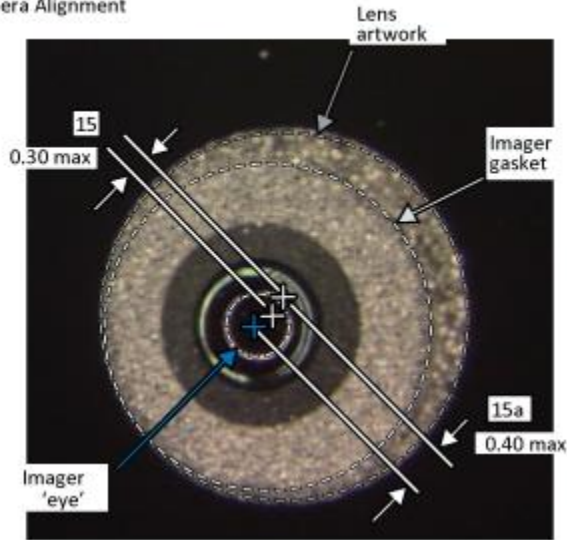


Figure 6. PSCD Side Views

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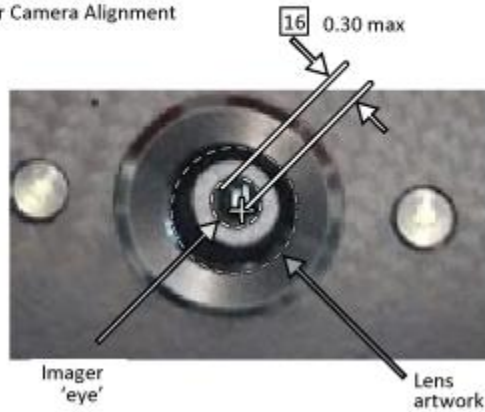
Front Camera Alignment



Locate center of Imager using chamfer around the imager 'eye'

Locate center of Imager Lens by the artwork outline (black ink)

Rear Camera Alignment



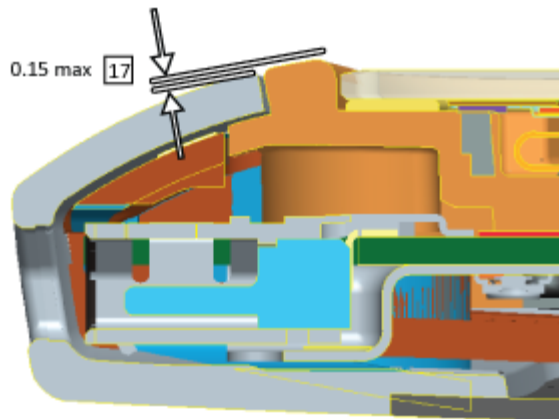
Locate center of Imager using chamfer around the imager 'eye'

Locate center of Imager Lens by the artwork outline (black ink)

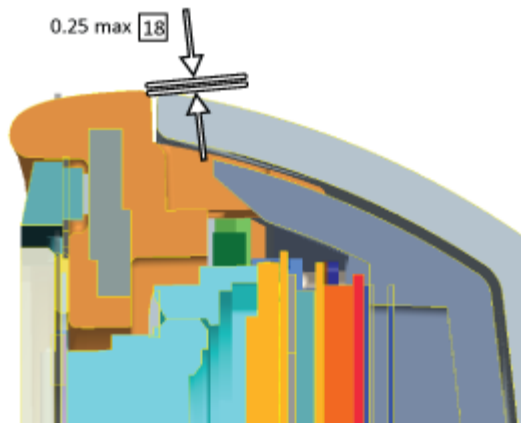
Figure 7. Front-Facing Imager and Rear-Facing Imager Alignment



Rear Housing to Front Housing (1 of 2) Step



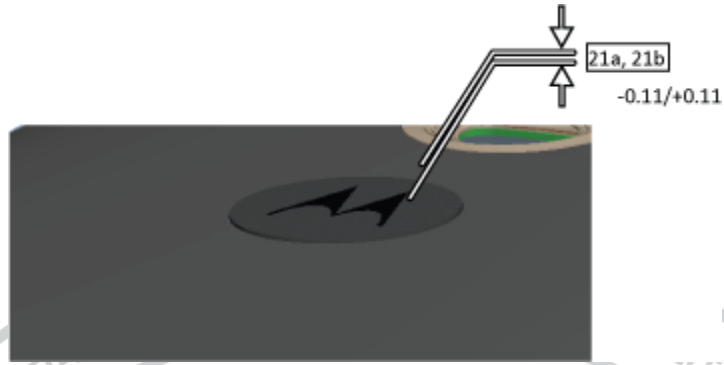
Rear Housing to Front Housing (2 of 2) Step



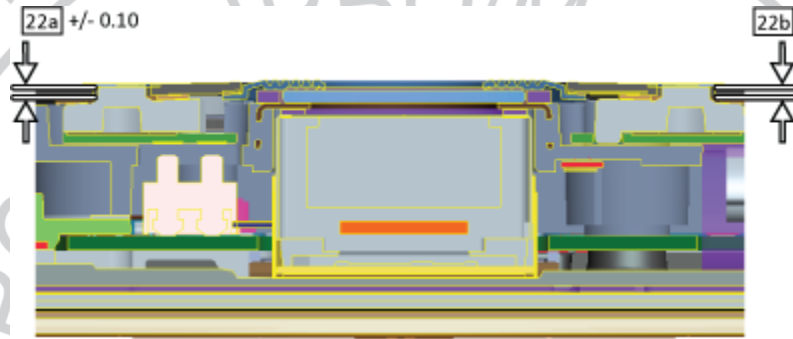
**Figure 8. Rear Housing to Front Housing Steps**



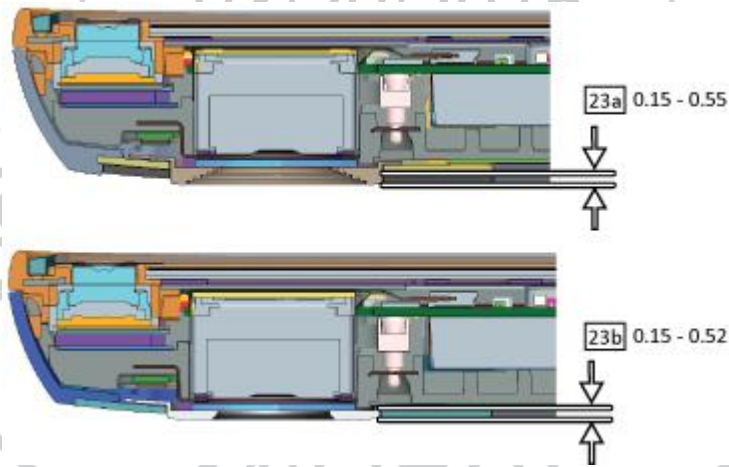
Figure 9. MGF Pattern Registration



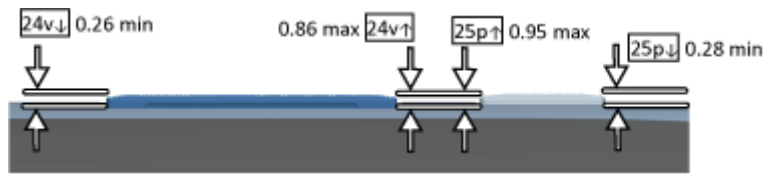
**Figure 10. M Logo Medallion Recess**



**Figure 11. Flash Lens Steps**

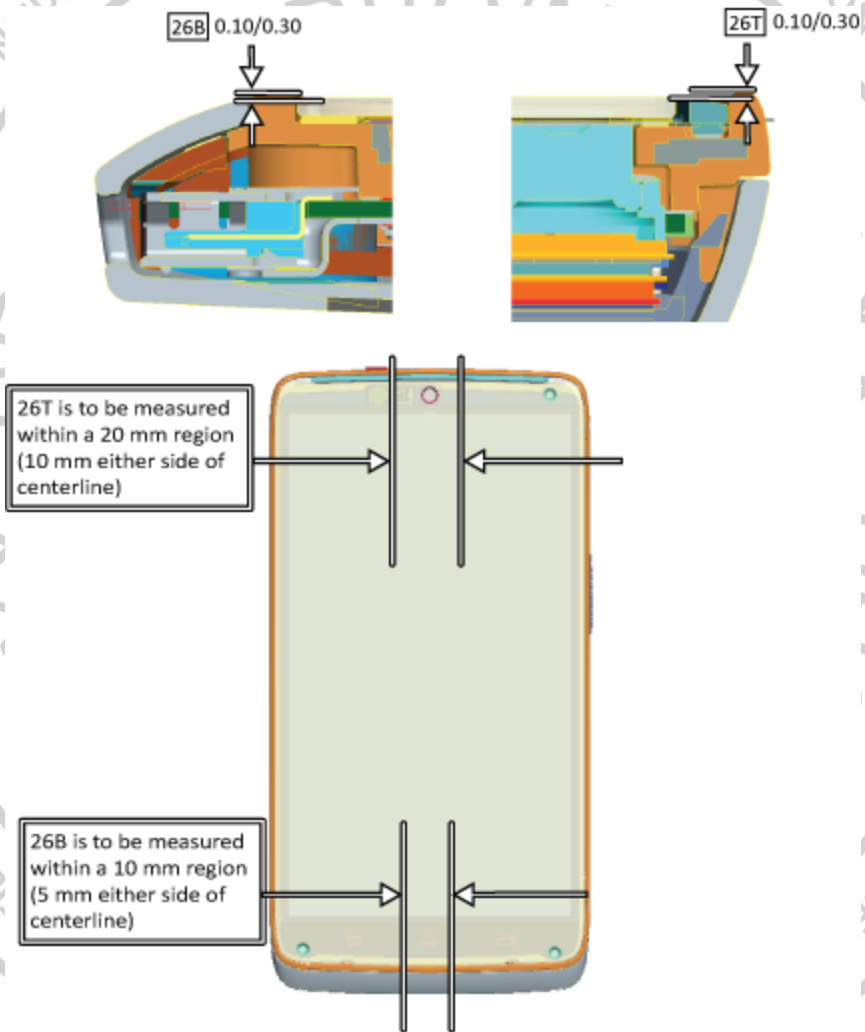


**Figure 12. Rear-Facing Imager Bezel Steps**

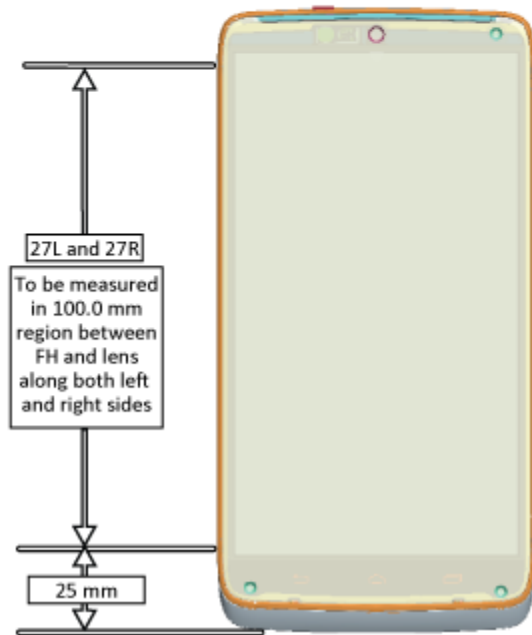


↑ = Key Up  
 ↓ = Key Down

**Figure 13. Volume Key Steps**



**Figure 14. Display to Front Housing Recess-1**



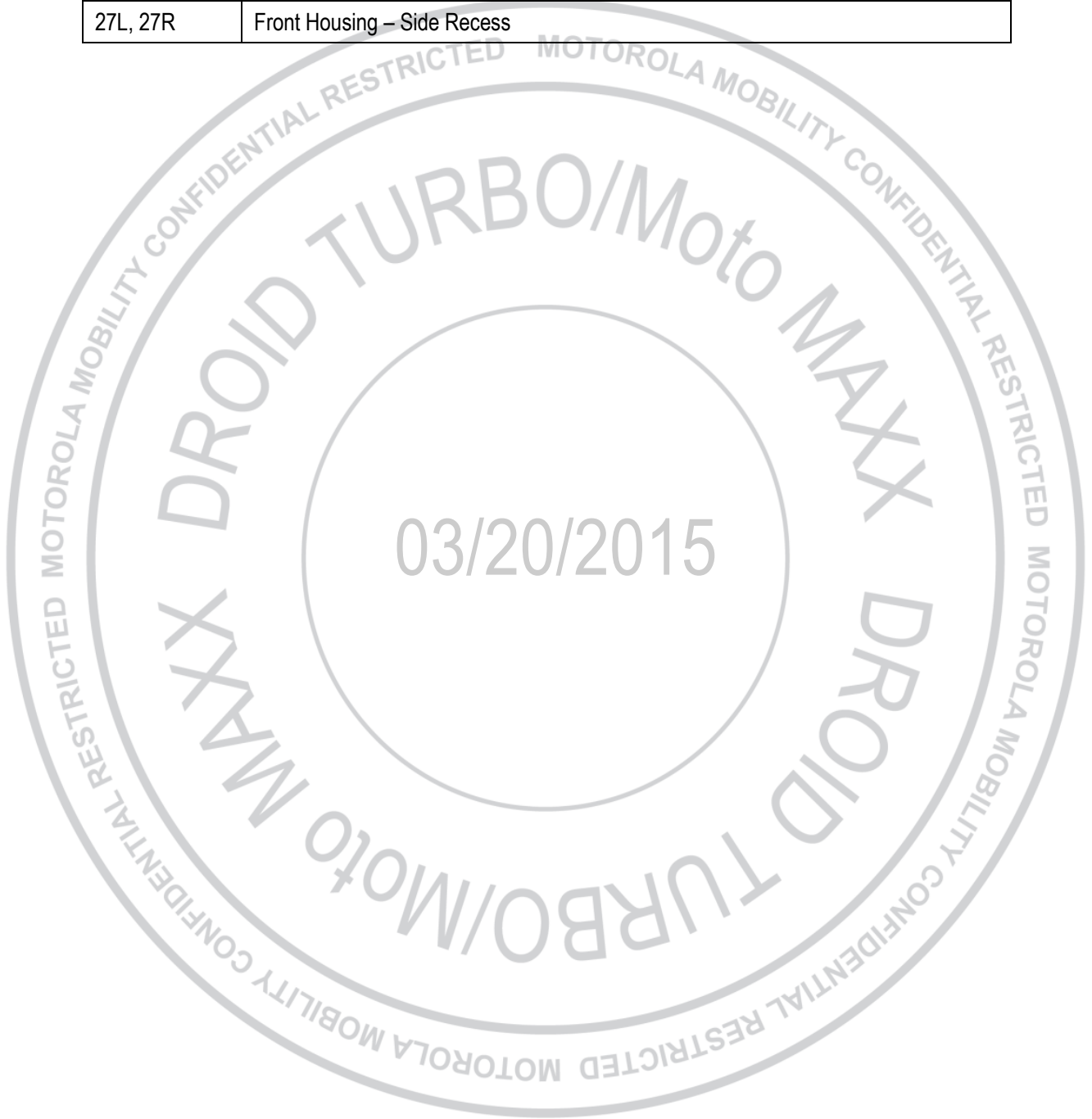
**Figure 15. Display to Front Housing Recess-2**



**Table 2. PSCD Gap Measurements**

<i>Reference #</i>	<i>Description</i>
1	Front Housing to Main Lens Perimeter
2	Earpiece Medallion to Main Lens Perimeter
2a	Earpiece Medallion to Main Lens Perimeter
3	Front Housing to Rear Cover Perimeter
4	Main Lens View Area to Main Display Active Area Skew
5	Main Lens View Area to Main Display Active Area Skew
7	Camera Lens Artwork to Camera Bezel Concentricity
8	Camera Bezel to Rear Cover Perimeter
9a	Flash Lens to Rear Cover Perimeter
9b	Flash Lens to Rear Cover Perimeter
10	Rear Cover to Front Housing Perimeter
11	Rear Cover to Front Housing Perimeter
12v	Volume Key to Rear Cover Step
12p	Power Key to Rear Cover Step
13v	Volume Key to Rear Cover Step
13p	Power Key to Rear Cover Step
14	Rear Cover to Front Housing Perimeter
15	Front Imager Artwork to Front Imager Concentricity
15a	Front Imager Artwork to Front Imager Concentricity
16	Rear Imager Artwork to Rear Imager Concentricity
17	Rear Cover to Front Housing Step
18	Rear Cover to Front Housing Step
19a	MGF Weave Pattern Skew from Centerline
19b	Ballistic Nylon Weave Pattern Skew from Centerline
20a	M Logo Medallion Gap
20b	M Logo Medallion Gap
21a	M Logo Medallion Gap
21b	M Logo Medallion Gap
22a	Flash Lens Recess
22b	Flash Lens Recess
23a	Rear-Facing Imager Bezel Protrude
23b	Rear-Facing Imager Bezel Protrude

<i>Reference #</i>	<i>Description</i>
24v ↑/↓	Volume Key/SIM Card Tray Protrude (key up and key down)
25p ↑/↓	Power Key Protrude (key up and key down)
26T, 26B	Front Housing – Top/Bottom to Main Lens Recess
27L, 27R	Front Housing – Side Recess



## Exploded Views

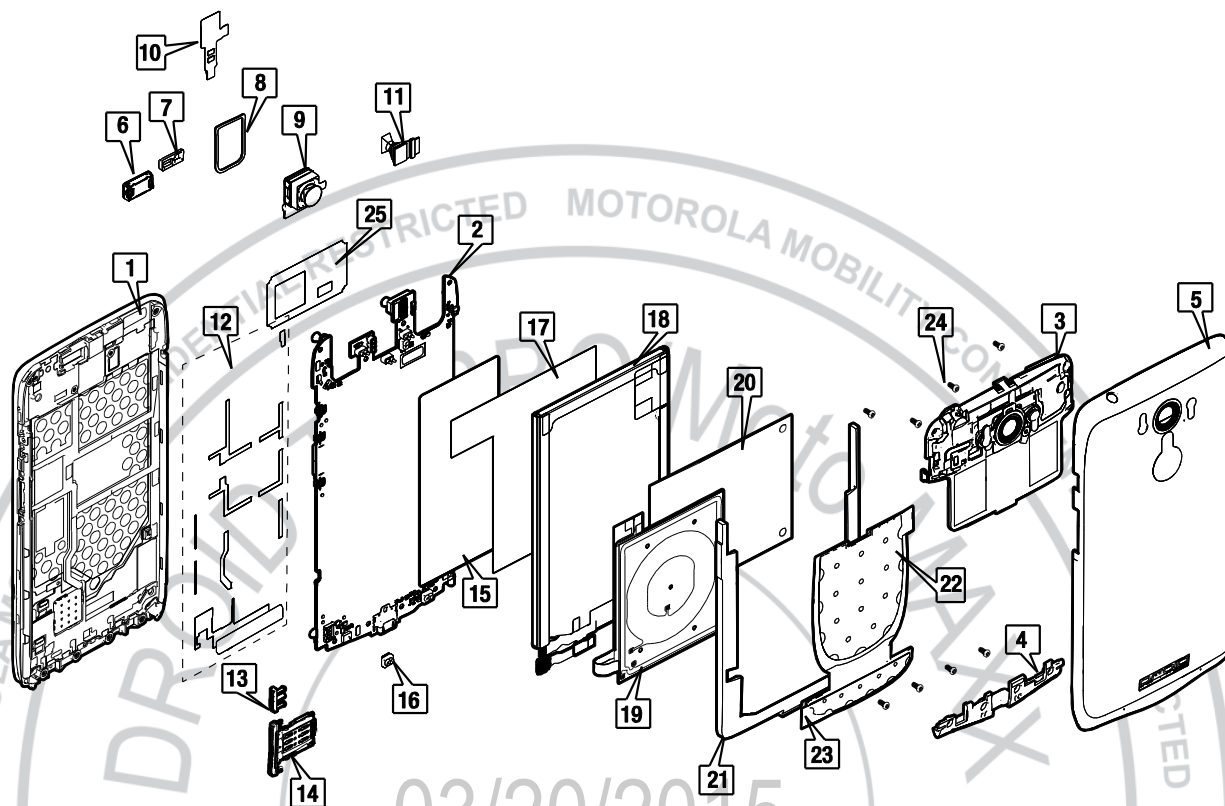


Figure 16. Assembly Exploded View

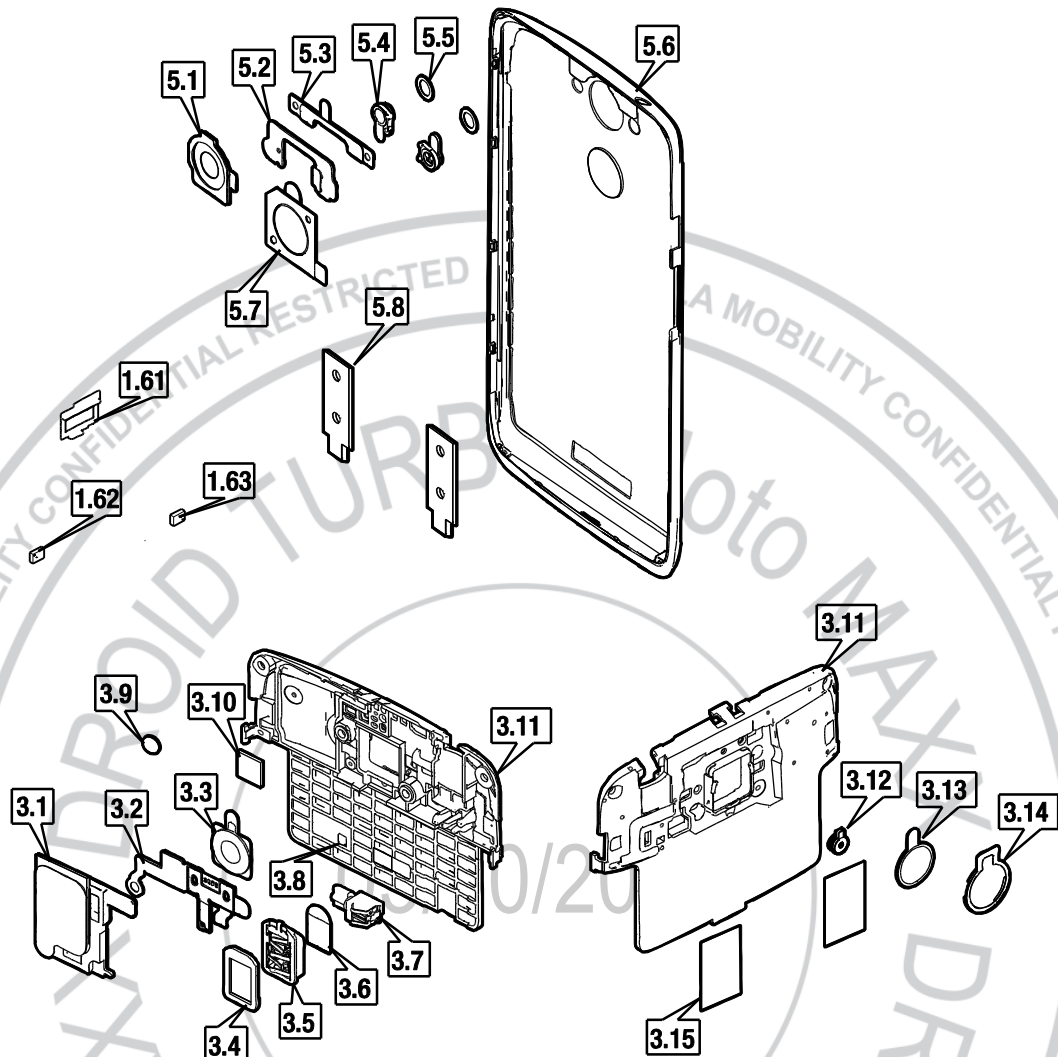
Table 3. Assembly Exploded View Parts List

Reference #	Description
1	ASSY,HSG,FRNT,PROTO, QUANTUM TITANIUM/TITANIUM ASSY,HSG,FRNT,PROTO, QUANTUM DK TITANIUM/DARK Ti ASSY,HSG,FRNT,PROTO, QUANTUM RED LAC/RED LAC
2	ASSY,PWA,XCVR,PORT QUANTUM LATAM ASSY,PWA,XCVR,PORT QUANTUM MAXX ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX
3	ASSY,HSG,REAR, TOP CARRIER, QUANTUM MAXX
4	HSG,REAR,BOT CARRIER, W/ANTENNA, QUANTUM
5	ASSY,HSG,REAR,COVER, QUARK RED ASSY,HSG,REAR,COVER, PWR KEY + M LOGO, QUARK MAXX DK ASSY,HSG,REAR,COVER, PWR KEY + M LOGO, QUARK MAXX RED ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX 64GB ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX EMPLOYEE EDITION ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX LATAM
6	TRANSDUCER,OTHR,6X12X3,6X12X3MM RCVR F0=200HZ, AAC

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<i>Reference #</i>	<i>Description</i>
7	GROMMET,PROX, QUARK
8	SEAL,LOUD SPEAKER,QUARK
9	ASSY,FLXCKT,MDL,20MP,REAR IMGR
10	ASSY,FLXCKT,HSJ/VIB, QUARK
11	ASSY,FLXCKT,MDL,2MP, FF IMGR
12	DIE CUT,ADHES,PCB, QUARK
13	POWER BUTTON ASSEMBLY, LICORICE ASSY,PRD OTH,PWR BUTTON, LAQUER RED, QUARK ASSY,PRD OTH,PWR BUTTON, QUARK COLOR MATCH RED
14	ASSY,HSG,SIM TRAY, QUARK LIC ASSY,HSG,SIM TRAY, QUARK LAQUER RED ASSY,HSG,SIM TRAY, QUARK COLOR MATCH RED
15	DIE CUT,ADHES,HT SPREADER, QUARK
16	GROMMET,MIC,QUARK
17	DIE CUT,ADHES,BATTERY, QUARK MAXX
18	ASSY,BAT,LI POLY,EQ40,3800MAH
19	FIXED INDUCTOR,NFC/WC, FLEX, QUARK MAXX
20	DIE CUT,ADHES,BAT SPACER, QUARK MAXX
21	HSG,BAT SPACER, QUARK MAXX HSG,BAT SPACER, QUARK MAXX NYL
22	SPCR,C BATTERY, QUARK MAXX
23	SPCR,BATTERY, TOP, QUARK
24	SCR,MACH,M1.6 X .35, 2.6MM HD, 5IP
25	DIE CUT,TAPE, COPPER, 0.14MM, APQ SHIELD, QUARK



**Figure 17. Subassembly Exploded Views**

**Table 4. Subassembly Exploded Views Parts List**

Reference #	Description
1.61	SPCR,EARPC SPEAKER, QUARK
1.62	SCRN,MESH,MICROPHONE,QUARK
1.63	SCRN,MESH,MICROPHONE,QUARK
3.1	ASSY,SPKR,QUARK
3.2	ASSY,FLXCKT,AUDIO, QUARK
3.3	GSKT,CNDT,20MP REAR FACING IMAGER, QUARK
3.4	SEAL,GSKT,HSET JCK
3.5	CONN,JACK,HEADSET,3.5 MM DIA
3.6	DIE CUT,ADHES,HSET JACK, OLYMPUS



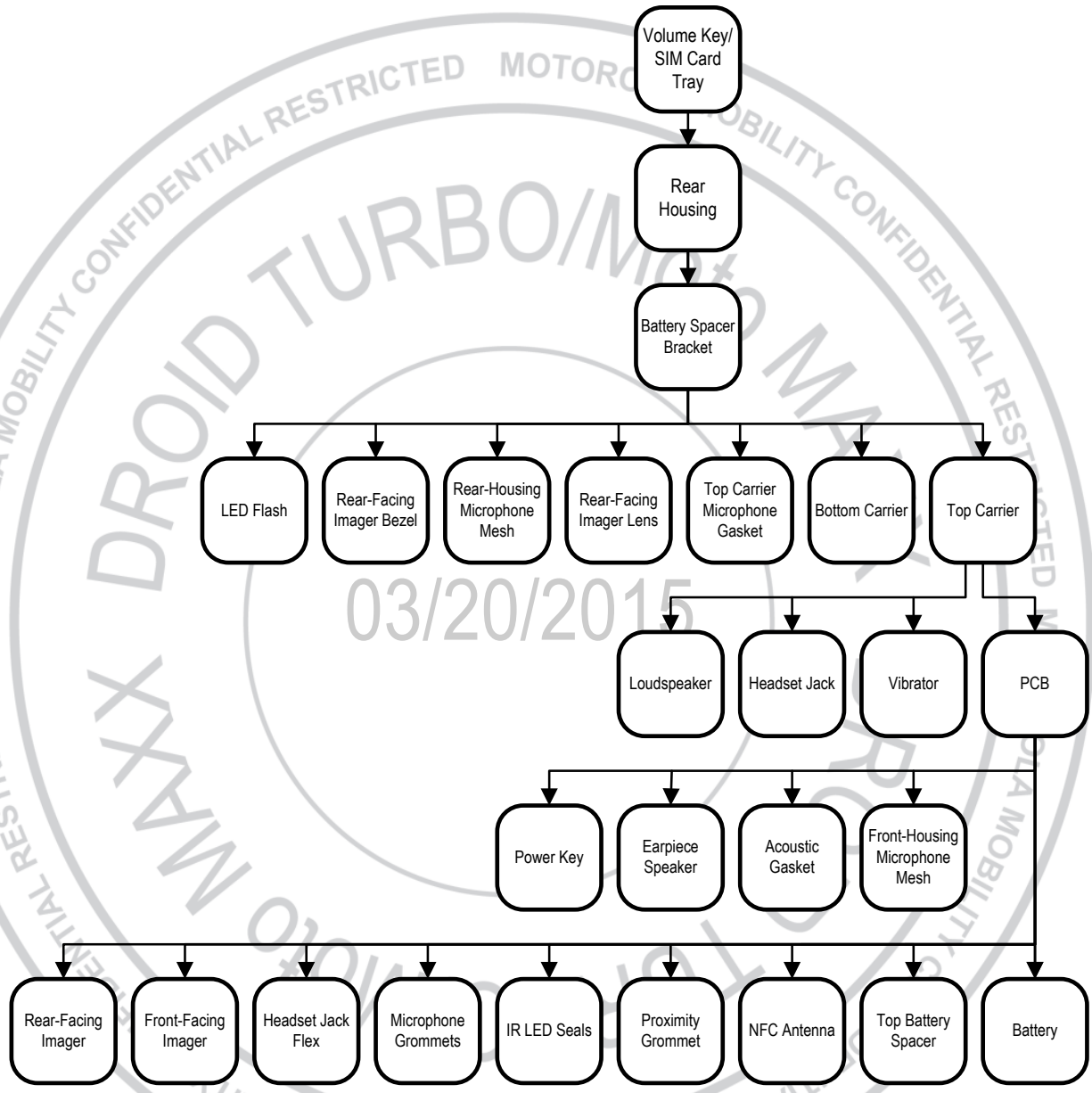
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<i>Reference #</i>	<i>Description</i>
3.7	ALERT DEVICE,VIBR,MOTOR, ROTARY, 11.75 MM X X 4.55 MM MOTOR BODY
3.8	DIE CUT,ADHES,VIBRATOR, ULTRA
3.9	SCRN,MIC,MESH
3.10	PAD,CNDT,FF IMAGER, QUARK
3.11	HSG,REAR, TOP CARRIER, DECORATED, QUARK MAXX
3.12	GSKT,MIC,MIC, QUARK
3.13	LENS,CAMR,QUARK
3.14	PAD,CNDT,BEZEL, CAMERA, QUARK
3.15	DIE CUT,ADHES, TOP CARRIER, QUARK MAXX
5.1	ASSY,BZL,CAMERA, QUARK MAXX Ti ASSY,BZL,CAMERA, QUARK MAXX DK Ti ASSY,BZL,CAMERA, QUARK MAXX BALLISTIC DK Ti ASSY,BZL,CAMERA, QUARK MAXX BALLISTIC EMPLOYEE EDITION
5.2	ASSY,PCB,LED FLASH,QUARK
5.3	DIE CUT,ADHES,FLSH PCB/REAR HOUSING, QUARK
5.4	ASSY,LENS,FLASH, QUARK ASSY,LENS,FLASH, QUARK BALLISTIC
5.5	DIE CUT,ADHES,FLSH LENS, QUARK
5.6	HSG,REAR,CVR + OM, DARK, PWR KEY + M LOGO, QUARK MAXX HSG,REAR,CVR + OM, RED, PWR KEY + M LOGO, QUARK MAXX HSG,REAR,HOUSING,REAR,COVER, DECORATED, NYL + OM, QUARK MAXX
5.7	MDLLN,M LOGO, QUARK MDLLN,M LOGO, QUARK DK Ti MDLLN,M LOGO, QUARK NYL
5.8	SCRN,MESH,MICROPHONE,QUARK SCRN,MESH, MIC, TERT/QUIN, QUARK





# DISASSEMBLY

## Disassembly Map



## Tools Required for Disassembly

The following tools are required to disassemble the DROID TURBO / Moto MAXX phone.

<i>Description</i>	<i>Part #</i>	<i>Picture / Drawing</i>
Thin Corner Snap Stick	0000040826	
Blackstick	--	
5IP Torx Bit	--	
Thin Plastic Spudger	--	
Wire Cutting Pliers (Steel, 20 Degree-Angle Head, 13/32" Jaw Length)	--	
Tweezers (Plastic or Plastic-Tipped)	--	--
ESD Mat and Wrist Strap	--	--
Gloves or Finger Collets	--	--
Isopropyl (ISP) Alcohol	--	--

## Volume Key/SIM Card Tray Removal

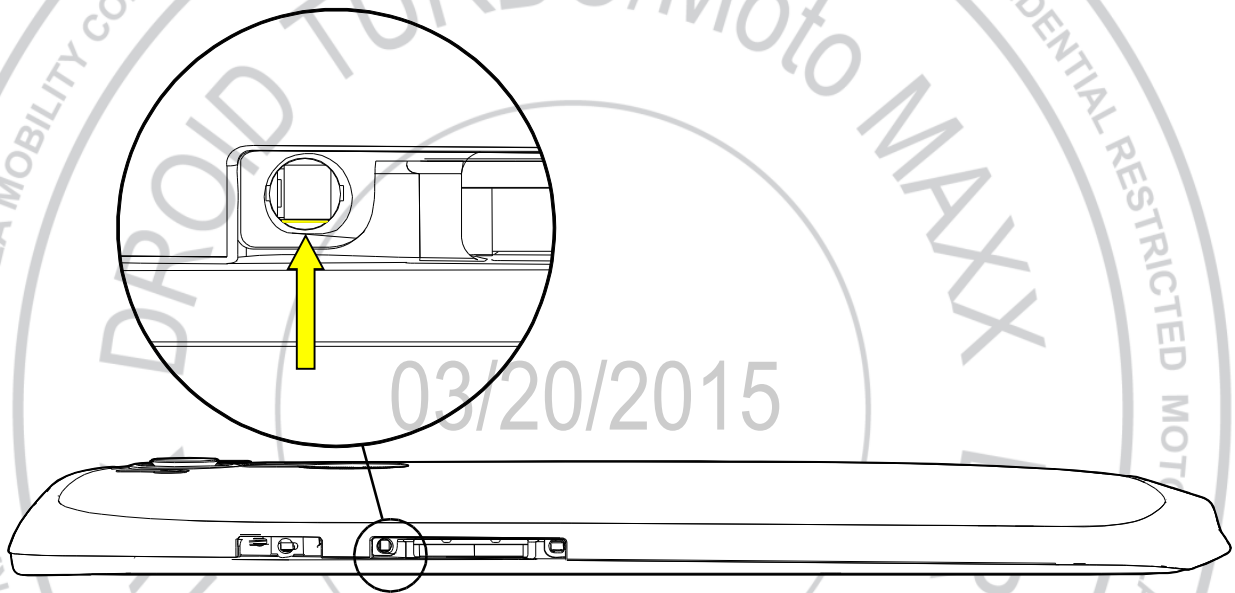
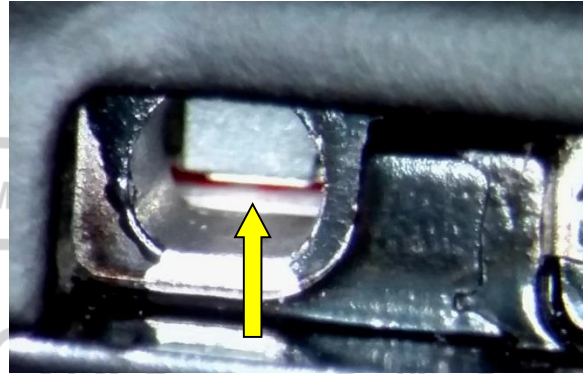
Use a fingernail to completely remove the Volume Key/SIM Card Tray from the assembly.



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## Water Detection Label Inspection

Inspect the Water Detection Label (WDL) visible through the Front Housing opening, as shown below, to verify it is correctly placed and for signs of activation.





## Rear Housing Removal

1. At the Volume Key/SIM Card Tray slot, use a fingernail to lift the Rear Housing and create a gap between the Rear Housing and Front Housing.



2. Starting at the Volume Key/SIM Card Tray opening, slide the Thin Corner Snap Stick under the edges of the Rear Housing to release the snaps.





3. Release the snaps on the sides and top of the Rear Housing in the sequence shown.



4. Continue releasing the snaps around the perimeter of the assembly using the Thin Corner Snap Stick.

**NOTE**

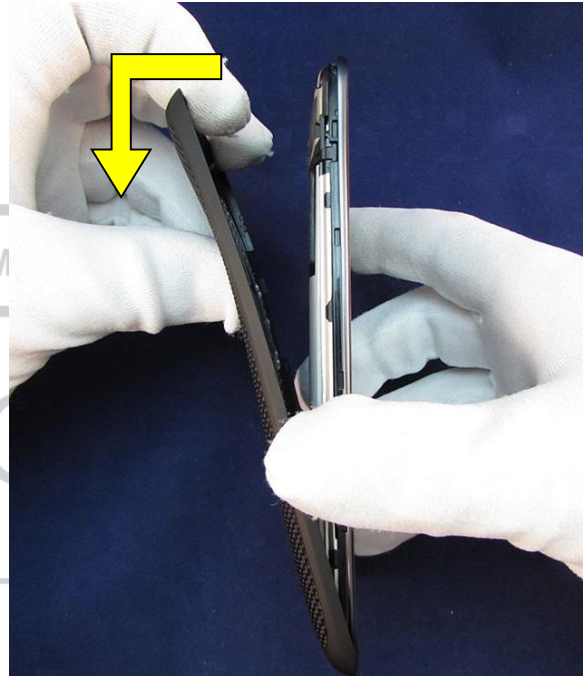
Hold the phone in the center of the Rear Housing and Main Lens to avoid re-engaging snaps as you release the snaps around the perimeter.



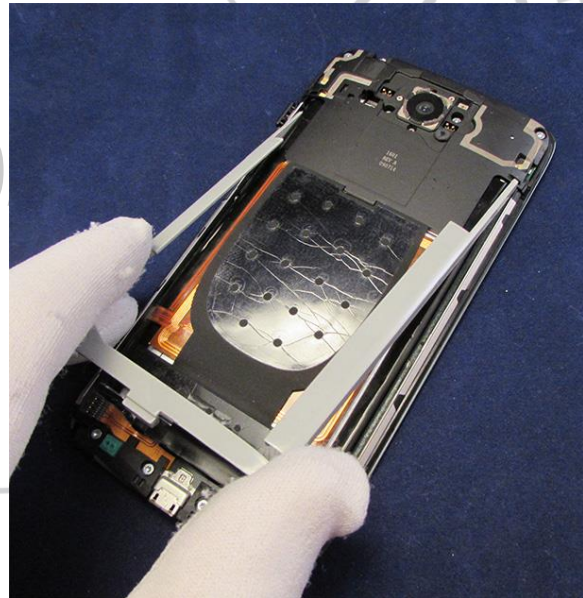
- When all of the snaps have been released, rotate the Rear Housing out and down as shown to separate the adhesive and remove the Rear Housing.

**NOTE**

The Top Battery Spacer adheres to the Rear Housing and Battery, and may remain adhered to the Rear Housing when it is removed. Remove the Top Battery Spacer from the Rear Housing only if it is defective or damaged. After you remove the Top Battery Spacer, you cannot reuse it.

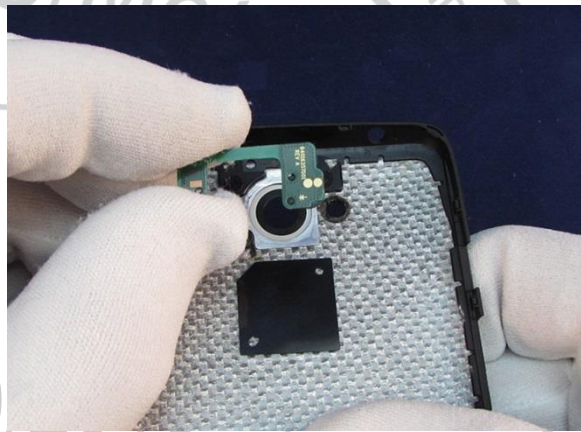
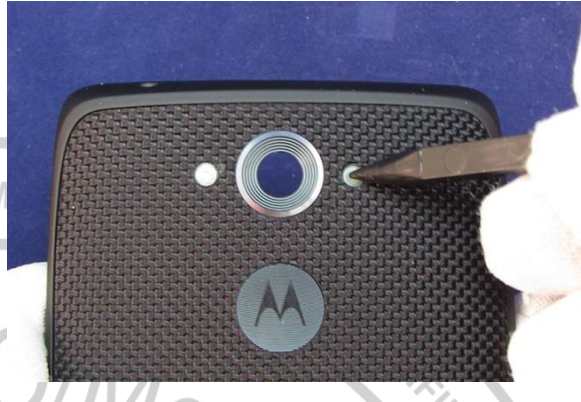


- Remove the Battery Spacer Bracket from the Front Housing.



## LED Flash Removal

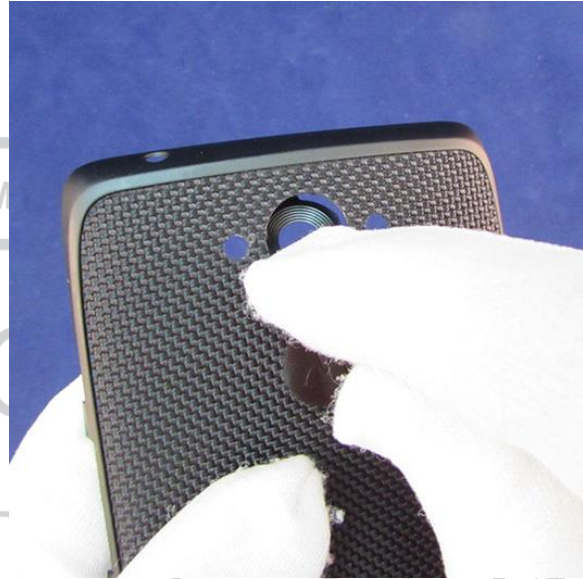
Use the pointed end of the Blackstick to push the LED Flash out of the Rear Housing.





## Rear-Facing Imager Bezel Removal

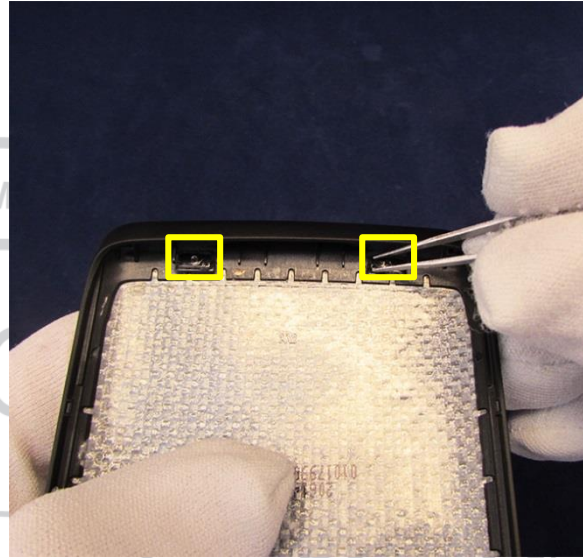
Use a finger to push the Rear-Facing Imager Bezel out of the Rear Housing.



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## Rear-Housing Microphone Mesh Removal

Use the Tweezers to remove the 2 Microphone Meshes from the Rear Housing.



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## Rear-Facing Imager Lens Removal

### NOTE

Remove the Rear-Facing Imager Lens only if it is defective or damaged. After you remove the Rear-Facing Imager Lens, you cannot reuse it.



Use the flat end of the Blackstick to remove the Rear-Facing Imager Lens.



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## Top Carrier Microphone Gasket Removal

### NOTE

Remove the Top Carrier Microphone Gasket only if it is defective or damaged. After you remove the Top Carrier Microphone Gasket, you cannot reuse it.



Use the flat end of the Blackstick to remove the Top Carrier Microphone Gasket.



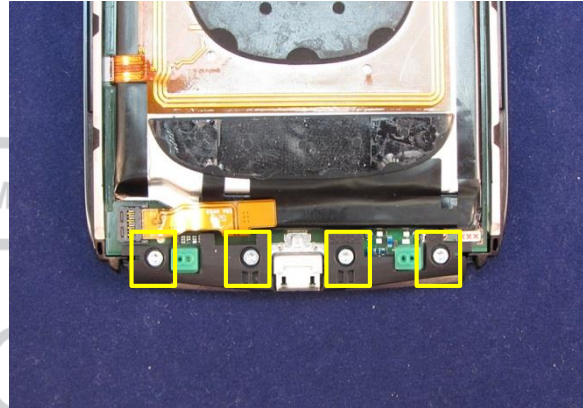
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## Bottom Carrier Removal

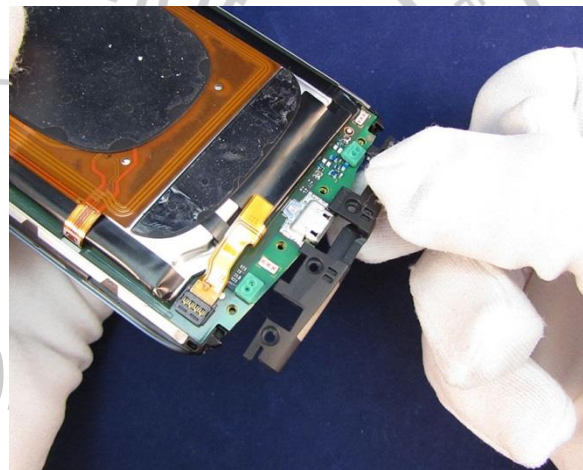
1. Remove the 4 5IP Screws from the Bottom Carrier.

### NOTE

After you remove the 5IP Screws, you cannot reuse them.



2. Slide the Bottom Carrier down and out of the assembly.

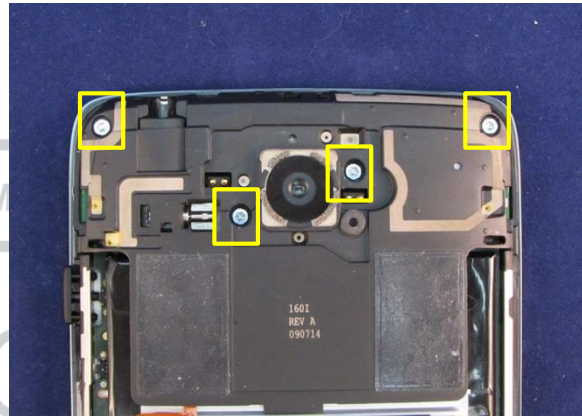


## Top Carrier Removal

1. Remove the 4 5IP Screws from the Top Carrier.

### NOTE

After you remove the 5IP Screws, you cannot reuse them.



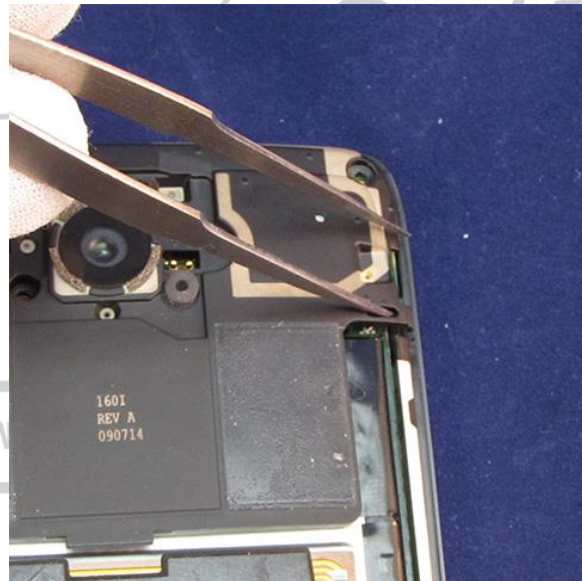
2. Insert the Tweezers into 1 of the 2 openings in the Top Carrier.
3. Gently push outward to release the side snaps.

### // CAUTION //

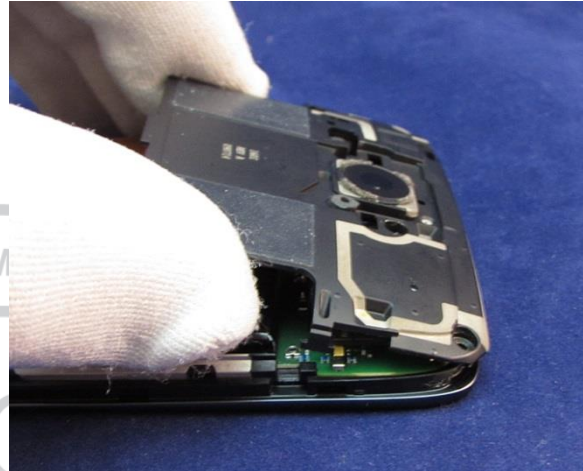
Do not push outward any farther than necessary to release the side snaps. Damage to the side snaps may occur.



4. Repeat step 2 and step 3 for the other opening in the Top Carrier.



5. Lift and rotate the Top Carrier away from the assembly.



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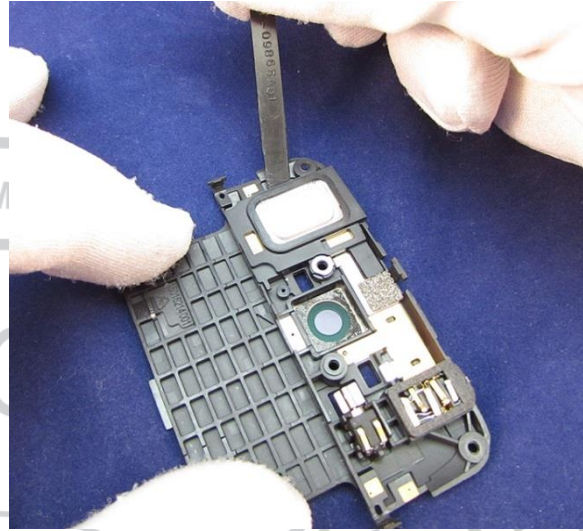
## Loudspeaker Removal

### NOTE

Remove the Loudspeaker only if it is defective or damaged. If the Loudspeaker will be reused, skip this step. After you remove the Loudspeaker, you cannot reuse it.



Use the flat end of the Blackstick to pry the Loudspeaker from the Top Carrier.



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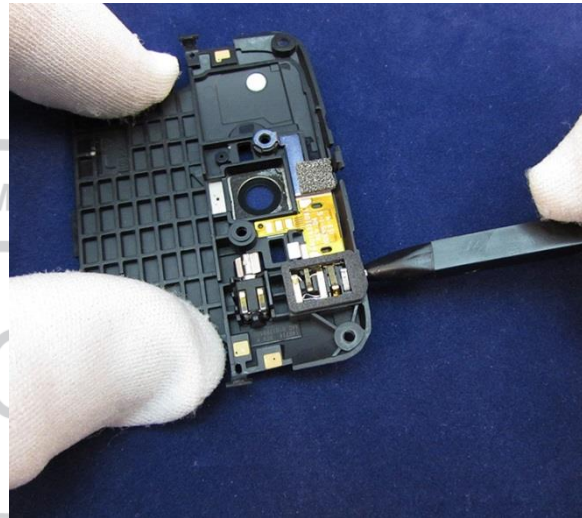
## Headset Jack Removal

### NOTE

Remove the Headset Jack only if it is defective or damaged. If the Headset Jack will be reused, skip this step. After you remove the Headset Jack, you cannot reuse it.



1. Insert the pointed end of the Blackstick into the Headset Jack.
2. Pry the Headset Jack out of the Top Carrier.



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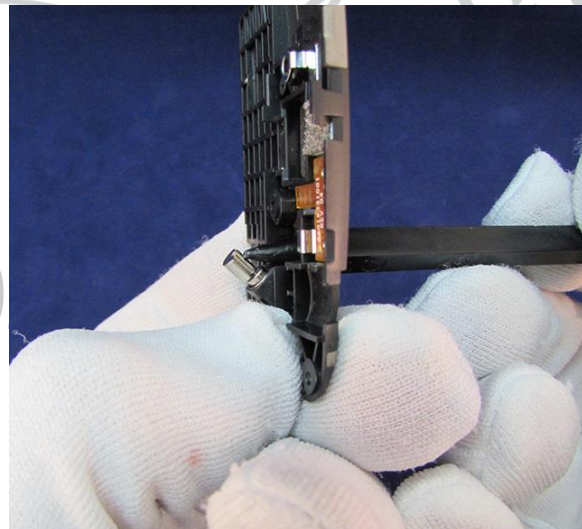
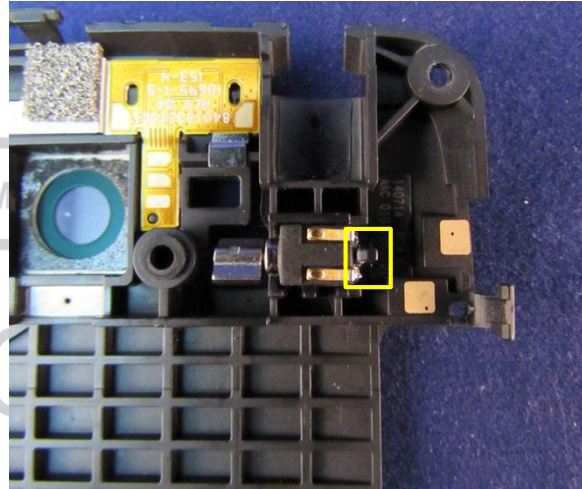
## Vibrator Removal

### NOTE

Remove the Vibrator only if it is defective or damaged. If the Vibrator will be reused, skip this step. After you remove the Vibrator, you cannot reuse it.



1. Hold the Retaining Tab open.
2. With the Retaining Tab open, push the vibrator out of the Top Carrier.



## PCB Removal

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

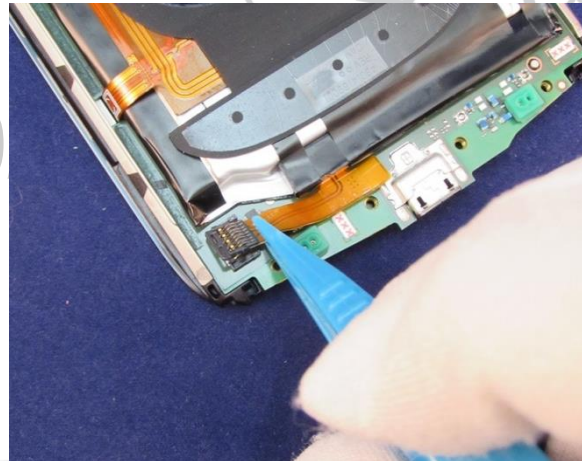
Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

1. Disconnect the Battery by grasping the Battery Flex at the stiffener with the Plastic Tweezers and lifting up.

### // CAUTION //

Do not use a Blackstick or any other method to disconnect the Battery Flex. Damage to the Battery Flex or the connector may occur.



2. Lift the key side of the PCB and rotate the PCB to the Display Flex side of the assembly.

**// CAUTION //**

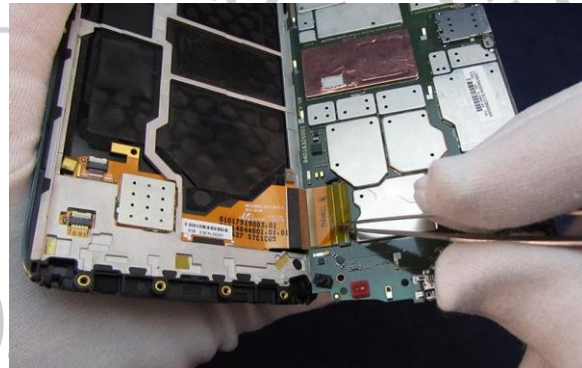
Do not lift the Display Flex side of the PCB. Lifting the Display Flex side of the PCB may damage the Display Flex.



3. Use the Tweezers to remove the Kapton® tape from the Display Flex ZIF Connector.

**NOTE**

After you remove the Kapton Tape, you cannot reuse it.



4. Use the flat end of the Blackstick to open the Display Flex ZIF Connector door.

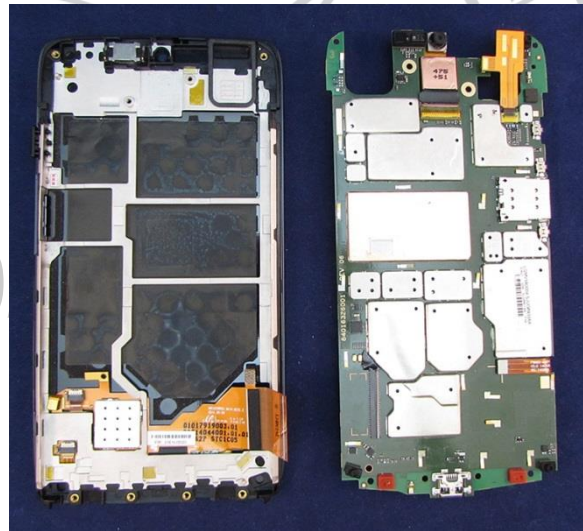




5. Disconnect the Display Flex from the PCB.

**// CAUTION //**

Do not close the ZIF door during service unless a flex is inserted in the ZIF Connector.



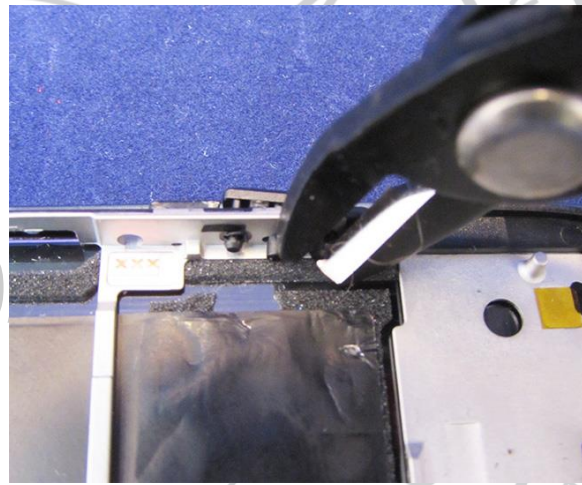
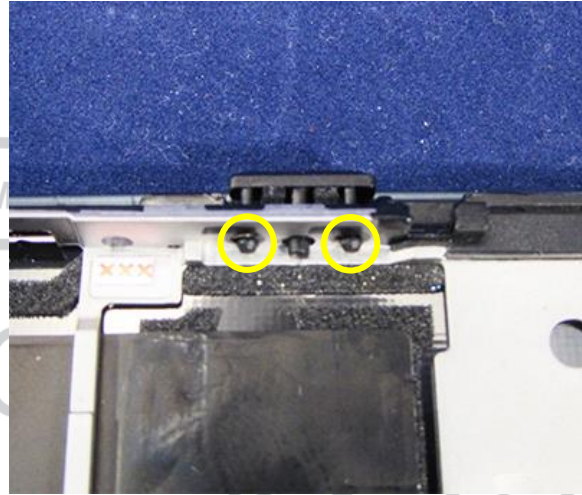
## Power Key Removal

### NOTE

Remove the Power Key only if it is defective or damaged. After you remove the Power Key, you cannot reuse it.



1. Use the Wire Cutting Pliers to cut the 2 barbed posts on the Power Key.



2. Remove the Power Key from the Front Housing.

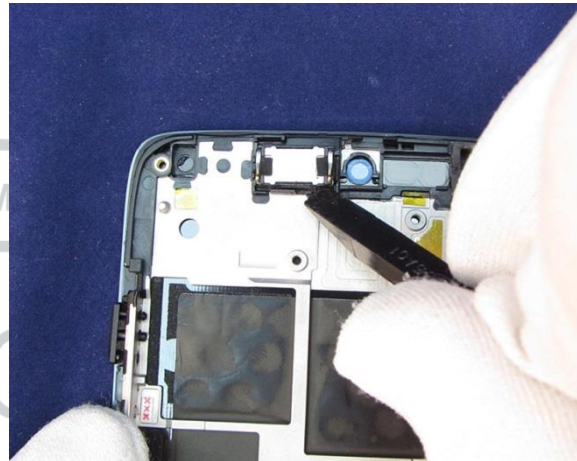
## Earpiece Speaker Removal

### NOTE

Remove the Earpiece Speaker only if it is defective or damaged. After you remove the Earpiece Speaker, you cannot reuse it.



Use the flat end of the Blackstick to pry the Earpiece Speaker out of the Front Housing.

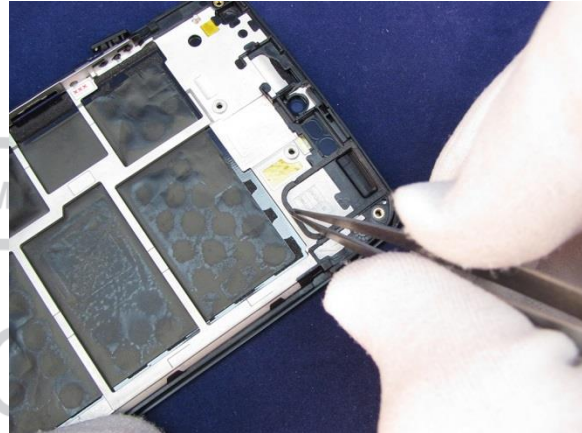


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## Acoustic Gasket Removal

Use the Tweezers to remove the Acoustic Gasket from the Front Housing.



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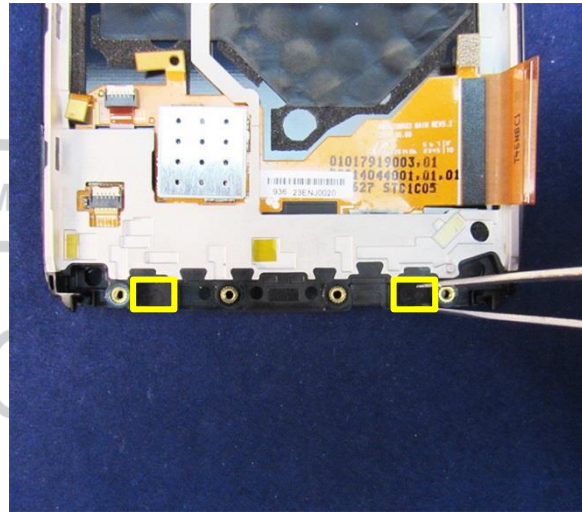
## Front-Housing Microphone Mesh Removal

### NOTE

Remove the Front-Housing Microphone Meshes only if they are defective or damaged. After you remove the Front-Housing Microphone Meshes, you cannot reuse them.



Use the Tweezers to remove the 2 Microphone Meshes from the Front Housing.



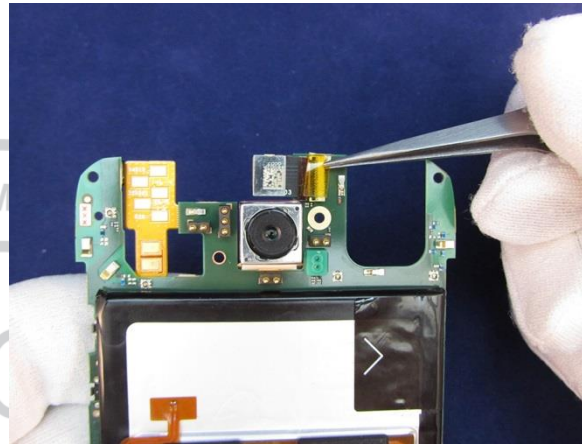
03/20/2015

## Front-Facing Imager Removal

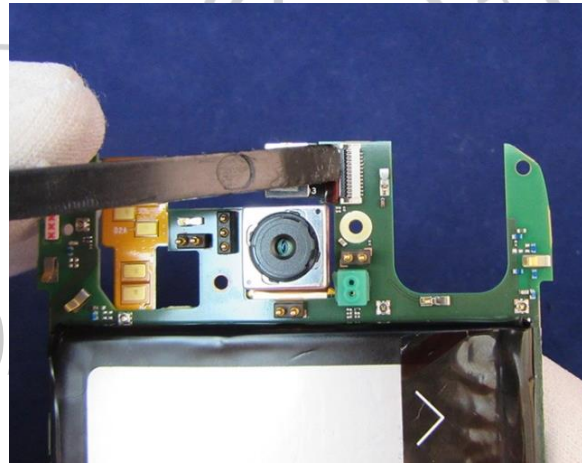
1. Use the Tweezers to remove the Kapton tape from the Front-Facing Imager ZIF Connector.

### NOTE

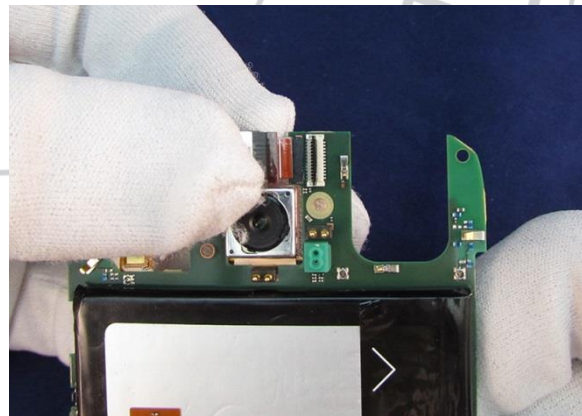
After you remove the Kapton Tape, you cannot reuse it.



2. Use the flat end of the Blackstick to open the Front-Facing Imager ZIF Connector door.



3. Remove the Front-Facing Imager from the connector.



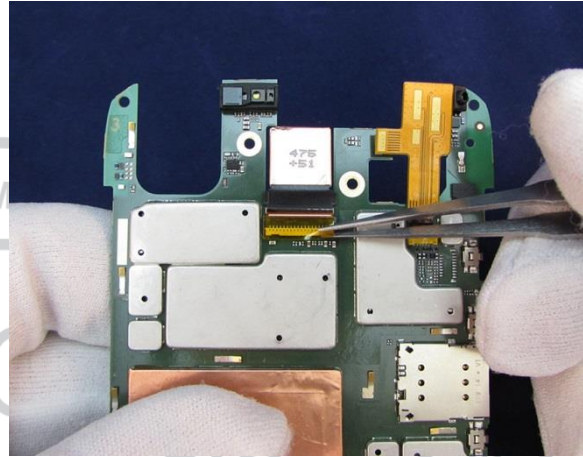


## Rear-Facing Imager Removal

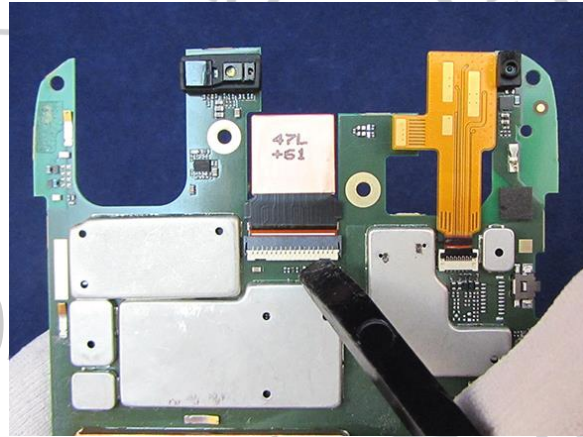
1. Use the Tweezers to remove the Kapton tape from the Rear-Facing Imager ZIF Connector.

### NOTE

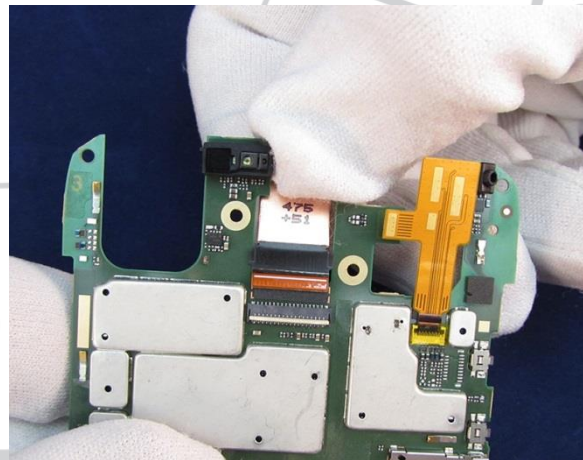
After you remove the Kapton Tape, you cannot reuse it.



2. Use the flat end of the Blackstick to open the Rear-Facing Imager ZIF Connector door.



3. Remove the Rear-Facing Imager from the connector.

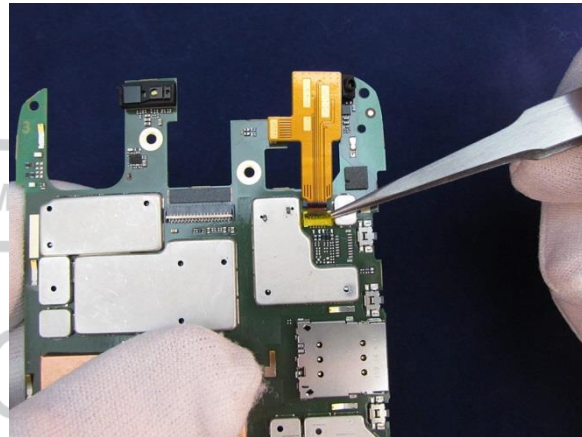


## Headset Jack Flex Removal

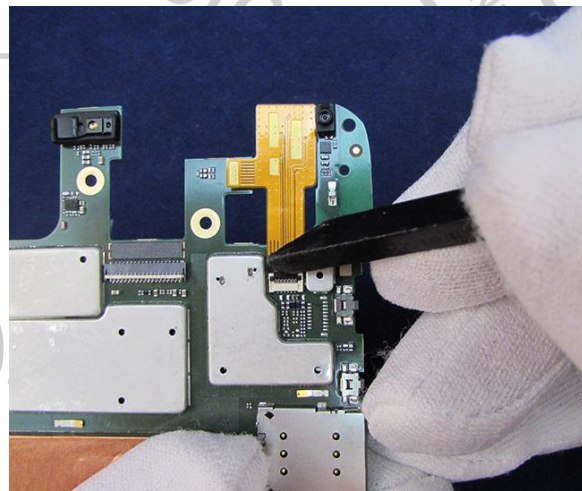
1. Use the Tweezers to remove the Kapton tape from the Headset Jack Flex ZIF Connector.

### NOTE

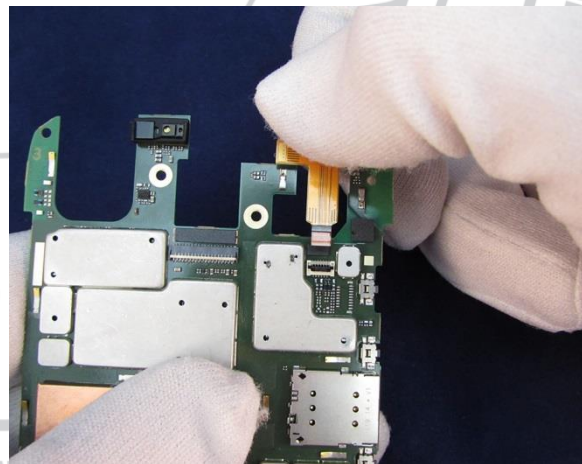
After you remove the Kapton Tape, you cannot reuse it.



2. Use the flat end of the Blackstick to open the Headset Jack Flex ZIF Connector door.



3. Remove the Headset Jack Flex from the connector.





## Battery Removal

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

### // CAUTION //

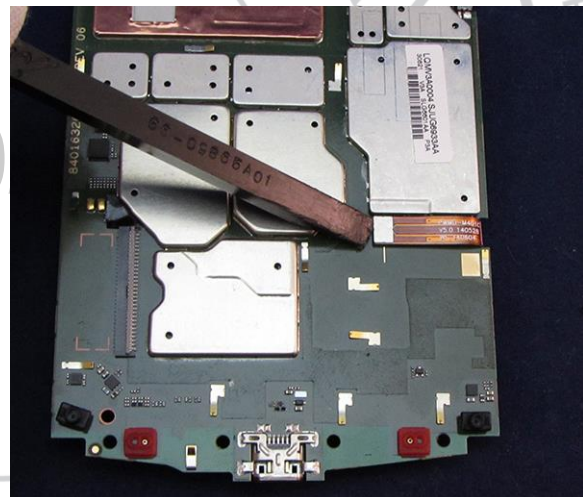
Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

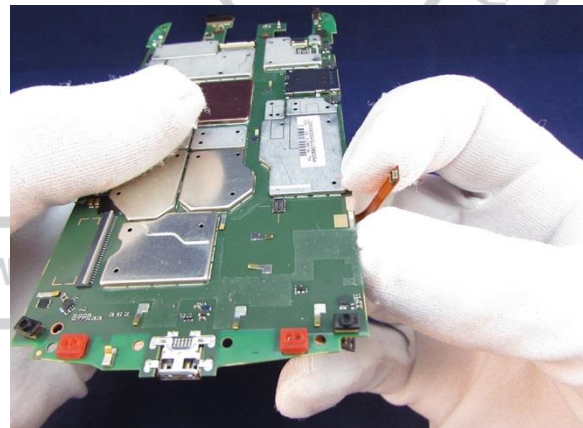
1. Use the flat end of the Blackstick to disconnect the NFC BiB Connector from the PCB.



2. Carefully bend the NFC Flex back from the PCB.

### // CAUTION //

Do not bend the NFC Flex any farther than shown. Damage to the NFC Flex may occur.

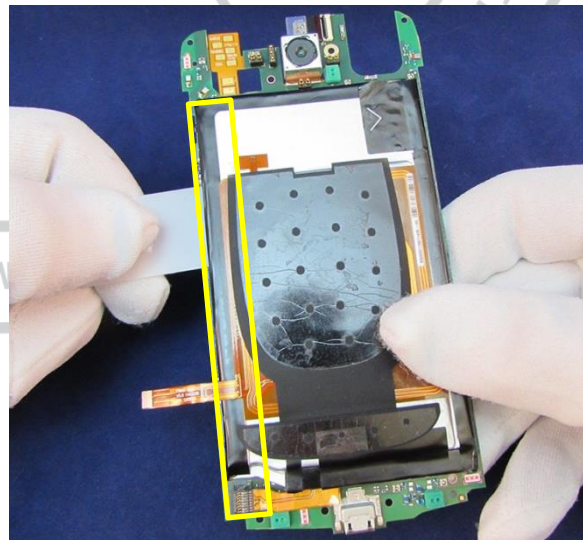
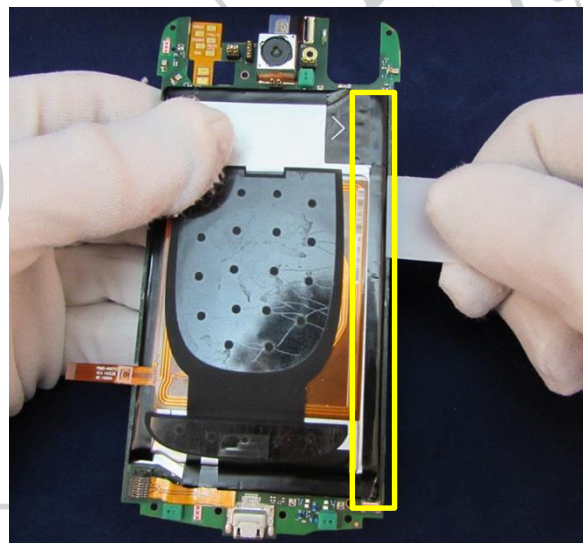
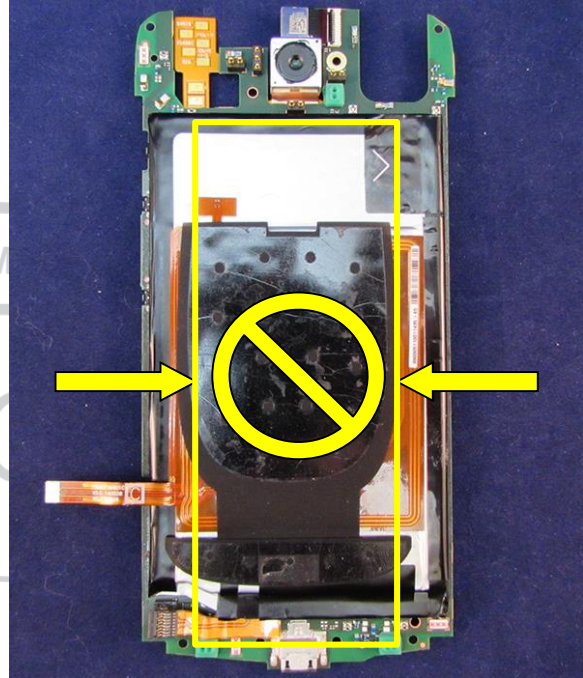


- Slide the Thin Plastic Spudger between the Battery and the PCB to separate the adhesive.

**// CAUTION //**

Do not insert the Thin Plastic Spudger farther than 10 mm under the Battery. Inserting the Thin Plastic Spudger farther than 10 mm under the Battery may result in damage to the Thermal Spreader on the PCB.

Do not use sharp objects to reach under the Battery. Reaching under the Battery with sharp objects may puncture the Battery wrapping.

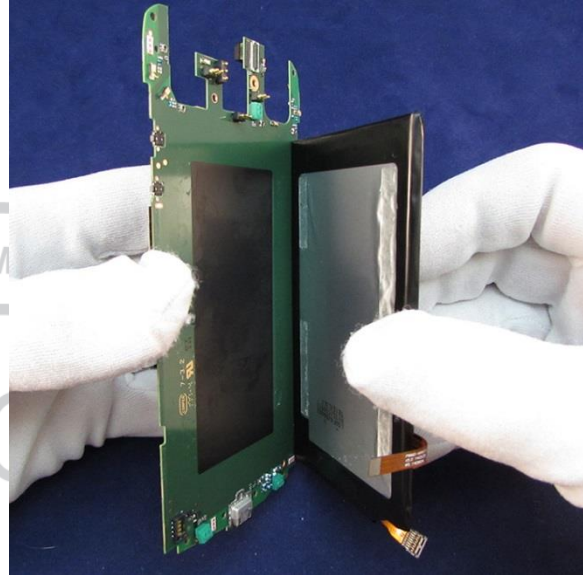


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Do not share without consent from Motorola*

4. Lift the Battery away from the PCB.

**// CAUTION //**

Do not bend the PCB or the Battery.



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## Top Battery Spacer Removal

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

### // CAUTION //


Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.


Ensure screws and screwdrivers do not contact the Battery.

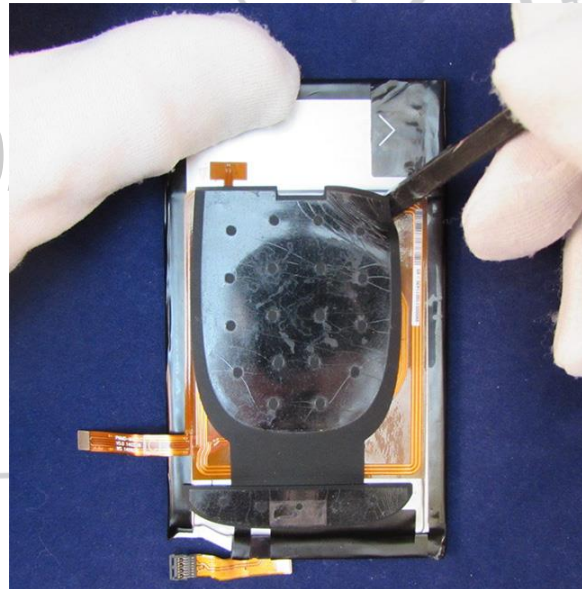
### NOTE

Remove the Top Battery Spacer only if it is defective or damaged. After you remove the Top Battery Spacer, you cannot reuse it. 

Use the flat end of the Blackstick to remove the Top Battery Spacer from the Battery and NFC Antenna.

### NOTE

The Top Battery Spacer adheres to the Rear Housing and Battery, and may remain adhered to the Rear Housing when it is removed. Remove the Top Battery Spacer from the Rear Housing only if it is defective or damaged. After you remove the Top Battery Spacer, you cannot reuse it. 





## NFC Antenna Removal

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

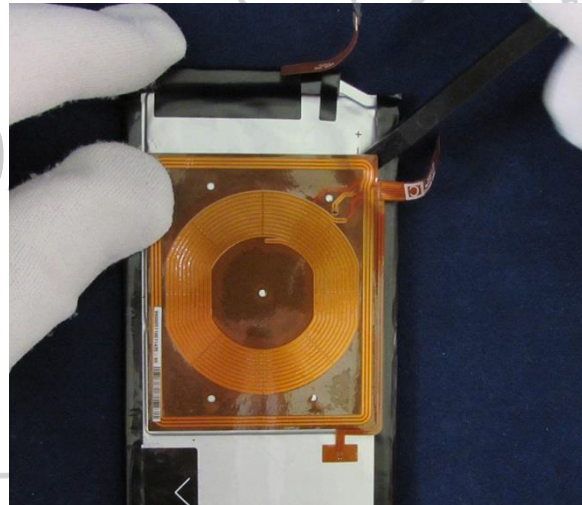
Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

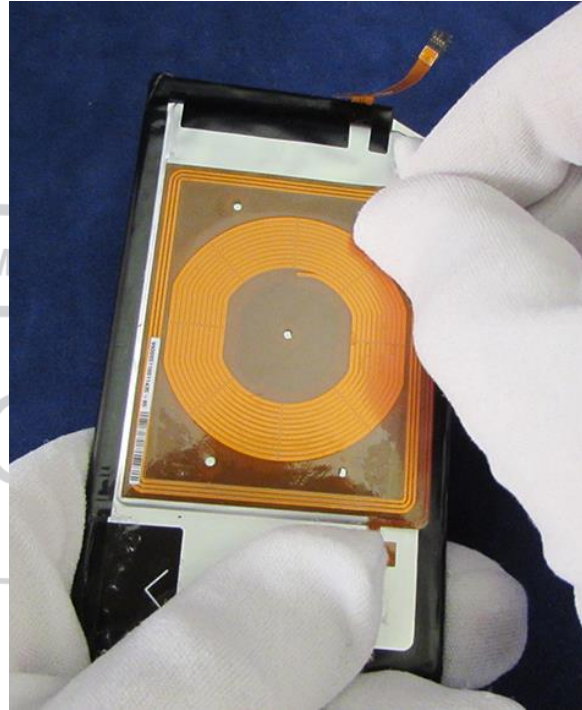
1. Lift the corner of the NFC Antenna near the NFC Flex with the flat end of the Blackstick.

### NOTE

Remove the NFC Antenna only if it is defective or damaged. If the NFC Antenna will be reused, skip these steps. After you remove the NFC Antenna, you cannot reuse it.



2. Starting at the corner near the NFC flex, peel the NFC Antenna away from the Battery.



3. Verify that no adhesive from the NFC Antenna is left on the Battery.

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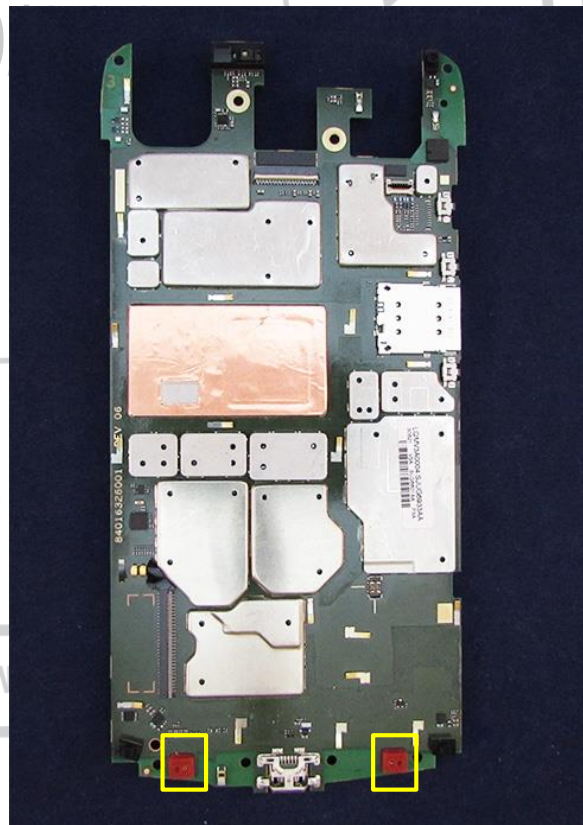
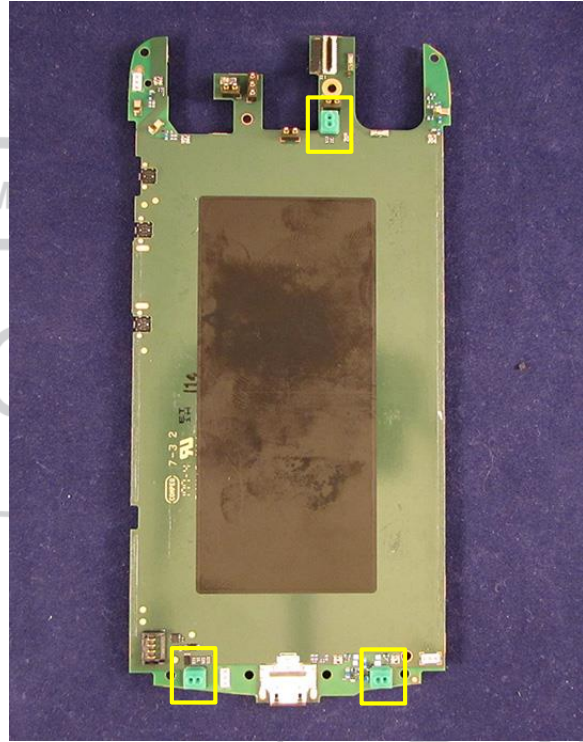
## Microphone Grommet Removal

### NOTE

Remove the Microphone Grommets only if they are defective or damaged. If the Microphone Grommets will be reused, skip this step. After you remove the Microphone Grommets, you cannot reuse them.



Use the Tweezers to remove the 5 Microphone Grommets from the PCB.



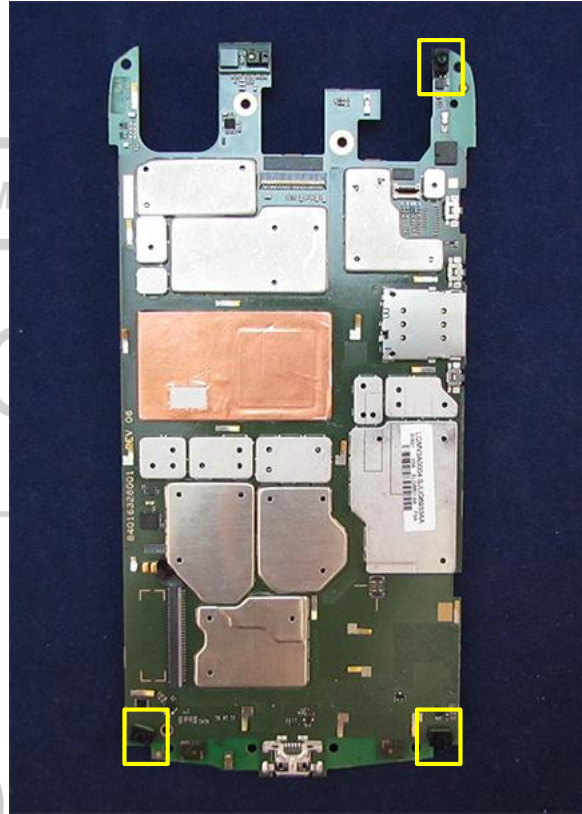
## IR LED Seal Removal

### NOTE

Remove the IR LED Seals only if they are defective or damaged. If the IR LED Seals will be reused, skip this step. After you remove the IR LED Seals, you cannot reuse them.



Use the Tweezers to remove the 3 IR LED Seals from the PCB.





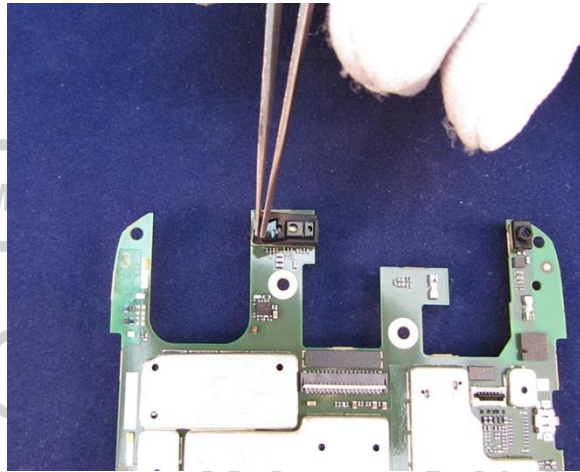
## Proximity Grommet Removal

### NOTE

Remove the Proximity Grommet only if it is defective or damaged. If the Proximity Grommet will be reused, skip this step. After you remove the Proximity Grommet, you cannot reuse it.



Use the Tweezers to remove the Proximity Grommet from the PCB.

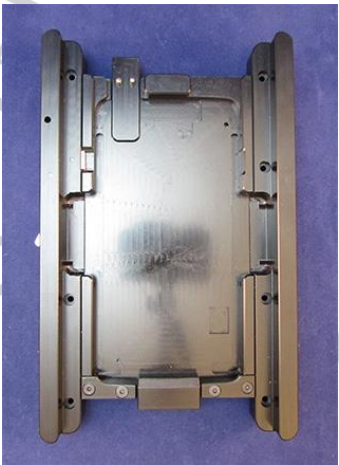
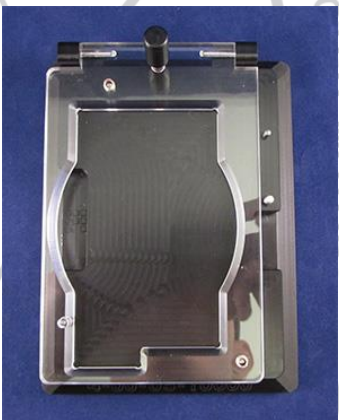
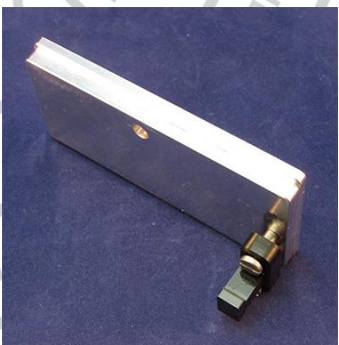


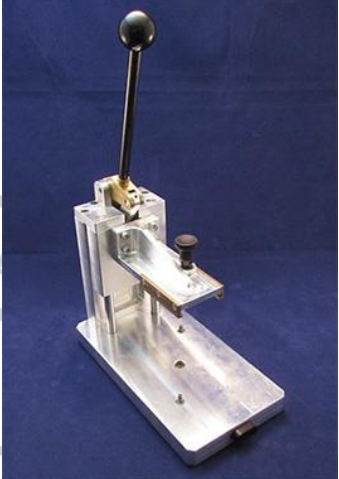

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# PARTS REFRESH

## Tools Required for Parts Refresh

The following tools are required for parts refresh of the DROID TURBO / Moto MAXX phone.

Description	Part #	Picture / Drawing
Front Housing Processes Fixture	4-00-U4-10000	
Battery Adhesive Assembly Fixture	4-00-U5-10000	
Earpiece Speaker Press Tool	4-00-U4-10000	

Description	Part #	Picture / Drawing
Press	19501980	
Blackstick	--	
Tweezers (Plastic or Plastic-Tipped)	--	
ESD Mat and Wrist Strap	--	--
Gloves or Finger Collets	--	--
Isopropyl (ISP) Alcohol	--	--

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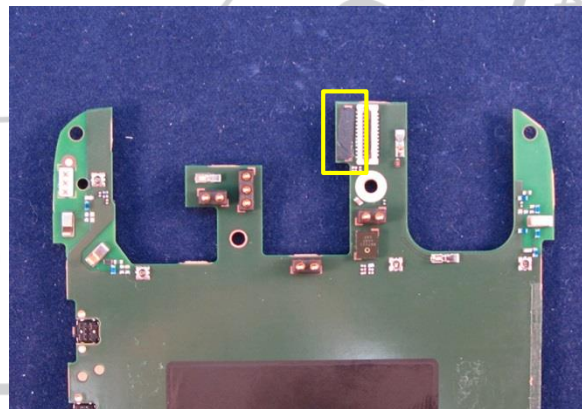
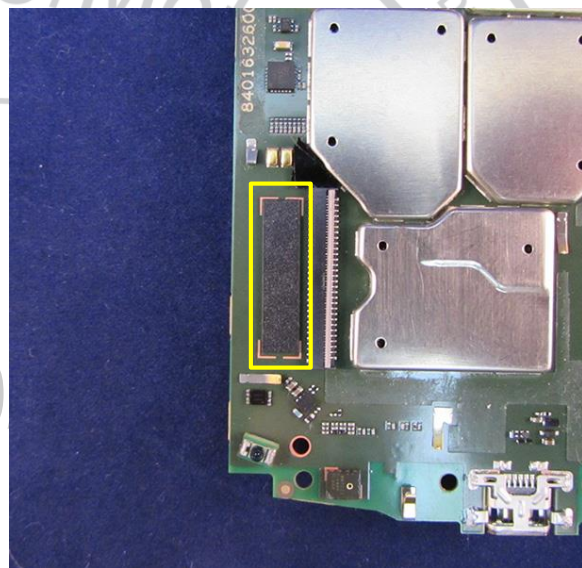
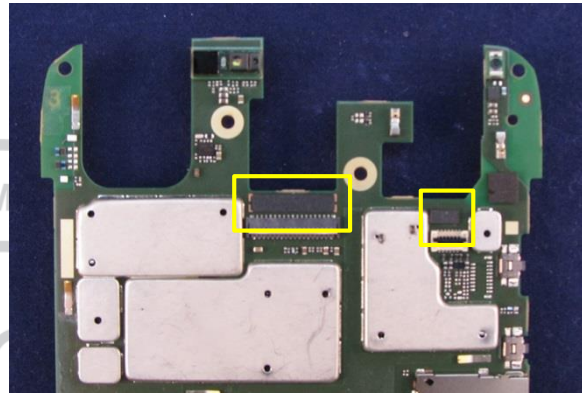
## PCB Preparation

### NOTE

Remove the Flex Shims only if they are damaged or if thermal work will be performed on the PCB. After you remove them, you cannot reuse them.



1. Use the Tweezers to remove the Flex Shims for the following components:
  - Front-Facing Imager Flex
  - Rear-Facing Imager Flex
  - Audio Flex
  - Display Flex



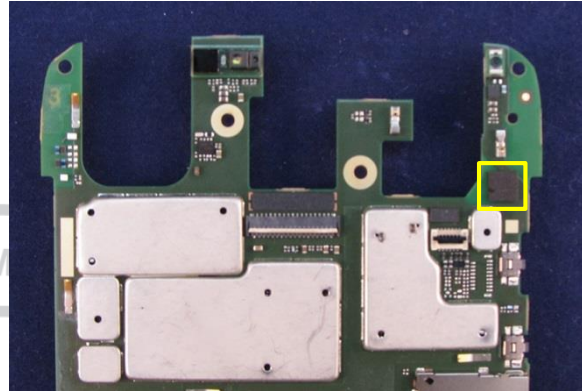


**NOTE**

Remove the WiFi Pad only if it is damaged or if thermal work will be performed on the PCB. After you remove it, you cannot reuse it.



2. Use the Tweezers to remove the WiFi Pad.

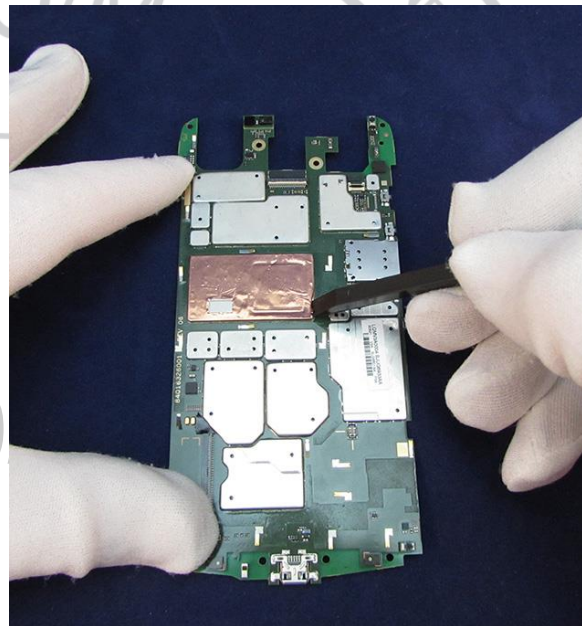


**NOTE**

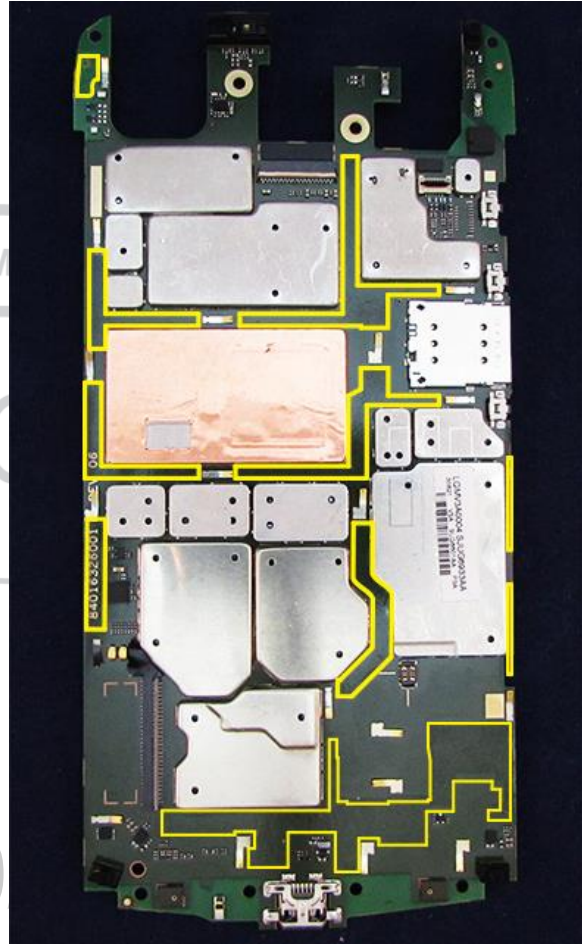
Remove the Copper Tape only if it is damaged. After you remove it, you cannot reuse it.



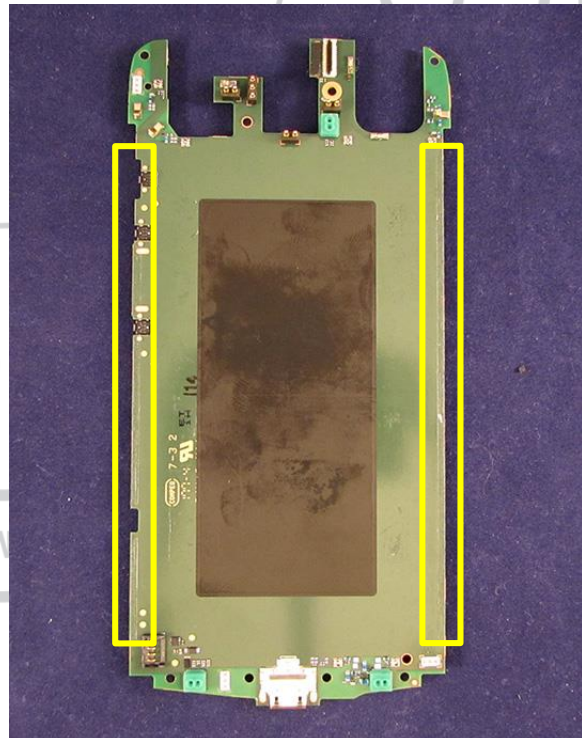
3. Use the flat end of the Blackstick to remove the Copper Tape from the PCB.
4. Use the flat end of the Blackstick and ISP Alcohol to remove all Copper Tape adhesive from the PCB.



5. Use the flat end of the Blackstick and ISP Alcohol to remove the PCB Adhesive from the PCB.



6. Use the flat end of the Blackstick and ISP Alcohol to remove the Battery Spacer Bracket Adhesive from the PCB.

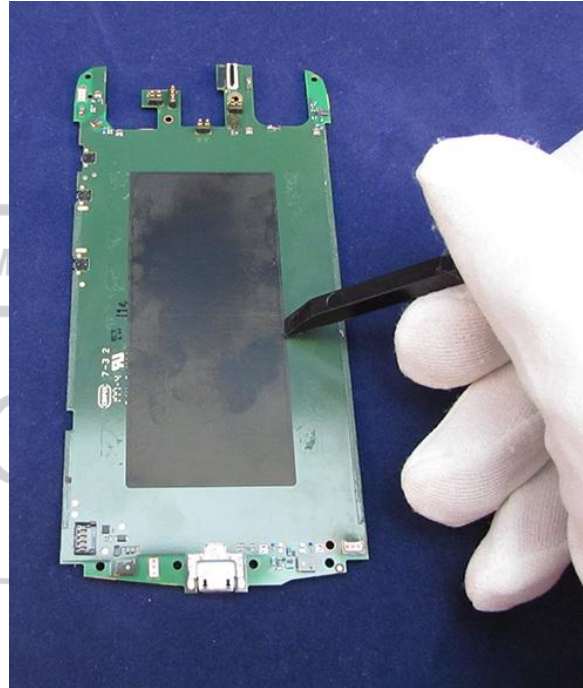


**NOTE**

Remove the Thermal Spreader only if it is damaged. After you remove it, you cannot reuse it.

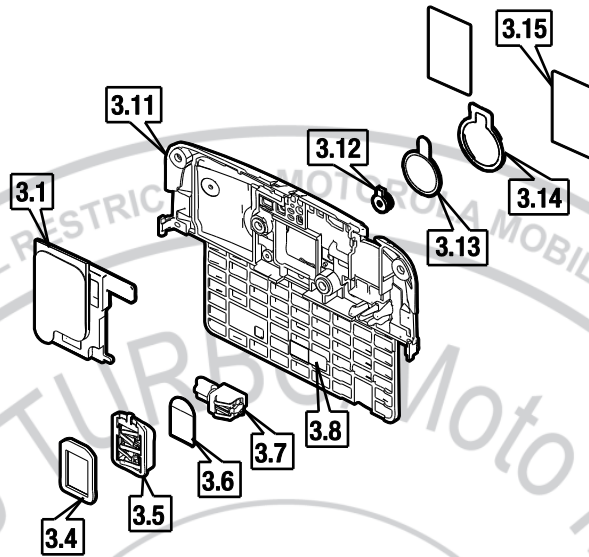


7. Use the flat end of the Blackstick to remove the Thermal Spreader from the PCB.
8. Use the flat end of the Blackstick and ISP Alcohol to remove all Thermal Spreader adhesive from the PCB.



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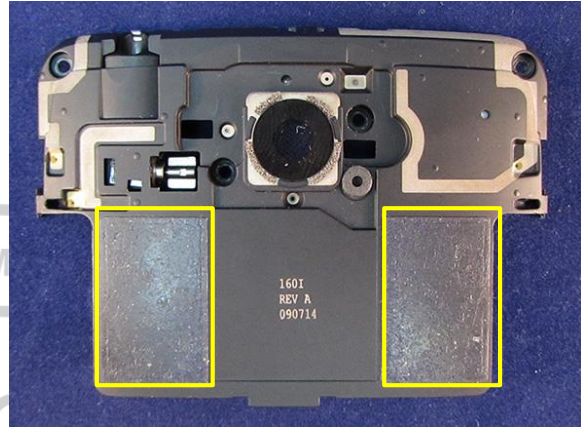
## Top Carrier Preparation



<i>Description</i>	<i>Reference #</i>
ASSY,SPKR,QUARK	3.1
SEAL,GSKT,HSET JCK	3.4
CONN,JACK,HEADSET,3.5 MM DIA	3.5
DIE CUT,ADHES,HSET JACK, OLYMPUS	3.6
ALERT DEVICE,VIBR,MOTOR, ROTARY, 11.75 MM X X 4.55 MM MOTOR BODY	3.7
DIE CUT,ADHES,VIBRATOR, ULTRA	3.8
HSG,REAR,TOP CARRIER, DECORATED, QUARK MAXX	3.11
GSKT,MIC,MIC, QUARK	3.12
LENS,CAMR,QUARK	3.13
PAD,CNDT,BEZEL, CAMERA, QUARK	3.14
DIE CUT,ADHES,TOP CARRIER, QUARK MAXX	3.15



1. Use the flat end of the Blackstick and ISP Alcohol to remove the Top Carrier Adhesive from the Top Carrier.



2. Apply the Top Carrier Adhesive to the Top Carrier.

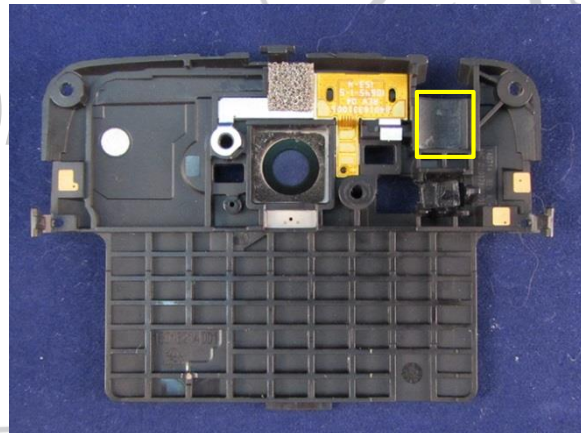
**NOTE**

Do not remove the outer adhesive liner from the Top Carrier Adhesive until Rear Housing Assembly.

3. Use the flat end of the Blackstick and ISP Alcohol to remove Headset Jack Adhesive from the Top Carrier.

**NOTE**

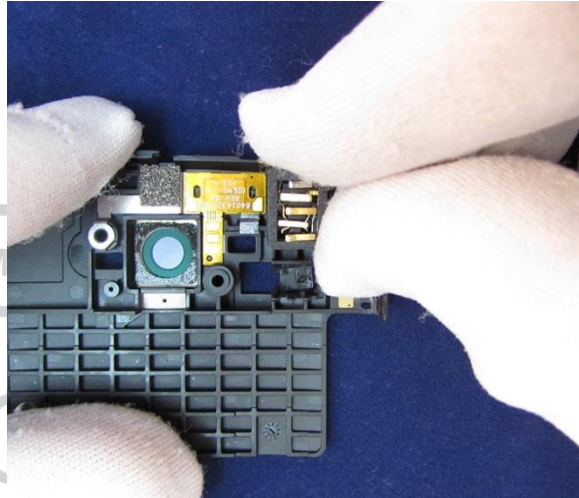
The Headset Jack Adhesive may remain adhered to the Headset Jack. If it does, remove it from the Headset Jack with the flat end of the Blackstick and ISP Alcohol.



4. Remove the adhesive liner and place the Headset Jack in the pocket of the Top Carrier.
5. Press the Headset Jack into the Top Carrier pocket.

**// CAUTION //**

Do not damage the Headset Jack contacts when pressing it into the Top Carrier.



6. Remove the adhesive liner and place the Loudspeaker in the pocket of the Top Carrier.
7. After the Loudspeaker is seated, apply pressure to the magnet to secure the Loudspeaker to the Top Carrier.

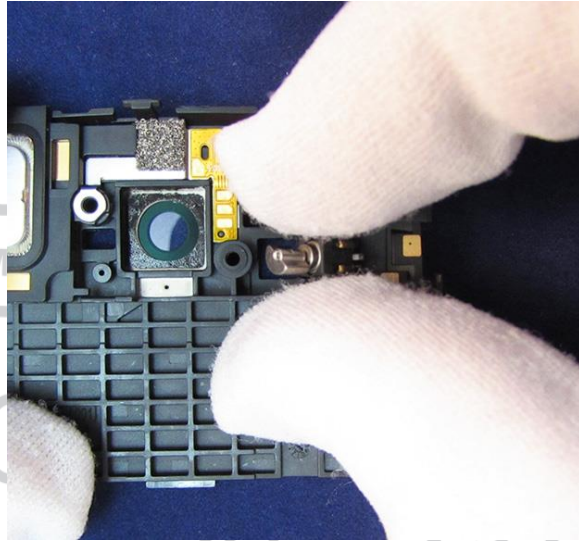


8. Apply the adhesive to the base of the Vibrator (the side opposite of the contacts).

9. Remove the adhesive liner and press the Vibrator into the pocket of the Top Carrier.

**// CAUTION //**

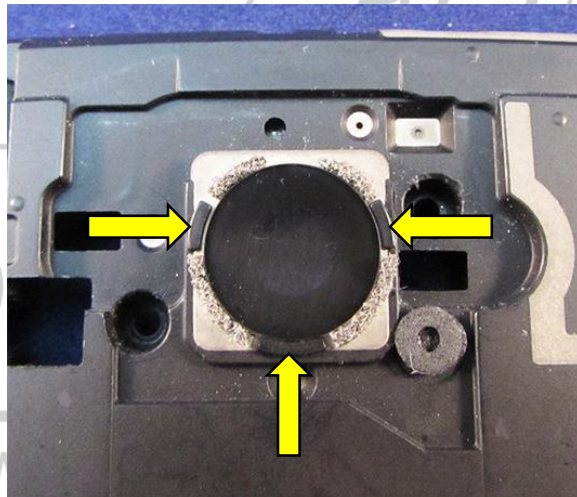
Do not damage the Vibrator contacts when pressing it into the Top Carrier.



10. Remove the adhesive liner and place the Microphone Gasket into the recess on the Top Carrier.



11. Remove the adhesive liner and place the Rear-Facing Imager Lens in position on the Top Carrier. The Rear-Facing Imager Lens aligns to the three tabs in the Top Carrier.





## Battery Preparation

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

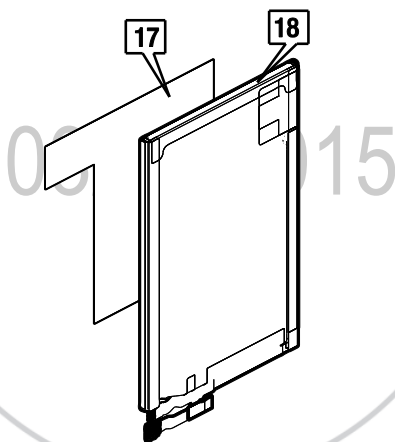
### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

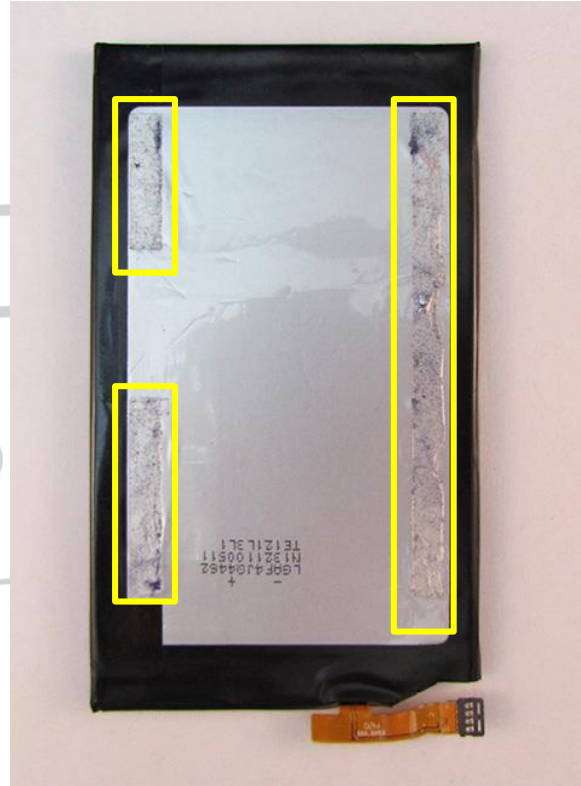
Ensure screws and screwdrivers do not contact the Battery.



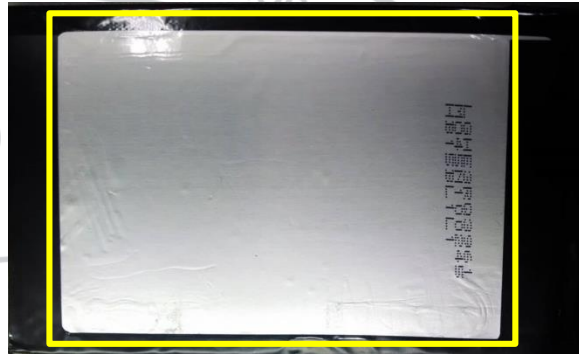
Description	Reference #
DIE CUT,ADHES,BATTERY, QUARK MAXX	17
ASSY,BAT,LI POLY,EQ40,3800MAH	18



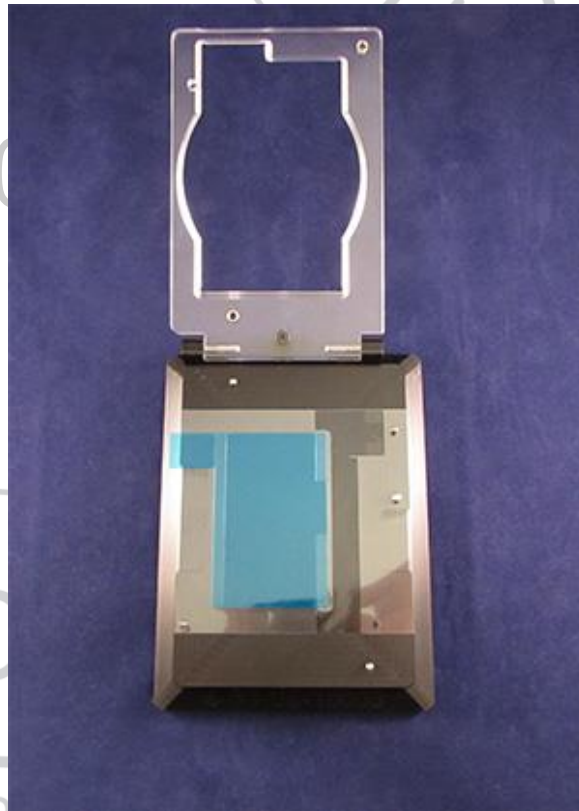
1. Use the flat end of the Blackstick and ISP Alcohol to remove the Battery Adhesive and Battery Adhesive tab from the Battery.



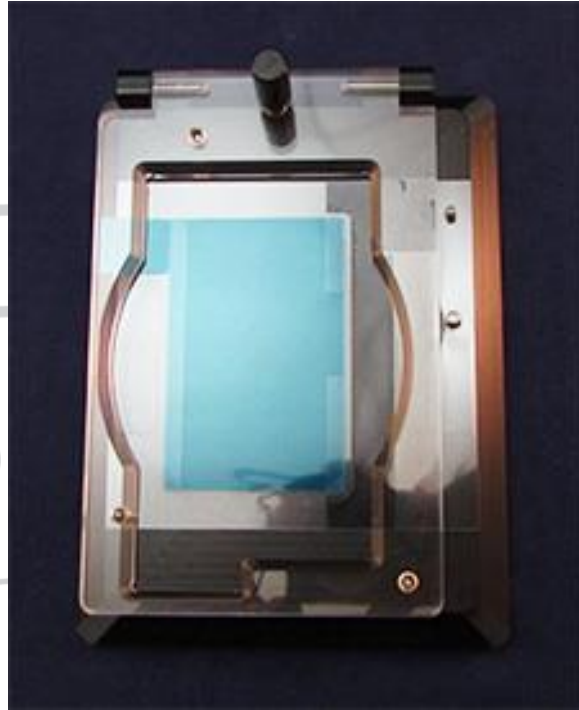
2. If the Battery foil pack is wrinkled, slide the flat edge of the Blackstick against the foil pack to smooth out all wrinkles until the surface is smooth as shown.



3. Remove the Battery Adhesive from the carrier.
4. Place the Battery Adhesive over the alignment pins in the Battery Adhesive Assembly Fixture (4-00-U5-10000).



5. Close the fixture lid.



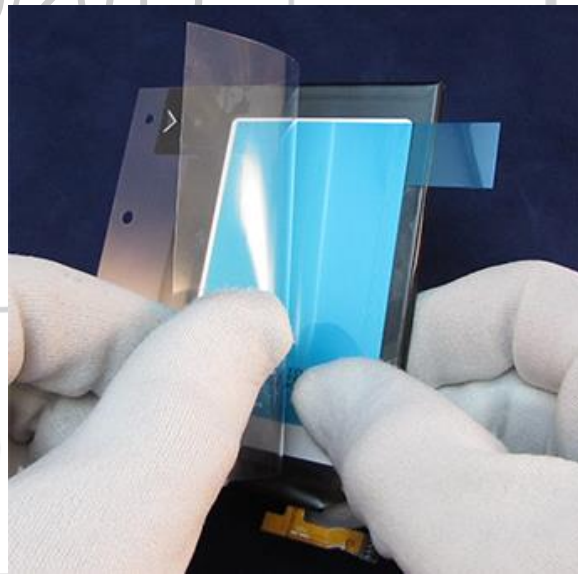
6. Place the Battery in the fixture.



7. Press down on the Battery to secure the Battery Adhesive to the Battery.



8. Remove the Battery from the fixture.
9. Remove the Battery Adhesive carrier, peeling from the connector side of the Battery toward the Battery Adhesive tab.



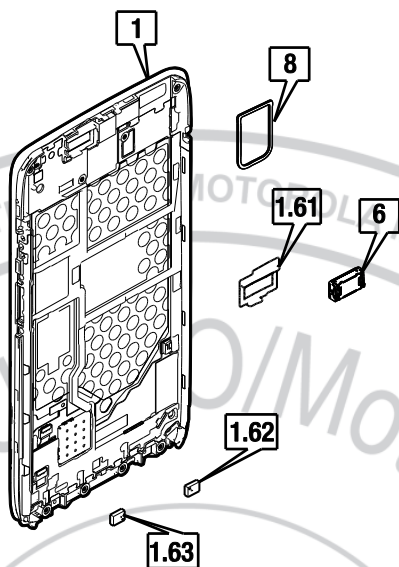


10. Fold the Battery Adhesive tab over and secure it to the Battery.



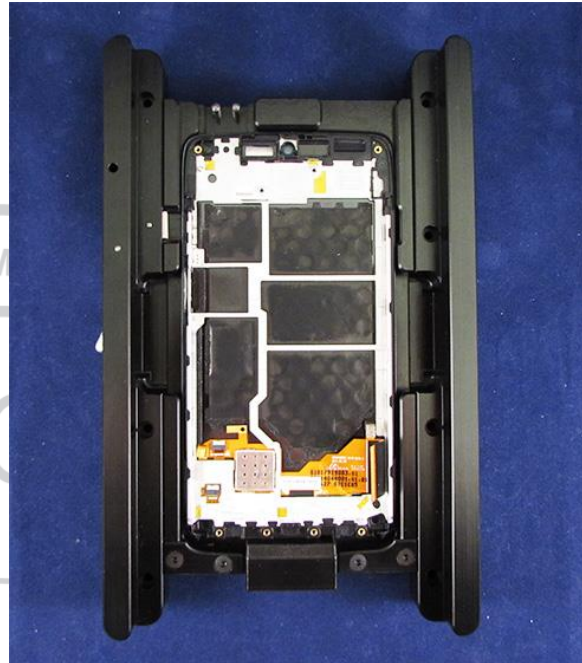
03/20/2015

## Front Housing Preparation



Description	Reference #
ASSY,HSG,FRNT,PROTO, QUANTUM TITANIUM/TITANIUM	1
ASSY,HSG,FRNT,PROTO, QUANTUM DK TITANIUM/DARK Ti	
ASSY,HSG,FRNT,PROTO, QUANTUM RED LAC/RED LAC	
SPCR,EARPC SPEAKER, QUARK	1.61
SCRN,MESH,MICROPHONE,QUARK	1.62
SCRN,MESH,MICROPHONE,QUARK	1.63
TRANSDUCER,OTHR,6X12X3,6X12X3MM RCVR F0=200HZ, AAC	6
SEAL,LOUD SPEAKER,QUARK	8
LBL,WATER, DETECT	N/A

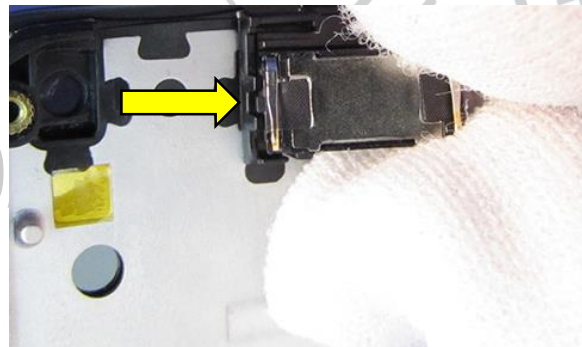
1. Place the assembly in the Front Housing Processes Fixture (4-00-U4-10000) with the main lens facing down.



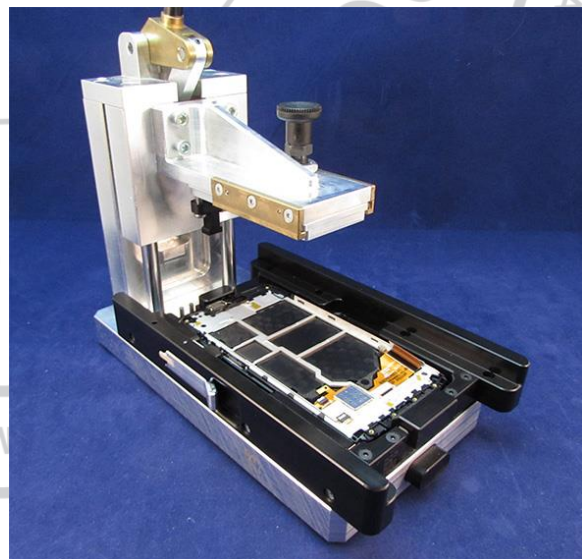
2. Remove the adhesive liner and insert the Earpiece Speaker into the pocket in the Front Housing.

**NOTE**

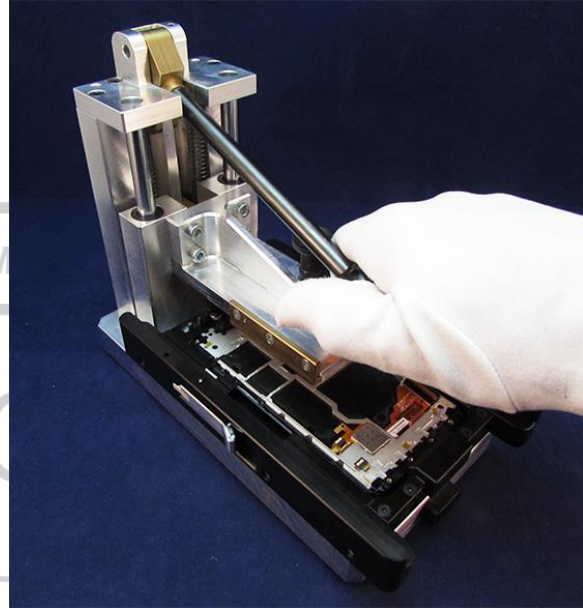
The Earpiece Speaker has a keying feature on the side and only fits in the pocket one way.



3. Place the assembly with the Front Housing Processes Fixture and Earpiece Speaker Press Tool (4-00-U4-10000) in the Press (19501980).



4. Press the Earpiece Speaker for 5 seconds to secure it to the Front Housing.

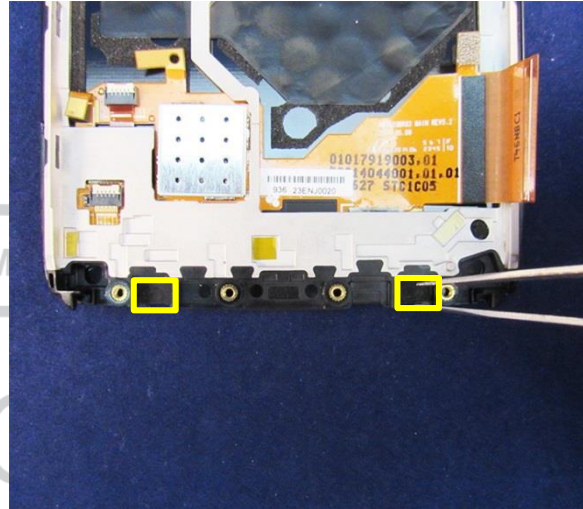


5. Remove the assembly from the fixture.
6. Place the WDL on the Front Housing pocket between the Power Key and the Volume Key/SIM Card Tray. The WDL must be aligned so that the label can be seen through the Volume Key/SIM Card Tray opening from outside of the assembly.





7. Remove the adhesive liners and place the 2 Microphone Meshes in the pockets in the Front Housing.



8. Remove the Acoustic Gasket from the Acoustic Gasket carrier.
9. Place the Acoustic Gasket over the alignment pins in the Front Housing Processes Fixture (4-00-U4-10000).



10. Place the Front Housing in the fixture with the main lens facing up.



11. Press down on the Front Housing to secure the Acoustic Gasket.



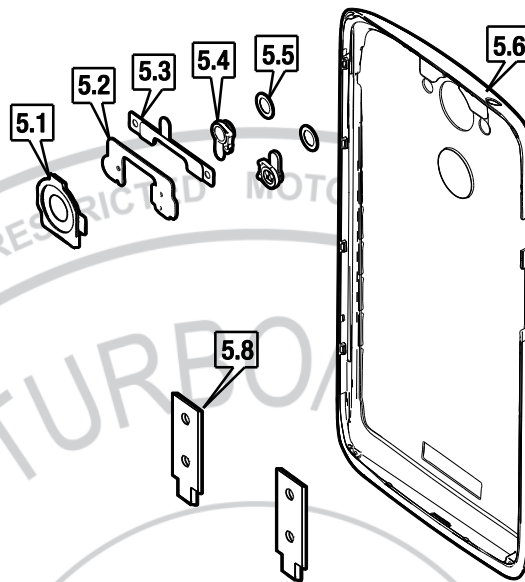
12. Remove the assembly from the fixture.

13. Remove the Acoustic Gasket liner.



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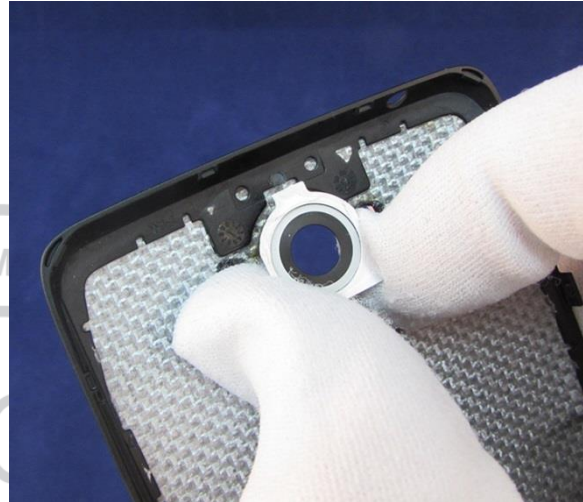
## Rear Housing Preparation



Description	Reference #
ASSY,BZL,CAMERA, QUARK MAXX Ti ASSY,BZL,CAMERA, QUARK MAXX DK Ti ASSY,BZL,CAMERA, QUARK MAXX BALLISTIC DK Ti ASSY,BZL,CAMERA, QUARK MAXX BALLISTIC EMPLOYEE EDITION	5.1
ASSY,PCB,LED FLASH,QUARK	5.2
DIE CUT,ADHES,FLSH PCB/REAR HOUSING, QUARK	5.3
ASSY,LENS,FLASH, QUARK ASSY,LENS,FLASH, QUARK BALLISTIC	5.4
DIE CUT,ADHES,FLSH LENS, QUARK	5.5
HSG,REAR,CVR + OM, DARK, PWR KEY + M LOGO, QUARK MAXX HSG,REAR,CVR + OM, RED, PWR KEY + M LOGO, QUARK MAXX HSG,REAR,HOUSING,REAR,COVER, DECORATED, NYL + OM, QUARK MAX	5.6
SCRN,MESH,MICROPHONE,QUARK SCRN,MESH, MIC, TERT/QUIN, QUARK	5.8



1. Remove the adhesive liner and place the Rear-Facing Imager Bezel in the Rear Housing.



2. Remove the adhesive liner from the Flash Adhesive and place it on the LED Flash PCB.
3. Remove the adhesive liner from the LED Flash Lenses and place them over the LEDs on the LED Flash PCB.
4. Remove the adhesive liner from the LED Flash Adhesives and place them over the LED Flash Lenses.
5. Remove the adhesive liners from the LED Flash Adhesives and place the LED Flash in the Rear Housing.

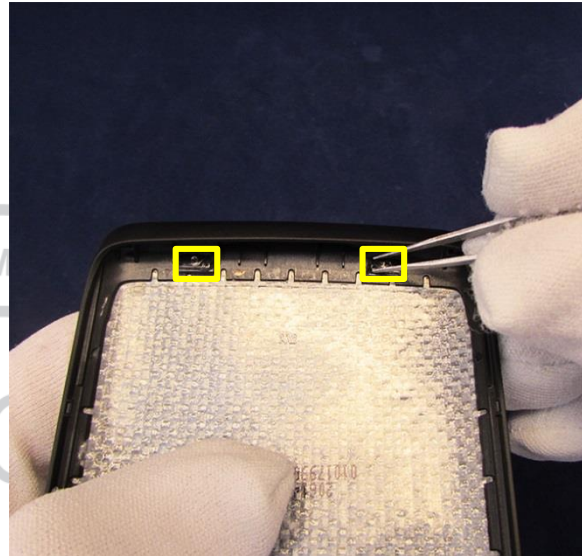


6. Remove the adhesive liners and place the 2 Microphone Meshes in the pockets in the Rear Housing.

**// CAUTION //**

The Microphone Meshes must not obstruct the microphone openings in the Rear Housing.

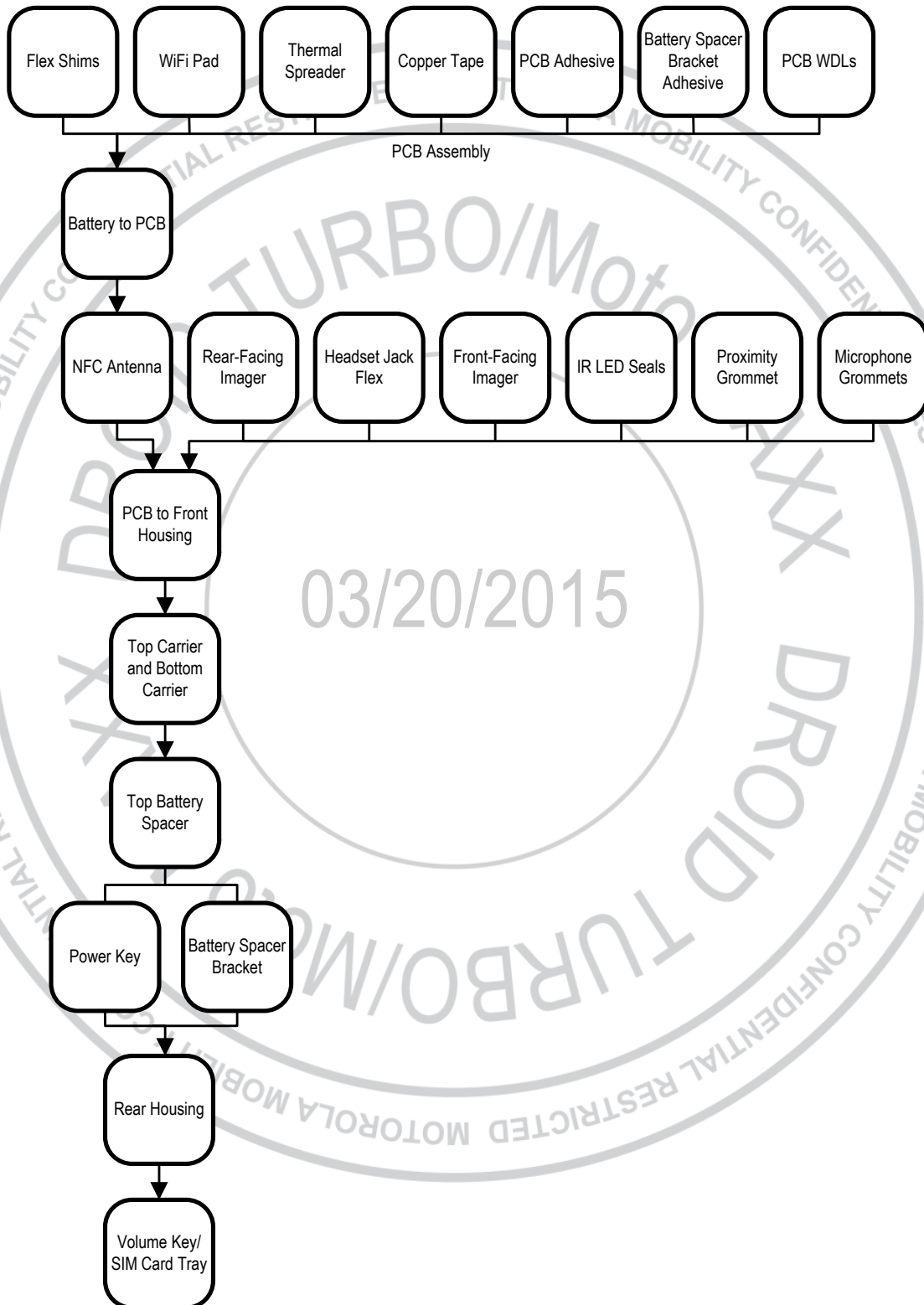
7. Hold the Rear Housing up to a light source and verify that light is visible through the openings in the Microphone Meshes.



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# ASSEMBLY

## Assembly Map

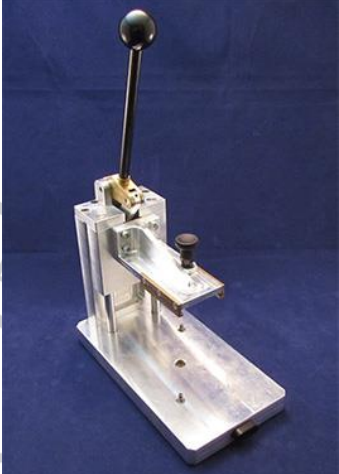


## Tools Required for Assembly

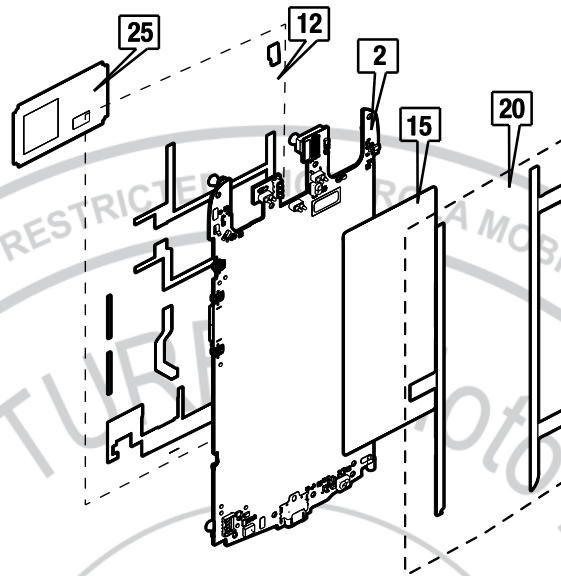
The following tools are required to assemble the DROID TURBO / Moto MAXX phone.

Description	Part #	Picture / Drawing
PCB Processes Fixture	4-00-U3-10000	
Front Housing Processes Fixture	4-00-U4-10000	



Description	Part #	Picture / Drawing
Press	19501980	
Front-Facing Imager Gasket Assembly Fixture	4-00-R8-10000	
Battery Roller	5-00-7D-1000	
Blackstick	--	
5IP Torx Bit	--	
Torque Driver (Adjustable)	--	
Tweezers (Plastic or Plastic-Tipped)	--	--
ESD Mat and Wrist Strap	--	--
Gloves or Finger Collets	--	--
Isopropyl (ISP) Alcohol	--	--
Ionized Air Blower	--	--

## PCB Assembly

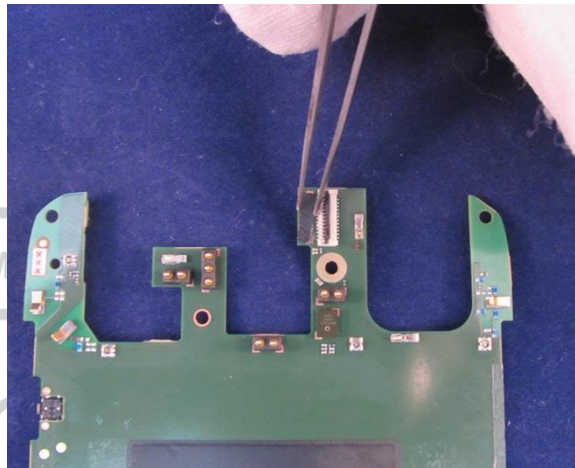


Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
DIE CUT,ADHES,PCB, QUARK	12
DIE CUT,ADHES,HT SPREADER, QUARK	15
DIE CUT,ADHES,BAT SPACER, QUARK MAXX	20
DIE CUT,TAPE, COPPER, 0.14MM, APQ SHIELD, QUARK	25
PAD,20MP IMGR FLX ASSY, QUARK	N/A
PAD,2MP IMGR FLX ASSY, QUARK	N/A
PAD,HSJ FLX ASSY, QUARK	N/A
PAD,DISP FLX ASSY, QUARK	N/A
LBL,WATER, DETECT	N/A (Qty. 3)

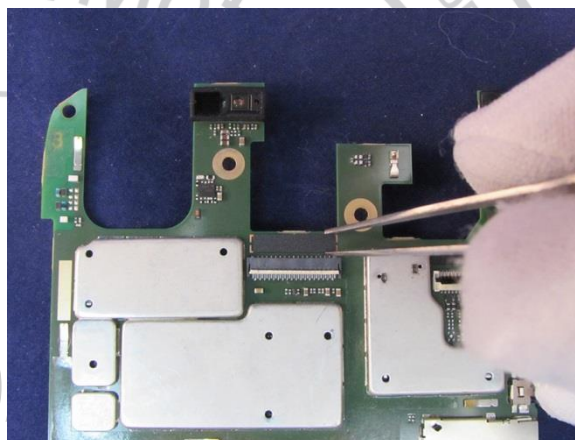
## DROID TURBO / Moto MAXX

Level 2 – Service and Repair Manual

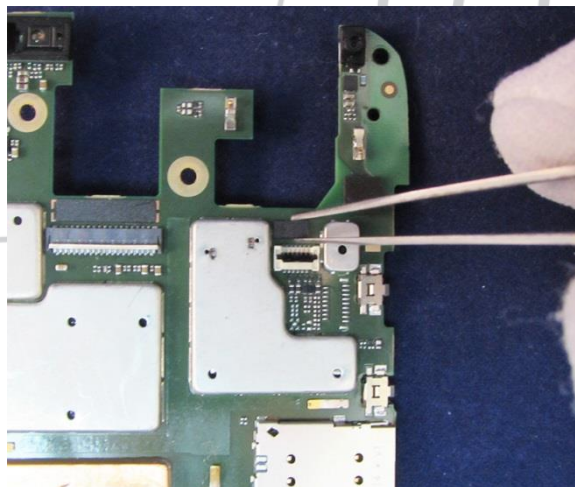
1. Use the Tweezers to place the Front-Facing Imager Shim. The Front-Facing Imager Shim aligns with the etched markings on the PCB.
2. Press down on the Front-Facing Imager Shim to secure it to the PCB.



3. Use the Tweezers to place the Rear-Facing Imager Shim. The Rear-Facing Imager Shim aligns with the etched markings on the PCB.
4. Press down on the Rear-Facing Imager Shim to secure it to the PCB.



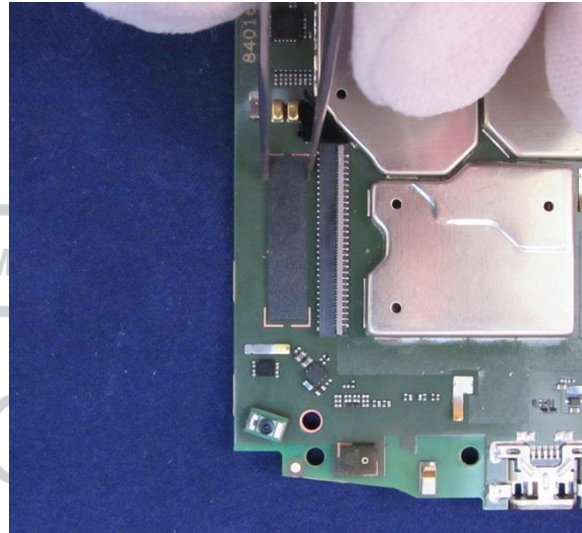
5. Use the Tweezers to place the Audio Flex Shim. The Audio Flex Shim aligns with the etched markings on the PCB.
6. Press down on the Audio Flex Shim to secure it to the PCB.



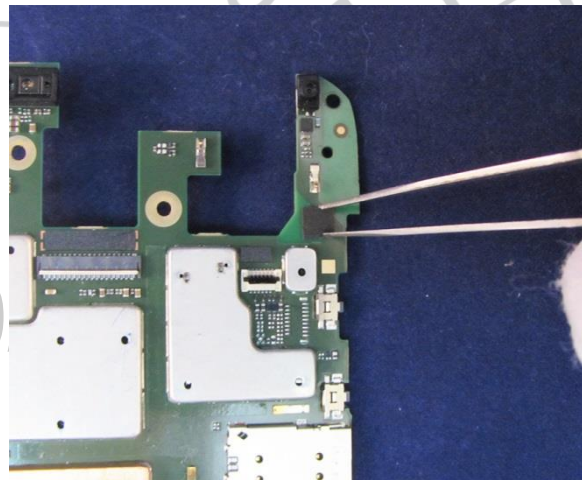
## DROID TURBO / Moto MAXX

Level 2 – Service and Repair Manual

7. Use the Tweezers to place the Display Flex Shim. The Display Flex Shim aligns with the etched markings on the PCB.
8. Press down on the Display Flex Shim to secure it to the PCB.

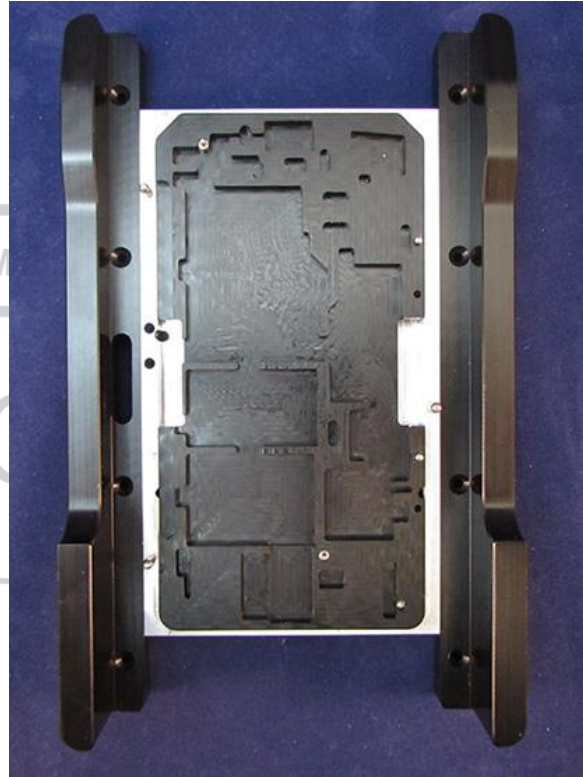


9. Use the Tweezers to place the WiFi Pad.

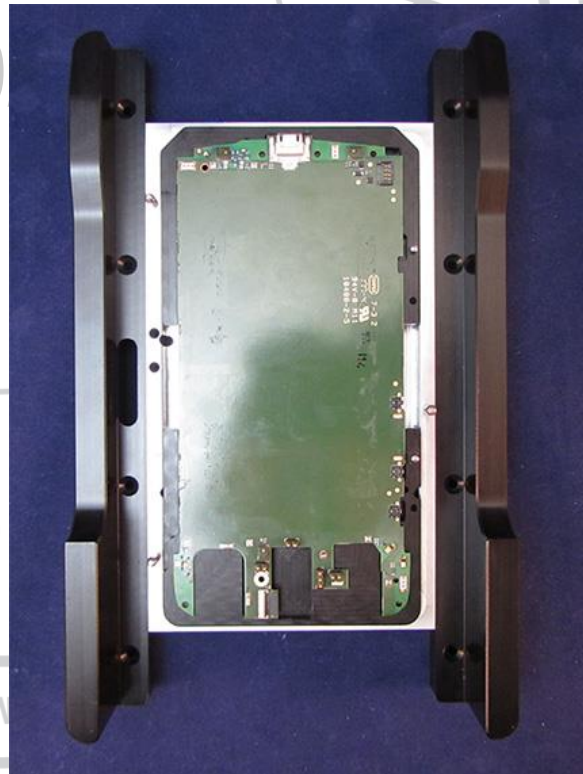




10. Set the PCB Processes Fixture (4-00-U3-10000) inlay with side B facing up.

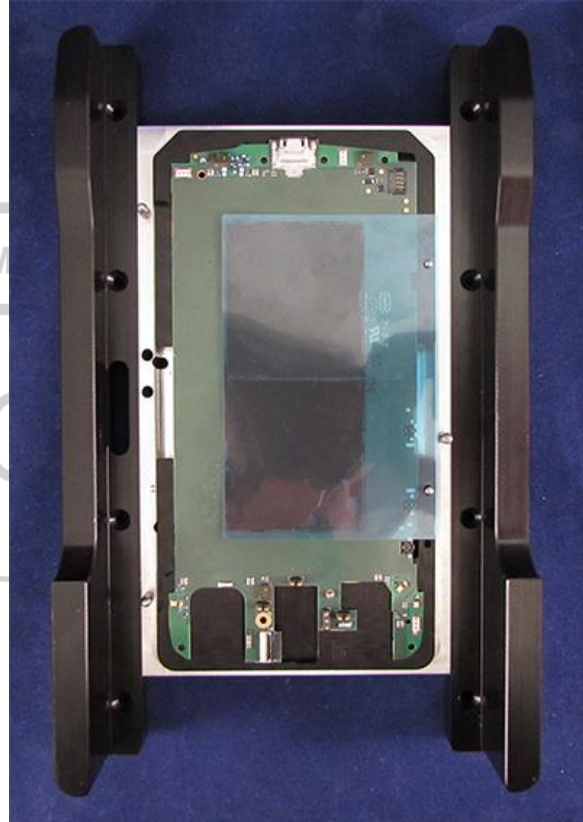


11. Place the PCB on the PCB Processes Fixture with the Shields facing down.

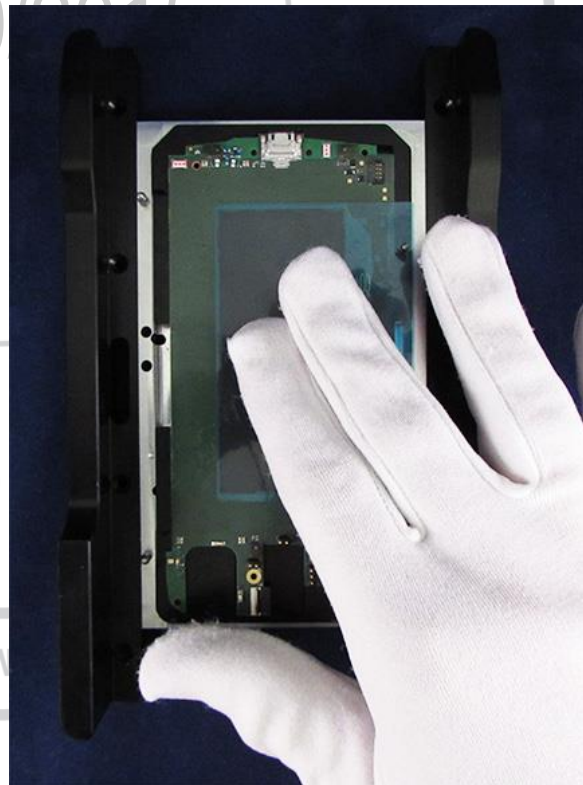


12. Remove the adhesive liners from the Thermal Spreader.

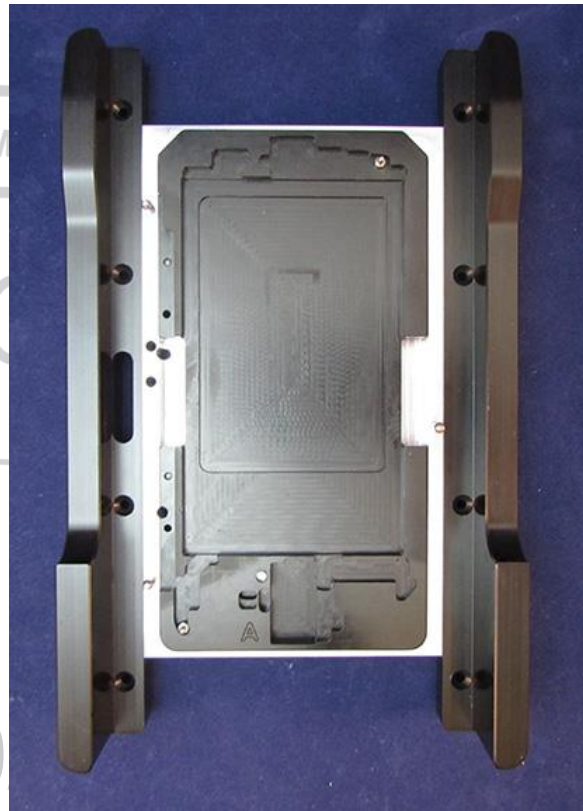
13. Place the Thermal Spreader over the alignment pins on the right side of the PCB Processes Fixture.



14. Press down on the Thermal Spreader to secure it to the PCB.

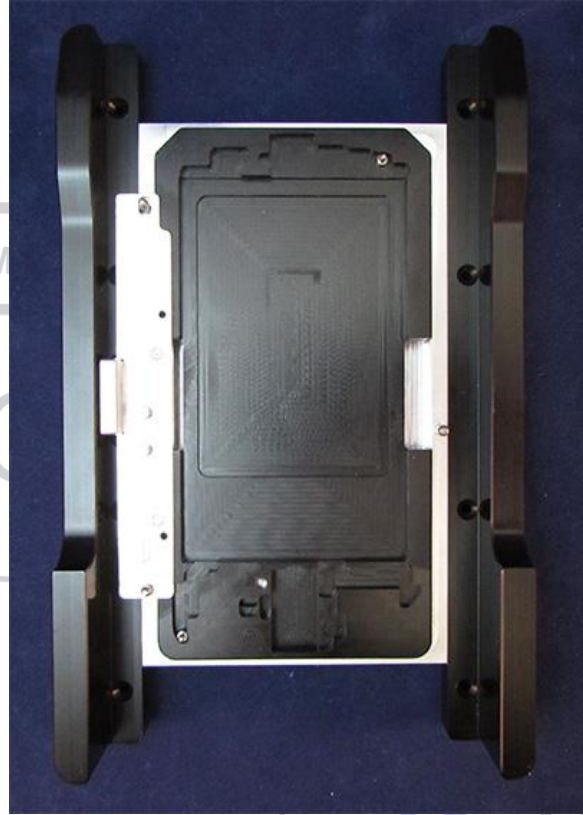


15. Remove the PCB from the PCB Processes Fixture.
16. Set the PCB Processes Fixture inlay with side A facing up.

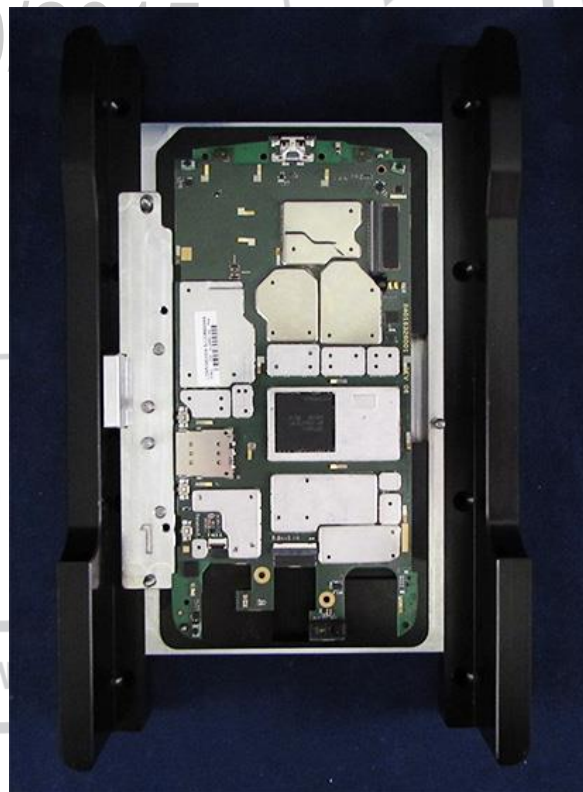




17. Set the PCB Processes Fixture bracket in the fixture with side 1 facing up.

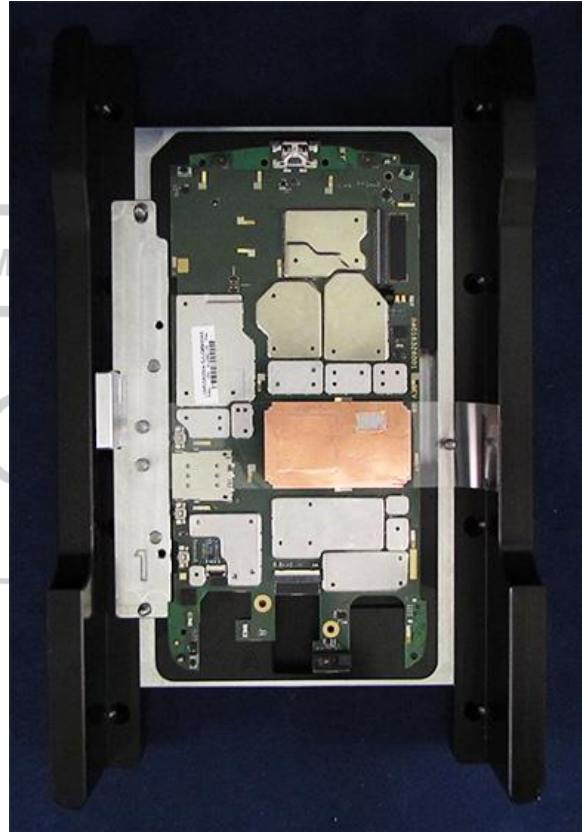


18. Place the PCB in the PCB Processes Fixture with the Shields facing up.

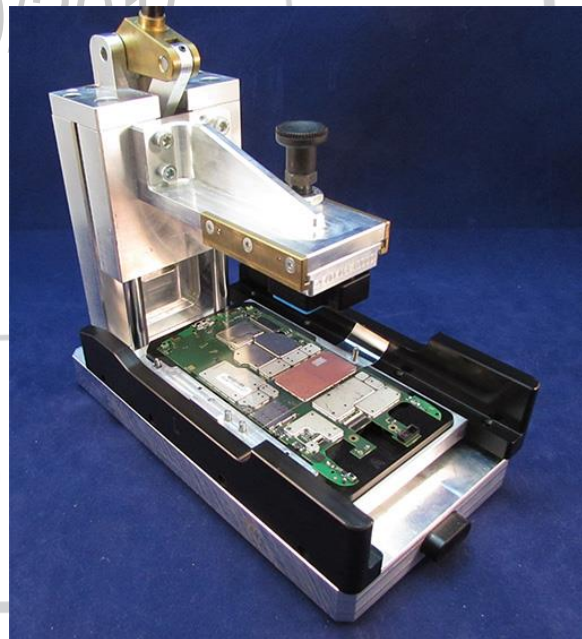




19. Remove the Copper Tape from the carrier.
20. Place the Copper Tape over the 2 alignment pins on PCB Processes Fixture Bracket, and the pin on the right side of the PCB Processes Fixture.



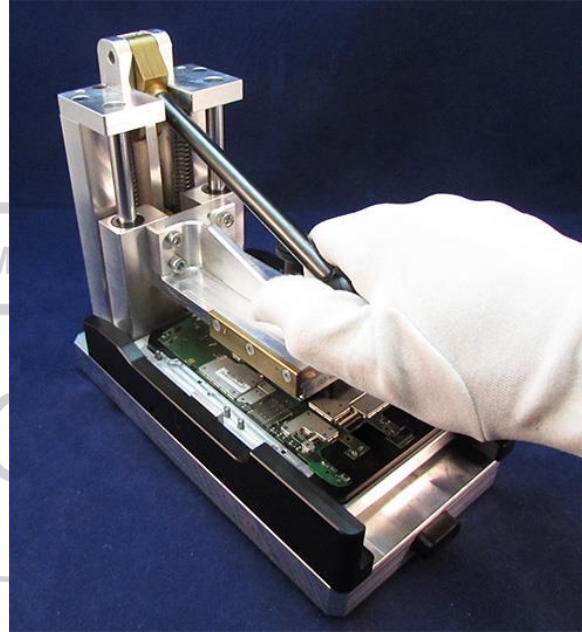
21. Place the PCB Processes Fixture and Copper Tape Press Tool (4-00-U3-10000) in the Press (19501980).



22. Press the Copper Tape for 5 seconds to secure it to the PCB.

**NOTE**

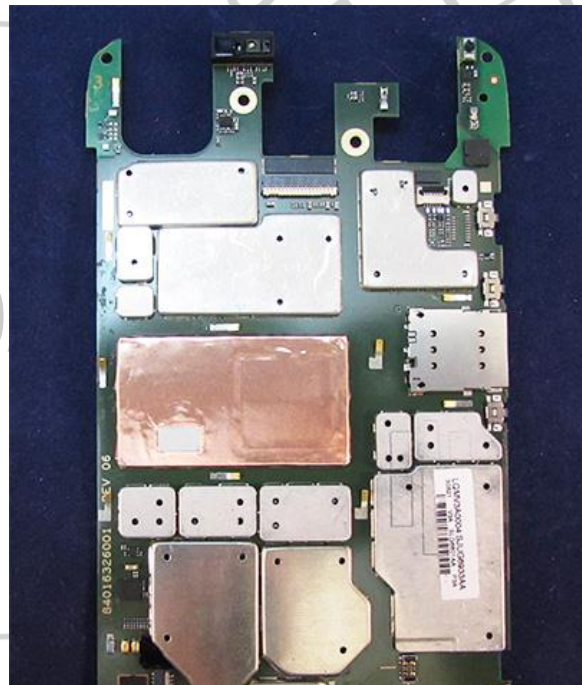
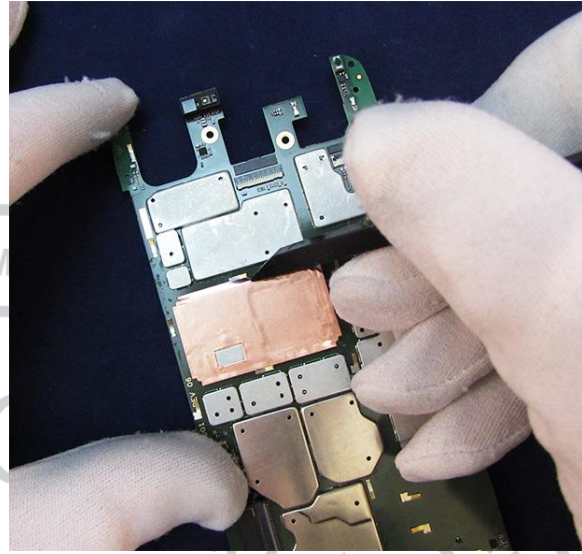
Hold the PCB down by hand to ensure it does not lift out of the fixture when the press is released.



23. Remove the PCB from the PCB Processes Fixture, and the PCB Processes Fixture and Copper Tape Press Tool from the press.

24. Remove the liner from the Copper Tape.

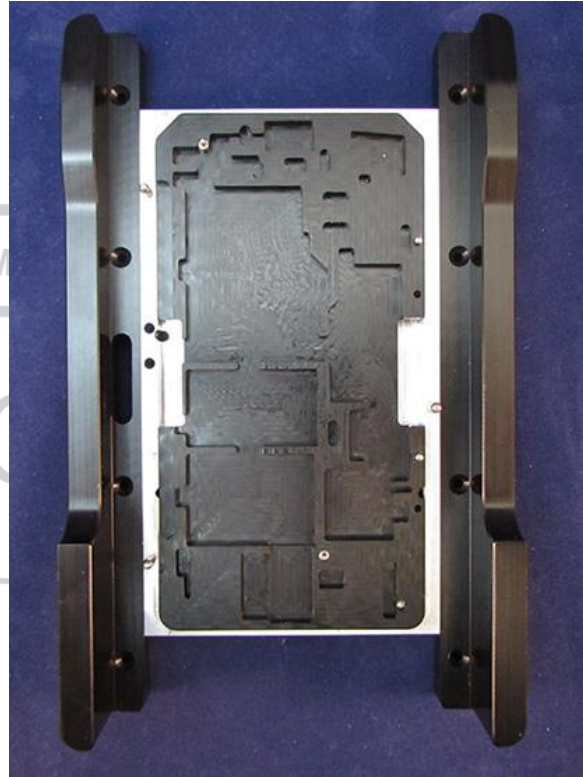
25. Use the Blackstick to bend the Copper Tape around and secure it to the PCB Shield.



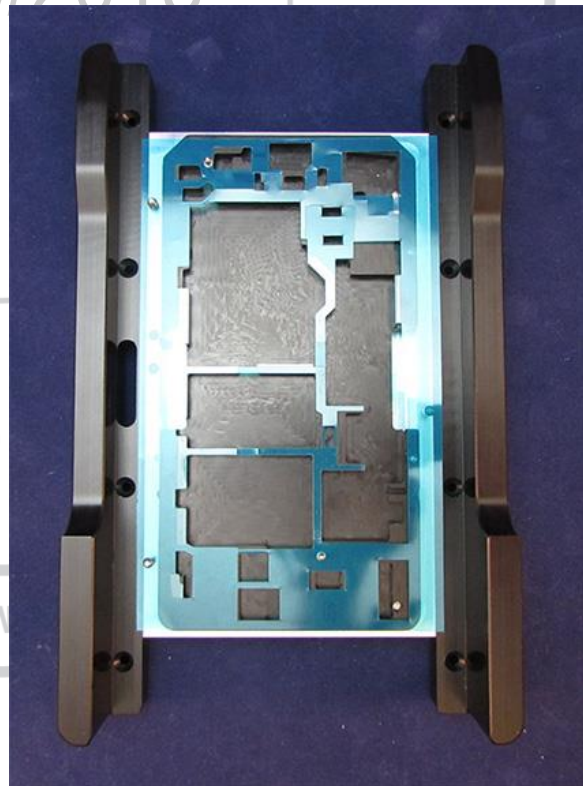
26. Remove the PCB Processes Fixture bracket.



27. Set the PCB Processes Fixture inlay with side B facing up.

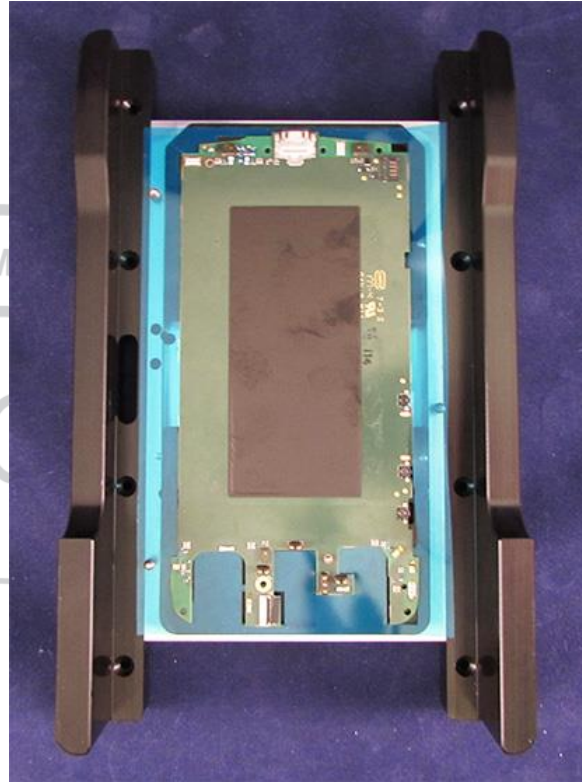


28. Remove the top PCB Adhesive liner.
29. Place the PCB Adhesive over the alignment pins on the left side of the PCB Processes Fixture.

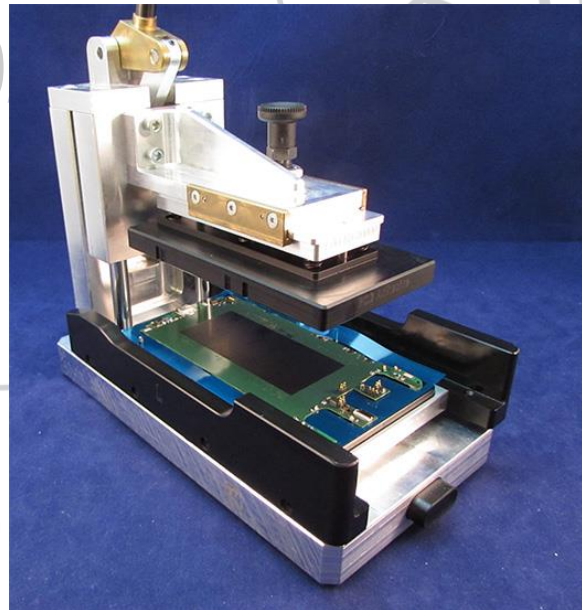




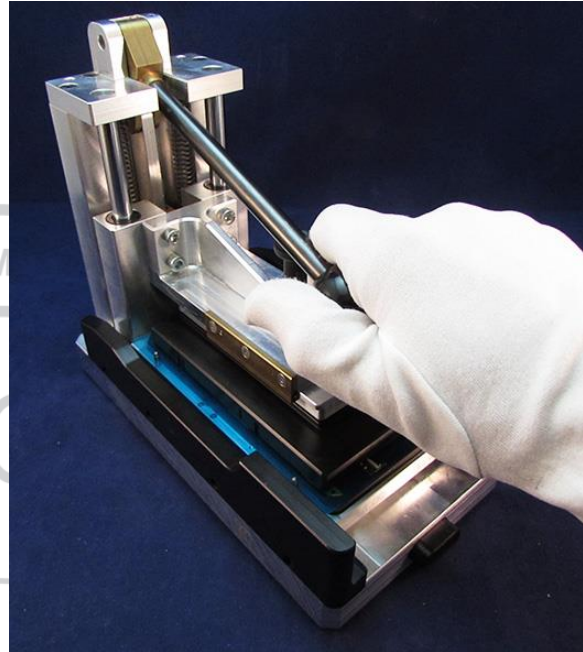
30. Place the PCB in the PCB Processes Fixture with the Shields facing down.



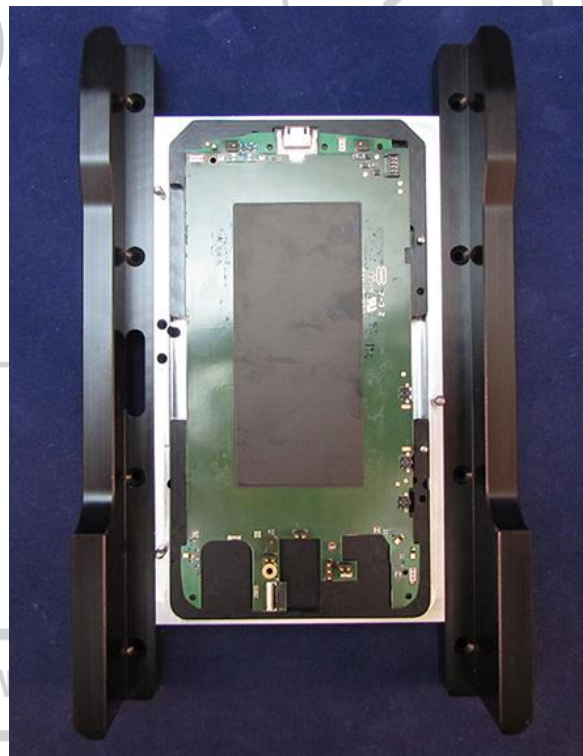
31. Place the PCB Processes Fixture and PCB Press Tool (4-00-U3-10000) in the press.



32. Press the PCB Adhesive for 10 seconds to secure it to the PCB.

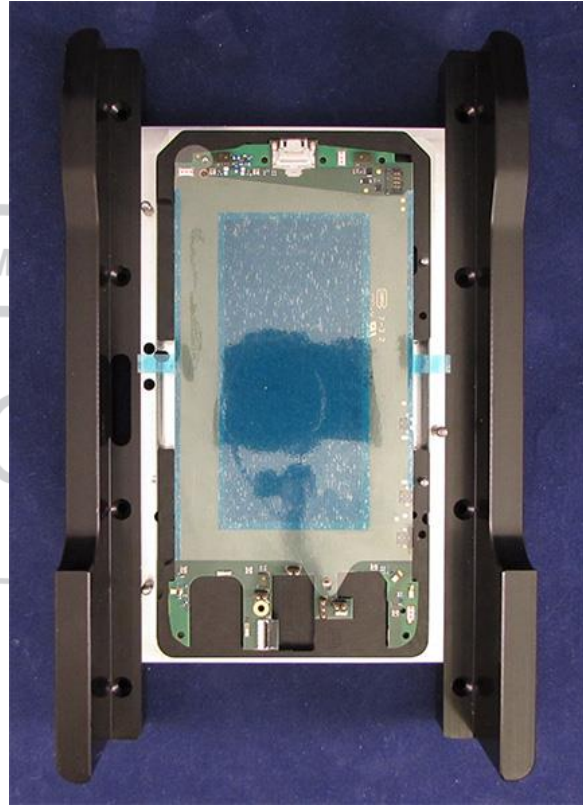


33. Remove the PCB Processes Fixture from the press. The PCB and PCB Adhesive must remain in the fixture.
34. Place the PCB in the PCB Processes Fixture with the Shields facing down.

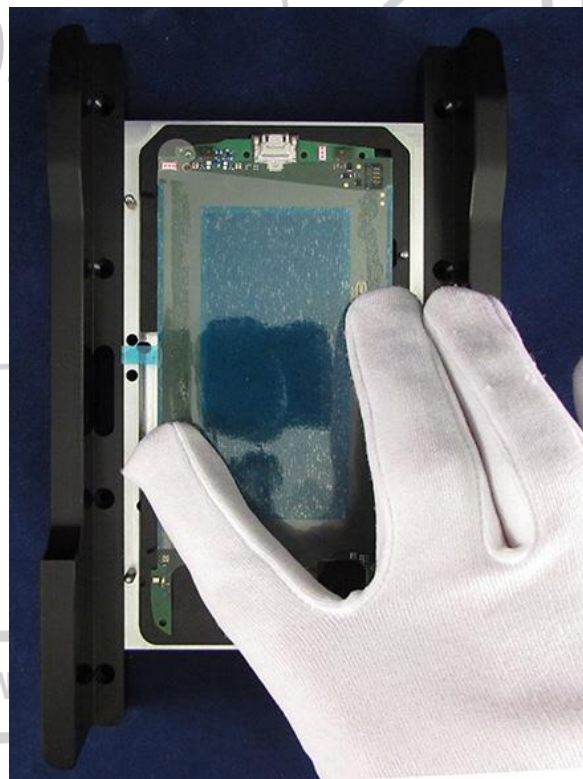


35. Remove the top Battery Spacer Bracket Adhesive liner.

36. Place the Battery Spacer Bracket Adhesive over the alignment pins in the PCB Processes Fixture.

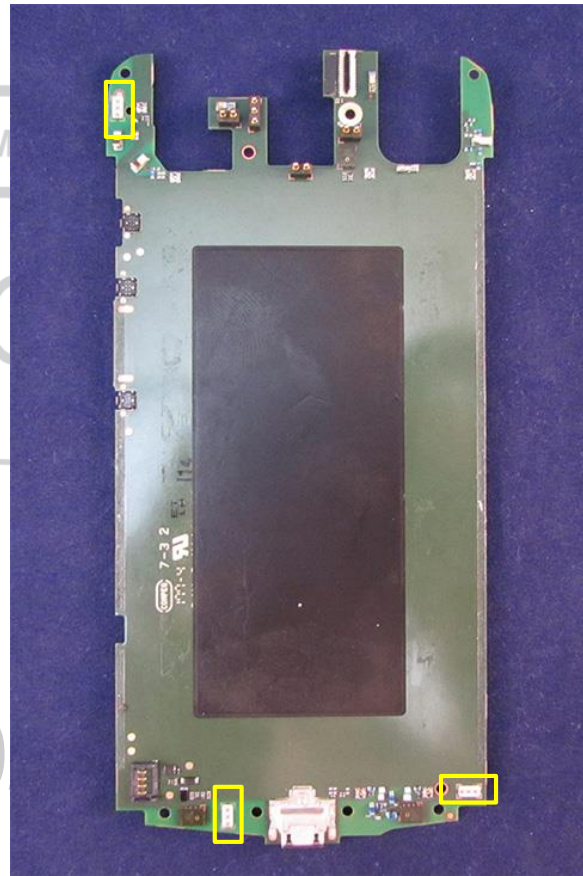


37. Press down on the Battery Spacer Bracket Adhesive to secure it to the PCB.





38. Remove the PCB from the PCB Processes Fixture.
39. Place the 3 WDLs on the PCB. The WDLs align with the etched markings on the PCB.





## Battery to PCB Assembly

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

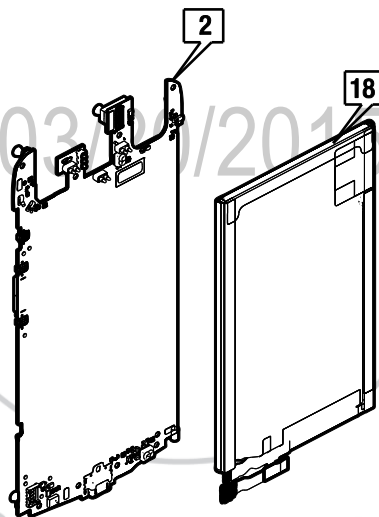
### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.



Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
ASSY,BAT,LI POLY,EQ40,3800MAH	18

1. Set the PCB Processes Fixture (4-00-U3-10000) inlay with side A facing up.

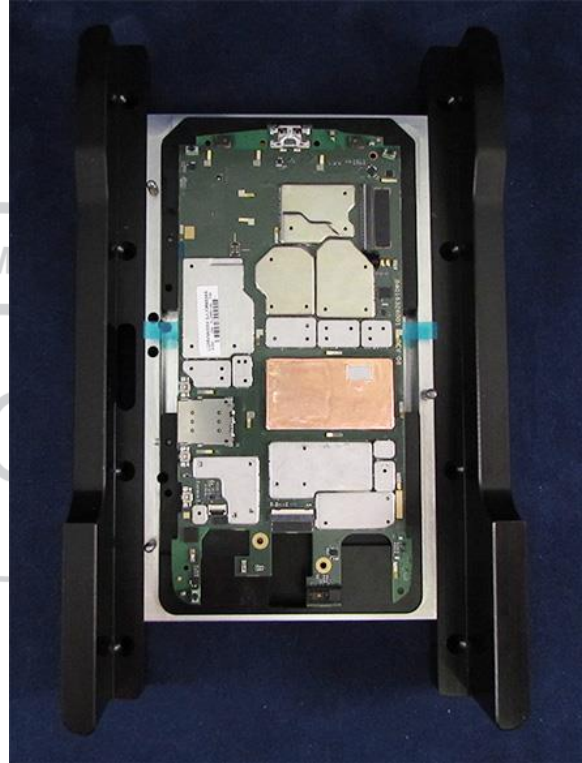


2. Place the Battery in the PCB Processes Fixture.

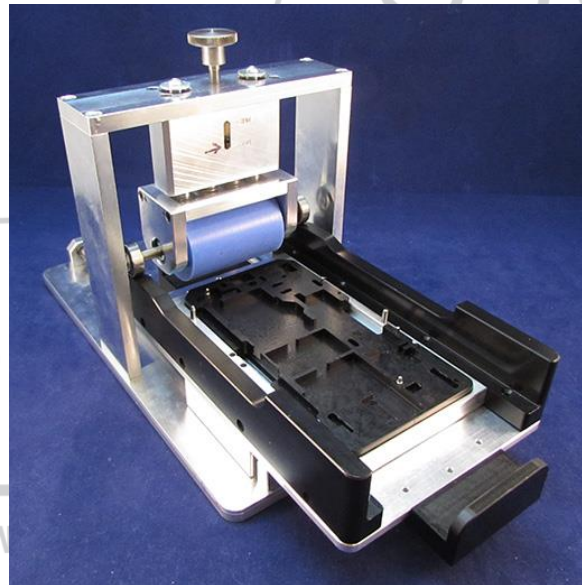


3. Remove the Battery Adhesive liner.

4. Place the PCB between the outer alignment pins in the PCB Processes Fixture.



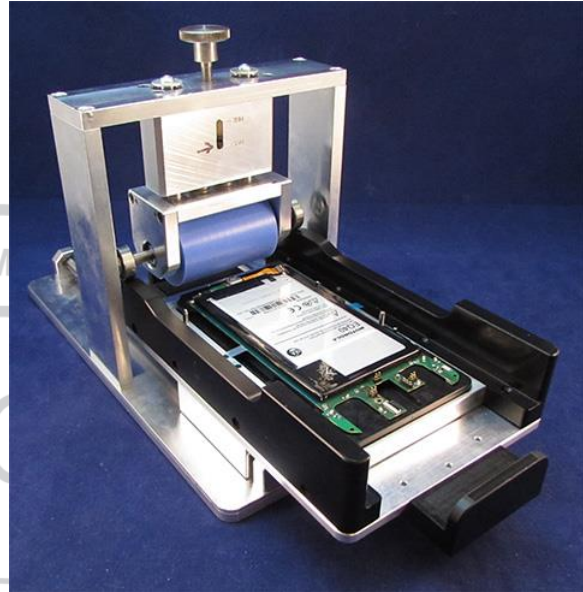
5. Press down on the PCB to secure the Battery.
6. Remove the assembly from the fixture.
7. Set the PCB Processes Fixture inlay in the Battery Roller with side B facing up.



8. Set the Battery Roller force to 50 N.



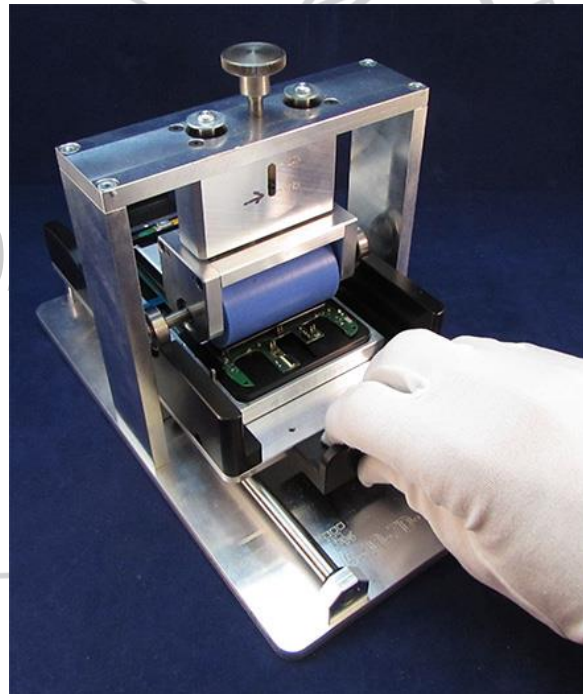
9. Place the assembly in the PCB Processes Fixture with the Battery facing up.



10. Cycle the Battery Roller 2 times to secure the Battery to the PCB.

**NOTE**

1 cycle = 1 forward and 1 backward motion.





11. Remove the assembly from the fixture and Battery Roller.

**// CAUTION //**

Do not connect the Battery to the PCB until Rear Housing Assembly. Damage to the phone may occur.

**/// WARNING ///**

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer.

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## NFC Antenna Assembly

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

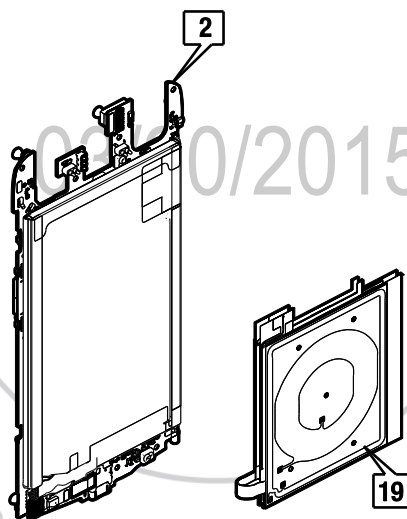
### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

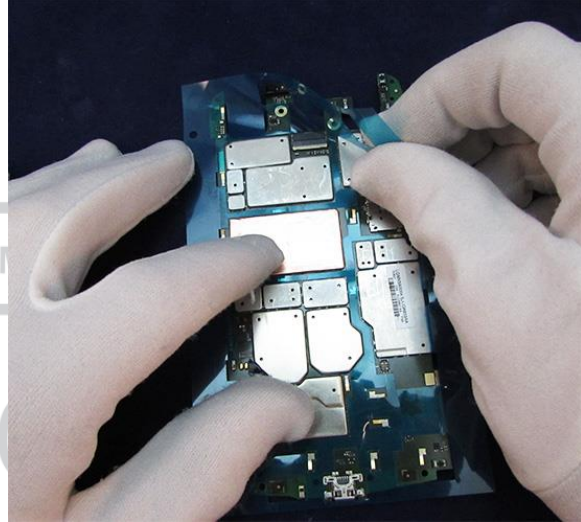
Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

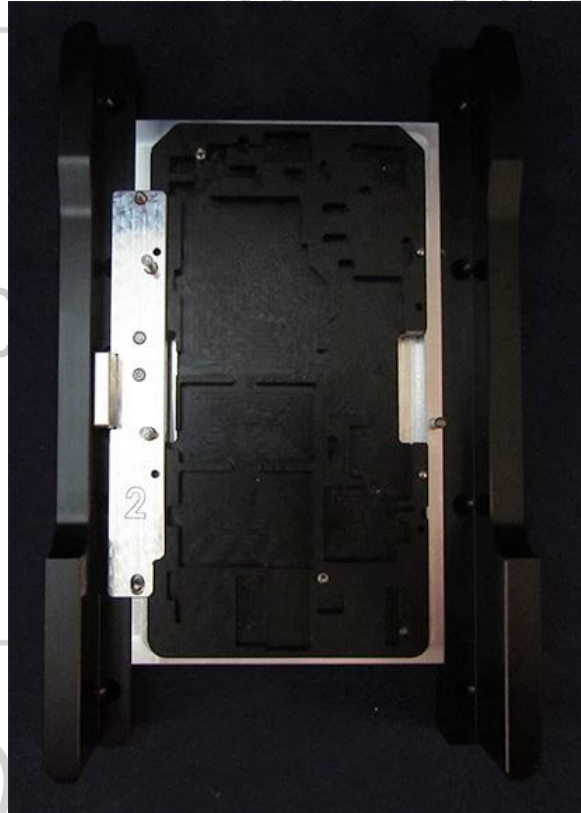


Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
DIE CUT,ADHES,BATTERY, QUARK MAXX	
ASSY,BAT,LI POLY,EQ40,3800MAH	
FIXED INDUCTOR,NFC/WC, FLEX, QUARK MAXX	19

1. Remove the PCB Adhesive liner if present. If the PCB Adhesive pulls up from the PCB when removing the liner, use the Blackstick to secure the Adhesive to the PCB.



2. Set the PCB Processes Fixture (4-00-U3-10000) with side B facing up, and the PCB Process Fixture bracket with side 2 facing up.



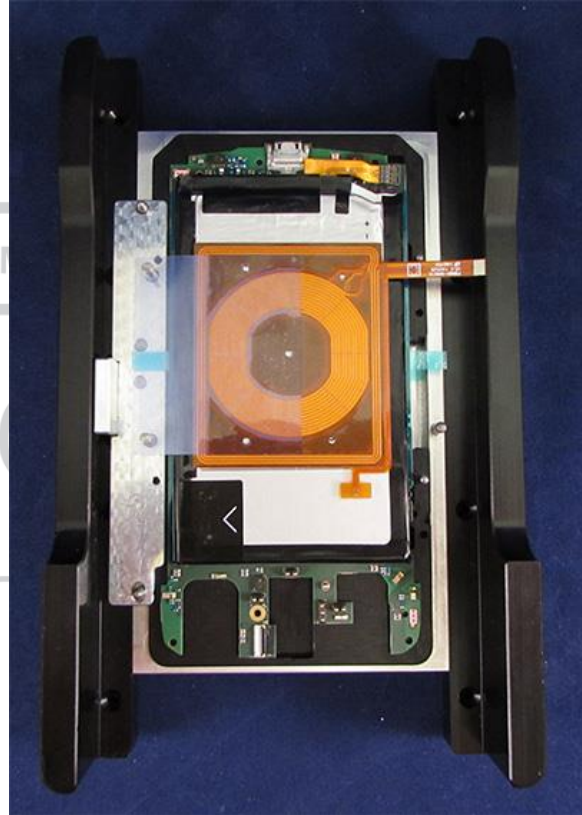
3. Place the assembly in the fixture with the Battery facing up.



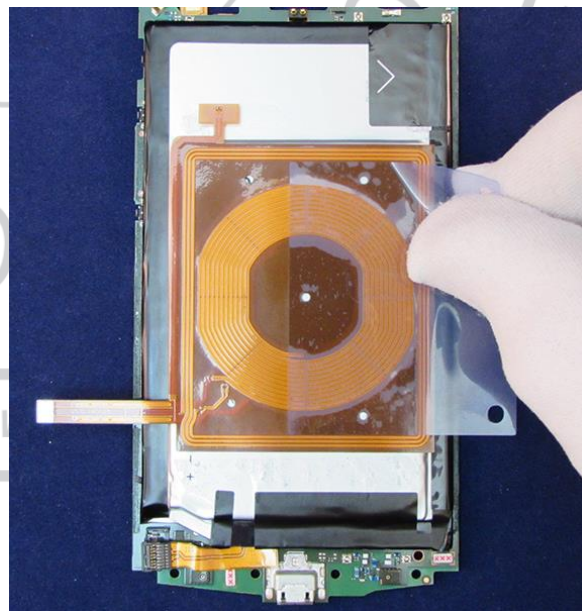
4. Remove the NFC Antenna adhesive liner.



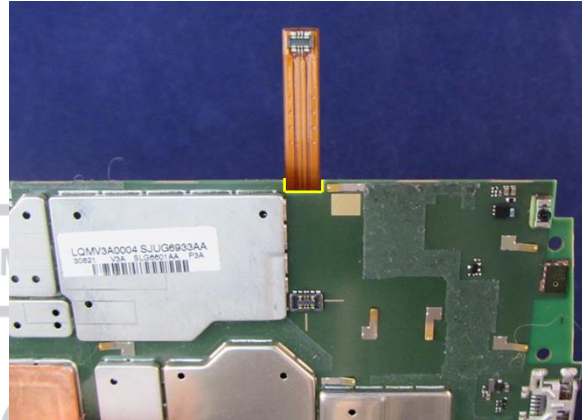
5. Place the NFC Antenna over the alignment pins in the PCB Processes Fixture bracket.



6. Press down on the NFC Antenna to secure it to the Battery.
7. Remove the assembly from the PCB Processes Fixture.
8. Remove the liner from the NFC Antenna.



9. Verify that the NFC Flex tail is aligned with the slot on the side of the PCB.



10. Fold the NFC Antenna Flex around the PCB edge using the slot in the PCB to align it.

**// CAUTION //**

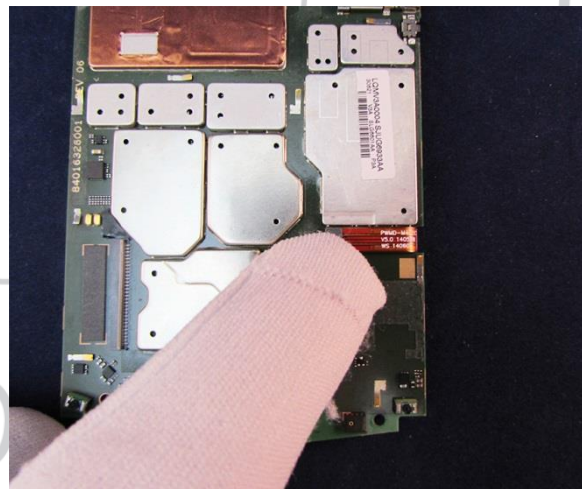
Do not damage the NFC Antenna Flex when bending it around the PCB.



11. Slide a fingertip over the NFC Flex BTB Connector to connect the NFC Antenna to the PCB.

**// CAUTION //**

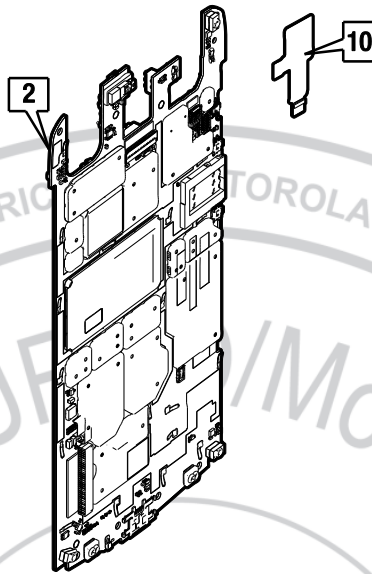
Verify that the Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.



**/// WARNING ///**

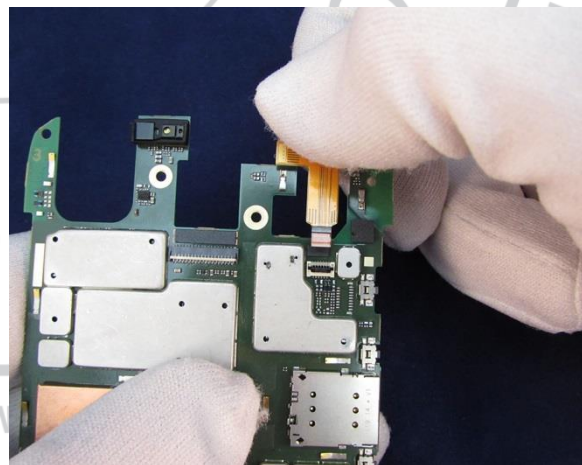
Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer.

## Headset Jack Flex Assembly



Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
DIE CUT,ADHES,BATTERY, QUARK MAXX	
ASSY,BAT,LI POLY,EQ40,3800MAH	
FIXED INDUCTOR,NFC/WC, FLEX, QUARK MAXX	
ASSY,FLXCKT,HSJ/VIB, QUARK	10
DIE CUT,KAPTON, UNIVERSAL, 6 X 3	N/A

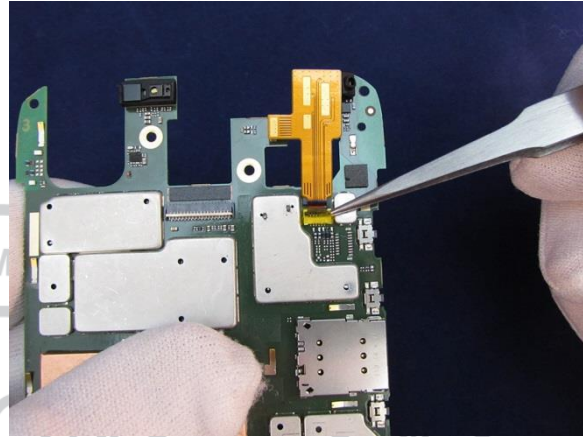
1. Insert the Headset Jack Flex into the Headset Jack ZIF Connector. Use the white line as a guide for insertion depth.



2. Slide a fingertip over the ZIF Connector door to close it.



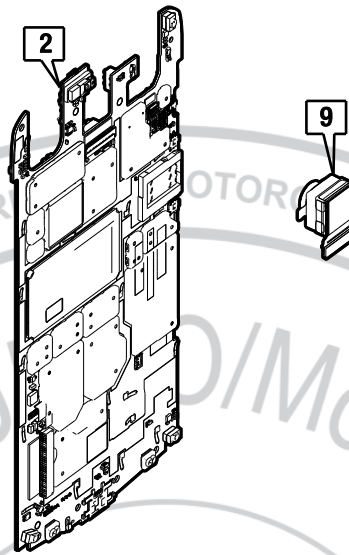
3. Apply Kapton tape over the Headset Jack ZIF Connector and ZIF Connector door.



03/20/2015



## Rear-Facing Imager Assembly



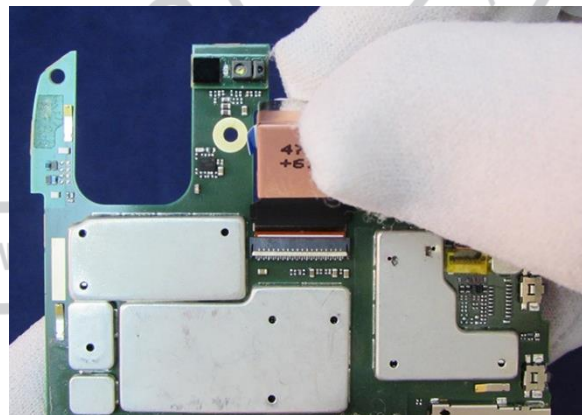
Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
ASSY,FLXCKT,MDL,20MP,REAR IMGR	9
DIE CUT,KAPTON, UNIVERSAL, 12 X 4	N/A

1. Verify that the Rear-Facing Imager ZIF Connector door is open.

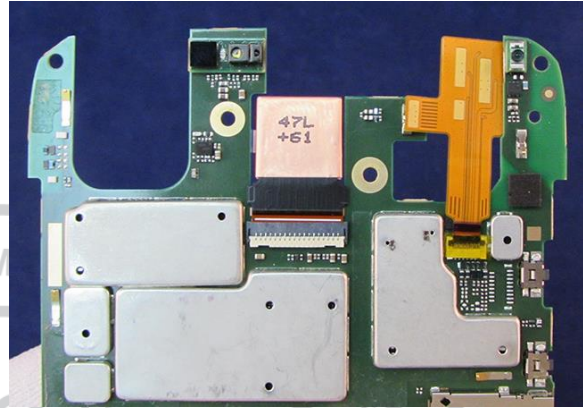
**// CAUTION //**

If the ZIF Connector door is not open, the ZIF Connector may be damaged.

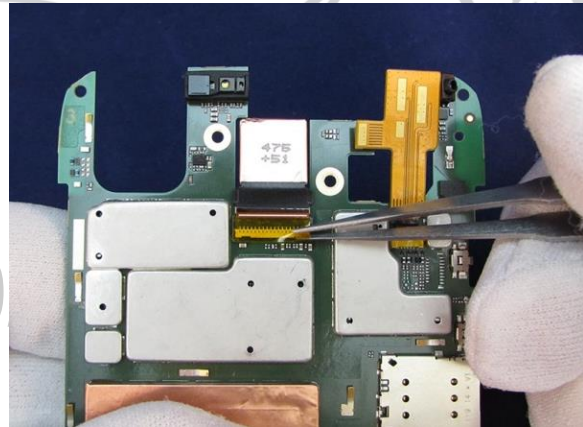
2. From the shield side of the PCB, insert the Rear-Facing Imager Flex into the Rear-Facing Imager ZIF Connector. Use the white line as a guide for insertion depth.



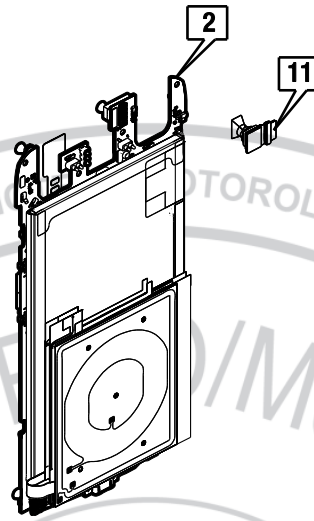
3. Lower the Rear-Facing Imager into the cutout in the PCB.



4. Slide a fingertip across the ZIF Connector door to close it.
5. Place Kapton tape over the Rear-Facing Imager ZIF Connector door.

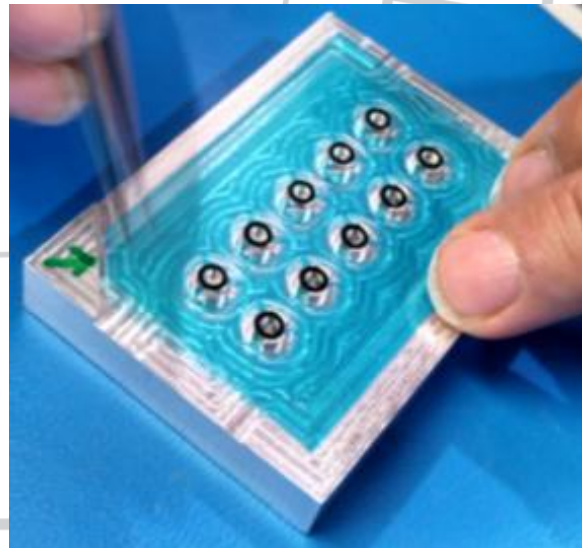


## Front-Facing Imager Assembly

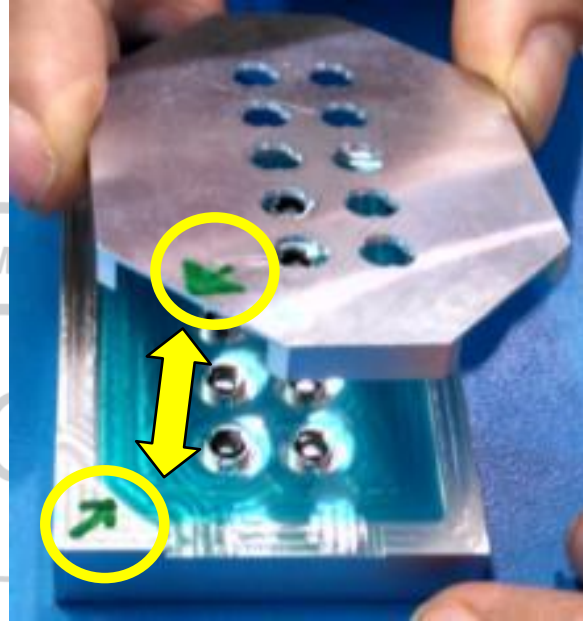


Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
ASSY,FLXCKT,MDL,2MP, FF IMGR	11
DIE CUT,KAPTON, UNIVERSAL, 8 X 4	N/A

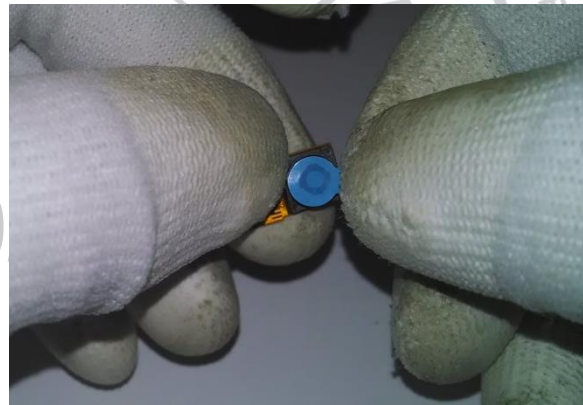
- Place the Front-Facing Imager Gasket carrier on the Front-Facing Imager Gasket Assembly Fixture (4-00-R8-10000) with the adhesive side facing up. Match the angled corner of the gasket carrier to the angled corner of the recessed pocket in the fixture.



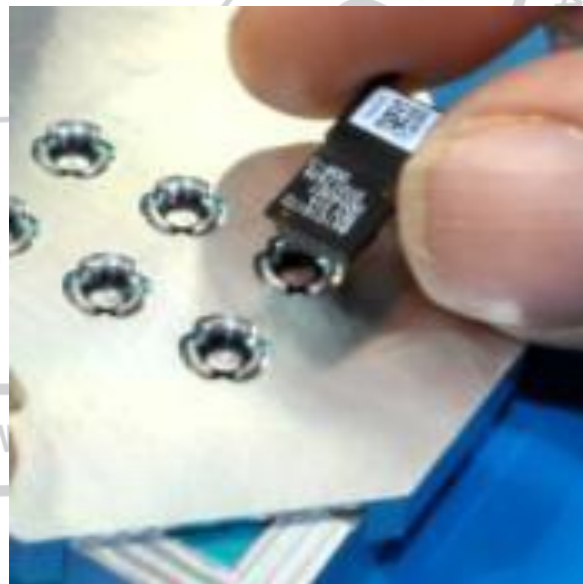
2. Place the fixture lid over the Gasket carrier. Match the angled corner of the fixture lid to the angled corner of the recessed pocket in the fixture.



3. Remove the liner from the Front-Facing Imager.

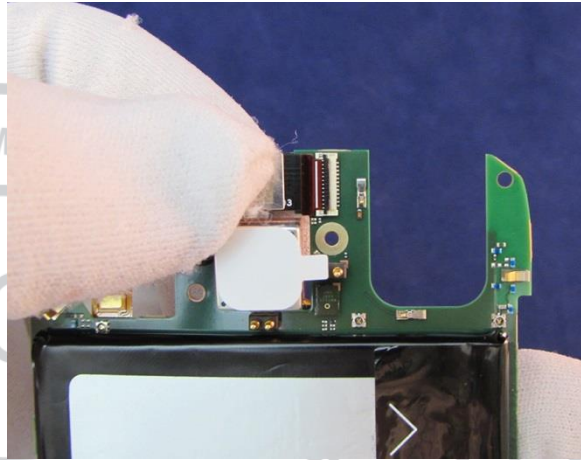


4. Place the Front-Facing Imager face-down in the fixture through the fixture lid.
5. Apply pressure to the Front-Facing Imager to adhere the Gasket to the Imager.

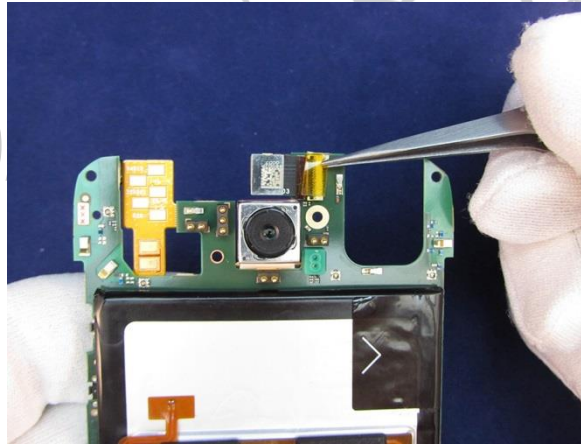




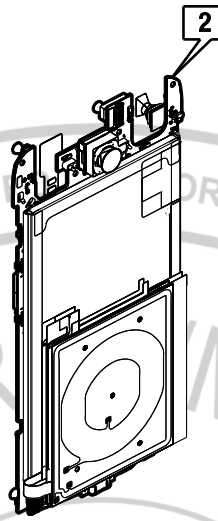
6. Remove the Front-Facing Imager from the fixture and verify that the gasket is adhered.
7. Insert the Front-Facing Imager Flex into the Front-Facing Imager ZIF Connector. Use the white line as a guide for insertion depth.



8. Slide a finger of the ZIF Connector door to close it.
9. Apply Kapton tape over the Front-Facing Imager ZIF Connector and ZIF Connector door.

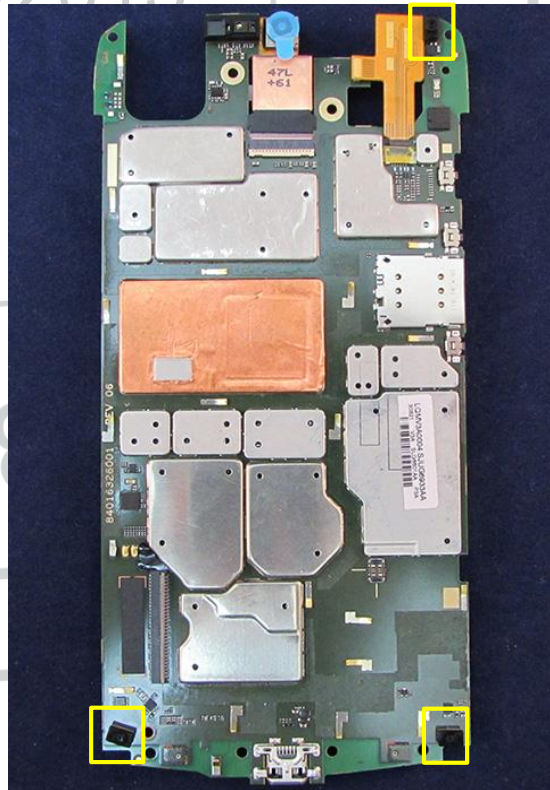


## IR LED Seal Assembly

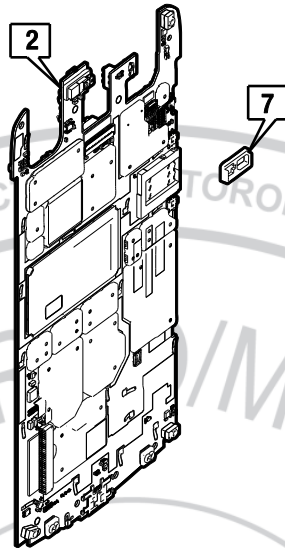


Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
SEAL,IR LED	N/A (Qty. 3)

1. Apply the 3 IR LED Seals to the 3 IR LEDs on the PCB.
2. Press down on the Seals to secure them to the PCB.
3. Verify that the Seals are flush to the IR LEDs.

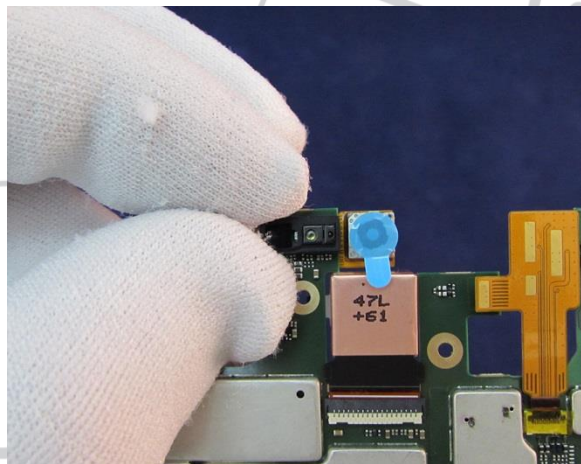


## Proximity Grommet Assembly

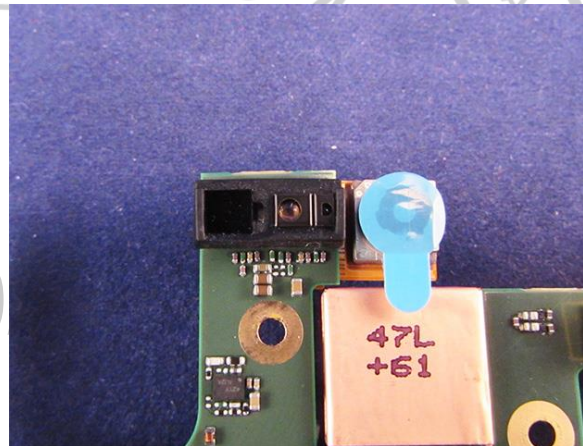
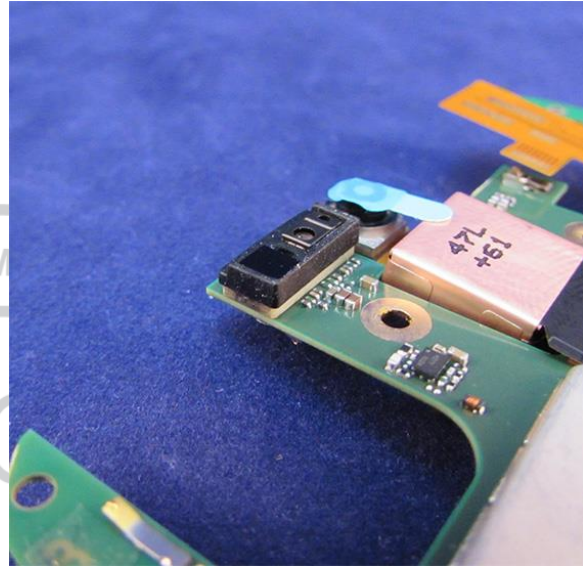


Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM	2
ASSY,PWA,XCVR,PORT QUANTUM MAXX	
ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	
GROMMET,PROX, QUARK	7

1. Remove the Proximity Grommet from the carrier.
2. Place the Proximity Grommet in position on the Proximity Sensor.



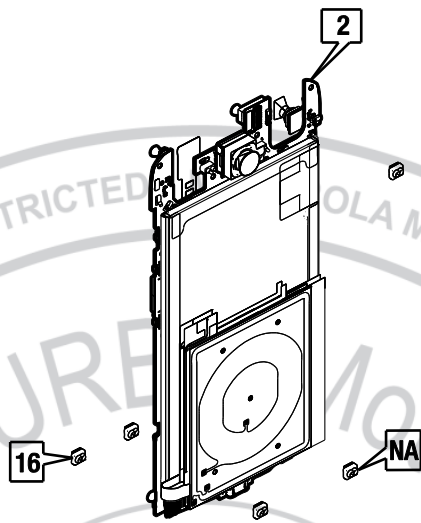
3. Verify the Proximity Grommet is flush with the PCB and oriented as shown.



4. Press down on the Proximity Grommet to secure the adhesive to the PCB.



## Microphone Grommet Assembly

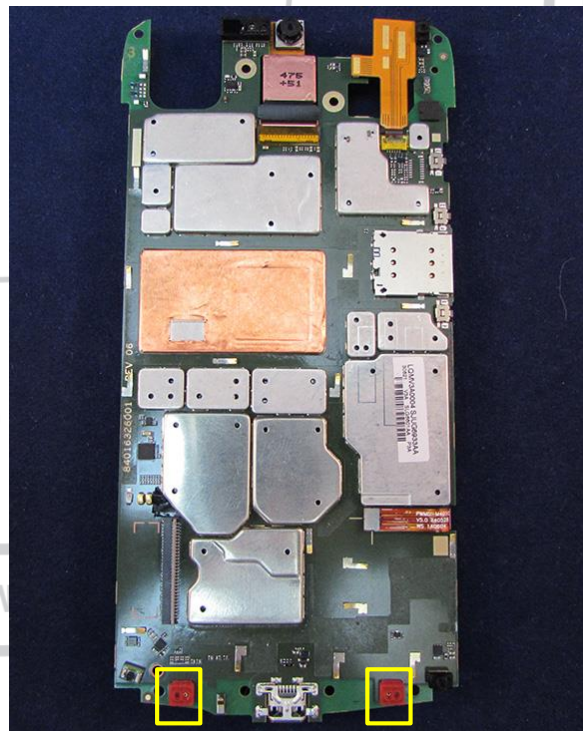


Description	Reference #
ASSY,PWA,XCVR,PORT QUANTUM LATAM ASSY,PWA,XCVR,PORT QUANTUM MAXX ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	2
GROMMET,MIC,QUARK	16 (Qty. 2)
GROMMET,MIC,QUARK MAXX	N/A (Qty. 3)

1. Use the Tweezers to place the 3 Microphone Grommets on the Battery side of the PCB.



2. Use the Tweezers to place the 2 Microphone Grommets on the Shield side of the PCB.



## PCB to Front Housing Assembly

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

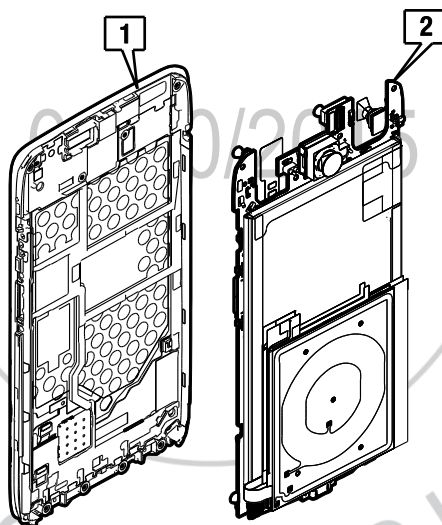
### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

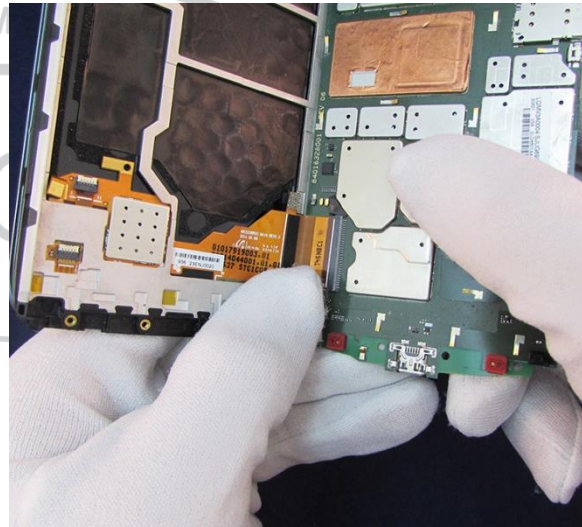
Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.



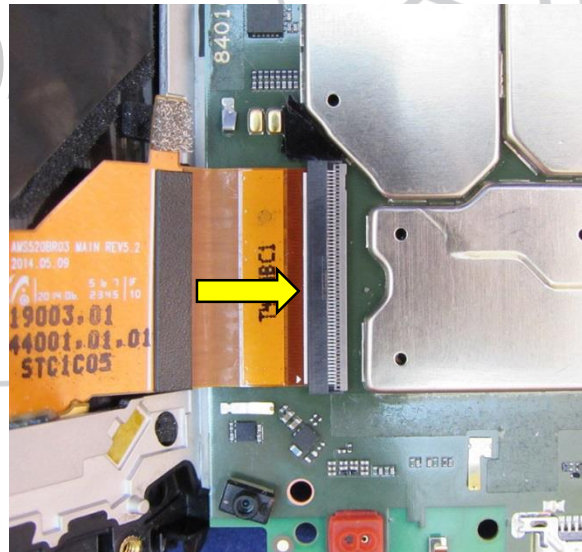
Description	Reference #
ASSY,HSG,FRNT,PROTO, QUANTUM TITANIUM/TITANIUM ASSY,HSG,FRNT,PROTO, QUANTUM DK TITANIUM/DARK Ti ASSY,HSG,FRNT,PROTO, QUANTUM RED LAC/RED LAC	1
ASSY,PWA,XCVR,PORT QUANTUM LATAM ASSY,PWA,XCVR,PORT QUANTUM MAXX ASSY,PWA,XCVR,PORT QUANTUM 64GB MAXX	2
DIE CUT,KAPTON, UNIVERSAL, 18 X 12	N/A

1. Remove the liner from the PCB Adhesive if present.
2. Remove the liner from the Battery Spacer Bracket Adhesive.
3. Insert the Display Flex into the Display Flex ZIF Connector on the PCB. Use the white line as a guide for insertion depth.



**NOTE**

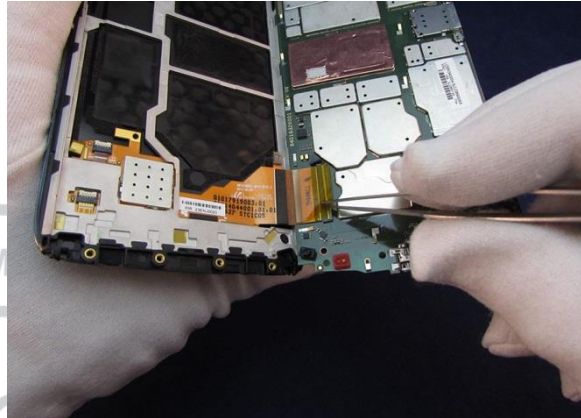
The white line on the Display Flex must be parallel to the Display Flex ZIF Connector.



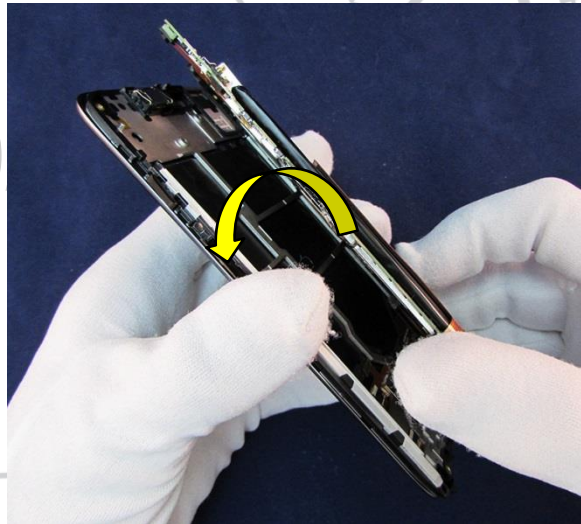
4. Slide a fingertip over the ZIF Connector door to close it.



5. Apply Kapton tape over the Display Flex ZIF Connector and ZIF Connector door.

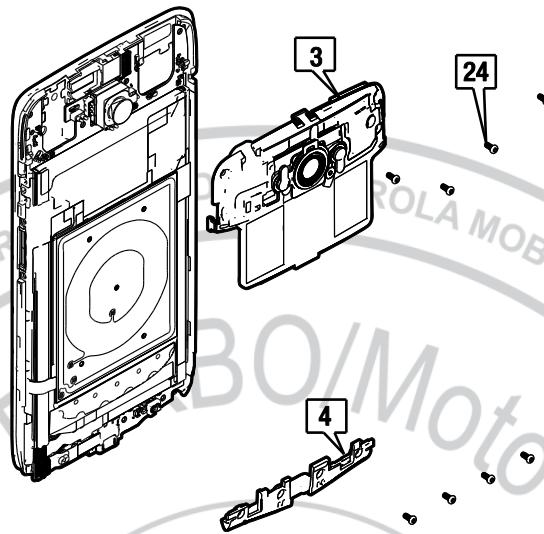


6. Remove the liner from the Front-Facing Imager if present.
7. Spray ionized air on the Front-Facing Imager and the Front Housing pocket to remove any dust particles.
8. Rotate the PCB down into position in the Front Housing.



9. Press down on the Battery to secure the PCB to the Front Housing.

## Top Carrier and Bottom Carrier Assembly

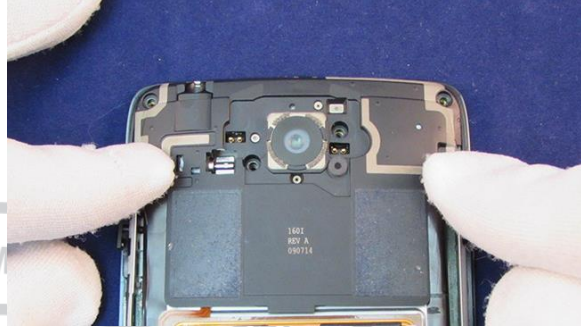


Description	Reference #
ASSY,HSG,REAR, TOP CARRIER, QUANTUM MAXX	3
HSG,REAR,BOT CARRIER, W/ANTENNA, QUANTUM	4
SCR,MACH,M1.6 X .35, 2.6MM HD, 5IP	24 (Qty. 8)

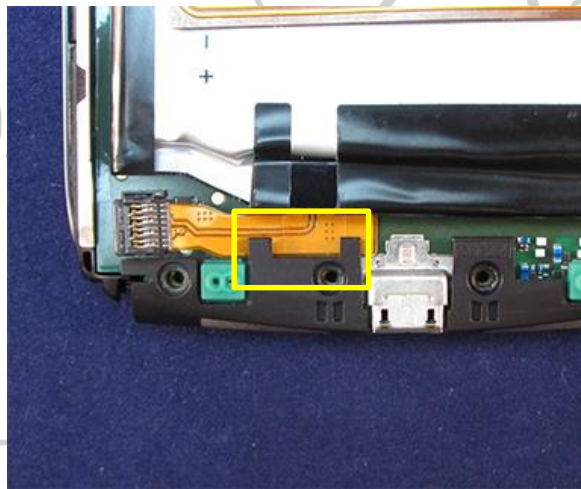
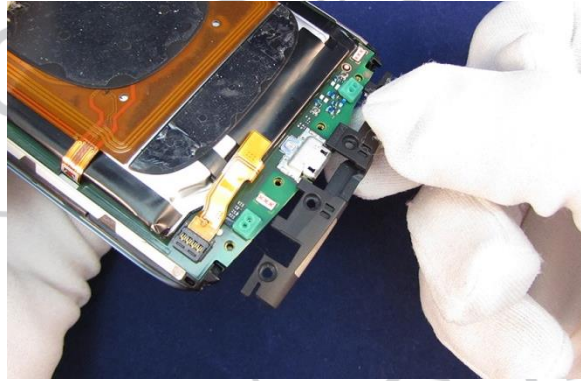
1. Remove the liner from the Rear-Facing Imager if present.
2. Spray ionized air on the Rear-Facing Imager and the Top Carrier pocket to remove any dust particles.
3. Place the Top Carrier straight down into position over the PCB.



4. Press down on the Top Carrier to engage the 2 side snaps.



5. Slide the Bottom Carrier into position over the PCB. Verify the Battery Flex is beneath the tabs on the Top Carrier.



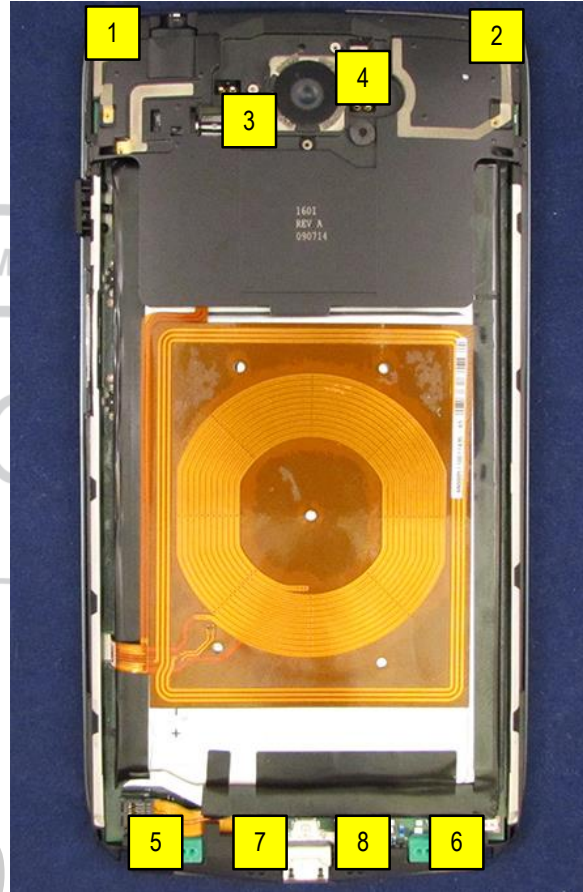


6. Insert 4 5IP Screws into the Top Carrier and 4 5IP Screws into the Bottom Carrier.

**NOTE**

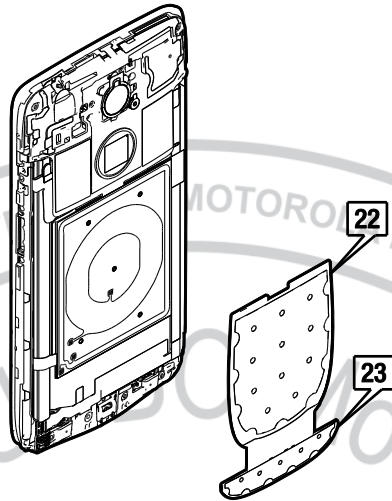
The Top Carrier and the Bottom Carrier must be in position before inserting and tightening the screws.

7. Tighten the 8 5IP Screws to 1.0 in-lbs. (0.11 N·m) in the order shown.



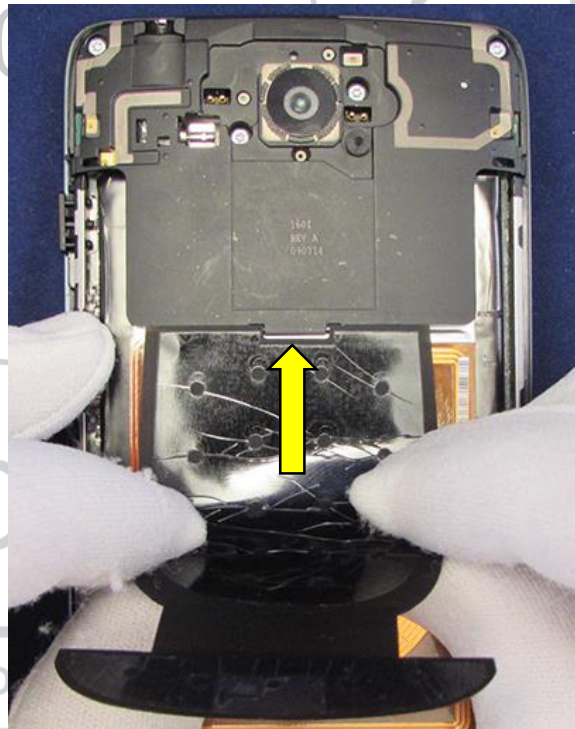


## Top Battery Spacer Assembly



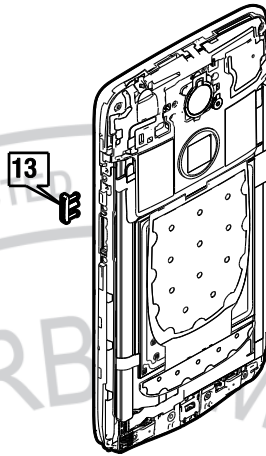
Description	Reference #
SPCR, C BATTERY, QUARK MAXX	22
SPCR,BATTERY, TOP, QUARK	23

1. Remove the Top Battery Spacer liner.
2. Place the Top Battery Spacer over the NFC Antenna and Battery. Align the cutout in the Top Battery Spacer with the tab on the Top Carrier.



3. Press down on the Top Battery Spacer to secure it to the NFC Antenna and Battery.

## Power Key Assembly

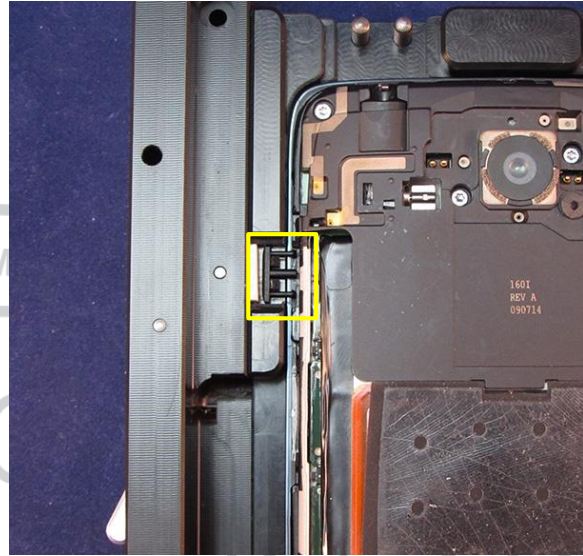


Description	Reference #
POWER BUTTON ASSEMBLY, LICORICE ASSY,PRD OTH,PWR BUTTON, LAQUER RED, QUARK ASSY,PRD OTH,PWR BUTTON, QUARK COLOR MATCH RED	13

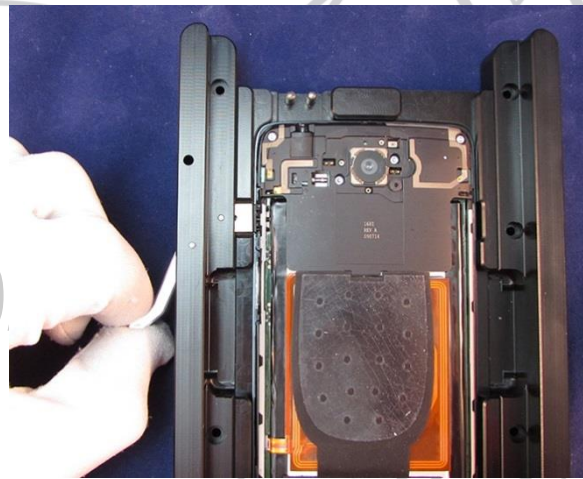
1. Place the assembly in the Front Housing Processes Fixture (4-00-U4-10000) with the main lens facing down.



2. Place the Power Key into the Front Housing Processes Fixture.



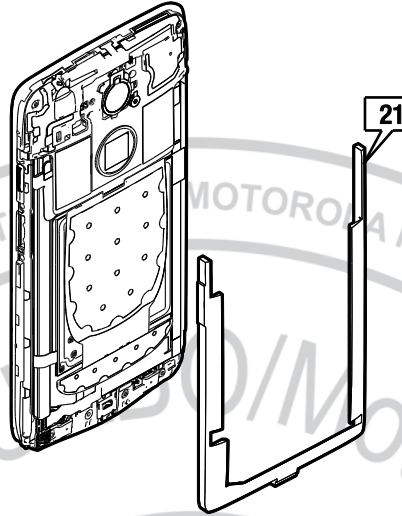
3. Pull the fixture lever outward to push the Power Key into the Front Housing.



4. Remove the assembly from the fixture.
5. Press the Power Key several times to verify the tactile response.



## Battery Spacer Bracket Assembly



Description	Reference #
HSG,BAT SPACER, QUARK MAXX HSG,BAT SPACER, QUARK MAXX NYL	21

1. Slide a fingertip over the Battery Flex BtB Connector to connect the Battery to the PCB.
2. Position the Battery Spacer Bracket over the Battery and Battery Spacer Bracket Adhesive on the PCB.



3. Press down on the Battery Spacer Bracket to secure it to the PCB.



## Rear Housing Assembly

### /// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

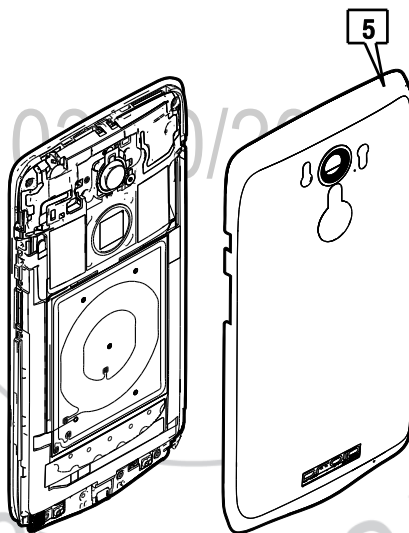
### // CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.



Description	Reference #
ASSY,HSG,REAR,COVER, QUARK RED	5
ASSY,HSG,REAR,COVER, PWR KEY + M LOGO, QUARK MAXX DK	
ASSY,HSG,REAR,COVER, PWR KEY + M LOGO, QUARK MAXX RED	
ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX	
ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX 64GB	
ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX EMPLOYEE EDITION	
ASSY,HSG,REAR,COVER, BALLISTIC NYLON, QUARK MAXX LATAM	

1. Insert the bottom edge of the assembly into the Rear Housing.

**NOTE**

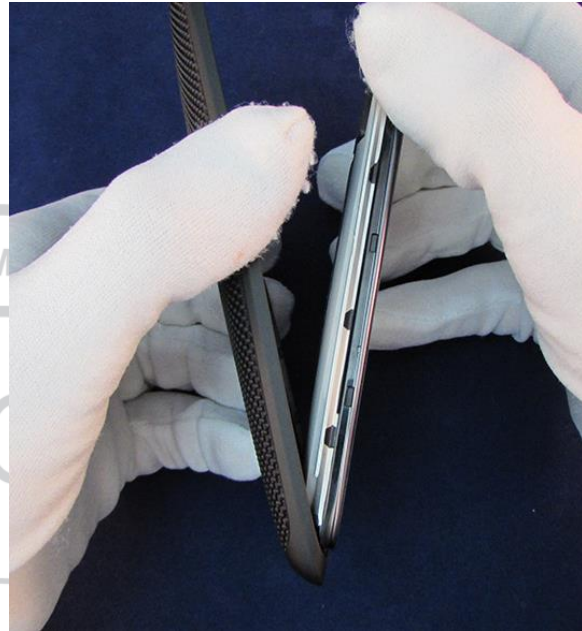
The phone assembly must be inserted into the Rear Housing at an angle, bottom edge first, as shown.

**// CAUTION //**

Prior to assembly, inspect the Battery edges and surfaces to verify they are not dented or deformed and that fixtures and parts that will contact the Battery are free of foreign material.

**/// WARNING ///**

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer.



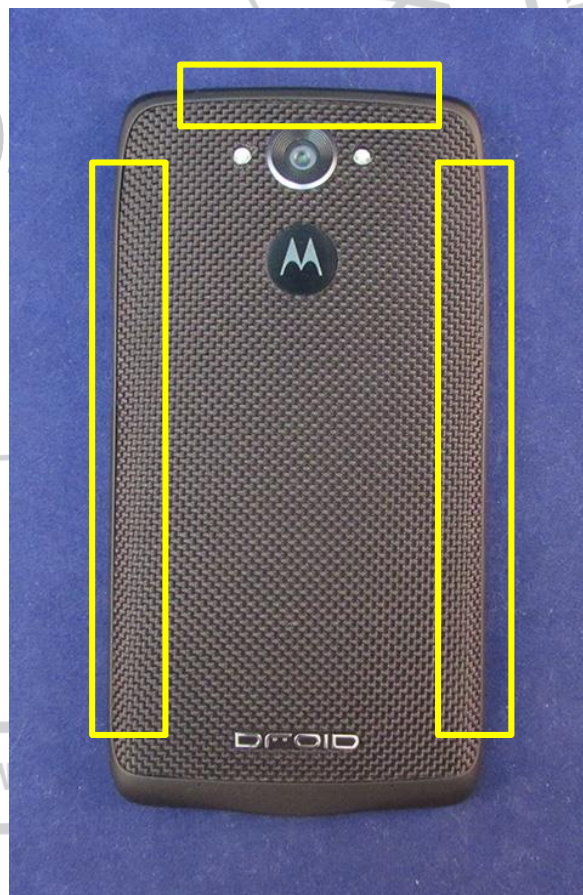
2. Engage the upper-left corner snaps.



3. Engage the upper-right corner snaps.



4. Engage the remaining snaps around the perimeter of the assembly.

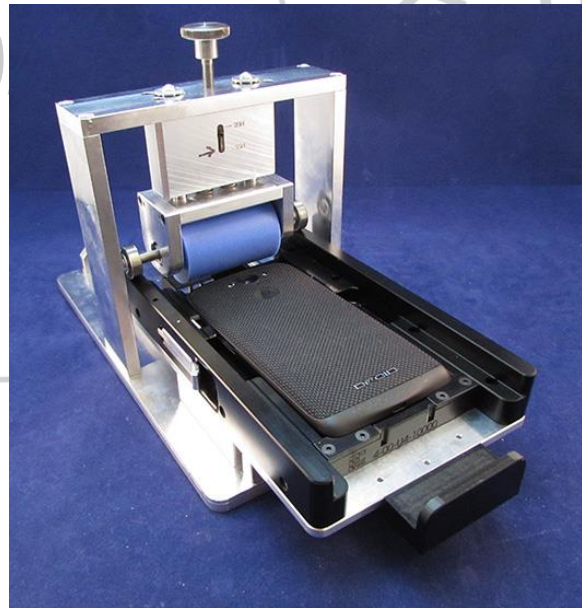




5. Place the assembly in the Front Housing Processes Fixture (4-00-U4-10000) with the Main Lens facing down.



6. Place the assembly and Front Housing Processes Fixture in the Battery Roller (5-00-7D-1000).



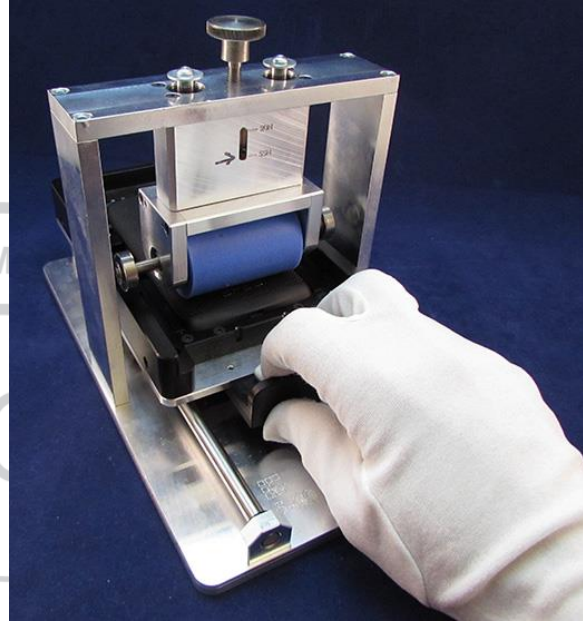
7. Set the Battery Roller force to 50 N.



8. Cycle the Battery Roller 2 times to secure the Rear Housing.

**NOTE**

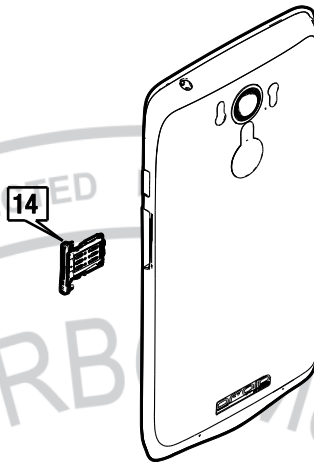
1 cycle = 1 forward and 1 backward motion.



9. Remove the assembly from the press and fixture.

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## Volume Key/SIM Card Tray Assembly



Description	Reference #
ASSY,HSG,SIM TRAY, QUARK LIC	14
ASSY,HSG,SIM TRAY, QUARK LAQUER RED	
ASSY,HSG,SIM TRAY, QUARK COLOR MATCH RED	

1. Insert the Volume Key/SIM Card Tray into the Front Housing.



2. Verify the Volume Key/SIM Card Tray is flush with the Rear Housing.
3. Press the Volume Key/SIM Card Tray to verify the tactile response.