



# Working Instruction, SP/Mech

Applicable for T226, T230, T238

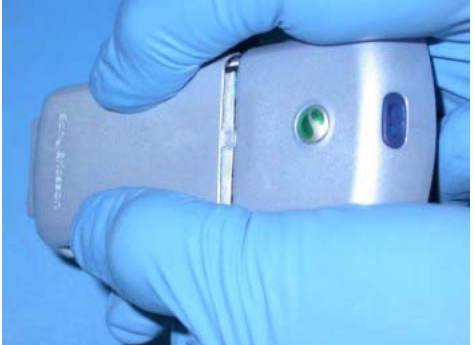



## Contents

<b>1</b>	<b>Disassembly .....</b>	<b>2</b>
<b>2</b>	<b>Reassembly .....</b>	<b>5</b>
<b>3</b>	<b>Replacement of Mechanical Parts .....</b>	<b>8</b>
3.1	Front Cover.....	8
3.2	Inlay.....	15
3.3	Microphone Grommet .....	19
3.4	Microphone .....	20
3.5	LCD Assembly .....	21
3.6	Keypad.....	24
3.7	Antenna/Antenna Cover Replacement .....	26
3.8	SEMC Icon.....	31
3.9	Keypad PCB Assembly .....	33
3.10	Receiver and Receiver Gasket.....	34
3.11	Polyphonic Speaker and Speaker Grommet .....	36
3.12	Volume Switch and/or Volume Button .....	38
3.13	Vibrator .....	41
3.14	Label Replacement .....	42
3.15	Frame Replacement.....	43
<b>4</b>	<b>Revision History .....</b>	<b>49</b>

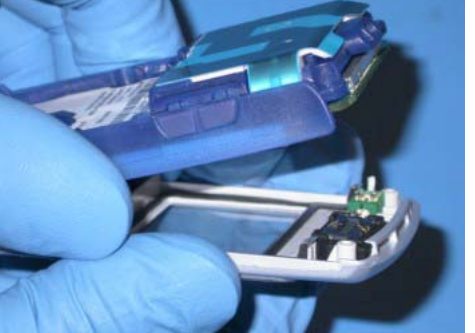

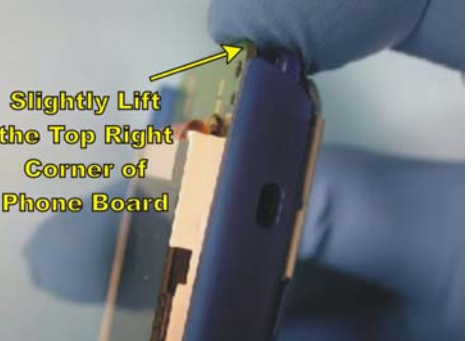
# 1 Disassembly

- Tools: torque screwdriver, T6 Torx® bit, ESD-safe tweezers, orange stick, nylon pointer, front opening tool

**NOTE!** Whenever the phrase “pry tool” is used, a nylon pointer, an orange stick, or a front opening tool may be used, depending on the user’s preference.

<b>Step-by-Step Instructions</b>	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Remove the battery cover by sliding it down towards the bottom of the phone and lifting it off.</p>	
<p>2. Remove the battery by inserting a pry tool underneath the tab at the bottom of the battery and rotating the pry tool so that the flat edge of the tool moves into a vertical orientation.</p>	
<p>3. While lifting up the edge of the antenna cover adjacent to the battery cavity, slide the cover towards the top of the phone.</p> <p>4. Once the antenna cover reaches the point where it will no longer slide forward, lift the antenna cover off of the phone.</p>	
<p>5. Remove the six screws indicated.</p>	

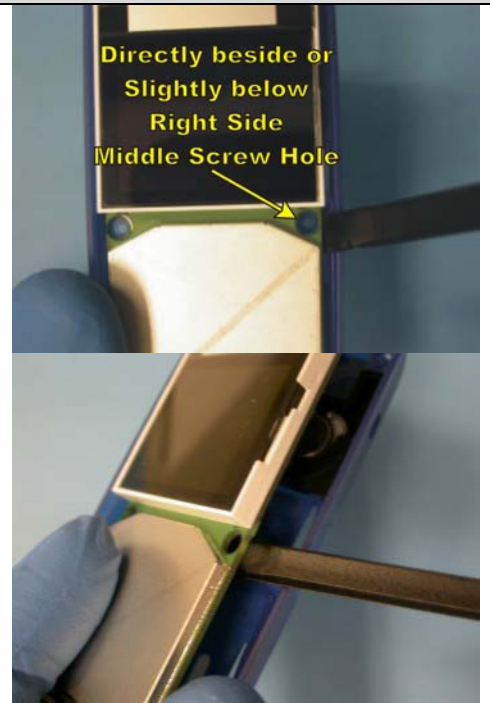


<b>Step-by-Step Instructions</b>	
<p>6. Remove the front cover assembly from the back frame.</p>	
<p><b>NOTE!</b> The label tends to adhere to the top of the shield can on the phone board that is below the battery connector. Be careful not to damage the label when removing the phone board in the event that the needed repair does not require label replacement.</p>	 <p>Location of Shield Can the Label adheres to</p>
<p>7. To remove the phone board and avoid damaging the label, slightly lift the top corner of the phone board that is near the speaker port.</p>	 <p>Slightly Lift the Top Right Corner of Phone Board</p>



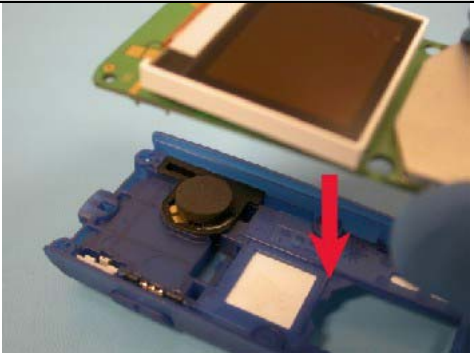
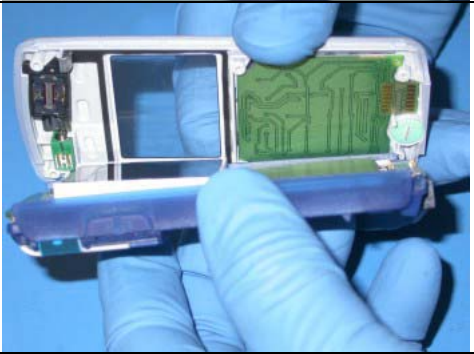
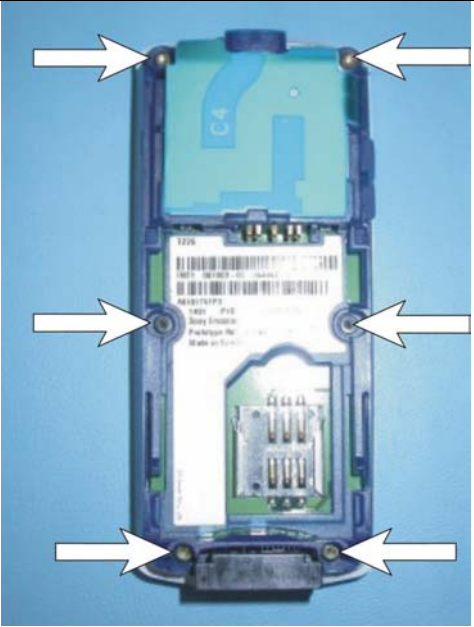
### Step-by-Step Instructions

8. With the right side of the phone board slightly lifted from the back frame, insert a pry tool between the side of the back frame and the edge of the board directly beside or slightly below the middle screw holes in the board. Then gently pry the phone board from the back frame.

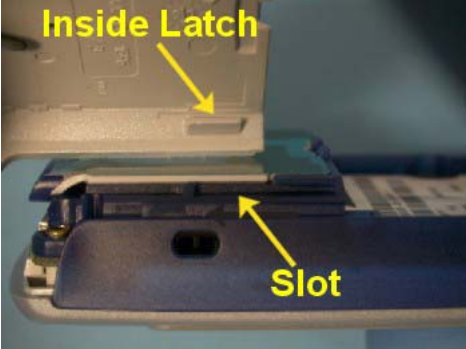
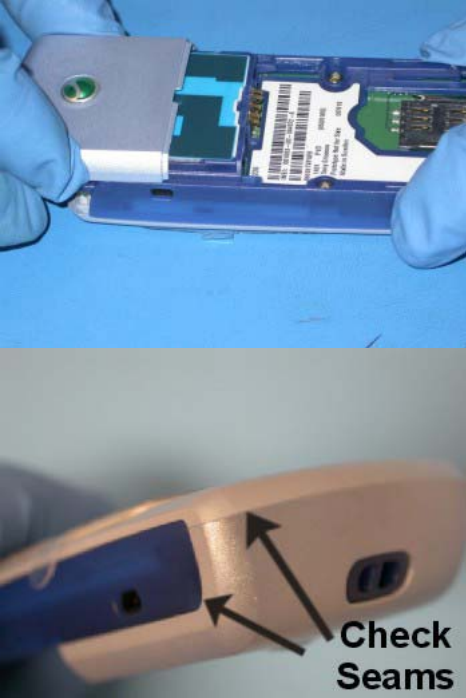



## 2 Reassembly

- Tools: torque screwdriver, T6 Torx® bit, ESD-safe tweezers

<b>Step-by-Step Instructions</b>	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Place the phone board into the back frame.</p>	
<p>2. Place the front cover and the back frame assembly together.</p> <p><b>NOTE!</b> Before replacing the front cover, make sure that there is no dust, debris, or fingerprints on the LCD or the inside of the front cover window!</p>	
<p>3. Using a T6 Torx® bit in a torque driver set at 17 N-cm, reinstall the six screws in the following order:</p> <ul style="list-style-type: none"> <li>1 - Top Left</li> <li>2 - Bottom Right</li> <li>3 - Bottom Left</li> <li>4 - Top Right</li> <li>5 - Middle Left</li> <li>6 - Middle Right</li> </ul> <p><b>NOTE!</b> The short black screws are used in the middle holes. The longer gold screws are used in the top and bottom holes.</p>	



Step-by-Step Instructions	
<p>4. Place the antenna cover over the antenna so the latches on the inside surface of the antenna cover line up with the corresponding slots in the back frame.</p>	
<p>5. Push the antenna cover toward the bottom of the phone until it clicks into place.</p> <p><b>NOTE!</b> Check that the seam where the antenna cover and the front cover come together is flush and even. Also check that the seams where the antenna cover and the back frame come together are flush and even.</p>	
<p>6. Starting with the top of the battery, place the battery, label-side up, into the battery cavity. Make sure that the tabs at the top of the battery fit into the corresponding slots in the top of the battery cavity.</p>	



**Step-by-Step Instructions**

7. Place the battery cover over the battery, so that the ledge on each side of the battery cover fits into the corresponding slots in the back frame on each side of the battery cavity.
8. Slide the battery cover upward until it is securely closed.



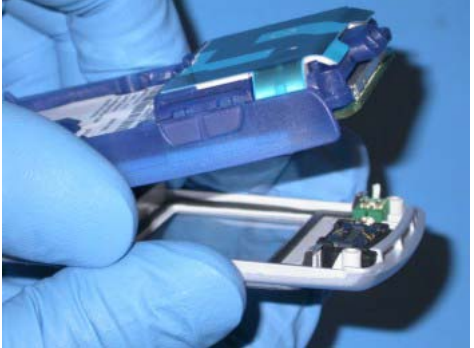
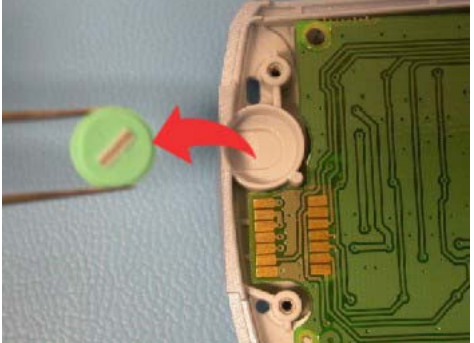
## 3 Replacement of Mechanical Parts

### 3.1 Front Cover

- Tools: ESD-safe tweezers, orange stick, nylon pointer, front opening tool

**NOTE!** Whenever the phrase “pry tool” is used, a nylon pointer, an orange stick, or a front opening tool may be used, depending on the user’s preference.

- Disassembly steps 1 - 5

Step-by-Step Instructions	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Remove the old front cover assembly from the phone.</p>	
<p>2. Remove the microphone grommet and microphone from the microphone cavity at the bottom of the front cover. Set the microphone aside for safekeeping and dispose of the microphone grommet since it cannot be reused once the phone has been opened (screws removed).</p>	



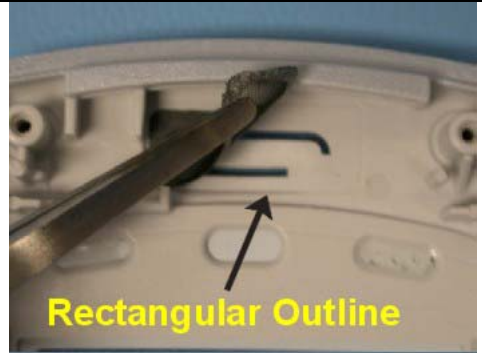


### Step-by-Step Instructions

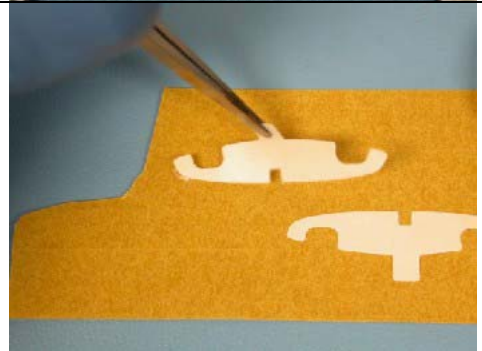
3. In a new front cover, install a speaker cloth over the speaker ports. Make sure the speaker cloth completely covers the speaker ports.

**NOTE!** The speaker cloth should lie within the rectangular outline that is around the speaker ports.

4. Once the speaker cloth is positioned, press around the outer edge of the speaker cloth to assure good adhesion to the front cover.



5. Remove an inlay adhesive film/backing assembly from the large strip of backing containing the adhesive film/backing assemblies.





**Step-by-Step Instructions**

6. Place the adhesive film/backing assembly on an inlay and remove the backing from the adhesive film.

**NOTE!** The three notches in the adhesive film should line up with the three pegs on the inlay.



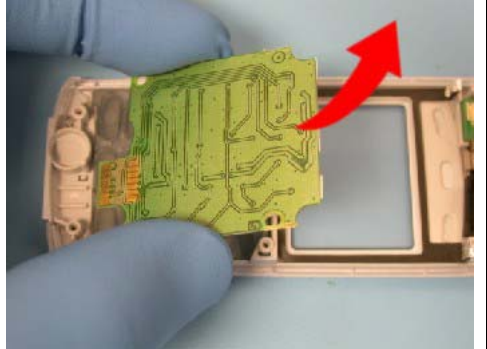



7. Alien the three pegs on the inlay up with the corresponding holes near the bottom edge of the new front cover.
8. Apply pressure over the entire outer surface of the inlay so that a good bond forms between the inlay and the front cover.





Step-by-Step Instructions	
<p>9. Remove the protective paper from the dust gasket, but make sure to leave the paper on the center section.</p> <p>10. Holding the center section with tweezers, carefully position the side and bottom edges of the dust gasket adjacent to the corresponding walls along the sides and at the bottom of the viewing window.</p> <p><b>NOTE!</b> Be careful not to scratch the front cover window with the tweezers!</p>	
<p>11. Using the flat end of a pry tool, smooth down the dust gasket around the window, pressing out any air bubbles, folds, or wrinkles in the gasket. Also press the two vertical extensions of the gasket down into the corners and up onto the walls they vertically adhere to.</p>	
<p>12. Gently remove and discard the center section of the dust gasket.</p> <p><b>NOTE!</b> Check to make sure that no portion of the dust gasket is visible when viewing <u>straight through</u> the front cover window.</p>	



Step-by-Step Instructions	
<p>13. Lift the keypad PCB assembly out of the old front cover.</p>	
<p>14. Remove the keypad from the old front cover by flexing the navigation pad inward, and pressing out the “YES” and “NO” keys.</p> <p><b>NOTE!</b> Be careful not to damage the keypad by over flexing.</p>	
<p>15. Place the upper corner of the “Yes” key into the appropriate location in the new front cover as shown.</p>	
<p>16. With the “Yes” key in place, flex the keypad so that the “No” key will slide into its appropriate location. Once the “Yes” and “No” keys are in place, gently work the remaining keys into their appropriate openings.</p>	



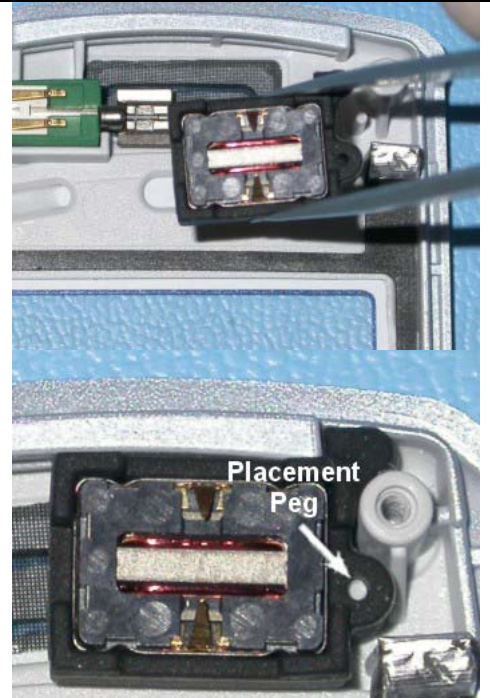
Step-by-Step Instructions	
<p><b>NOTE!</b> Make sure that each key fits securely and that the top edge of the keypad isn't over the edge of the front cover window.</p>	
<p>17. Gently pry underneath the vibrator weight to remove it from the old front cover.</p> <p><b>NOTE!</b> Be careful not to damage the vibrator contacts.</p>	
<p>18. Place the vibrator into the new front cover as shown. Make sure that the weight is toward the center of the phone, and that the contacts are facing up.</p> <p><b>NOTE!</b> Be careful not to damage the vibrator contacts.</p>	
<p>19. Remove the receiver and grommet assembly from the old front cover.</p>	



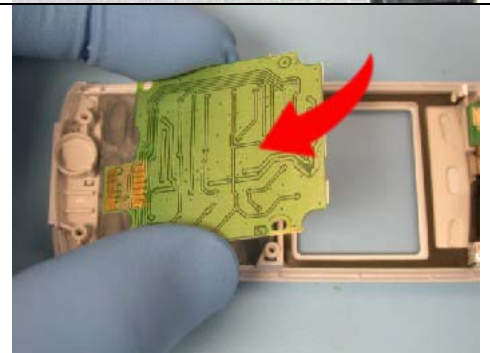
### Step-by-Step Instructions

20. Place the receiver and grommet assembly into the new front cover as shown.

**NOTE!** Make sure that the placement peg in the front cover fits into the appropriate hole in the receiver grommet.



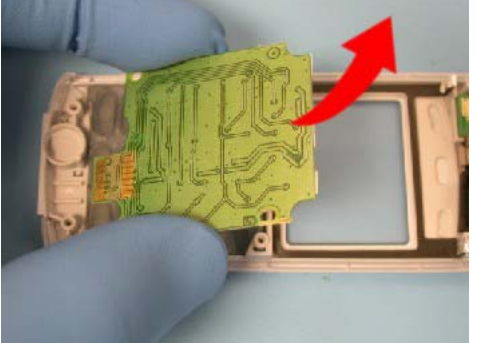
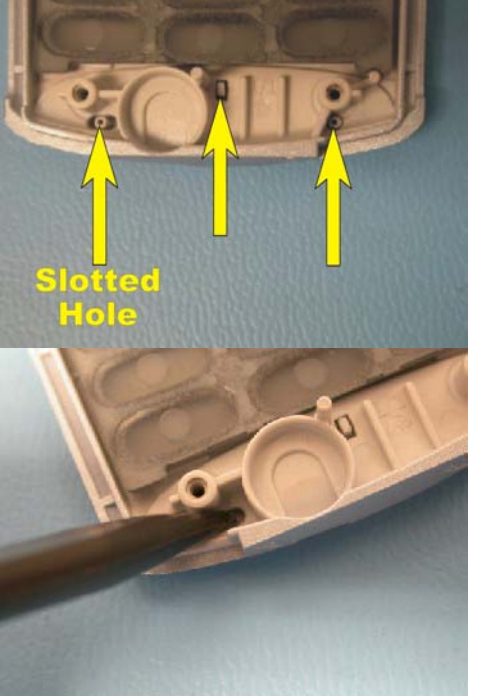
21. Place the keypad PCB assembly into the new front cover with the dome foil side down and the contacts toward the bottom of the phone.



- Reassembly steps 2 – 8

## 3.2 Inlay

- Tools: Nylon pointer
- Disassembly steps 1 - 6

<b>Step-by-Step Instructions</b>	
<p>1. Lift the keypad PCB assembly out of the front cover.</p>	
<p>2. There are three pins that align and help hold the inlay in place at the bottom of the front cover. These pins can be accessed from the inside surface of the front cover. Press out the alignment pin that is in the slotted hole using the pointed end of a nylon pointer.</p>	



### Step-by-Step Instructions

3. From the outside surface of the front cover, slide the flat end of the nylon pointer under the end of the inlay that is now slightly raised.
4. Pry loose the inlay and remove it from the front cover.

**NOTE!** Avoid scratching the front cover when trying to remove the inlay.



5. Remove an inlay adhesive film/backing assembly from the large strip of backing containing the adhesive film/backing assemblies.







### Step-by-Step Instructions

6. Place the adhesive film/backing assembly on a new inlay and remove the backing from adhesive film.

**NOTE!** The three notches in the adhesive film should line up with the three pegs on the inlay.



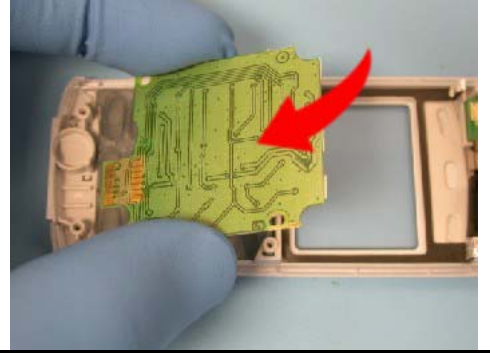
7. Align the three pegs on the inlay up with the corresponding holes near the bottom edge of the front cover.
8. Apply pressure over the entire outer surface of the inlay so that a good bond forms between the inlay and the front cover.





### Step-by-Step Instructions

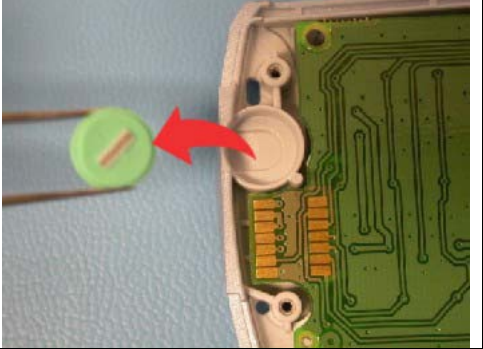

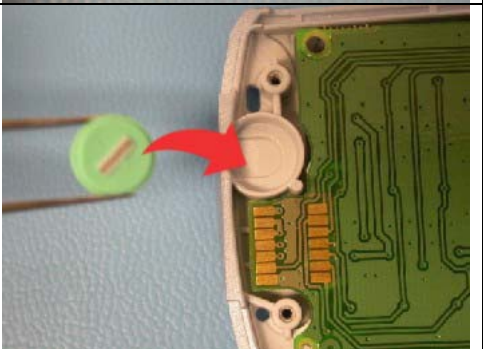
9. Place the keypad PCB assembly into the front cover with the dome foil side down and the contacts toward the bottom of the phone.



- Reassembly steps 2 - 8

### 3.3 Microphone Grommet

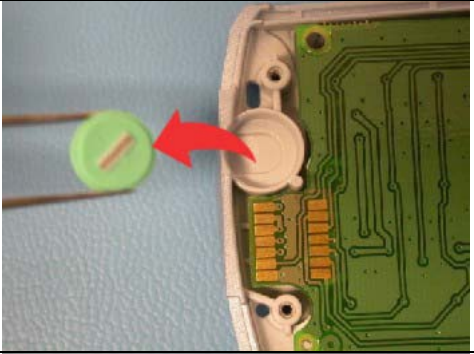

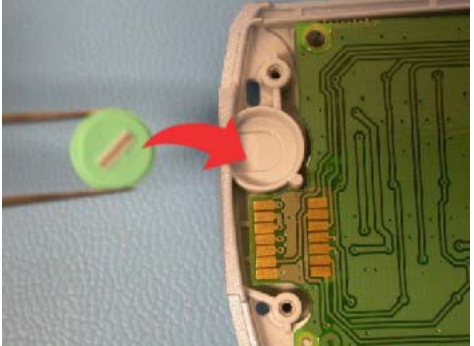
- Tools: ESD-safe tweezers
- Disassembly steps 1 – 6

<p>1. Remove the microphone grommet and microphone from the microphone cavity at the bottom of the front cover. Set the microphone aside for safekeeping.</p>	
<p>2. Place the old microphone into a new microphone grommet.</p> <p><b>NOTE!</b> Make sure the microphone is oriented so that the white ring on the microphone is facing into the grommet.</p>	
<p>3. Place the microphone assembly into the microphone cavity at the bottom of the front cover, with the contact side up (as shown).</p>	

- Reassembly steps 2 – 8

### 3.4 Microphone

- Tools: ESD-safe tweezers
- Disassembly steps 1 – 6

<b>Step-by-Step Instructions</b>	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Remove the microphone grommet and microphone from the cavity at the bottom of the front cover.</p>	
<p>2. Place a new microphone into the old microphone grommet.</p> <p><b>NOTE!</b> Make sure the microphone is oriented so that the white ring on the microphone is facing into the grommet.</p>	
<p>3. Place the microphone assembly into the microphone cavity at the bottom of the front cover, with the contact side up (as shown).</p>	

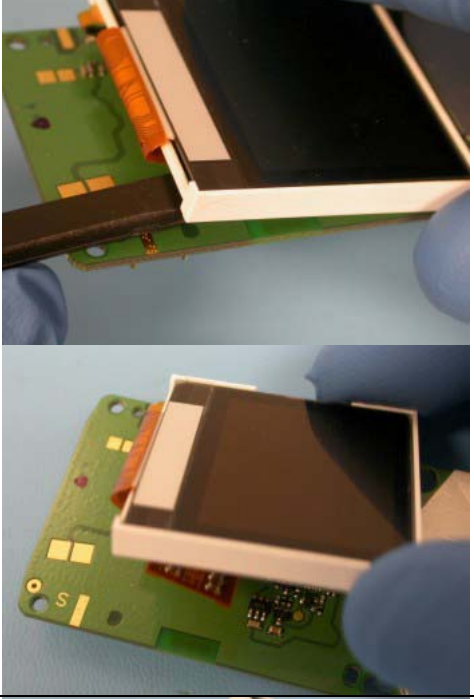
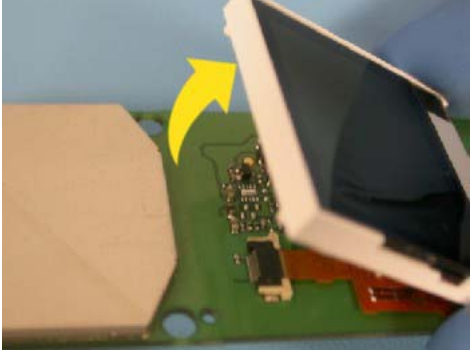
- Reassembly steps 2 – 8

### 3.5 LCD Assembly

- Tools: ESD-safe tweezers, orange stick, nylon pointer, front opening tool

**NOTE!** Whenever the phrase “pry tool” is used, a nylon pointer, an orange stick, or a front opening tool may be used, depending on the user’s preference.

- Disassembly steps 1 - 8

<b>Step-by-Step Instructions</b>	
<p>1. Using a pry tool, dislodge the old LCD by gently prying under its top left edge to release the adhesive holding the LCD to the board. Once the LCD has started coming unadhered, the LCD should easily detach the rest of the way by hand.</p> <p><b>NOTE!</b> Be careful not to damage the LCD or the flex film when prying free the LCD.</p>	
<p>2. Once the LCD is completely unadhered, rotate the bottom of the LCD towards the top of the phone board to expose the flex film.</p> <p>3. Remove any residual pieces of the adhesive stripping from the phone board before proceeding.</p> <p><b>NOTE!</b> If the LCD is just being temporarily removed instead of being replaced, avoid destroying or dirtying the adhesive stripping along each side of the LCD when removing the LCD or while it is removed. Also note to ignore the word “new” in steps 6-9 and skip step 8.</p>	



Step-by-Step Instructions	
<p>4. Using tweezers, push both sides of the white retaining bar on the ZIF connector up towards the top of the phone.</p> <p><b>NOTE!</b> Do not force the white retaining bar too far up. It could become dislodged.</p>	
<p>5. Gently slide the flex film connection upward and out of the ZIF connector. The LCD assembly is now free from the phone board and can be removed or replaced as necessary.</p>	
<p>6. To reinstall an LCD assembly, carefully slide the flex film connection of a new LCD into the slot between the black plastic portion of the ZIF connector and the white retaining bar until it reaches the bottom of the slot.</p> <p><b>NOTE!</b> Make sure that the white retaining bar is still in the open position.</p>	
<p>7. Press the white retaining bar down until it is completely closed.</p> <p><b>NOTE!</b> Gently tug on the LCD flex film to ensure that it is locked in position.</p>	

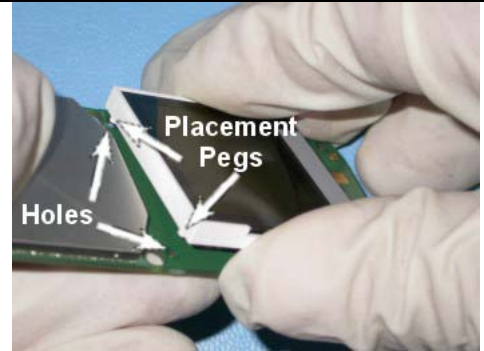


### Step-by-Step Instructions

8. Remove the protective film from the adhesive strips on the back of the LCD.
9. Fold the LCD down over the flex film into its proper position against the phone board.

**NOTE!** The alignment pegs on the bottom of the LCD frame should be aligned with the appropriate holes on the phone board.

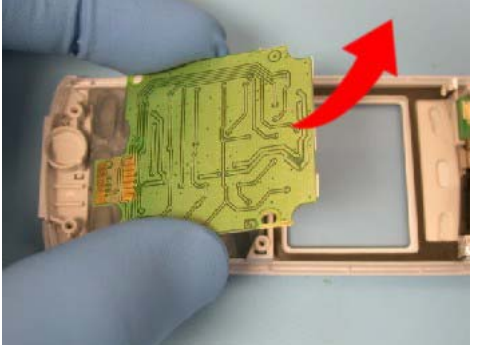


10. Once the LCD is in the correct position, gently press the LCD against the phone board to form an adhesive bond.
11. If present, remove the protective film from the display portion of the LCD assembly.



- Reassembly steps 1 – 8

### 3.6 Keypad

- Disassembly steps 1 - 6

<b>Step-by-Step Instructions</b>	
<p>1. Lift the keypad PCB assembly out of the front cover.</p>	
<p>2. Remove the keypad from the old front cover by flexing the navigation pad inward and pressing out the "YES" and "NO" keys.</p>	
<p>3. Install a new keypad by first placing the upper corner of the "Yes" key into the appropriate location in the front cover as shown.</p>	





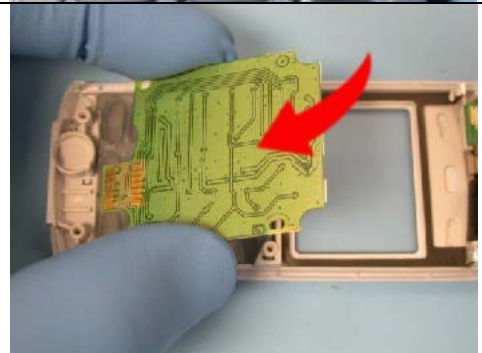
### Step-by-Step Instructions

4. With the “Yes” key in place, flex the keypad so that the “No” key will slide into its appropriate location. Once “Yes” and “No” keys are place, gently work the remaining keys into their appropriate openings.

**NOTE!** Make sure that each key fits securely and that the top edge of the keypad isn't over the edge of the front cover window.



5. Place the keypad PCB assembly into the front cover with the dome foil side down and the contacts toward the bottom of the phone.





- Reassembly steps 2 - 8

### 3.7 Antenna/Antenna Cover Replacement

- Tools: Tools: ESD-safe tweezers, orange stick, nylon pointer, front opening tool

**NOTE!** Whenever the phrase “pry tool” is used, a nylon pointer, an orange stick, or a front opening tool may be used, depending on the user’s preference.

- Disassembly steps 1 - 2

<b>Step-by-Step Instructions</b>	
<ol style="list-style-type: none"> <li>1. While lifting up the edge of the antenna cover adjacent to the battery cavity, slide the cover towards the top of the phone.</li> <li>2. Once the antenna cover reaches the point where it will no longer slide forward, lift the antenna cover off of the phone.</li> </ol> <p><b>NOTE!</b> If replacing the antenna cover, skip to step 9. If replacing the antenna, proceed to step 3.</p>	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <ol style="list-style-type: none"> <li>3. Use a pry tool underneath the top two tabs of the antenna assembly to pry the old antenna assembly loose from the back frame.</li> </ol>	

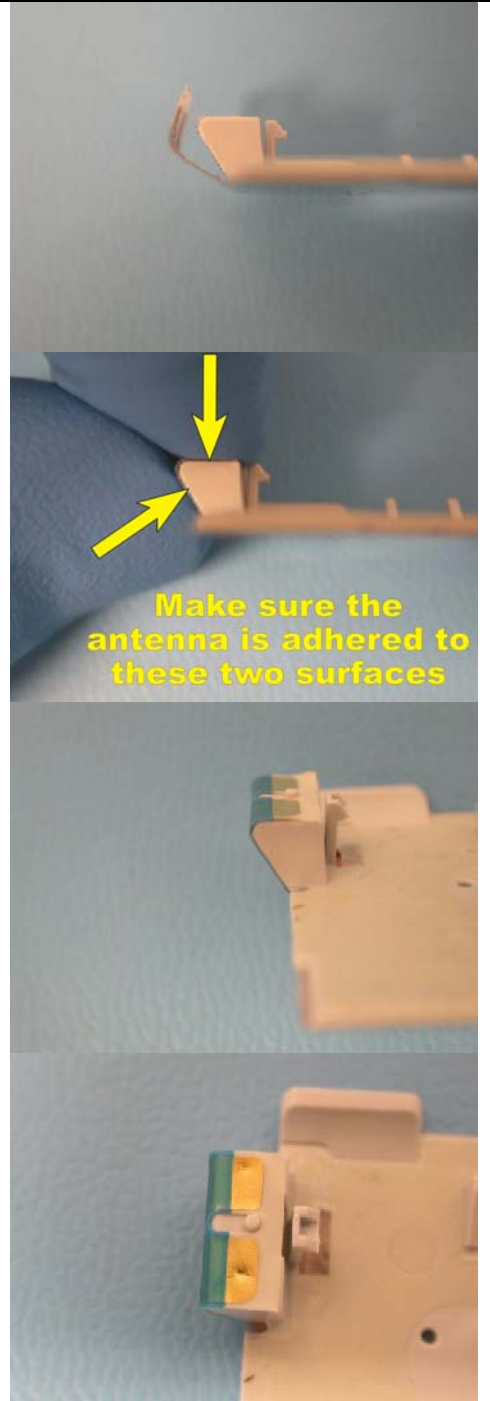


### Step-by-Step Instructions

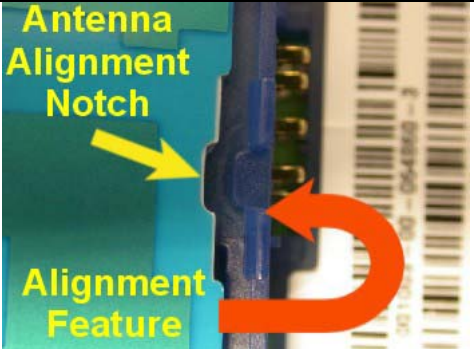


4. Remove the protective backing from a new antenna assembly.

**NOTE!** Do not allow the adhesive film of the antenna assembly to become contaminated with dirt, dust, or debris.

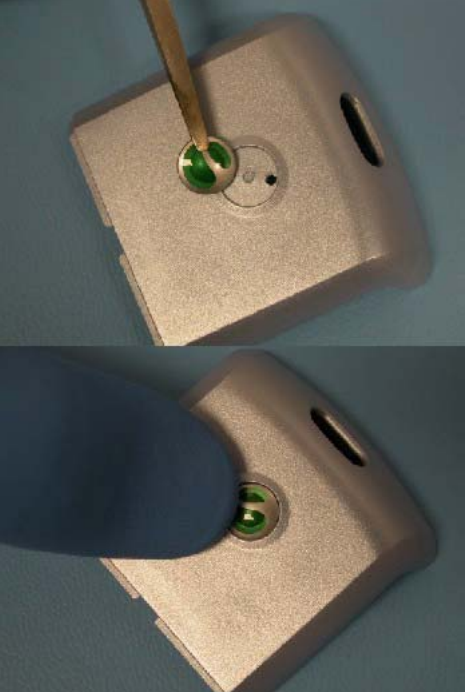
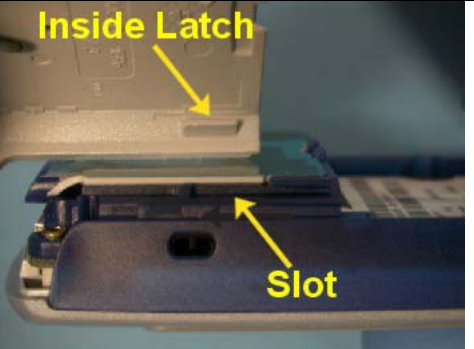
5. Check whether the board connection portion of the new antenna has become detached from the antenna base. If it has become detached, press that portion of the antenna back into place so that it adheres to the antenna base as shown.





Step-by-Step Instructions	
<p>6. When placing an antenna assembly, align the notch in the antenna assembly with the corresponding alignment features along the top edge of the back frame's battery cavity.</p>	 <p>Antenna Alignment Notch</p> <p>Alignment Feature</p> <p>The image shows a close-up of the antenna assembly being aligned with the back frame. A yellow arrow points to a notch in the antenna assembly, and a red arrow points to an alignment feature on the back frame. The antenna assembly is green and blue, and the back frame is blue.</p>
<p>7. Once aligned, rotate the antenna assembly down into place on the back frame. Make sure that the antenna assembly's board connection fits securely into the appropriate opening at the top right side of the back frame.</p>	 <p>The image shows the antenna assembly being rotated down into place on the back frame. A red arrow indicates the direction of rotation. The antenna assembly is green and blue, and the back frame is blue.</p>
<p>8. Apply pressure over the entire surface of the antenna assembly to ensure a good adhesive bond to the back frame.</p>	 <p>The image shows a hand applying pressure to the antenna assembly. The antenna assembly is green and blue, and the back frame is blue.</p>



<b>Step-by-Step Instructions</b>	
<p>9. If a new antenna cover is needed:</p> <ul style="list-style-type: none"><li>a) Remove the backing from a SEMC icon and place the icon in the corresponding cavity in the new antenna cover.</li></ul> <p><b>NOTE!</b> Make sure to align the peg on the icon with its corresponding hole in the antenna cover's icon cavity.</p> <ul style="list-style-type: none"><li>b) Apply gentle pressure to the icon to ensure a good adhesive bond to the antenna cover.</li></ul>	
<p>10. Place the antenna cover over the antenna so the latches on the inside surface of the antenna cover line up with the corresponding slots in the back frame.</p>	



### Step-by-Step Instructions

11. Push the antenna cover toward the bottom of the phone until it clicks into place.


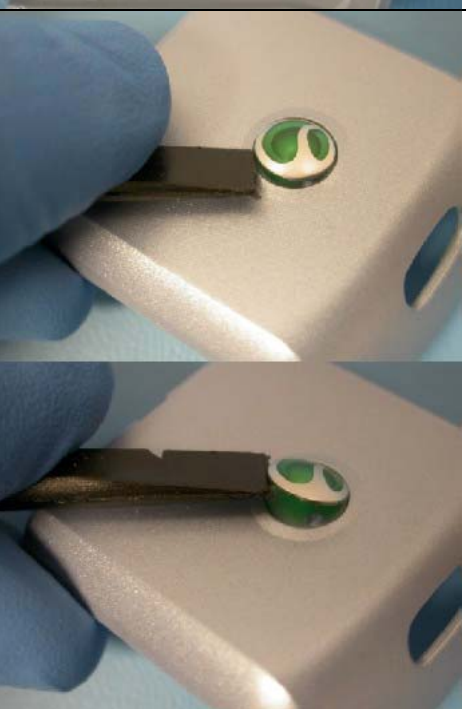
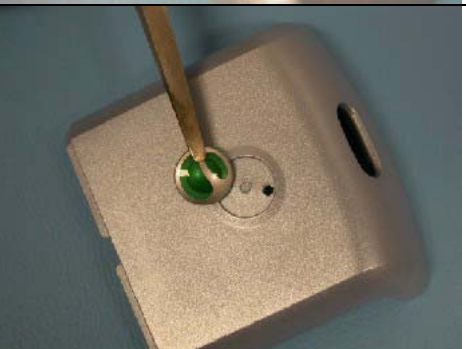
- i) Check that the seams where the antenna cover and the front cover and the antenna cover and the back frame come together are flush and even.



- Reassembly steps 6 - 8

### 3.8 SEMC Icon

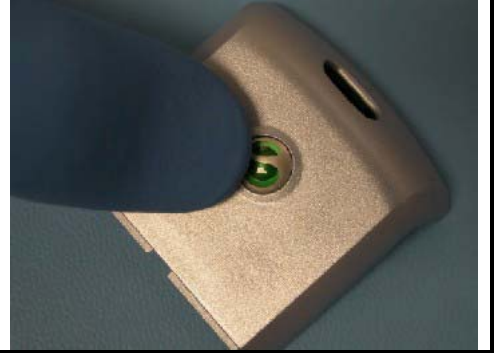
- Tools: Tools: ESD-safe tweezers, nylon pointer
- Disassembly steps 1- 4

<b>Step-by-Step Instructions</b>	
<p>1. Looking at the inside surface of the antenna cover, locate the SEMC icon's alignment pin. Press the alignment pin out of the hole in the antenna cover. This can be accomplished by using the pointed end of a nylon pointer.</p>	
<p>2. Slide the flat end of the nylon pointer under the icon's lifted edge and pry the icon out of the cavity in the antenna cover.</p> <p><b>NOTE!</b>     <b>Avoid scratching the antenna cover when trying to remove the icon.</b></p>	
<p>3. Remove the backing from a new SEMC icon and place the icon in the corresponding cavity in the antenna cover.</p> <p><b>NOTE!</b>     <b>Make sure to align the peg on the icon with its corresponding hole in the antenna cover's icon cavity.</b></p>	



**Step-by-Step Instructions**

4. Apply gentle pressure to the icon to ensure a good adhesive bond to the antenna cover.

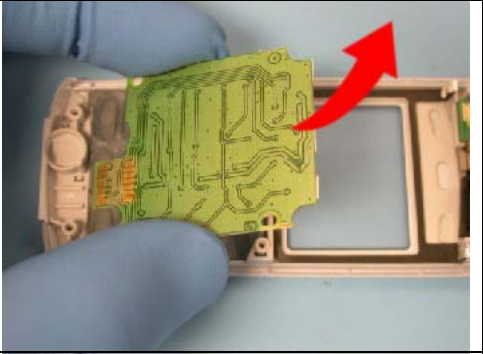
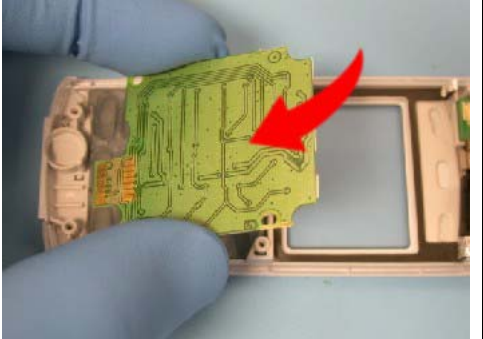


- Reassembly steps 4 - 8



### 3.9 Keypad PCB Assembly

- Disassembly steps 1 - 6

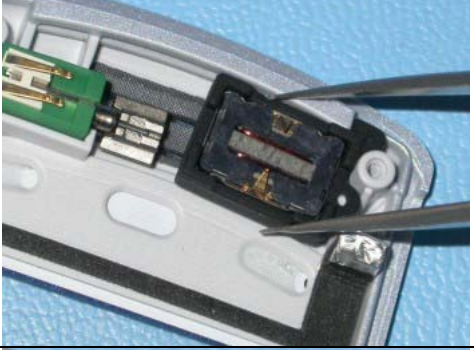
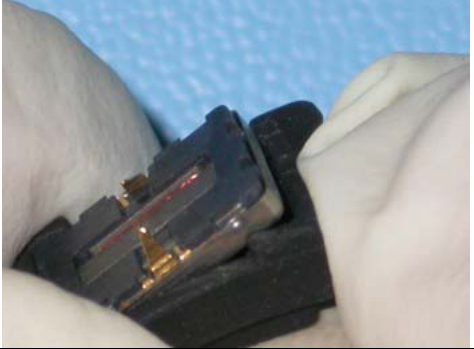

Step-by-Step Instructions	
<p>1. Lift the old keypad PCB assembly out of the front cover.</p>	
<p>2. Place a new keypad PCB assembly into the front cover with the dome foil side oriented towards the front cover and the contact pads on the keypad PCB assembly oriented toward the bottom of the phone.</p>	

- Reassembly steps 2 - 8



### 3.10 Receiver and Receiver Gasket

- Tools: ESD-safe tweezers
- Disassembly steps 1- 6

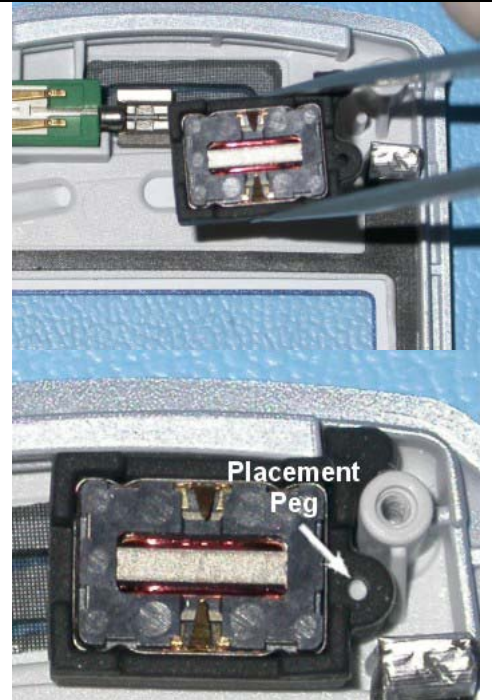
Step-by-Step Instructions	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Remove the old receiver and receiver gasket from the front cover.</p>	
<p>2. Separate the receiver from the receiver gasket.</p>	
<p>3. Replace the receiver and/or the receiver gasket as necessary.</p> <p>4. Mount the good receiver into the good receiver gasket. The receiver's contacts should be facing out.</p> <p><b>NOTE!</b> Be careful not to damage the contacts.</p>	



### Step-by-Step Instructions

5. Place the good receiver/gasket assembly into the front cover.

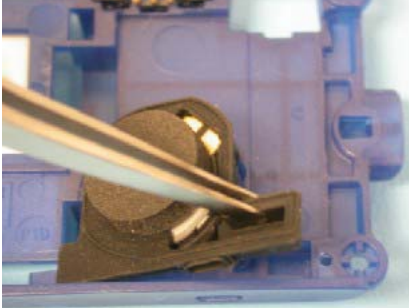



**NOTE!** Make sure that the placement peg in the front cover fits into the appropriate hole in the receiver gasket.



- Reassembly steps 2 - 8

### 3.11 Polyphonic Speaker and Speaker Grommet

- Tools: ESD-safe tweezers
- Disassembly steps 1 - 8

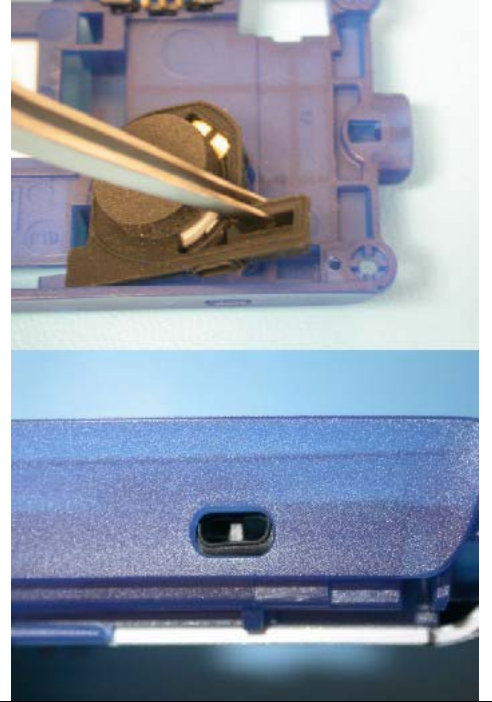
<b>Step-by-Step Instructions</b>	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Remove the polyphonic speaker/grommet assembly from the back frame.</p>	
<p>2. Separate the polyphonic speaker from its grommet.</p>	
<p>3. Replace the polyphonic speaker and/or the speaker grommet as necessary.</p> <p>4. Install the good speaker into the good speaker grommet. The speaker's contacts should be oriented so that they line up with the corresponding notch in the grommet.</p> <p><b>NOTE!</b> Make sure that the lips of the grommet are overlapping the speaker.</p>	
<p>5. If the polyphonic speaker was replaced, install a speaker pad over the back of the new speaker as shown.</p>	



### Step-by-Step Instructions

6. Place the speaker/grommet assembly into its appropriate cavity in the back frame.

**NOTE!** Look through the buzzer sound opening on the side of the back frame and make sure that the grommet is not blocking the opening.

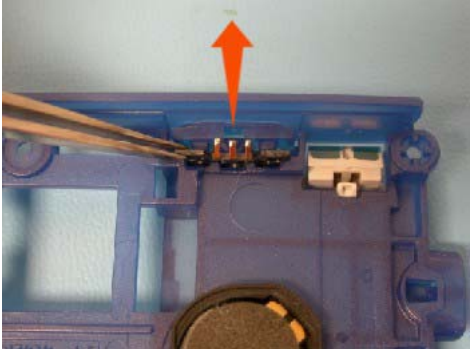

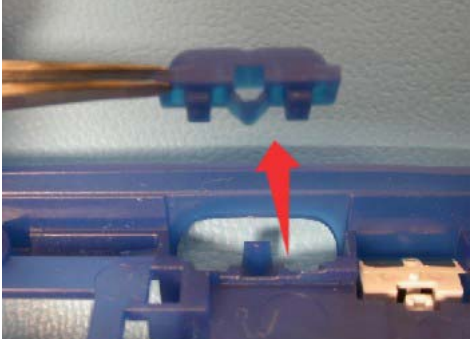


- Reassembly steps 1- 8



### 3.12 Volume Switch and/or Volume Button

- Tools: ESD-safe tweezers
- Disassembly steps 1- 8

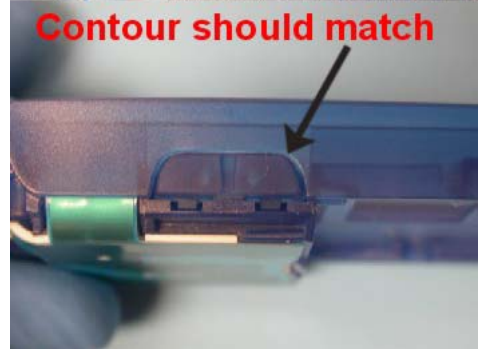
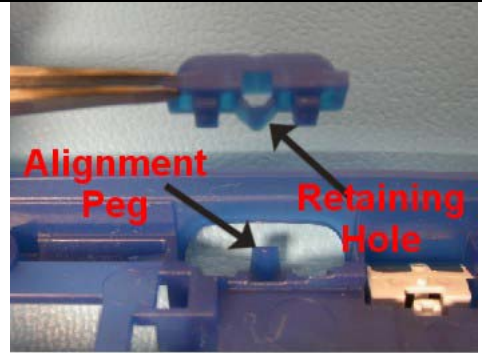
Step-by-Step Instructions	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Using tweezers, gently pull the volume switch out of the back frame.</p> <p><b>NOTE!</b> If only the volume switch is being replaced, skip to step 5. If replacing the volume button, proceed to step 2.</p>	
<p>2. From the portion of the volume button that is externally accessible, press the volume button inward and upward (away from the antenna) to dislodge it from its position in the back frame.</p> <p>3. From the inside of the back frame, lift the volume button out of its cavity.</p>	 



**Step-by-Step Instructions**

4. Place a new volume button into the cavity and push the retaining hole down onto the alignment peg inside of the cavity.

**NOTE!** Make sure that the button is oriented properly. The contour of the button and its exterior access hole in the back frame should match.





**Step-by-Step Instructions**

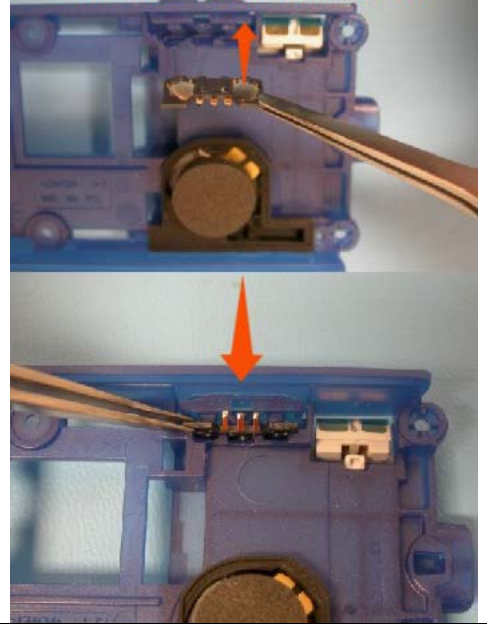
5. Replace the old volume switch if determined to be necessary.

**NOTE!** The contacts should be facing out toward the wall of the back frame.

6. Push the volume switch into the gap behind the volume button.

**NOTE!** Be careful not to bend or damage the spring fingers on the volume switch when installing it.

**Contacts should be oriented toward wall**



- Reassembly steps 1 - 8


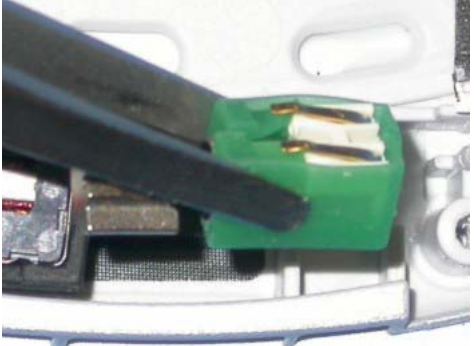


### 3.13 Vibrator

- Tools: ESD-safe tweezers, orange stick, nylon pointer, front opening tool

**NOTE!** Whenever the phrase “pry tool” is used, a nylon pointer, an orange stick, or a front opening tool may be used, depending on the user’s preference.



- Disassembly steps 1- 6

<b>Step-by-Step Instructions</b>	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p> <p>1. Gently pry underneath the vibrator weight to remove it from the front cover.</p>	
<p>2. Place a new vibrator into the front cover as shown. Make sure that the weight is toward the center of the phone, and that the contacts are facing up.</p> <p><b>NOTE!</b> Be careful not to damage the vibrator contacts.</p>	

- Reassembly steps 2 - 8

### 3.14 Label Replacement

- Tools: ESD-safe tweezers, hot air gun
- Disassembly steps 1- 2

Step-by-Step Instructions	
<p><b>NOTE!</b> This instruction should be used when exchanging an old label or mounting a new one.</p> <p>1. Print a new label.</p> <p><b>NOTE!</b> The text must be fully readable manually and mechanically.</p> <p><b>NOTE!</b> If one label or less is present on the phone, proceed to step 3. If two or more labels are on the phone, proceed to Step 2.</p>	
<p>2. Carefully remove the old labels.</p> <p><b>NOTE!</b> If difficulty in removing the old labels is experienced, try heating up the old label(s) with a hot air gun to loosen the adhesive bond.</p> <p><b>NOTE!</b> Avoid scratching the frame when trying to peel off of the labels.</p> <p><b>NOTE!</b> Make sure that all adhesive residue is removed. Carefully clean off any residue in the label area.</p>	
<p><b>NOTE!</b> <b>No more than two labels</b> are allowed on the battery cavity.</p> <p>3. Place the new label into the battery cavity. Center the label so that the notches in the label are lined up to the center screw openings, the battery connection at the top of the battery cavity, and the edges of the SIM card opening.</p> <p>4. Once the label is correctly positioned, carefully smooth the label into place.</p>	

- Reassembly steps 6 - 8

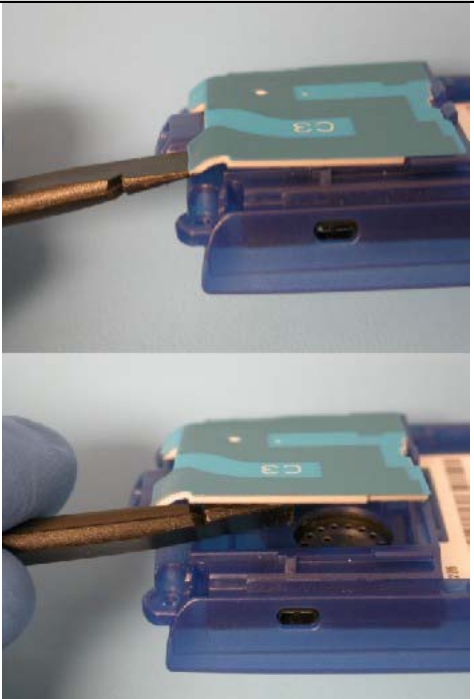


### 3.15 Frame Replacement

- Tools: ESD-safe tweezers, orange stick, nylon pointer, front opening tool

**NOTE!** Whenever the phrase “pry tool” is used, a nylon pointer, an orange stick, or a front opening tool may be used, depending on the user’s preference.

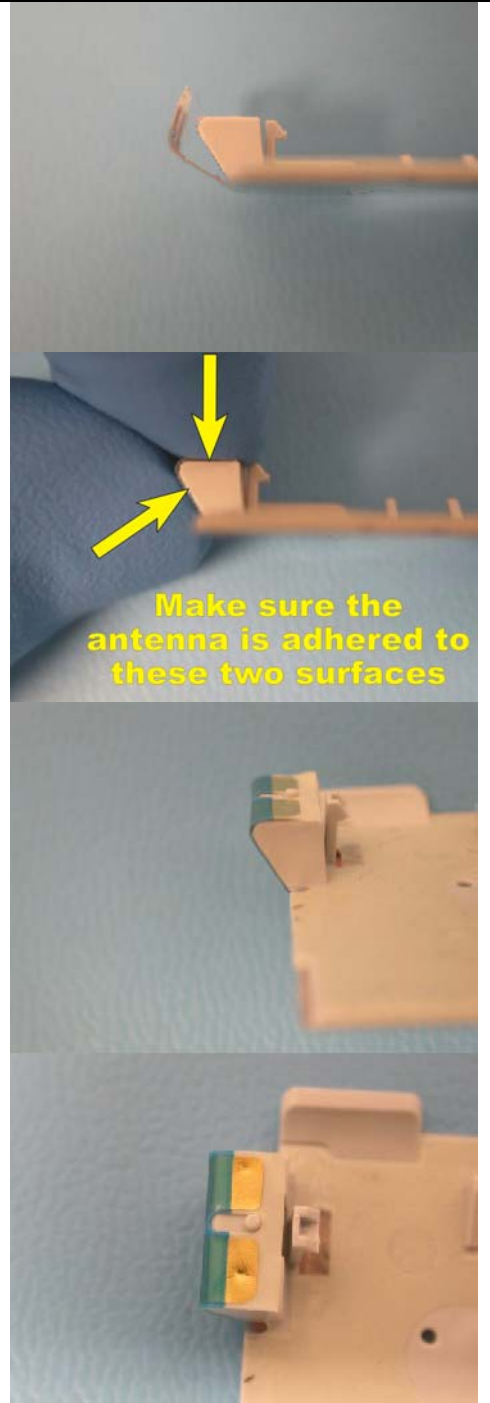
- Disassembly steps 1 - 8

Step-by-Step Instructions	
<p><b>NOTE!</b> Keep all contact surfaces clean of dirt and hand grease! Use finger cots or gloves, and an ESD wrist strap!</p>	
<p>1. Use a pry tool underneath the top two tabs of the antenna assembly to pry it loose from the old back frame.</p>	
<p><b>NOTE!</b> Do not allow the adhesive film of the antenna assembly to become contaminated with dirt, dust, or debris while the antenna assembly is removed.</p>	

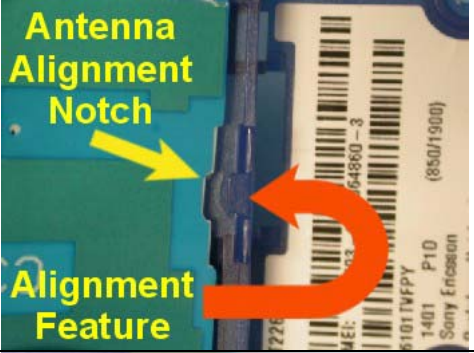
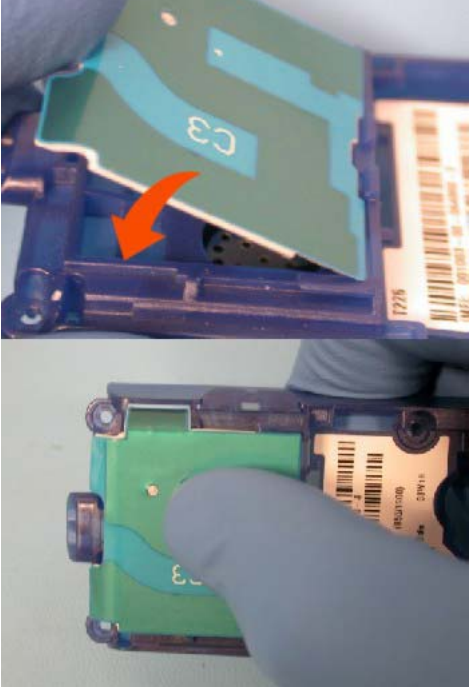
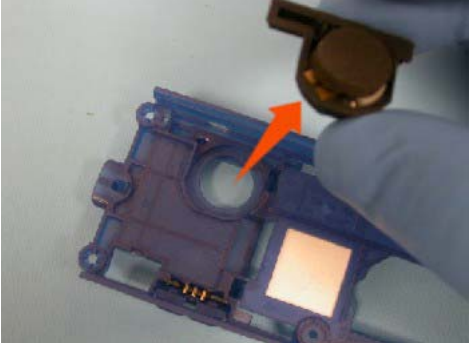


### Step-by-Step Instructions

2. Before installing the antenna assembly onto the new back frame, check whether the board connection portion of the antenna has become detached from the antenna base. If it has become detached, press that portion of the antenna back into place so that it adheres to the antenna base as shown.





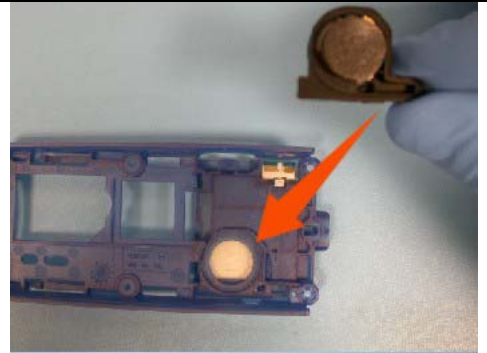
Step-by-Step Instructions	
<p>3. When placing the antenna assembly, align the notch in the antenna assembly with the corresponding alignment features along the top edge of the new back frame's battery cavity.</p>	
<p>4. Once aligned, rotate the antenna assembly down into place on the back frame. Make sure that the board connection portion of the antenna assembly fits securely into the appropriate opening at the top right side of the back frame.</p> <p>5. Apply pressure over the entire surface of the antenna assembly to ensure a good adhesive bond to the back frame.</p>	
<p>6. Remove the polyphonic speaker/grommet assembly from the old back frame.</p>	



**Step-by-Step Instructions**

7. Place the polyphonic speaker/grommet assembly into its appropriate cavity in the new back frame.

**NOTE!** Look through the buzzer sound opening on the side of the back frame and make sure that the grommet is not blocking the opening.



8. Using tweezers, gently pull the volume switch out of the old back frame.

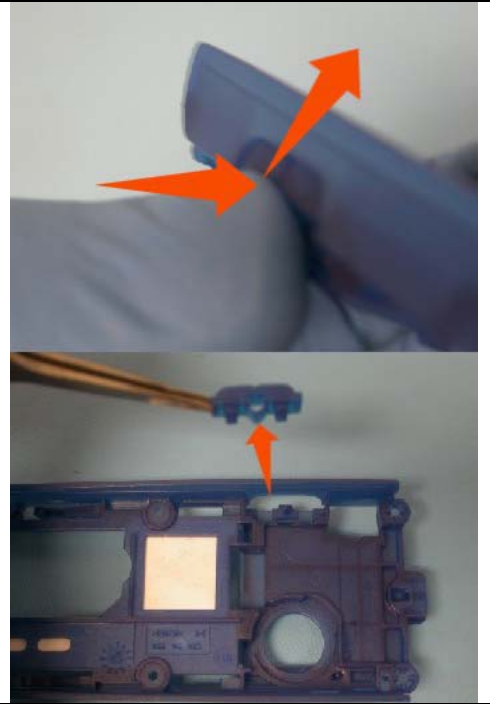
**NOTE!** Be careful not to bend or damage the spring fingers.





**Step-by-Step Instructions**

9. From the portion of the volume button that is externally accessible, press the volume button inward and upward (away from the side of the back frame the antenna attaches too) to dislodge it from its position in the back frame.
10. From the inside of the back frame, lift the volume button out of its cavity.

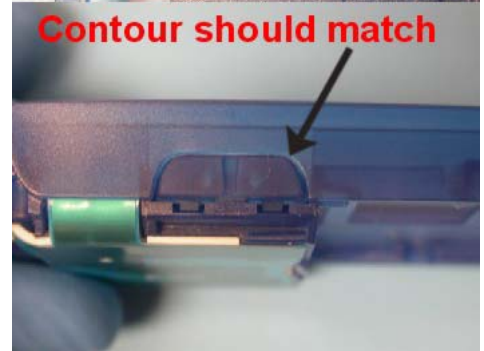
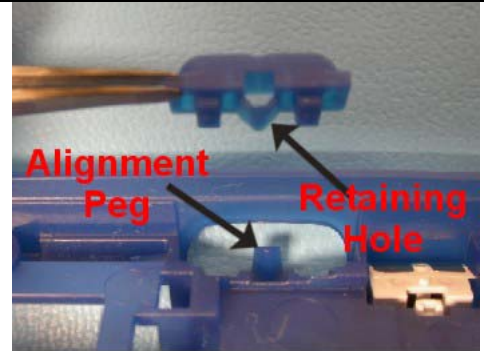




### Step-by-Step Instructions

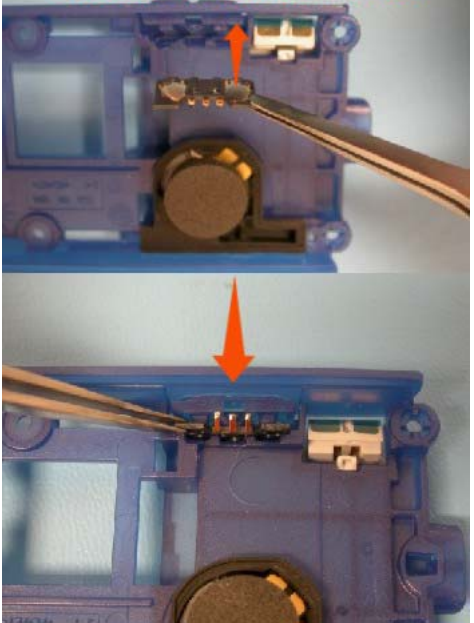

11. Place the volume button into the appropriate cavity in the new back frame and push the retaining hole down onto the alignment peg inside of the cavity.

**NOTE!** Make sure that the button is oriented properly. The contour of the button and its exterior access hole in the back frame should match.







Step-by-Step Instructions	
<p><b>NOTE!</b> The volume switch's contacts should be facing out toward the wall of the back frame.</p> <p>12. Push the volume switch into the gap behind the volume button.</p> <p><b>NOTE!</b> Be careful not to bend or damage the spring fingers on the volume switch when installing it.</p>	<p><b>Contacts should be oriented toward wall</b></p> 
<p>13. Print a new label.</p> <p><b>NOTE!</b> The text must be fully readable manually and mechanically.</p> <p>14. Place the new label into the battery cavity. Center the label so that the notches in the label are lined up to the center screw openings, the battery connection at the top of the battery cavity, and the edges of the SIM card opening.</p> <p>15. Once the label is correctly positioned, carefully smooth the label into place.</p>	

- Reassembly steps 1 - 8

## 4 Revision History

Rev.	Date	Changes / Comments
PA1	2003-05-20	First draft
A	2003-08-04	Initial Release
B	2003-09-16	<ul style="list-style-type: none"> <li>• Added "front opening tool" option where applicable</li> <li>• Updated content to clarify document</li> <li>• Removed shield can inspection</li> </ul>
C	2003-10-31	<ul style="list-style-type: none"> <li>• Removed mandatory replacement of microphone grommet. Mandatory replacement is no longer required. Replace as necessary.</li> </ul>