

Working Instruction, Mechanical

Applicable for K800 and K790

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1 General

1.1 Using Hand and ESD Protection

When handling this product, keep all surfaces clean of dirt, dust, debris, and hand oil. Use appropriate ESD precautions when working on this product. The use of finger cots or gloves, an ESD mat, and an ESD wrist strap are required at minimum.

1.2 Protection of LCDs, Lenses, and Windows

Any time the screen portion of a display assembly, the windows of a display cover, or a camera lens is unprotected and will be exposed for an extended period of time, add a protective film over the exposed part to reduce the amount of dust, finger prints, debris, and/or damage that the part may obtain.

1.3 Acceptable Pry Tools

Whenever the phrase "pry tool" is used, a nylon pointer or a front opening tool may be used, depending on the user's preference.

1.4 Discharge Camera Flash before Disassembly

Before performing any disassembly, discharge the camera flash by performing the following steps.

- 1) Close the lens cover
- 2) Install a battery
- 3) Power the phone on and go to the Service Test Menu
- 4) Select the "Discharge Flash" option
- 5) Wait several seconds until the strobe light flashes
- 6) Power the phone down


If it is not possible to access the Service Test Menu, leave the unit without battery for 30 minutes and the camera flash will be discharged.

NOTE! *The phone may still contain residual voltage that can discharge through skin contact, but it is not enough to cause injury. This discharge may be avoided by wearing rubber gloves.*



1.5 Required Tools

The following tools will be needed.

Tools	
Torque Driver	
Nylon Pointer	
Style 2A ESD Tweezers	
T6 Torx [®] Bit	
JCIS No. 0 screw bit	
Dental Tool	

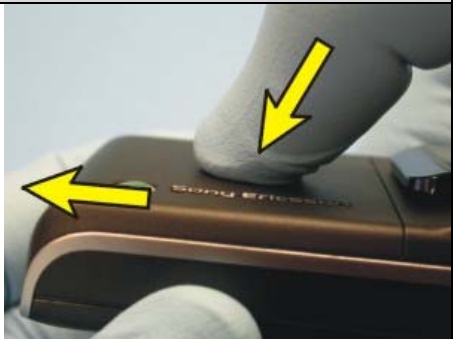



2 Disassembly

The following subsections make up the disassembly procedure. Before starting disassembly, check that there is a protective film over the display window. If the window lacks a protective film, clean the window and add a protective film.



These subsections are arranged in the order that they must be performed to properly disassemble this product.

2.1 Battery Cover Removal

Step-by-Step Instructions	
<p>NOTE! <i>Discharge the camera flash before performing any disassembly. Refer to section 1.4 for instructions on how to properly discharge the flash.</i></p> <ol style="list-style-type: none">1. Dislodge the battery cover by pushing it down and toward the end of the phone where the system connector is located.	
<ol style="list-style-type: none">2. Once dislodged, slide the battery cover from the phone.	


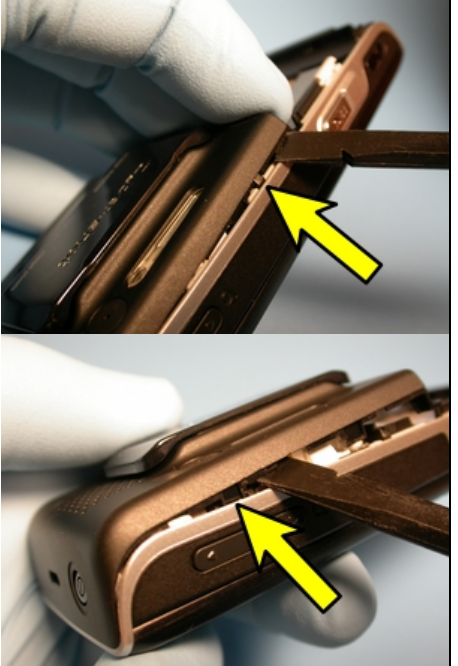


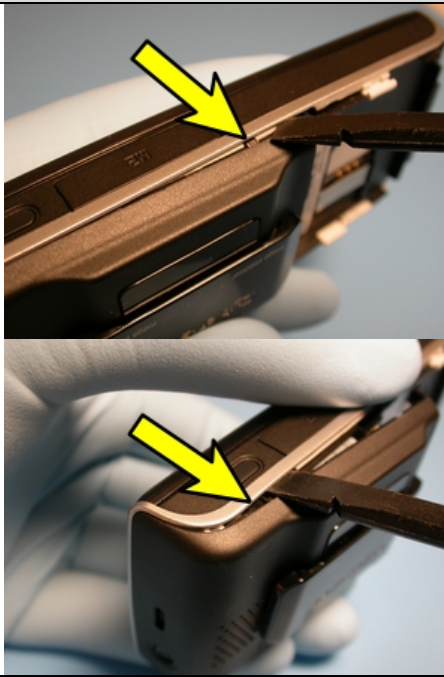

2.2 Battery Removal

Step-by-Step Instructions	
1. Lift the accessible end of the battery so that it comes out of the battery cavity.	
2. Grip the lifted end of the battery and pull the battery out of the battery cavity.	

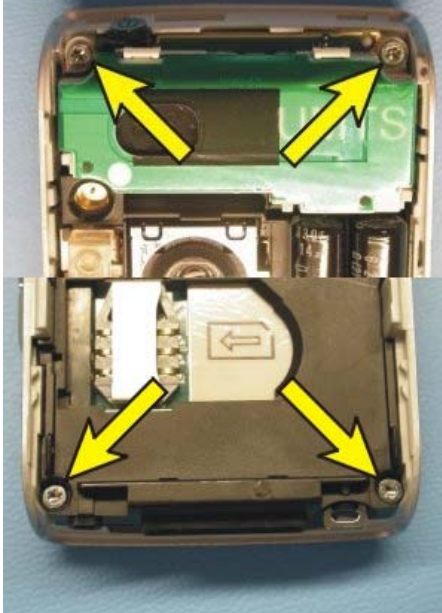
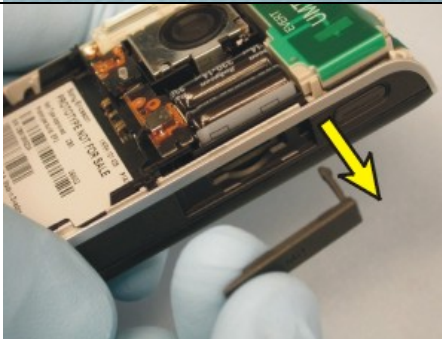
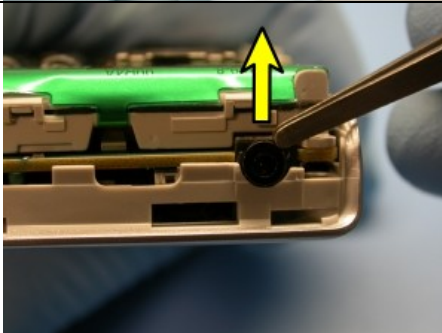


2.3 Antenna Cover Removal




Step-by-Step Instructions	
1. Remove the two screws indicated with a torque driver and a JCIS No. 0 screw bit.	
2. Slightly lift the edge of the antenna cover as shown and work a pry tool along the seam to unlatch the two latches holding that side of the antenna cover in place.	

Step-by-Step Instructions	
<p>3. Slightly lift the other edge of the antenna cover as shown and work a pry tool along the seam to unlatch the two latches holding that side of the antenna cover in place.</p>	
<p>4. Insert a pry tool where indicated and rotate it away from the phone to release the end latch.</p> <p>5. Repeat the previous step on the other side of the antenna cover.</p>	

2.4 Phone Core Separation from Front Cover


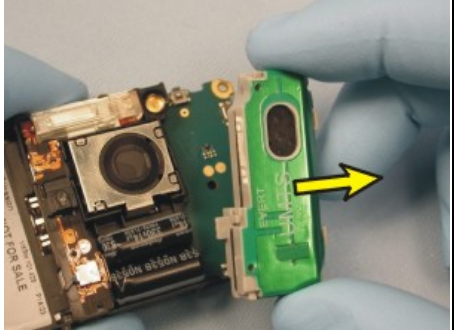
Step-by-Step Instructions	
<p>1. Remove the four screws indicated using a torque driver and a T6 bit.</p>	
<p>2. Remove the memory stick cover completely from the phone by pulling out the tab that connects the cover to the phone.</p> <p>NOTE: <i>Remove the memory card if present.</i></p>	
<p>3. Using style 2A tweezers, remove the power button by pulling it out of the front cover.</p>	



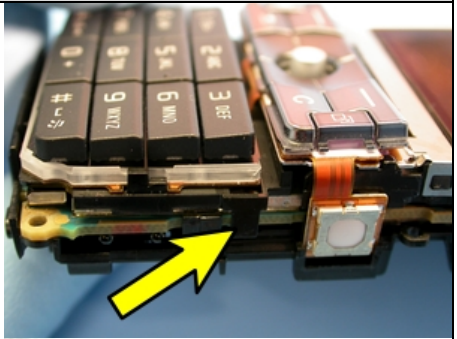

Step-by-Step Instructions	
<p>4. Insert a pry tool between the phone core and front cover where indicated.</p> <p>5. Rotate the tool away from the SIM holder to pry the phone core from the front cover.</p>	
<p>6. Rotate the lifted side of the phone core out of the front cover.</p>	
<p>7. Once the lifted side of the phone core is clear of the front cover, lift the remainder of the phone core out of the front cover as shown.</p>	



2.5 Antenna/Speaker Box Removal from Circuit Board

Step-by-Step Instructions	
1. Use a pry tool to release the two latches indicated from the edge of the circuit board.	
2. Lift the antenna/speaker box from the circuit board.	

2.6 Accessing LCD and Keypad Circuit Board Connections

Step-by-Step Instructions	
1. Using a pry tool, release the two latches indicated that hold the keypad onto the circuit board.	 



Step-by-Step Instructions

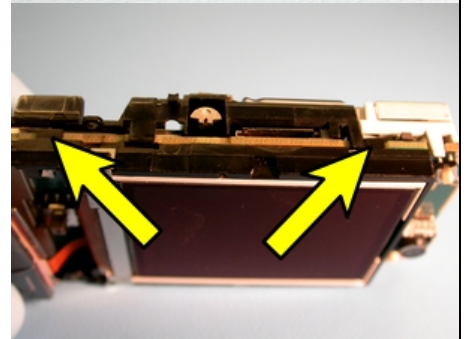
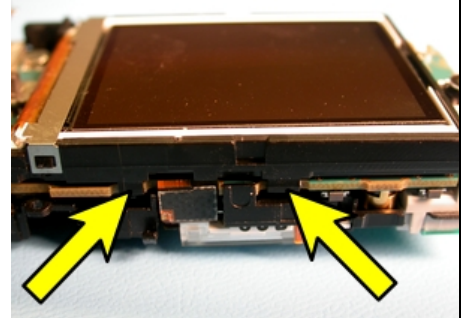
2. Lift the keypad up as shown. The camera switch will come out of its slot.



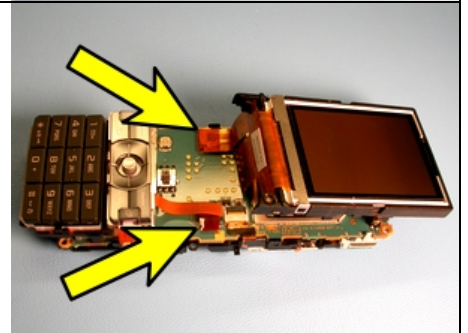
Position the keypad over the system connector end of the phone. Be careful not to pull on the keypad flex film.



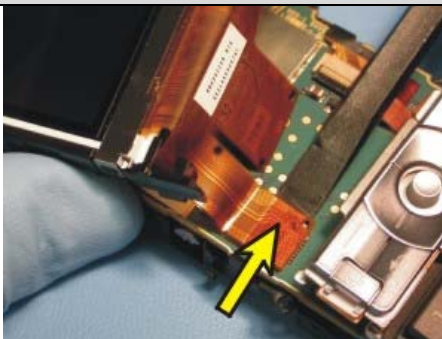
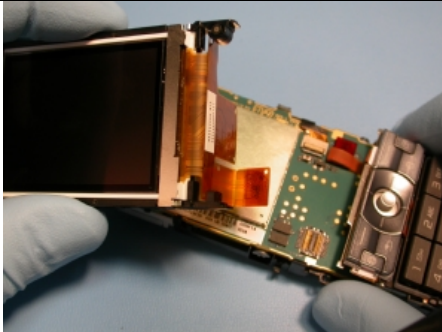
3. Using a pry tool, release the four latches indicated that hold the LCD onto the circuit board.



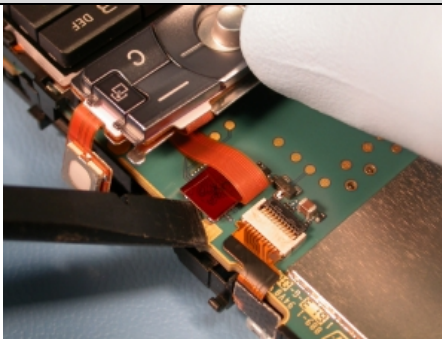
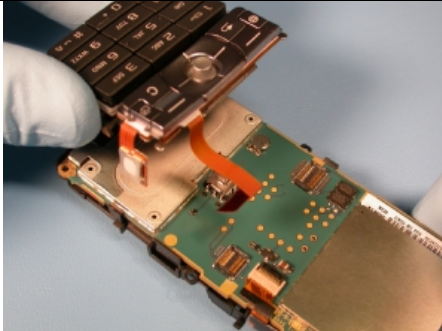
4. Lift the LCD away from the keypad to expose the board connections for both the LCD and keypad.



2.7 LCD Disconnection from Circuit Board


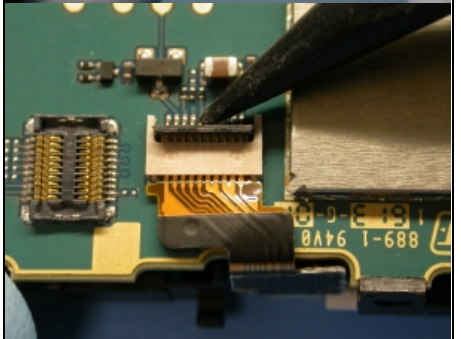
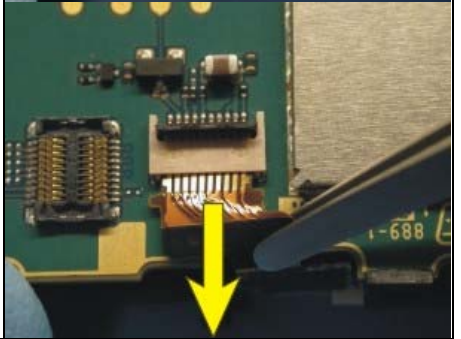

Step-by-Step Instructions	
1. Using a pry tool, unplug the LCD assembly from the circuit board.	
2. Lift the LCD assembly away from the circuit board.	

2.8 Keypad Disconnection from Circuit Board

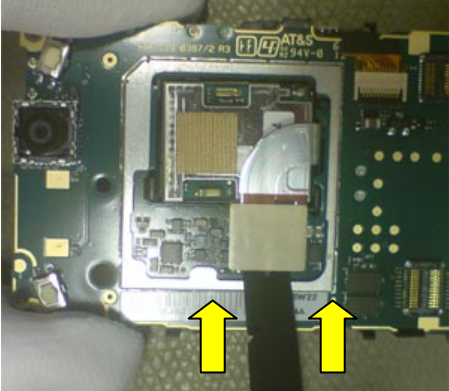
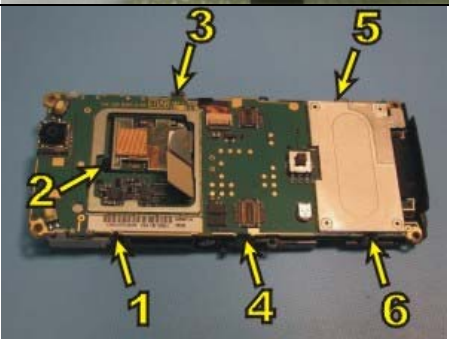
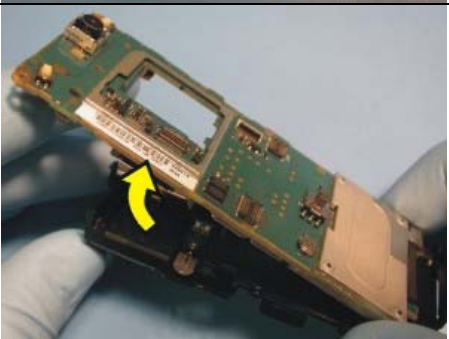

Step-by-Step Instructions	
1. Using a pry tool, unplug the keypad assembly from the circuit board.	
2. Lift the keypad assembly away from the circuit board.	



2.9 Board Frame Removal from Circuit Board

Step-by-Step Instructions	
1. Locate the flash assembly's flex film connection to the circuit board.	
2. Rotate the black portion of the connector toward the flex film as shown.	
3. Pull the flex film from the connector.	
4. Remove the shield can lid by using a pry tool at each corner.	




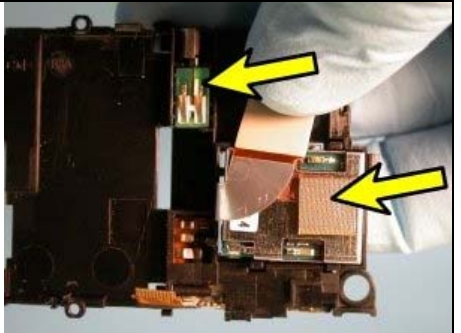
Step-by-Step Instructions	
<p>5. ATTENTION! Be VERY careful when removing the Camera BtB connector or it might brake.</p> <p>Using a pry tool, pay attention to the angle; disconnect the rear camera assembly from the circuit board.</p>	
<p>6. Using a pry tool, release the six latches in the order shown from the edge of the circuit board.</p>	
<p>7. Rotate the circuit board about 15 degrees from the board frame as shown.</p> <p>NOTE! When lifting the circuit board, carefully work the rear camera's flex film through the hole in the circuit board.</p>	
<p>8. Pull the circuit board out of the board frame as shown.</p>	



3 Reassembly

The following subsections make up the reassembly procedure. These subsections are arranged in the order that they must be performed to properly reassemble this product.

3.1 Board Frame Attachment to Circuit Board

Step-by-Step Instructions	
1. Verify that the flash assembly is installed on the board frame.	
2. Verify that the rear camera and vibrator are installed in the board frame as shown.	



Step-by-Step Instructions

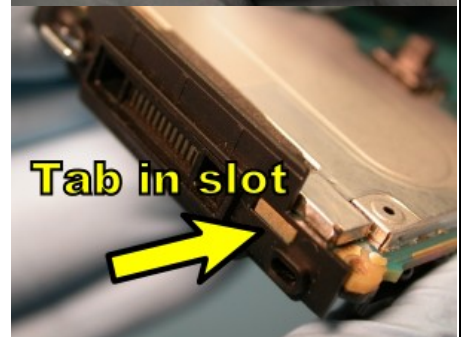
3. With the circuit board slightly angled as shown, place the indicated tab portion of the circuit board over both contact fingers of the Bluetooth antenna.

NOTE! Watch to make sure the Bluetooth antenna's contact fingers remain under the circuit board as you insert the system connector end of the circuit board into the board frame.

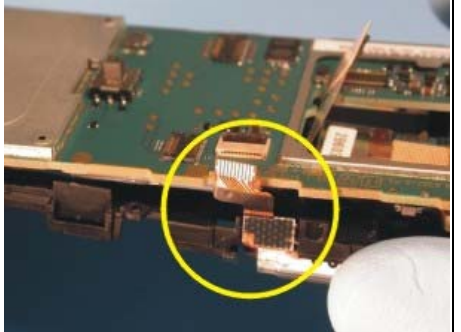
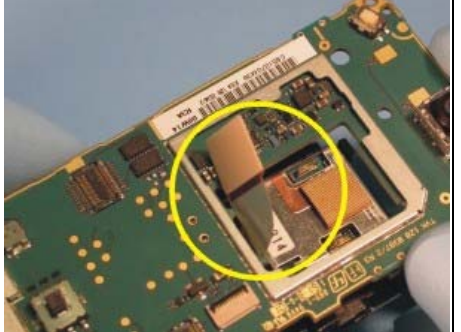
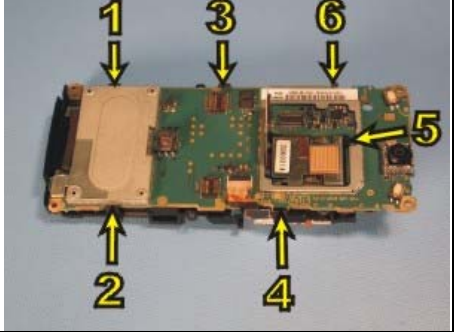
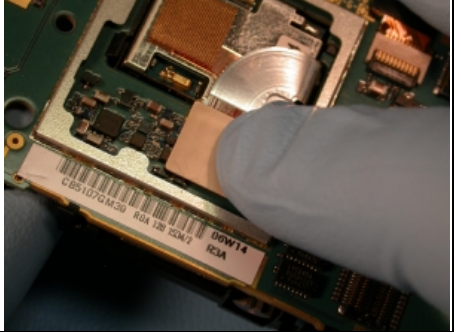
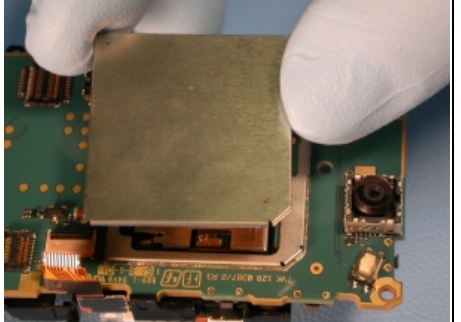
NOTE! If you are not careful at this point, damage to the Bluetooth antenna's spring fingers can easily result.

4. Work the tab portion of circuit board that the Bluetooth antenna contacts are under into its slot in the board frame.

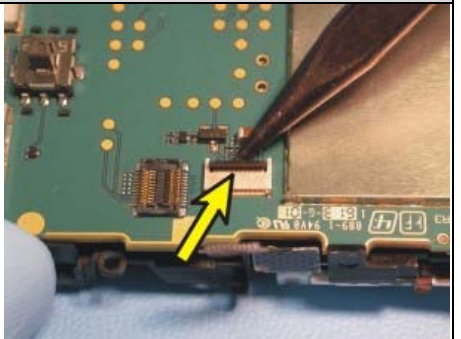
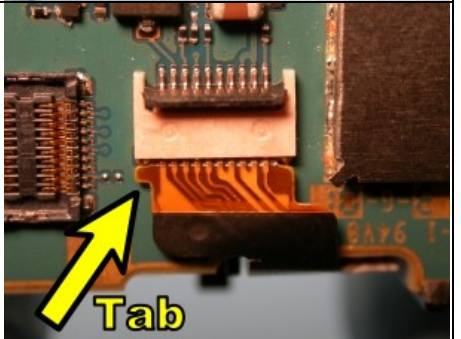
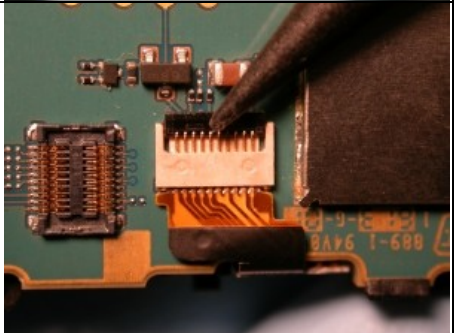
5. Rotate the circuit board so that the system connector is within its opening within the board frame.





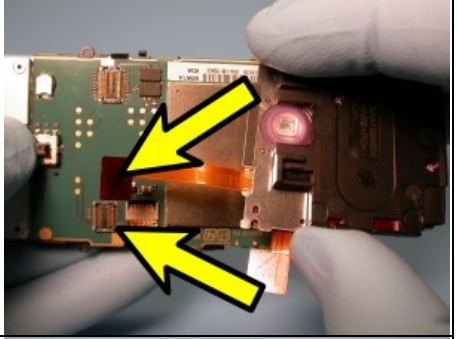
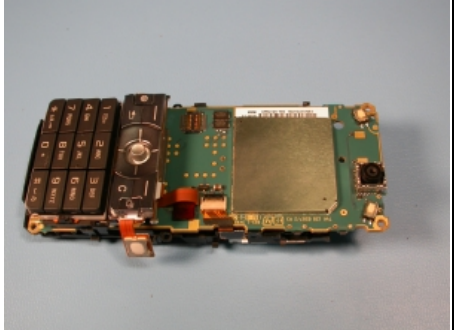
Step-by-Step Instructions	
6. Move the flash assembly's flex film connection from between the board frame and the circuit board.	
7. Feed the rear camera's flex film through the large hole in the circuit board and rotate the circuit board onto the board frame.	
8. Snap the six latches over the edge of the circuit board in the order shown.	
9. Plug the rear camera assembly into its circuit board connection.	
10. Install the shield can lid as shown. Press down on each corner of the lid to make sure it is completely seated.	



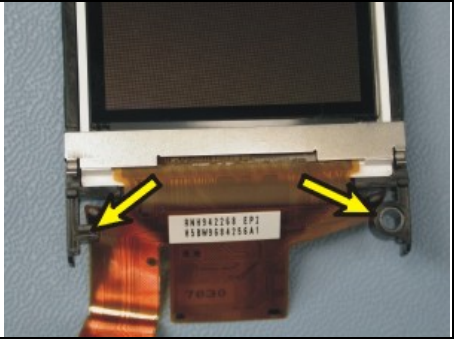
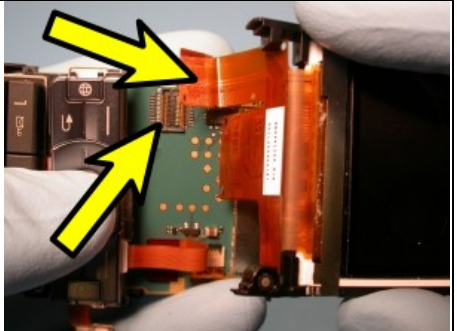
Step-by-Step Instructions	
11. Rotate the black retaining bar of the flash connector toward the edge of the circuit board.	
12. Slide the flash assembly's flex film into its circuit board connector until the tab portion of the flex film is against the connector.	
13. Rotate the black retaining bar away from the flex film until it is flush against the circuit board.	



3.2 Keypad Connection to Circuit Board

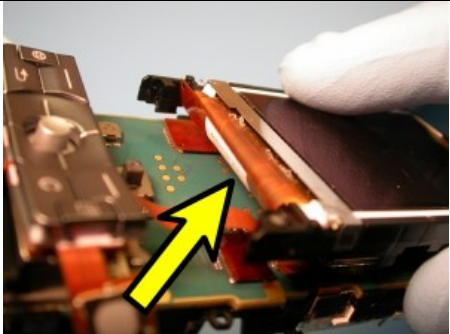
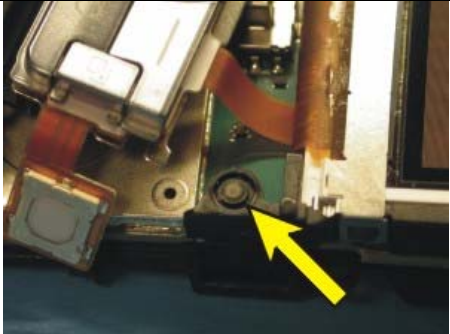
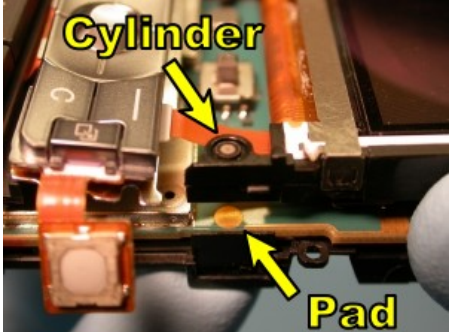
Step-by-Step Instructions	
1. While holding the keypad assembly upside down over the rear camera, plug the keypad assembly's flex film into its connector on the circuit board.	
2. Rotate the keypad onto the portion of the circuit board adjacent to the system connector.	

3.3 LCD Connection to Circuit Board

Step-by-Step Instructions	
1. Verify that the flex film extending from the LCD is behind the two features of the LCD holder that are indicated.	
2. Hold the LCD assembly over the circuit board as shown and plug the LCD assembly's flex film into its connector on the circuit board.	



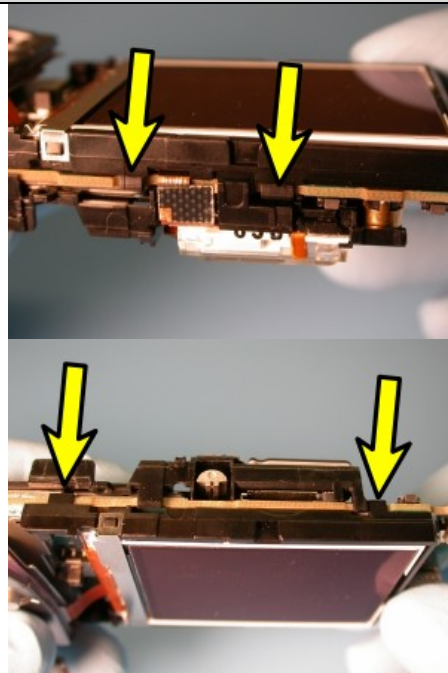
3.4 Placement of the LCD and Keypad Assemblies

Step-by-Step Instructions	
1. Rotate the LCD assembly down onto the circuit board so that the LCD flex film folds underneath the LCD assembly as shown.	
2. Verify that a conductive cylinder is located in the hole in the LCD holder indicated.	
3. Position the LCD to the circuit board so that the conductive cylinder is aligned with its corresponding conductive pad on the circuit board.	



Step-by-Step Instructions

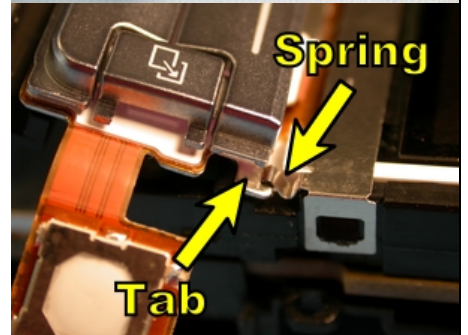
4. Snap the four latches of the LCD holder over the edge of the circuit board.





Step-by-Step Instructions

5. Holding the keypad at a 15 degree angle, insert the tab portions of the functional keypad support plate under the metal springs on the LCD.



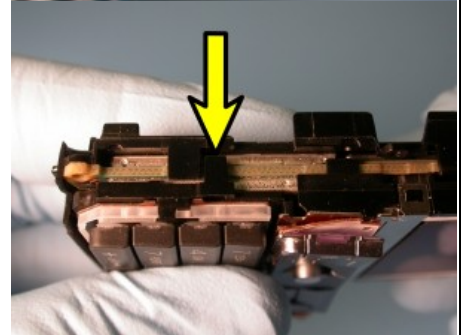
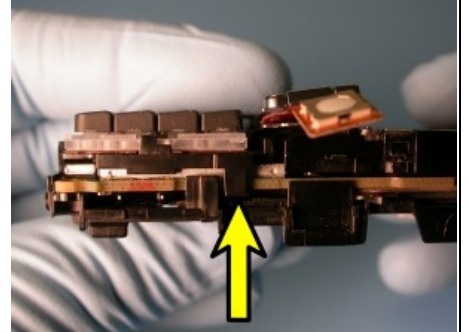
6. Rotate the keypad down into place and seat the navigation key by pressing on it.



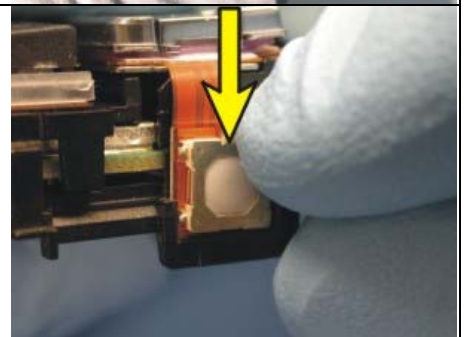


Step-by-Step Instructions

7. Snap the latch on each side of the keypad assembly over the edge of the circuit board as shown. Make sure the keypad's support plate is flush against the shield can below it.

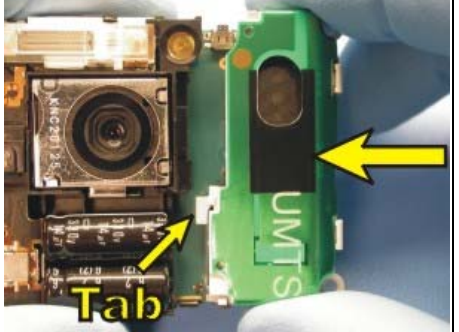
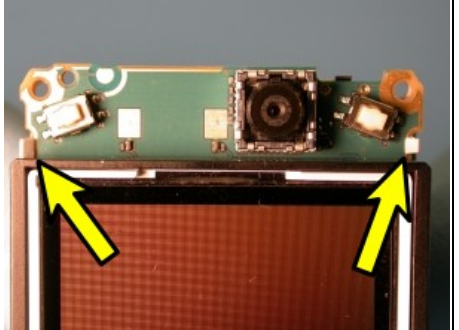


8. Slide the camera switch into its slot in the board frame.

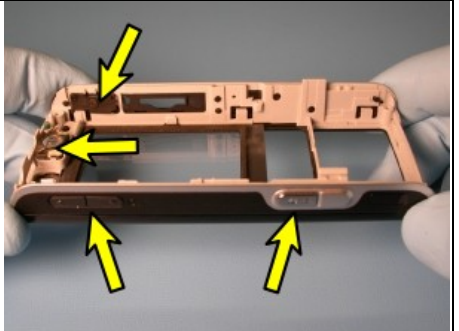




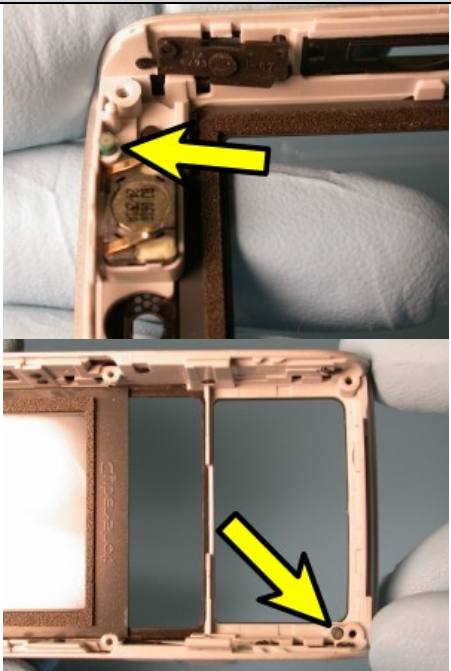


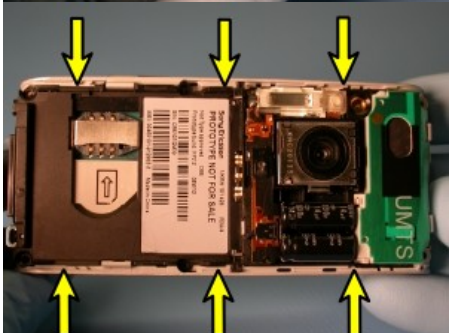
3.5 Antenna/Speaker Box Attachment to Circuit Board


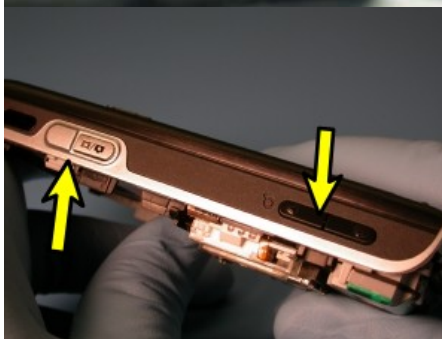
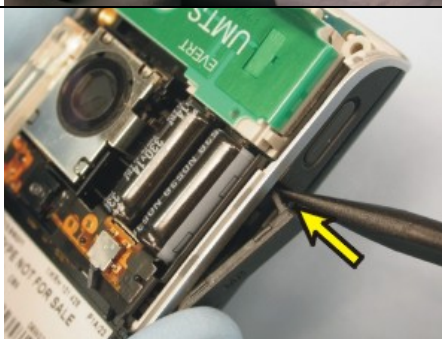

Step-by-Step Instructions	
1. Insert the tab portion of the antenna/speaker box in the slot in the board frame under the capacitors.	
2. Snap the two latches of the antenna/speaker box assembly indicated over the edge of the circuit board.	

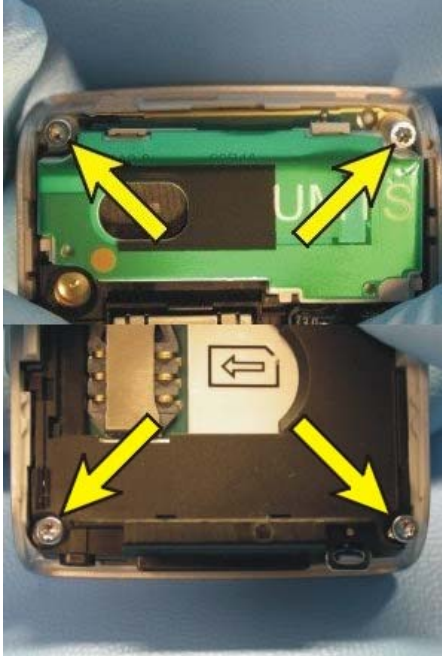
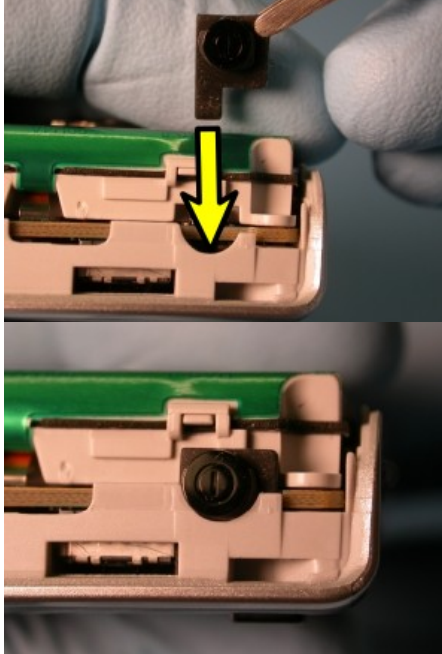
3.6 Phone Core Installation into Front Cover

Step-by-Step Instructions	
1. Verify that the receiver, volume key, camera key, and music player key are present and correctly positioned in their openings in the front cover.	
NOTE! All three keys must be mounted securely onto their alignment pins for the keys to stay in place when installing the phone core.	





Step-by-Step Instructions	
2. Verify that the two conductive cylinders indicated are in their placement holes in the front cover.	
3. Insert the volume key side of the phone core in the front cover as shown.	
4. Rotate the phone core into the front cover and snap the phone core and front cover together.	
5. Make sure there are no large gaps between the sides of the front cover and the board frame.	

Step-by-Step Instructions	
<p>6. Check to make sure the volume, camera, and music player keys are still in place and that they have the correct feeling when depressed.</p>	 
<p>7. Using the pointed end of a nylon pointer, press the tab portion of the memory stick cover in to the small hole in the memory stick cavity.</p>	
<p>NOTE: <i>If a memory card came in this phone, reinstall it into its slot at this time.</i></p> <p>8. Snap the memory stick cover into the memory stick cavity.</p>	



Step-by-Step Instructions	
<p>9. Install four 1.7mm screws where indicated using a torque driver set at 22 N*cm with an T6 bit.</p>	
<p>10. Insert the power key into the front cover as shown.</p>	





3.7 Antenna Cover Installation

Step-by-Step Instructions	
1. Close the camera cover on the antenna cover assembly.	
2. Insert the two tabs indicated on the antenna cover into the corresponding slots in the end of the phone in which the power key is located.	





Step-by-Step Instructions	
<p>3. Rotate the antenna cover down onto the phone and snap it in place.</p>	
<p>NOTE! <i>When the antenna cover is correctly installed there should be no gaps in the seam where the antenna cover and front cover come together.</i></p>	
<p>4. Install two M1.7 screws in the locations indicated using a torque driver set at 10 N*cm with a JCIS No. 0 bit.</p>	

3.8 Battery Installation

Step-by-Step Instructions	
1. Insert the contact end of the battery into the cavity as shown.	
2. Press the battery down in the cavity.	

3.9 Battery Cover Installation

Step-by-Step Instructions	
1. Position the battery cover as shown.	
2. Slide the battery cover into place. Make sure it snaps into place.	



4 Part Replacement

4.1 Antenna cover


Replacement Procedure

- Remove the old part by performing sections 2.1 - 2.3 of the disassembly procedure.
- Obtain a new part.
- Using the new part, perform sections 3.7 - 3.9 of the reassembly procedure.
- Remove the antenna port plug from the old antenna cover by performing section 4.23.1.
- Install the antenna port plug in the new antenna cover by performing section 4.23.2.

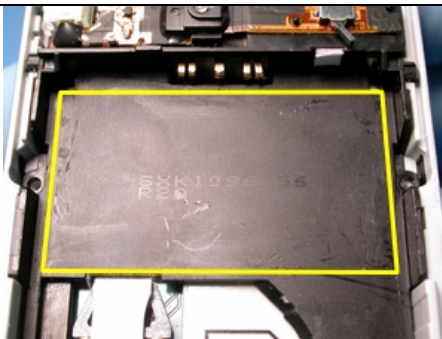


4.2 Label

4.2.1 Label Removal

- Perform sections 2.1 - 2.3 of the disassembly procedure

Step-by-Step Instructions	
<p>1. Before removing the old label from a phone, print a new label.</p> <p>NOTE! <i>The text on the new label must be fully readable and all barcodes must be scannable.</i></p>	
<p>NOTE! <i>The old label only has to be removed if there are two or more labels already on the phone.</i></p> <p>2. Peel the old label from the battery cavity. The label will tear while removing it.</p> <p>NOTE! <i>Avoid damaging the battery contacts when removing the label.</i></p> <p>NOTE! <i>Clean off any remaining adhesive residue from the battery cavity using alcohol and a lint-free wipe.</i></p>	

4.2.2 Label Installation

Step-by-Step Instructions	
<p>NOTE! <i>No more than two labels are allowed stacked on top of each other. If there are already two labels on the phone, perform the label removal procedure before continuing.</i></p>	
<p>1. If a new label has not been created yet, then do so at this time.</p>	
<p>NOTE! <i>Be very careful not to contact the battery contacts with the sticky side of the label.</i></p>	
<p>2. Locate the rectangular recessed area indicated</p>	
<p>3. Place the edge of the label that mounts closest to the battery connection in the recessed area first.</p>	
<p>4. Then roll the rest of the label down into the recess area on the floor of the battery cavity.</p>	
<p>5. Once the label is correctly positioned, carefully smooth the label into place.</p>	



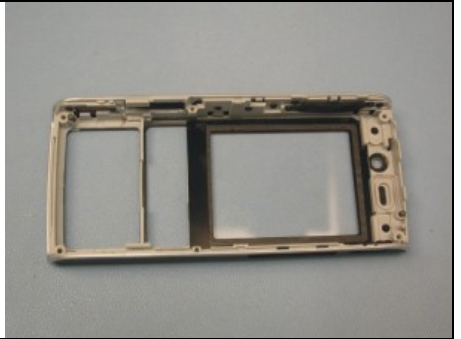

- Perform section 3.7 - 3.9 of the reassembly procedure




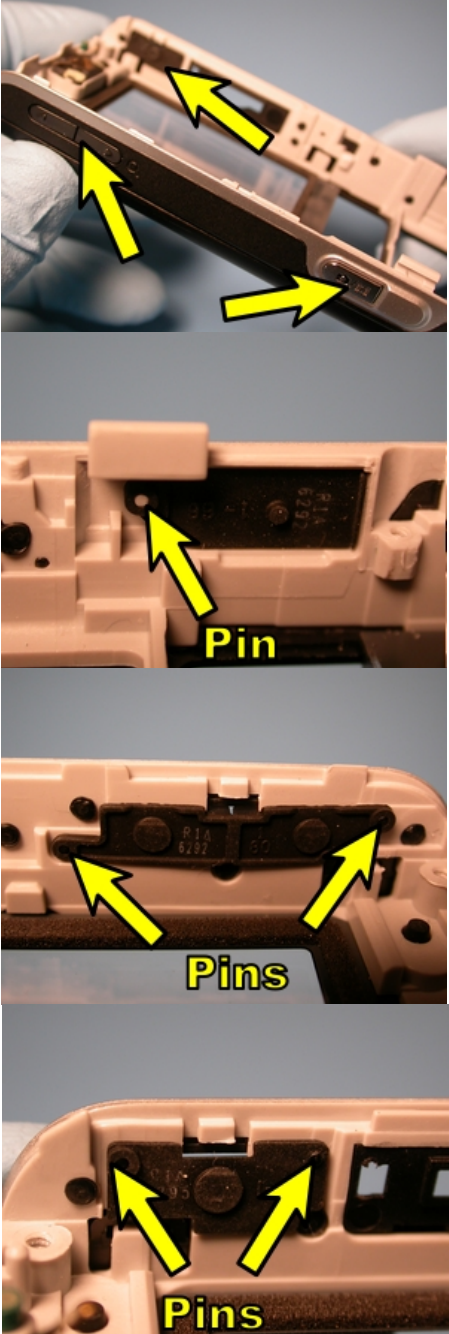
4.3 Front Cover

Replacement Procedure

- Perform sections 2.1 - 2.4 of the disassembly procedure.

Step-by-Step Instructions	
1. Using a pry tool, pry the receiver from its location in the old front cover using the tab on the side of the receiver as the prying location.	
2. Obtain a new receiver.	
3. Obtain a new front cover.	
4. Position the new receiver in the new front cover's receiver cavity so that the tips of receiver's spring fingers are pointing toward the display window.	

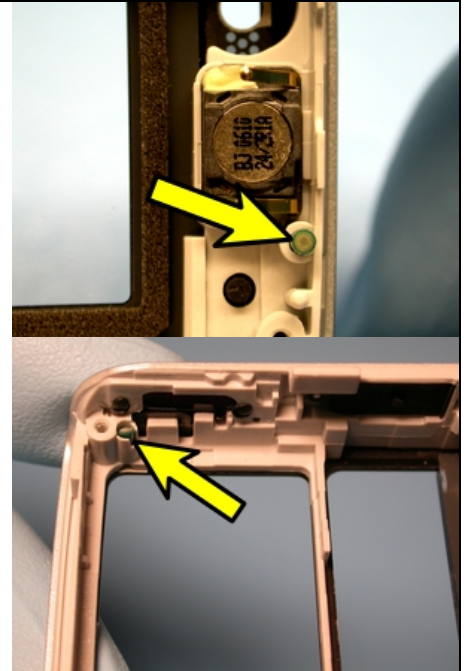


Step-by-Step Instructions	
<p>5. Press the receiver against the front cover to ensure it bonds well.</p> <p>NOTE! <i>Do not press on the receiver's spring fingers</i></p>	
<p>6. Transfer the volume key, the camera key, and the music key from the old front cover to the new front cover.</p> <p>NOTE! <i>Make sure all three keys are mounted securely onto their alignment pins.</i></p>	



Step-by-Step Instructions

7. Insert a conductive cylinder in each of the two locations in the front cover indicated.



- Perform section 3.6 – 3.9 of the reassembly procedure.




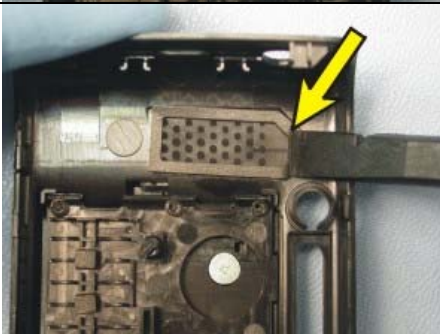
4.4 Antenna/Speaker Box Assembly Replacement Procedure

- Remove the old part by performing section 2.1 – 2.5 of the disassembly procedure.
- Obtain a new antenna/speaker box assembly.
- Using the new part, perform section 3.5 – 3.9 of the reassembly procedure.

4.5 Rear Speaker Cloth

Replacement procedure

- Perform sections 2.1 – 2.3 of the disassembly procedure

Step-by-Step Instructions	
1. Locate the rear speaker cloth on the inside surface of the antenna cover.	
2. Using style 2A tweezers, peel the speaker cloth from the antenna cover.	
3. Clean the speaker cloth attachment area with alcohol and a lint-free wipe. 4. Obtain a new rear speaker cloth and place it within the corresponding recessed area on the antenna cover as shown.	
5. Gently and carefully apply pressure to the foam portion of the speaker cloth so that the speaker cloth sticks well.	

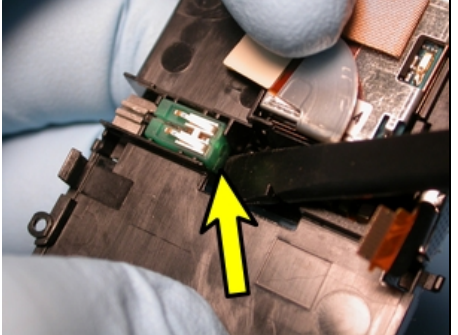

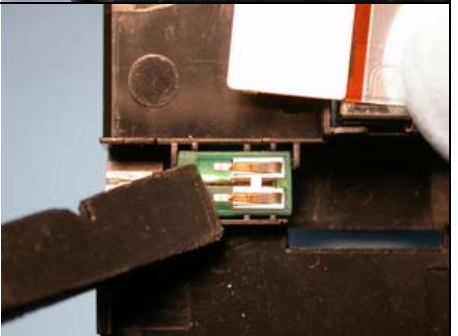
- Perform sections 3.7 – 3.9 of the reassembly procedure



4.6 Vibrator

Replacement Procedure

- Perform sections 2.1- 2.9 of the disassembly procedure

Step-by-Step Instructions	
<ol style="list-style-type: none">1. Remove the old vibrator from the board frame by lifting up on the exposed bottom edge of the vibrator using the flat end of a pry tool.	
<p>NOTE! <i>Be careful not to damage the vibrator contacts when handling the new vibrator.</i></p> <ol style="list-style-type: none">2. Obtain a new vibrator and set it in the board frame's vibrator cavity in the orientation shown.	
<p>NOTE! <i>Do not press on the vibrator's spring fingers when pressing the vibrator into its cavity.</i></p> <ol style="list-style-type: none">3. Press the vibrator down into its cavity until it is completely seated.	

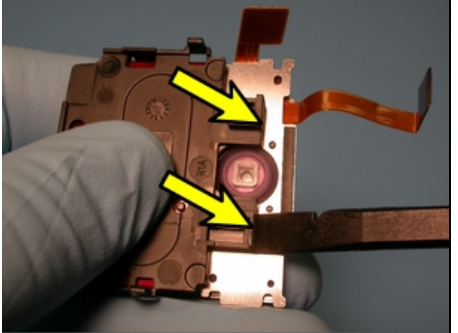
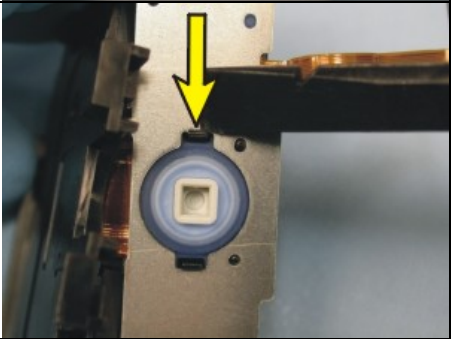
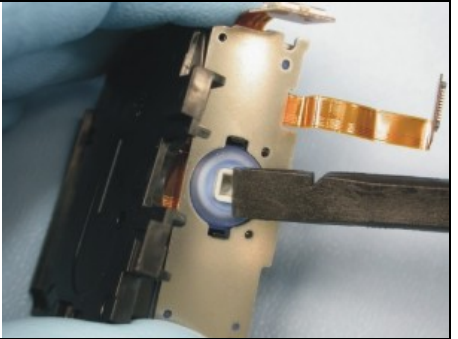

- Perform sections 3.1 – 3.9 of the reassembly procedure.




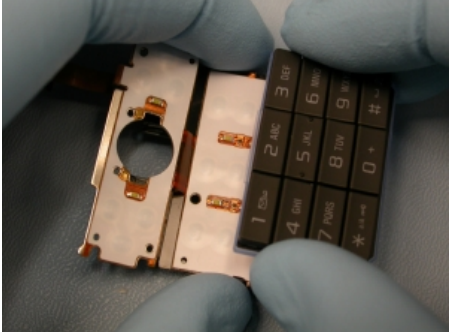

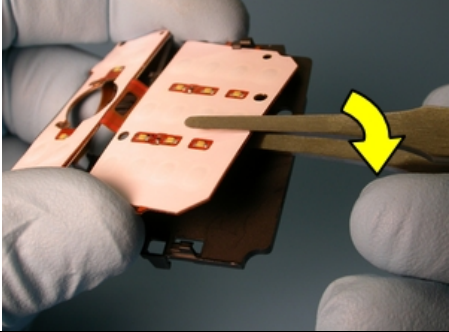
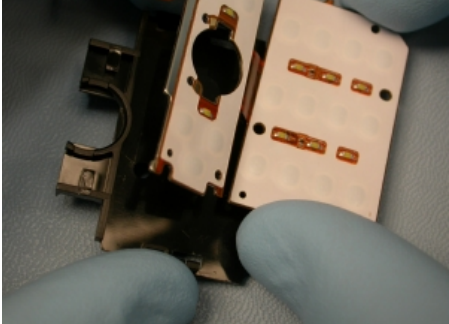
4.7 Keyfoil Assembly

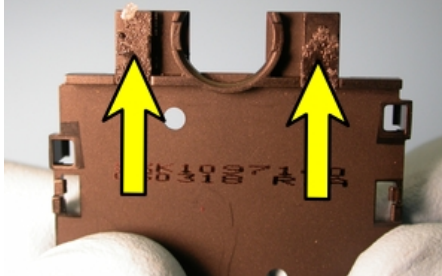
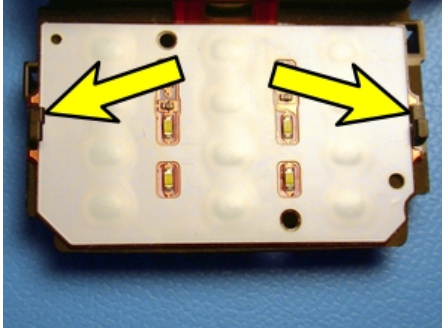



Replacement Procedure

- Perform sections 2.1 – 2.8 of the disassembly procedure.

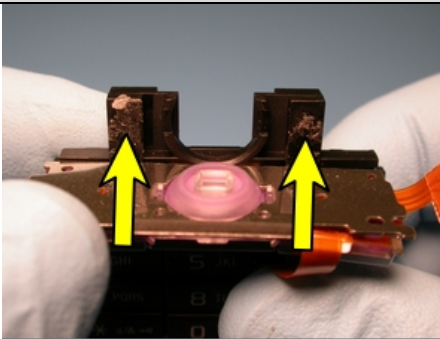
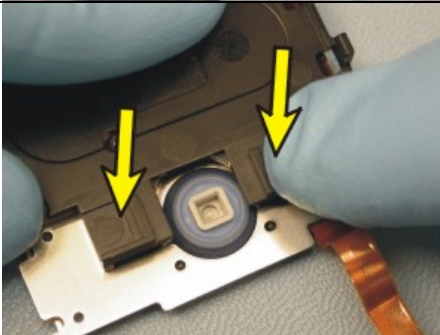
Step-by-Step Instructions	
1. Dislodge the functional keyboard portion of the keyfoil assembly from the support plate by prying between the two parts in the two locations indicated.	
2. Disengage one of the two latches holding the functional keyboard on the keyfoil assembly.	
3. Press on the back of the navigation key portion of the functional keyboard to dislodge the functional keyboard from the keyfoil assembly.	
4. Near the middle of the bottom edge of the numeric keyboard, slide one side of the tip of a style 2A tweezers between the numeric keyboard and keyfoil assembly.	



Step-by-Step Instructions	
5. Slightly rotate the tweezers tip away from the numeric keyboard until the keyboard separates from the support plate.	
6. Lift the numeric keyboard from the keyfoil assembly and set it aside.	
7. Near the middle of the edge of the keyfoil assembly shown, slide one side of the tip of a style 2A tweezers between the keyfoil assembly and the support plate.	
8. Slightly rotate the tweezers tip away from the keyfoil assembly until the keyfoil separates from the support plate.	
9. Lift the keyfoil assembly away from the support plate.	

Step-by-Step Instructions	
<p>10. Remove any old adhesive from the two locations on the support plate indicated.</p> <p>11. Install two new adhesive films on the support plate in the two locations, but leave the outer protective coverings on the adhesive films for now.</p>	
<p>12. Obtain a new keyfoil assembly.</p> <p>13. Mount the numeric portion of the keyfoil assembly on the support plate so that it is secured under the latches indicated.</p>	
<p>14. Place the numeric keyboard on top of the numeric portion of the keyfoil assembly.</p> <p>15. Press the keyboard in the two areas indicated so that the keyboard snaps under the two supports plate latches that hold it in place.</p>	
<p>16. Place the functional keyboard on top of the functional portion of the keyfoil assembly as shown.</p>	
<p>17. Press beside the navigation key in the two locations indicated until the two latches on the back of the functional keyboard catch over the edge of the navigation button opening in the keyfoil assembly.</p>	



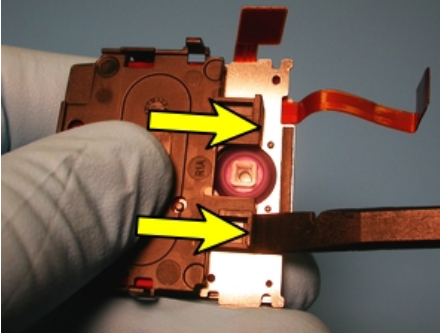
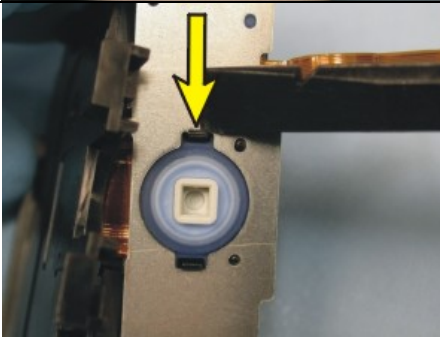

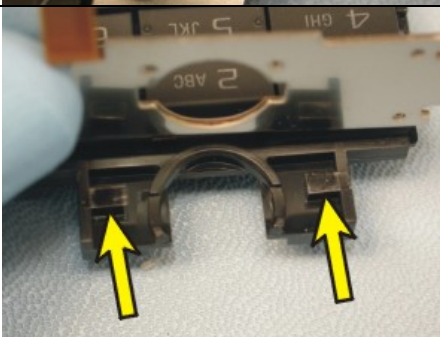
Step-by-Step Instructions	
18. Remove the protective coverings from the two adhesive films on the support plate.	
19. Press the functional portion of the keyfoil assembly and the support plate together so that the two parts properly bond.	



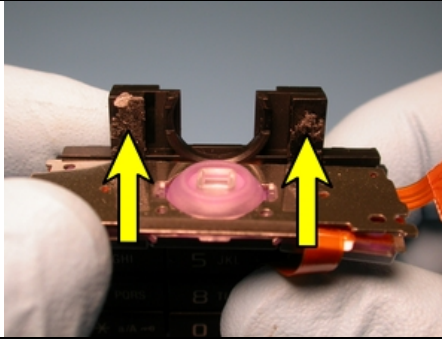
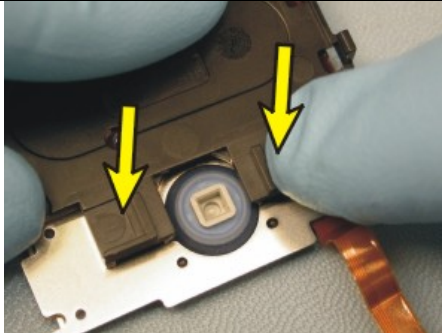
- Perform sections 3.2 - 3.9 of the reassembly procedure.

4.8 Function Keypad

Replacement Procedure

- Perform sections 2.1 - 2.8 of the disassembly procedure.

Step-by-Step Instructions	
1. Dislodge the functional keyboard portion of the keyfoil assembly from the support plate by prying between the two parts in the two locations indicated.	
2. Disengage one of the two latches holding the functional keyboard on the keyfoil assembly.	
3. Press on the back of the navigation key portion of the functional keyboard to dislodge the functional keyboard from the keyfoil assembly.	
4. Remove any old adhesive from the two locations on the support plate indicated. 5. Install two new adhesive films on the support plate in the two locations, but leave the outer protective coverings on the adhesive films for now.	




Step-by-Step Instructions	
<p>6. Obtain a new functional keyboard and place it on top of the functional portion of the keyfoil assembly as shown.</p>	
<p>7. Press beside the navigation key in the two locations indicated until the two latches on the back of the functional keyboard catch over the edge of the navigation button opening in the keyfoil assembly.</p>	
<p>8. Remove the protective coverings from the two adhesive films on the support plate.</p>	
<p>9. Press the functional portion of the keyfoil assembly and the support plate together so that the two parts properly bond.</p>	

- Perform sections 3.2 - 3.9 of the reassembly procedure.

4.9 Numeric Keypad

Replacement Procedure

- Perform sections 2.1 - 2.8 of the disassembly procedure.

Step-by-Step Instructions	
1. Near the middle of the bottom edge of the numeric keyboard, slide one side of the tip of a style 2A tweezers between the numeric keyboard and keyfoil assembly.	
2. Slightly rotate the tweezers tip away from the numeric keyboard until the keyboard separates from the support plate.	
3. Lift the numeric keyboard from the keyfoil assembly and set it aside.	



Step-by-Step Instructions

4. Obtain a new numeric keyboard and place it on top of the numeric portion of the keyfoil assembly



5. Press the keyboard in the two areas indicated so that the keyboard snaps under the two supports plate latches that held it in place.



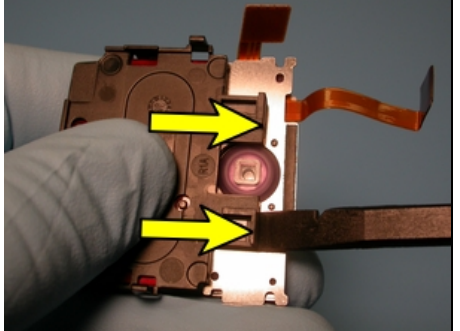



- Perform sections 3.2 - 3.9 of the reassembly procedure.



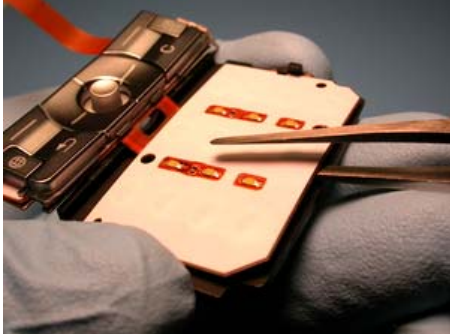

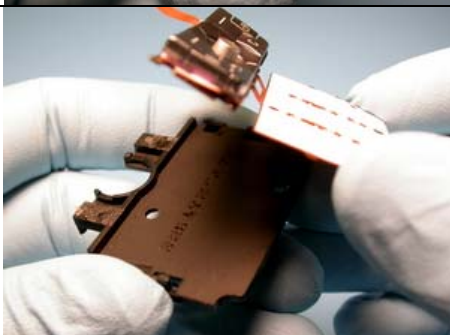

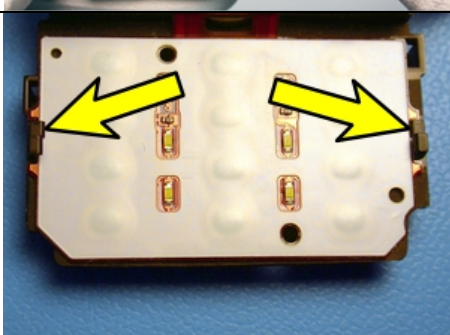
4.10 Keyfoil Support Plate

Replacement Procedure



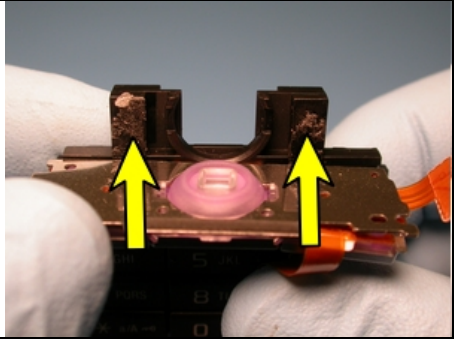
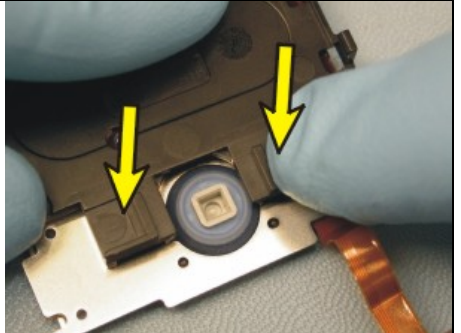
- Perform sections 2.1 - 2.8 of the disassembly procedure.

Step-by-Step Instructions	
1. Dislodge the functional keyboard portion of the keyfoil assembly from the support plate by prying between the two parts in the two locations indicated.	
2. Near the middle of the bottom edge of the numeric keyboard, slide one side of the tip of a style 2A tweezers between the numeric keyboard and keyfoil assembly.	
3. Slightly rotate the tweezers tip away from the numeric keyboard until the keyboard separates from the support plate.	
4. Lift the numeric keyboard from the keyfoil assembly and set it aside.	



Step-by-Step Instructions	
5. Near the middle of the edge of the keyfoil assembly shown, slide one side of the tip of a style 2A tweezers between the keyfoil assembly and the support plate.	
6. Slightly rotate the tweezers tip away from the keyfoil assembly until the keyfoil separates from the support plate.	
7. Lift the keyfoil assembly away from the support plate.	
8. Obtain a new support plate and install two new adhesive films on the support plate in the two locations indicated, but leave the outer protective coverings on the adhesive films for now.	
9. Mount the numeric portion of the keyfoil assembly on the support plate so that it is secured under the latches indicated.	



Step-by-Step Instructions	
10. Place the numeric keyboard on top of the numeric portion of the keyfoil assembly.	
11. Press the keyboard in the two areas indicated so that the keyboard snaps under the two supports plate latches that held it in place.	
12. Remove the protective coverings from the two adhesive films on the support plate.	
13. Press the functional portion of the keyfoil assembly and the support plate together so that the two parts properly bond.	

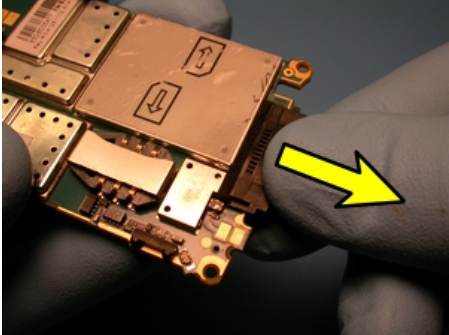
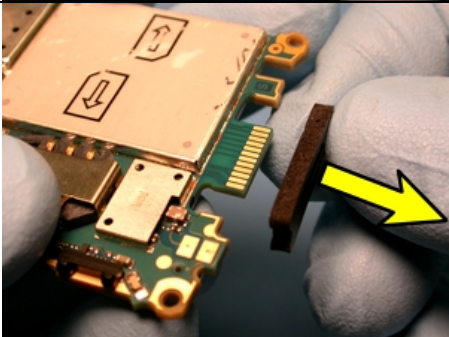
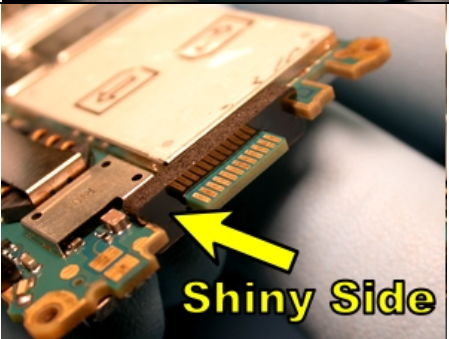
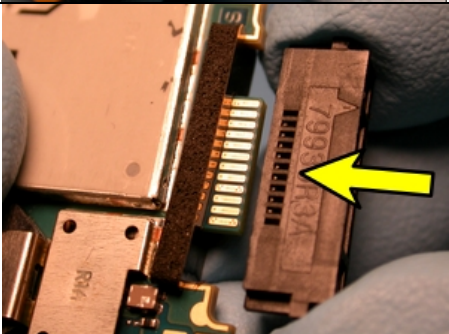
- Perform sections 3.2 - 3.9 of the reassembly procedure.




4.11 System Connector

Replacement Procedure

- Perform sections 2.1 - 2.9 of the disassembly procedure.

Step-by-Step Instructions	
1. Pull the system connector away from the end of the circuit board.	
2. Remove the foam pad from the end of the circuit board.	
3. Obtain a new foam pad and install it on the end of the circuit board so that the shiny side of the foam pad will be adjacent to the system connector.	
4. Obtain a new system connector and align the row of small holes in the system connector with the row of contact pads on the circuit board.	



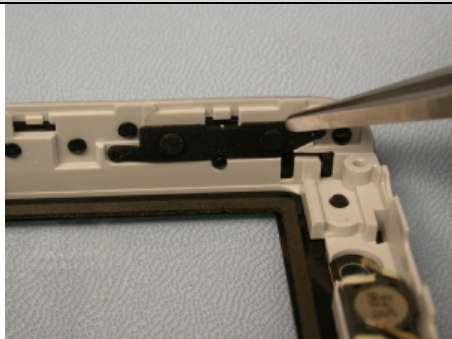
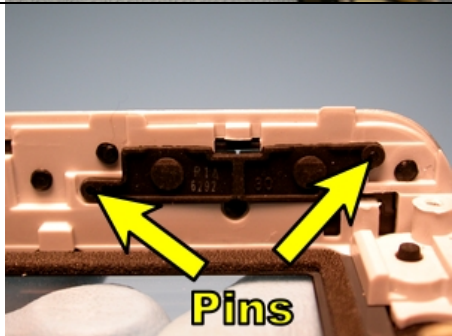
Step-by-Step Instructions	
5. Push the system connector onto the circuit board until it is completely seated.	

- Perform sections 3.1 – 3.9 of the reassembly procedure.

4.12 Volume Key

Replacement Procedure

- Perform sections 2.1 – 2.4 of the disassembly procedure.

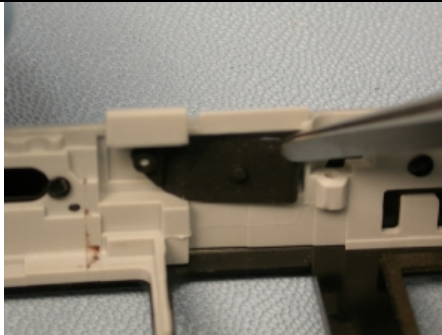
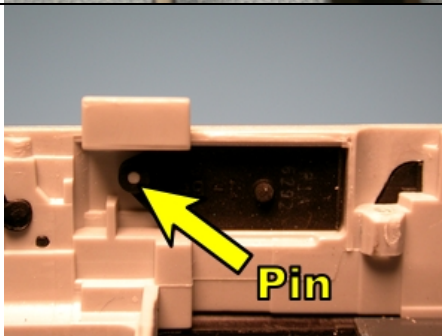
Step-by-Step Instructions	
1. Remove the volume key from the front cover.	
2. Obtain a new volume key and insert it in the volume key opening in the front cover. NOTE! <i>Make sure the key is mounted securely onto its alignment pins.</i>	

- Perform sections 3.6 – 3.9 of the reassembly procedure.

4.13 Camera Key

Replacement Procedure

- Perform sections 2.1 – 2.4 of the disassembly procedure.

Step-by-Step Instructions	
1. Remove the camera key from the front cover.	
2. Obtain a new camera key and insert it in the camera key opening in the front cover. NOTE! <i>Make sure the key is mounted securely onto its alignment pin.</i>	


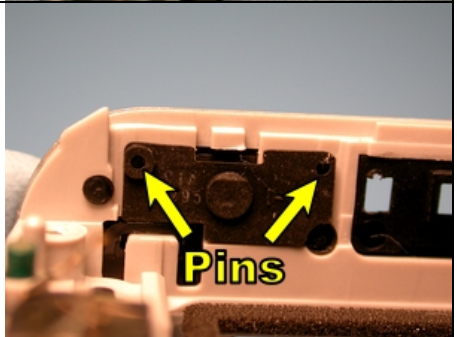
- Perform sections 3.6 – 3.9 of the reassembly procedure.



4.14 Music Player Key

Replacement Procedure

- Perform sections 2.1 – 2.4 of the disassembly procedure.

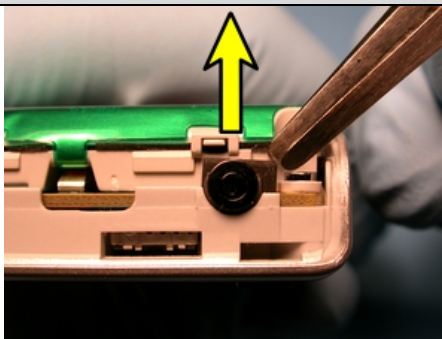
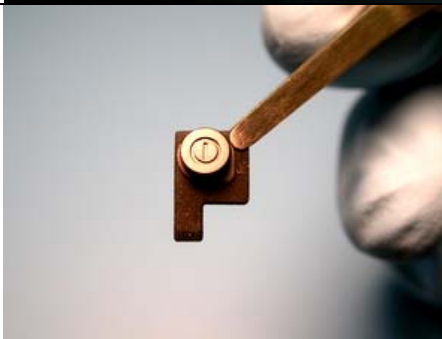
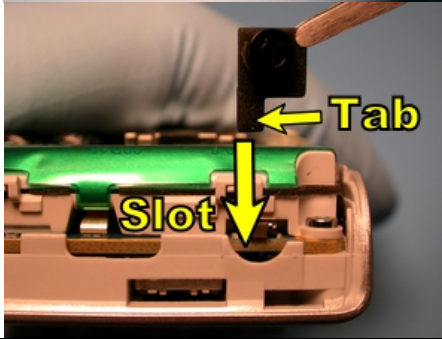

Step-by-Step Instructions	
1. Remove the music player key from the front cover.	
2. Obtain a new music player key and insert it in the music player key opening in the front cover. NOTE! <i>Make sure the key is mounted securely onto its alignment pins.</i>	

- Perform sections 3.6 – 3.9 of the reassembly procedure.

4.15 Power Key

Replacement Procedure

- Perform sections 2.1 – 2.3 of the disassembly procedure.

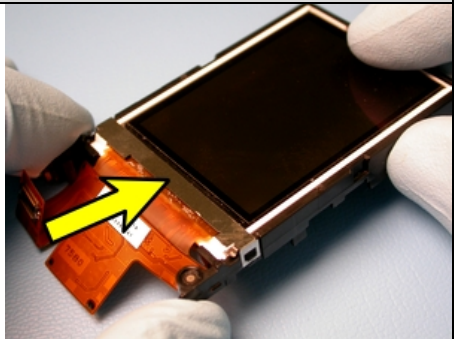

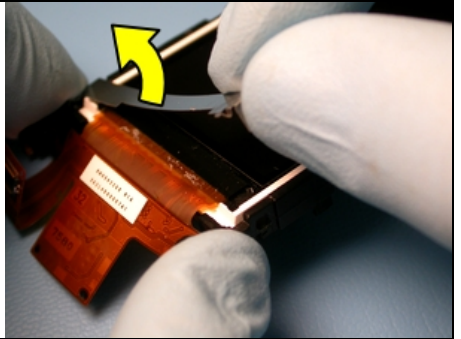
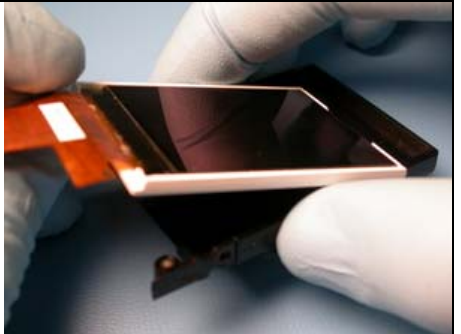
Step-by-Step Instructions	
1. Using style 2A tweezers, remove the power key as shown.	
2. Obtain a new power key and using style 2A tweezers, position it as indicated.	
3. Insert the tab indicated into the slot in the front cover.	
4. Make sure the power key is fully seated.	


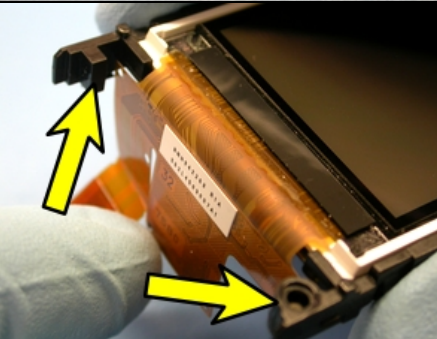


- Perform sections 3.7 – 3.9 of the reassembly procedure.



4.16 LCD Assembly Replacement Procedure

- Perform sections 2.1 – 2.7 of the disassembly procedure.

Step-by-Step Instructions	
1. Locate the metal retaining strap on the old LCD assembly.	
2. Use style 2A tweezers to unlatch one side of the metal retaining strap.	
3. Remove the metal retaining strap from the LCD assembly.	
4. Remove the LCD from the LCD holder.	

Step-by-Step Instructions	
5. Obtain a new LCD and position it into the LCD holder.	
6. Position the LCD flex film behind the two portions of the LCD holder as shown.	
7. Install the metal strap onto the LCD assembly.	
8. Make sure both ends of the metal strap are correctly latched as shown.	

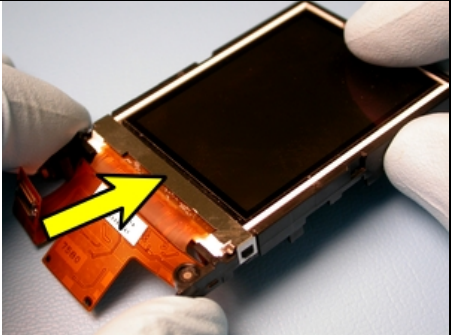

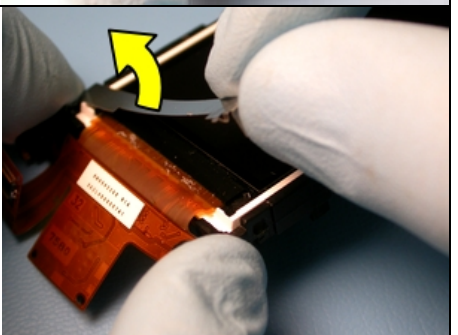
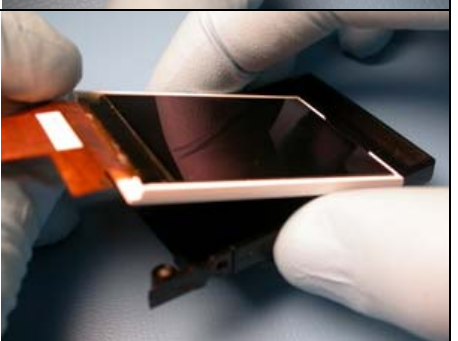
- Perform sections 3.3 – 3.9 of the reassembly procedure.


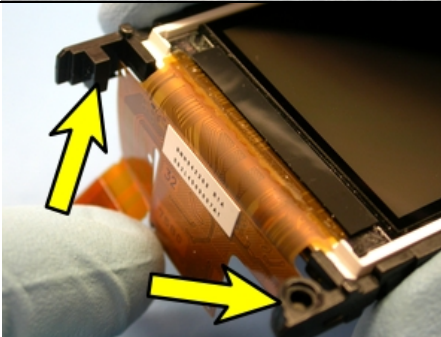
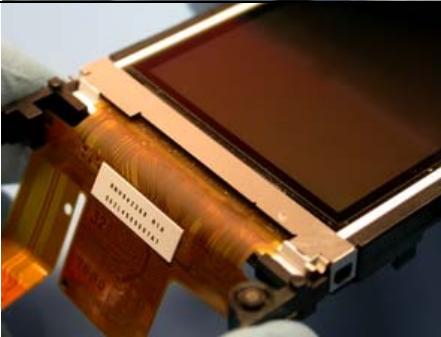
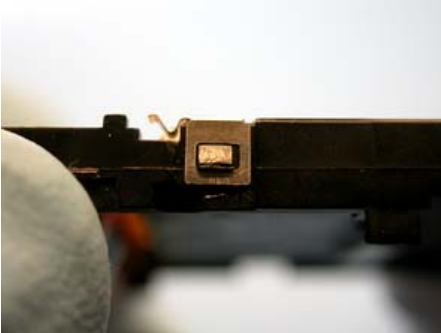


4.17 LCD Holder

Replacement Procedure

- Perform sections 2.1 - 2.7 of the disassembly procedure

Step-by-Step Instructions	
1. Locate the metal retaining strap on the old LCD assembly.	
2. Use style 2A tweezers to unlatch one side of the metal retaining strap.	
3. Remove the metal retaining strap from the LCD assembly.	
4. Remove the LCD from the LCD holder and set aside.	

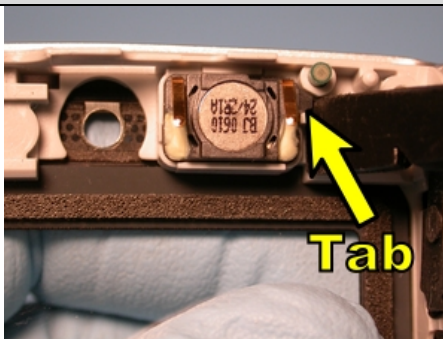


Step-by-Step Instructions	
5. Obtain a new LCD holder and position the old LCD into the new holder.	
6. Position the LCD flex film behind the two portions of the LCD holder as shown.	
7. Install the metal strap onto the LCD assembly.	
8. Make sure both ends of the metal strap are correctly latched as shown.	

- Perform sections 3.3 – 3.9 of the reassembly procedure.

4.18 Receiver

Replacement Procedure

- Perform section 2.1-2.4 of the disassembly procedure.

Step-by-Step Instructions	
<ol style="list-style-type: none"> 1. Using a pry tool, pry the receiver from its location in the front cover using the tab on the side of the receiver as the prying location. 2. Remove any gasket material left attached to the bottom of the receiver cavity. 	
<ol style="list-style-type: none"> 3. Obtain a new receiver and remove the protective film from its receiver gasket. 4. Position the receiver in the front cover's receiver cavity so that the tips of receiver's spring fingers are pointing towards the display window. 	
<ol style="list-style-type: none"> 5. Press the on the back of the receiver to ensure that a good adhesive bond is formed to the front cover. <p>NOTE! <i>Avoid pressing on the spring fingers when applying pressure to the receiver.</i></p>	

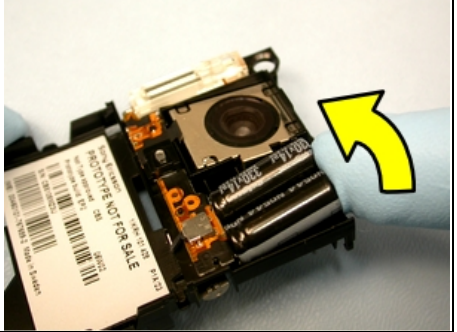

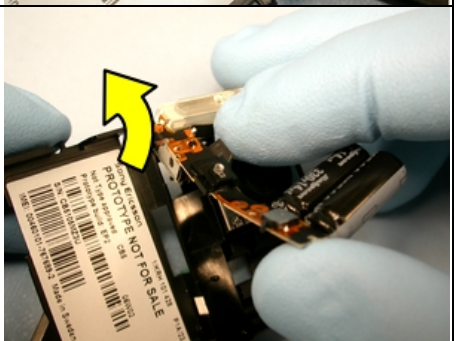
- Perform section 3.6 - 3.9 of the reassembly procedure.



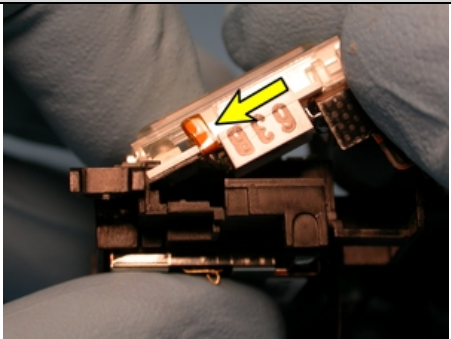
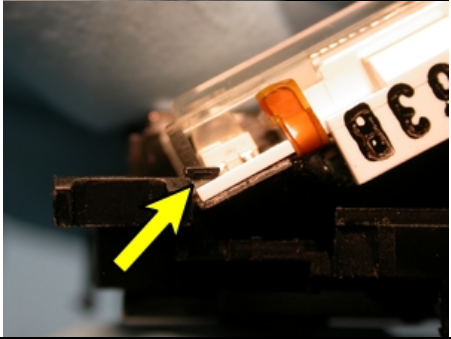
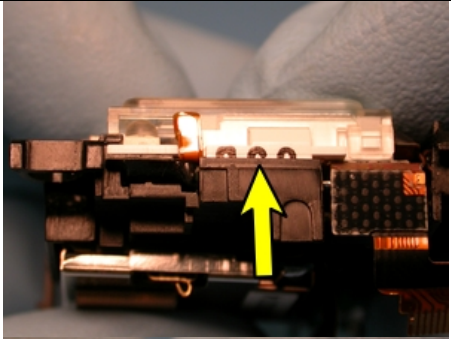
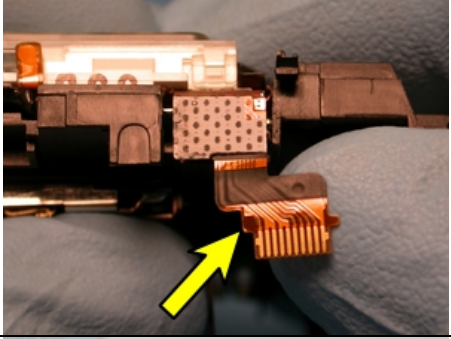
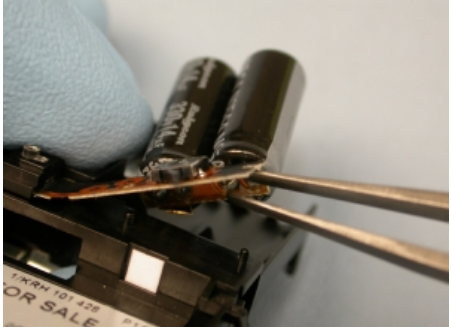
4.19 Flash Assembly

Replacement Procedure

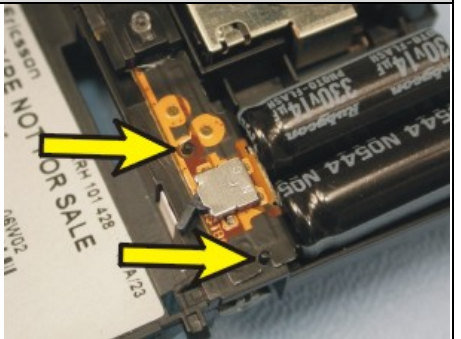
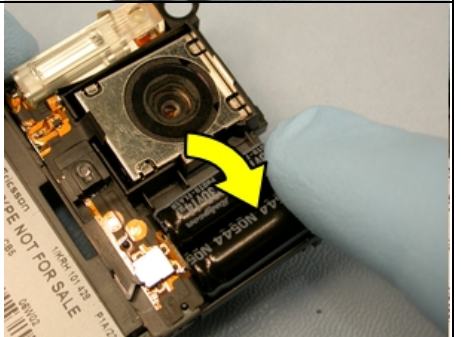
- Perform sections 2.1 - 2.9 of the disassembly procedure.

Step-by-Step Instructions	
1. Lift the end of both capacitors out of their slots as shown.	
2. The portion of the flash assembly's flex film that is circled in the picture is bonded to the board frame by an adhesive film. Using a pry tool, detach the adhered portion of the flash assembly's flex film from the board frame.	
3. Rotate the freed end of the flash assembly's flex film about the flash element until the flash assembly becomes free of the board frame.	



Step-by-Step Instructions	
<p>4. Obtain a new flash assembly and orient the flash element at a 45 degree angle to its cavity in the board frame as shown.</p>	
<p>5. Verify the flash assembly goes under the placement peg as indicated.</p>	
<p>6. Rotate the remainder of the flash element into its cavity so that the outer edge of the flash element is within the cavity.</p>	
<p>NOTE! <i>Make sure that the flash assembly's board connection is not between the flash assembly and the board frame.</i></p>	
<p>7. Remove the protective covering from the adhesive on the portion of flex film adjacent to the two large capacitors.</p>	



Step-by-Step Instructions	
8. Place the portion of the flash flex that contains adhesive onto the board frame so that it fits over its two alignment pegs.	
9. Snap capacitors in their cavity in the board frame.	

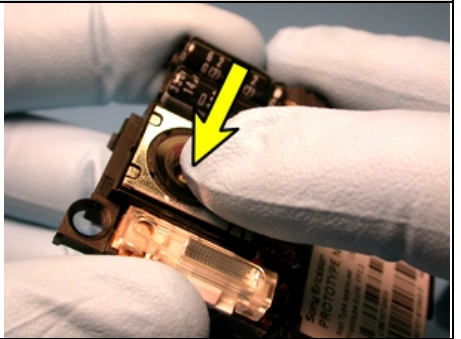
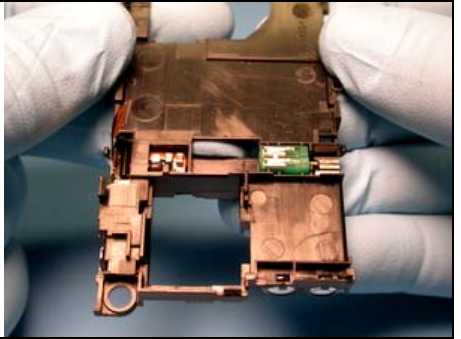
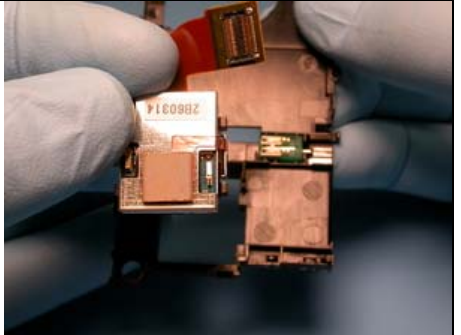
- Perform sections 3.1 – 3.9 of the reassembly procedure



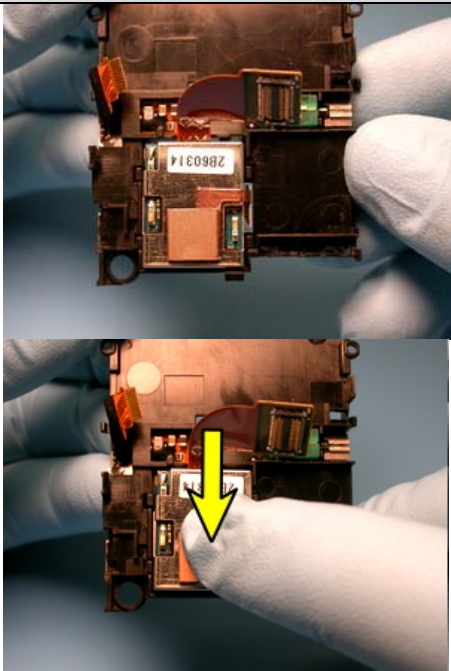
4.20 Rear Camera Module

Replacement Procedure

- Perform sections 2.1 - 2.9 of the Disassembly Procedure.

Step-by-Step Instructions	
1. Push on the lens side of the rear camera module so that the camera module falls out of its cavity in the board frame.	
2. Orient the board frame so that the vibrator is toward you.	
3. Obtain a new camera module and orient it over its cavity in the board frame so that the end of the module that has the flex film extending from it is toward the vibrator.	



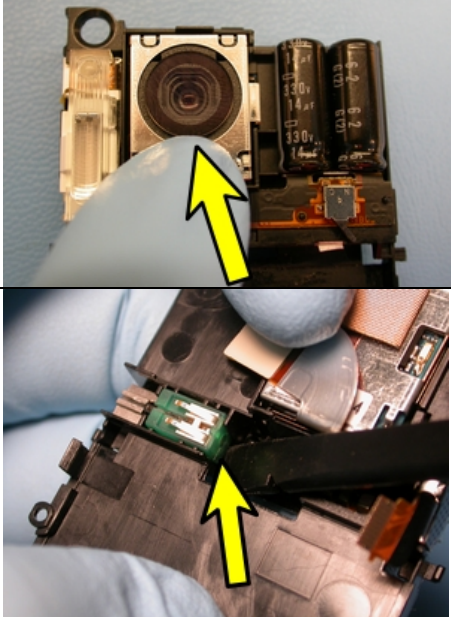
Step-by-Step Instructions	
4. Insert the new camera module into its cavity.	
5. Press on the pad on the back of the camera module until it is completely seated in the board frame.	

- Perform sections 3.1 – 3.9 of the reassembly procedure

4.21 Board Frame

Replacement Procedure

- Perform sections 2.1 - 2.9 of the Disassembly Procedure.

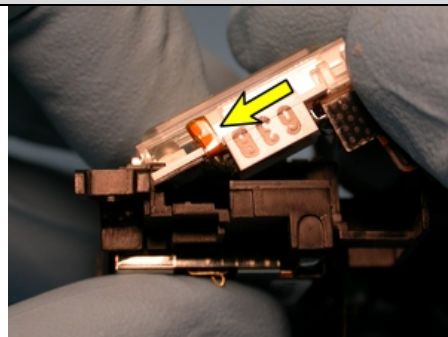
Step-by-Step Instructions	
NOTE! <i>Do not push directly on the camera's lens!</i>	
1. Push on the lens side of the rear camera module so that the camera module falls out of its cavity in the old board frame.	
2. Remove the vibrator from the old board frame by lifting up on the exposed bottom edge of the vibrator using the flat end of a pry tool.	



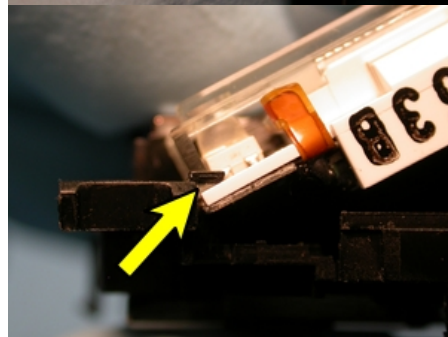
Step-by-Step Instructions	
<p>3. Locate the flash assembly in the old board frame.</p> <p>4. Lift the end of both capacitors out of their slots as shown.</p>	
<p>5. The portion of the flash assembly's flex film that is circled in the picture is bonded to the board frame by an adhesive film. Using a pry tool, detach the adhered portion of the flash assembly's flex film from the board frame.</p>	
<p>6. Rotate the freed end of the flash assembly's flex film about the flash element until the flash assembly becomes free of the board frame.</p>	
<p>7. Obtain a new board frame.</p>	
<p>8. Perform the label installation procedure from section 4.2.2.</p>	

Step-by-Step Instructions

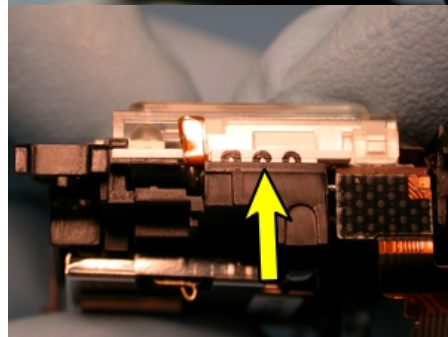
9. Orient the flash element at a 45 degree angle to its cavity in the new board frame as shown.



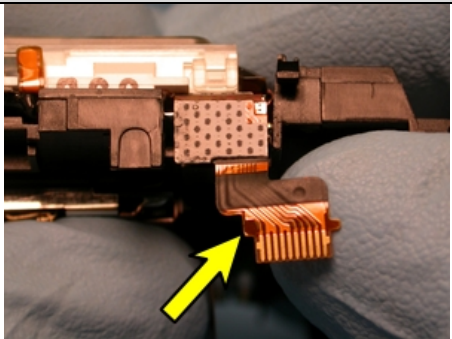
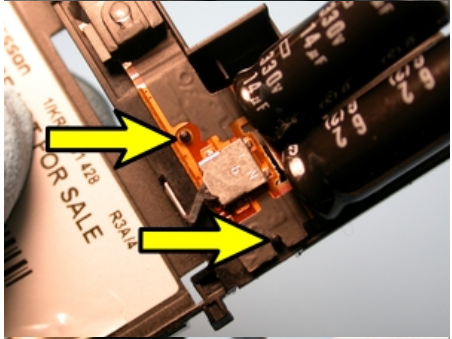
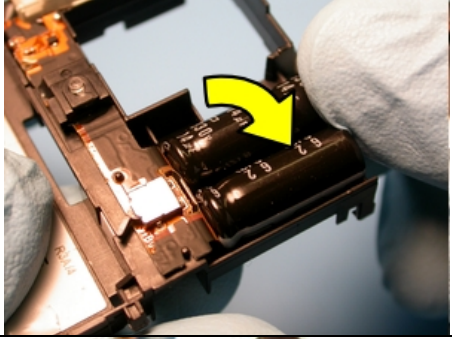

10. Verify the flash assembly goes under the placement peg as indicated.



11. Rotate the remainder of the flash element into its cavity so that the outer edge of the flash element is within the cavity.





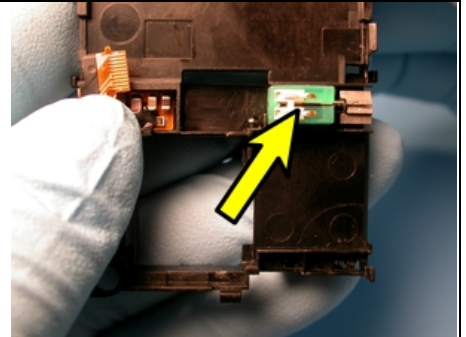
Step-by-Step Instructions	
<p>NOTE! <i>Make sure that the flash assembly's board connection is not between the flash assembly and the board frame.</i></p>	
<p>12. Make sure that the flash assembly's board connection is not between the flash assembly and the board frame.</p>	
<p>13. Place the portion of the flash flex that contains adhesive onto the board frame so that it fits over its two alignment pegs.</p>	
<p>14. Snap the two capacitors in their cavity in the board frame.</p>	
<p>15. Flip the board frame over and orient it so that the flash assembly capacitors are toward you.</p>	



Step-by-Step Instructions

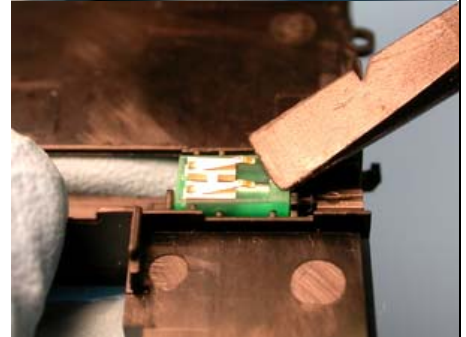
NOTE! *Be careful not to damage the vibrator contacts when handling the vibrator.*

16. Insert the vibrator in the new board frame's vibrator cavity in the orientation shown.

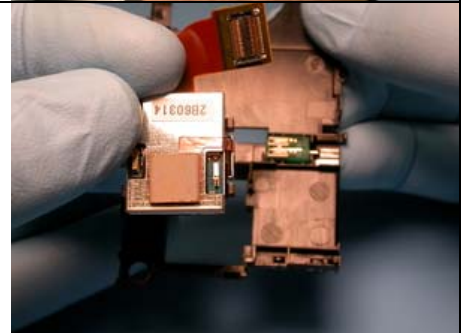


NOTE! *Do not press on the vibrator's spring fingers when pressing the vibrator into its cavity.*

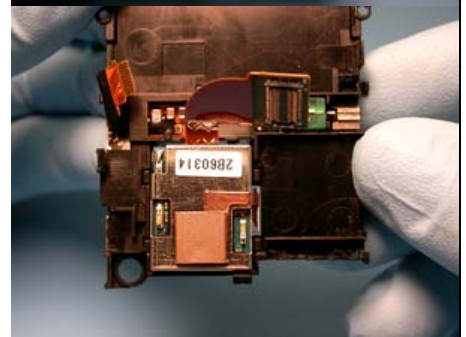
17. Press the vibrator down into its cavity until it is completely seated.



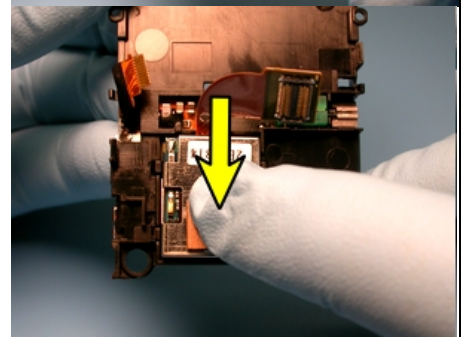
18. Orient the camera module over its cavity in the board frame so that the flex film extending from it is away from you.



19. Insert the camera module into its cavity.



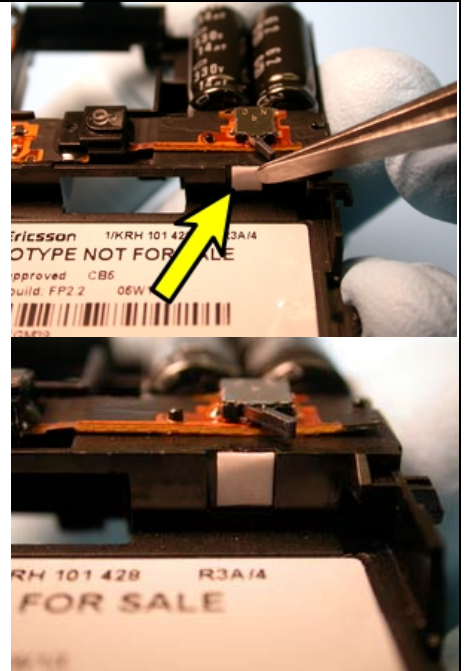
20. Press on the pad on the back of the camera module until it is completely seated in the board frame.





Step-by-Step Instructions

21. Obtain a new liquid intrusion indicator.
22. Using style 2A tweezers position the indicator as shown and gently press it into place using the tip of the tweezers.



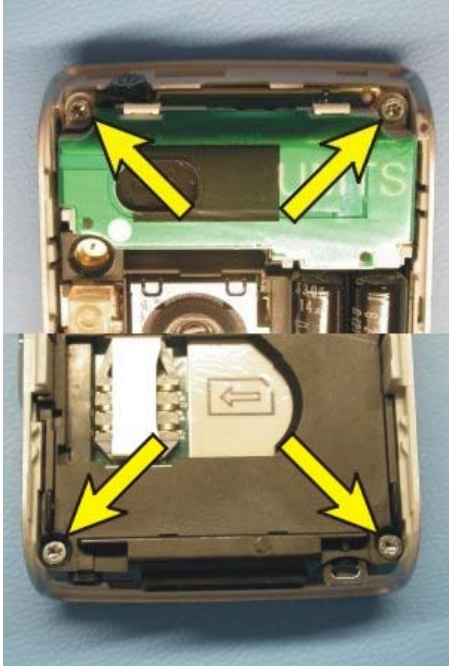
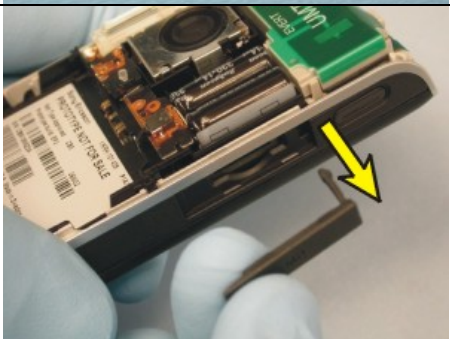
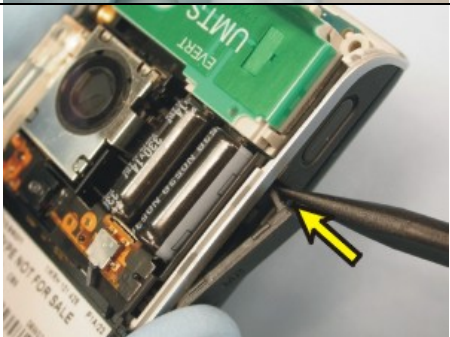
- Perform sections 3.1 – 3.9 of the reassembly procedure


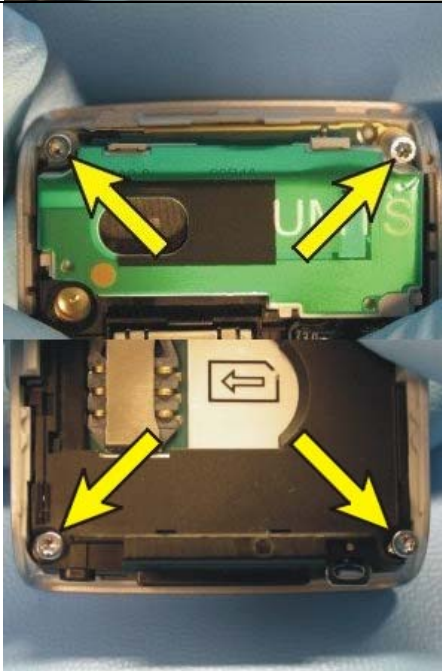


4.22 Memory Stick Cover

Replacement Procedure

- Perform sections 2.1 - 2.3 of the Disassembly Procedure.

Step-by-Step Instructions	
1. Remove the four screws indicated using a torque driver and a T6 bit.	
2. Remove the memory stick cover completely from the phone by pulling out the tab that connects the cover to the phone.	
3. Obtain a new memory stick cover and use the pointed end of a nylon pointer to press the tab portion in the small hole in the memory stick cavity.	


Step-by-Step Instructions	
4. Snap the memory stick cover into the memory stick cavity.	
5. Install four 1.7mm screws where indicated using a torque driver set at 22 N*cm with an T6 bit.	

- Perform sections 3.7 – 3.9 of the reassembly procedure


4.23 Antenna Port Plug

4.23.1 Antenna Port Plug Removal

- No Disassembly required

Step-by-Step Instructions	
1. Remove the antenna port plug using a dental pick.	
NOTE! Be careful to not damage the antenna cover.	
NOTE! Do not insert the dental pick too far or it will hit the circuit board and damage it.	

4.23.2 Antenna Port Plug Installation

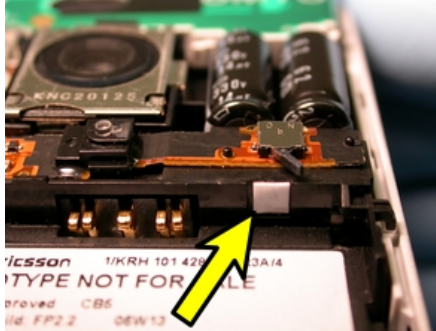
Step-by-Step Instructions	
NOTE! The port plug is keyed and must be inserted as shown so that the key tab goes into the key slot.	
1. Obtain a new antenna port plug and push it into the antenna port cavity in the antenna cover.	

- No reassembly required.



4.24 Liquid Intrusion Indicator

- Perform sections 2.1 - 2.3 of the disassembly procedure

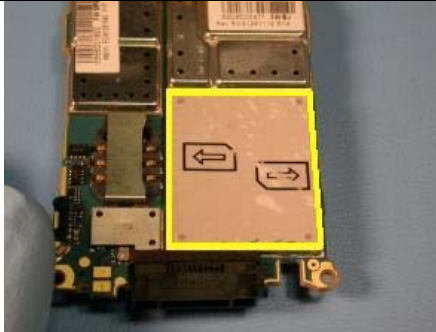

Step-by-Step Instructions	
1. If this liquid intrusion indicator is activated, handle the unit according to the instructions of your Sony Ericsson representative.	

- Perform sections 3.7 - 3.9 of the reassembly procedure.

4.25 Insulation label

Replacement Procedure

- Perform sections 2.1 - 2.9 of the disassembly procedure

Step-by-Step Instructions	
1. Locate the insulation label on the circuit board.	
2. Remove the old insulation label by peeling it off using style 2A tweezers. NOTE! Make sure not to damage the shield can lid.	



Step-by-Step Instructions	
<p>3. Align the edges of the insulation label with the edges of the shield can to which it adheres and smooth new insulation label in place.</p>	

- Perform sections 3.1 - 3.9 of the reassembly procedure.

4.26 Co-Brand Label

Replacement Procedure

- No disassembly required.

Step-by-Step Instructions	
<p>1. If an old co-brand label is present, remove it using style 2A tweezers.</p> <p>NOTE! <i>Be careful to not scratch the front cover when removing the old co-brand label.</i></p> <p>2. Using alcohol and a lint free cloth, clean the co-brand label area.</p>	
<p>NOTE! <i>Use tweezers to handle the new co-brand label once the protective film has been removed so that contamination of the adhesive is avoided.</i></p> <p>3. Using style 2A tweezers, mount a new co-brand label in the designated area.</p> <p>NOTE! <i>Make sure that all edges of the co-brand label are within the rectangular recessed area designated.</i></p> <p>4. Once the co-brand label is correctly positioned, carefully smooth the label into place.</p>	

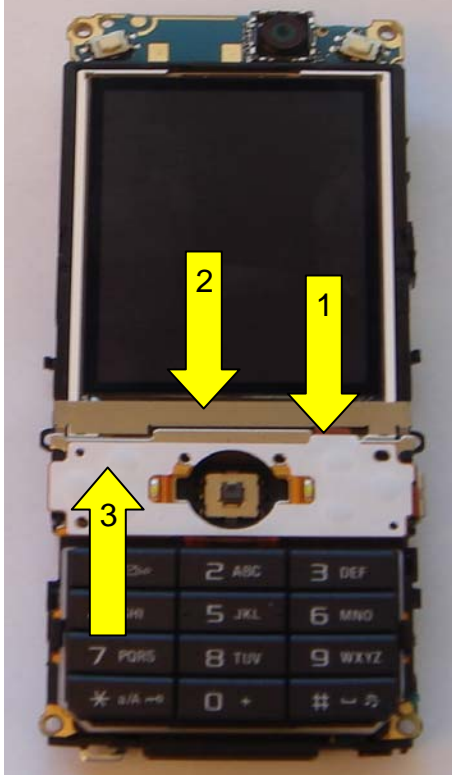
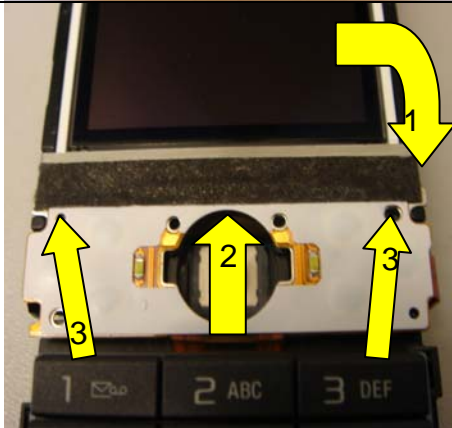
- No reassembly required.



4.27 Dust Preventing Tape

Replacement Procedure

- Perform sections 2.1 - 2.4 of the disassembly procedure

Step-by-Step Instructions	
<p>1. The tape is placed over the gap (1) between ESD protection sheet (2) LCD and Keyfoil assembly (3).</p>	
<p>2. Tape evenly placed along gap. Tolerance ± 1 mm from edge of ESD protection sheet (1). Tape must not cover the edge of this hole (2). Tape must not cover the edge of these holes (3).</p>	

- Perform sections 3.6 - 3.9 of the reassembly procedure.



5 Revision History

Rev.	Date	Changes / Comments
A	2006-06-09	Initial Release
B	2006-07-07	Updated this document so that it also applies to K790
C	2006-07-18	Updated due to system problem. No changes made in content
D	2006-09-29	Updated 2.9:5, instruction on how to remove the Camera BtB connector
E	2006-10-17	Updated 1.4 with information on how to discharge the camera flash when the Service Test menu can't be accessed
F	2007-10-01	Updated with 4.27 Dust Preventing Tape
G	2007-10-24	Due to system problem. No changes made on content
8	2007-12-18	Updated description of screws