

SERVICE MANUAL

Level 1&2

NOKIA

8208

RM-384

Transceiver characteristics:

Band:

800 MHz CDMA, 1200 MHz CDMA/PCS, EVDO Rev A, Bluetooth

Display:

LCD: (240x320pixel); 16.7M colors

Camera:

Camera: 3.0 Megapixel, 6x digital zoom

Operating System:

Connections:

Wireless: Bluetooth

Connector: Micro USB Connector

Memory:

Internal Memory: total 150MB

External Memory: Micro SD (up to 32GB)



Transceiver with BL-4C 860mAh Li-ion battery pack

Talk time	Standby	Note
Up to 4hrs	Up to 11 days	Depends on network parameters and phone settings

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1. CHANGE HISTORY

Status	Version No.	Date	Comments
Draft	0.1	04.Sep.2008	Initial draft
Final	0.2	18.Feb.2009	update

The purpose of this document is to help NOKIA service levels 1 and 2 workshop technicians to carry out service to NOKIA products. This Service Manual is to be used only by authorized NOKIA service suppliers, and the content of it is confidential. Please note that NOKIA provides also other guidance documents (e.g. Service Bulletins) for service suppliers, follow these regularly and comply with the given instructions.

While every endeavor has been made to ensure the accuracy of this document, some errors may exist. If you find any errors or if you have further suggestions, please notify NOKIA using the address below:

CMO Operation & Logistics

Training and Vendor Development

Multimedia Creation & Support

<mailto:Service.Manual@nokia.com>

Please keep in mind also that this documentation is continuously being updated and modified, so watch always out for the newest version.

2. COPYRIGHT

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The availability of particular products may vary by region.

IMPORTANT

This document is intended for use by qualified service personnel only.

3. WARNINGS AND CAUTIONS

Warnings and Cautions

Please refer to the phone's user guide for instructions relating to operation, care and maintenance including important safety information. Note also the following:

Warnings:

1. CARE MUST BE TAKEN ON INSTALLATION IN VEHICLES FITTED WITH ELECTRONIC ENGINE MANAGEMENT SYSTEMS AND ANTI-SKID BRAKING SYSTEMS. UNDER CERTAIN FAULT CONDITIONS, EMITTED RF ENERGY CAN AFFECT THEIR OPERATION. IF NECESSARY, CONSULT THE VEHICLE DEALER/MANUFACTURER TO DETERMINE THE IMMUNITY OF VEHICLE ELECTRONIC SYSTEMS TO RF ENERGY.
2. THE HANDPORTABLE TELEPHONE MUST NOT BE OPERATED IN AREAS LIKELY TO CONTAIN POTENTIALLY EXPLOSIVE ATMOSPHERES, EG PETROL STATIONS (SERVICE STATIONS), BLASTING AREAS ETC.
3. OPERATION OF ANY RADIO TRANSMITTING EQUIPMENT, INCLUDING CELLULAR TELEPHONES, MAY INTERFERE WITH THE FUNCTIONALITY OF INADEQUATELY PROTECTED MEDICAL DEVICES. CONSULT A PHYSICIAN OR THE MANUFACTURER OF THE MEDICAL DEVICE IF YOU HAVE ANY QUESTIONS. OTHER ELECTRONIC EQUIPMENT MAY ALSO BE SUBJECT TO INTERFERENCE.

Cautions:

1. Servicing and alignment must be undertaken by qualified personnel only.
2. Ensure all work is carried out at an anti-static workstation and that an anti-static wrist strap is worn.
3. Use only approved components as specified in the parts list.
4. Ensure all components, modules screws and insulators are correctly re-fitted after servicing and alignment.
5. Ensure all cables and wires are repositioned correctly.

4. ESD PROTECTION

Nokia requires that service points have sufficient ESD protection (against static electricity) when servicing the phone.

Any product of which the covers are removed must be handled with ESD protection. The SIM card can be replaced without ESD protection if the product is otherwise ready for use.

To replace the covers ESD protection must be applied.

All electronic parts of the product are susceptible to ESD. Resistors, too, can be damaged by static electricity discharge.

All ESD sensitive parts must be packed in metallized protective bags during shipping and handling outside any ESD Protected Area (EPA).

Every repair action involving opening the product or handling the product components must be done under ESD protection.

ESD protected spare part packages MUST NOT be opened/closed out of an ESD Protected Area. For more information and local requirements about ESD protection and ESD Protected Area, contact your local Nokia After Market Services representative.



5. CARE AND MAINTENANCE

This product is of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfill any warranty obligations and to enjoy this product for many years.

- Keep the phone and all its parts and accessories out of the reach of small children.
 - Keep the phone dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits.
 - Do not use or store the phone in dusty, dirty areas. Its moving parts can be damaged.
 - Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
 - Do not store the phone in cold areas. When it warms up (to its normal temperature), moisture can form inside, which may damage electronic circuit boards.
 - Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.
 - Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the phone.
 - Do not paint the phone. Paint can clog the moving parts and prevent proper operation.
 - Use only the supplied or an approved replacement antenna. Unauthorised antennas, modifications or attachments could damage the phone and may violate regulations governing radio devices.
- All of the above suggestions apply equally to the product, battery, charger or any accessory.

6. BATTERY INFORMATION

Note: A new battery's full performance is achieved only after two or three complete charge and discharge cycles! The battery can be charged and discharged hundreds of times but it will eventually wear out. When the operating time (talk-time and standby time) is noticeably shorter than normal, it is time to buy a new battery. Use only batteries approved by the phone manufacturer and recharge the battery only with the chargers approved by the manufacturer.

Unplug the charger when not in use. Do not leave the battery connected to a charger for longer than a week, since overcharging may shorten its lifetime.

If left unused a fully charged battery will discharge itself over time. Temperature extremes can affect the ability of your battery to charge.

For good operation times with Ni-Cd/NiMH batteries, discharge the battery from time to time by leaving the product switched on until it turns itself off (or by using the battery discharge facility of any approved accessory available for the product).

Do not attempt to discharge the battery by any other means. Use the battery only for its intended purpose.

Never use any charger or battery which is damaged.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object (coin, clip or pen) causes direct connection of the + and - terminals of the battery (metal strips on the battery) for example when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F).

A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged.

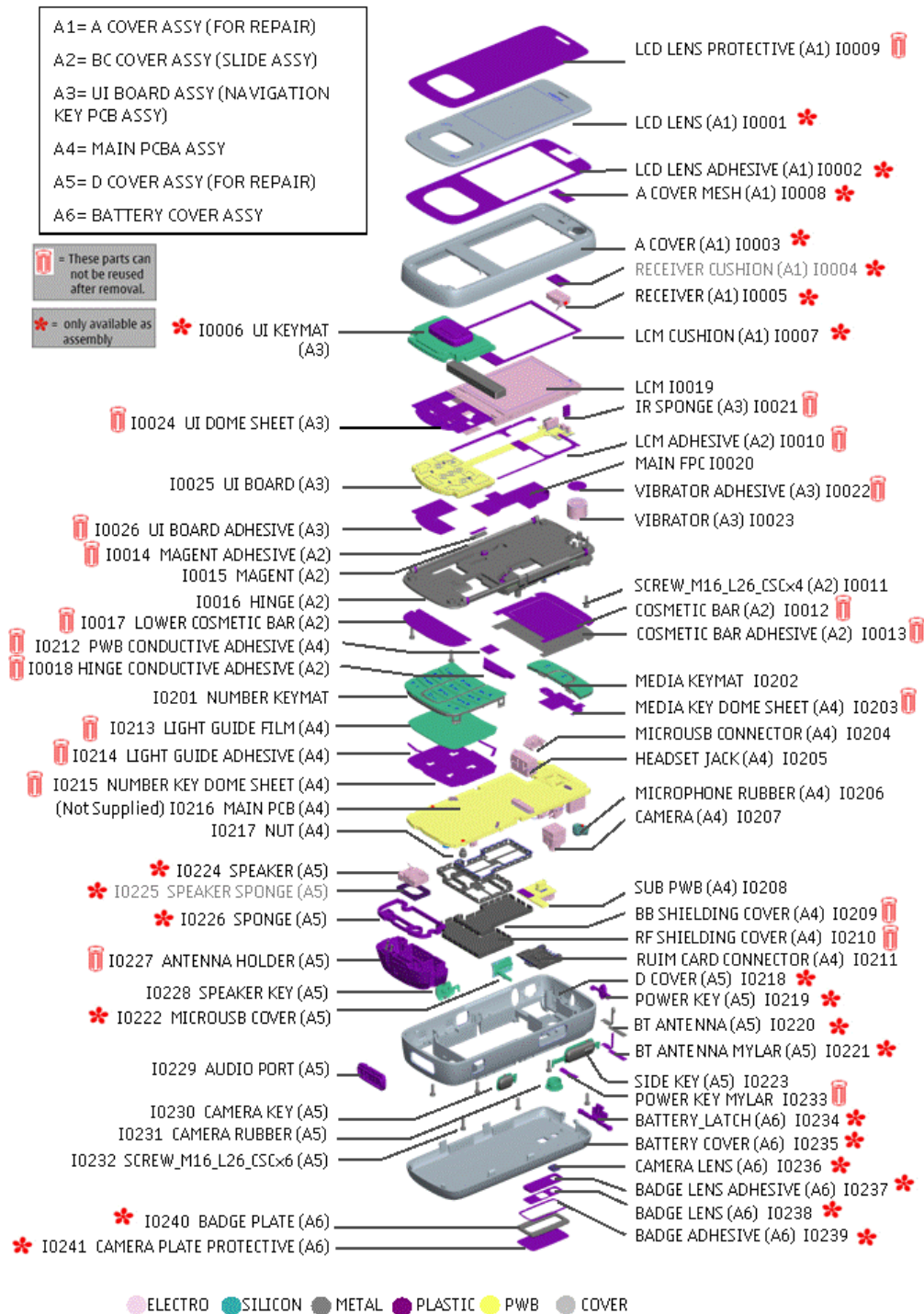
Batteries' performance is particularly limited in temperatures well below freezing.

Do not dispose batteries in a fire! Dispose of batteries according to local regulations (e.g. recycling).

Do not dispose as household waste.

7. EXPLODED VIEW

8208 RM-384 EXPLODED VIEW



8. LEVEL 2 SOLDER COMPONENTS

ITEM/ CIRCUIT REF.	QTY	CODE	SPARE PART DESCRIPTION	LEVEL
I0204	1	8001186	Micro USB Connector	2
I0205	1	8001185	Headset Jack	2
I0217	1	8001191	Nut	2

9. SERVICE DEVICES

 <p>CA-101 100cm</p>		 <p>RJ-230</p>
<p>CA-101 Data Service Cable Service Cable to connect the PC with the Micro USB connector.</p>	<p>SS-175 Domesheet Alignment Jig This jig is used to align the adhesive domesheet assembly onto the PWB in the proper location during domesheet replacement.</p>	<p>RJ-230 Soldering Jig This tool is used for upper PWB component de-soldering and soldering.</p>
		 <p>NOKIA Standard Toolkit V2</p>
<p>Travel Charger AC-6U Small and lightweight charger for fast charging of your phone battery.</p>	<p>Internal Battery BL-4C Inserted under the back cover, this Li-Ion battery provides power in a sales package.</p>	<p>0772040 NMP Standard Toolkit (V2) For more information refer to the Service Bulletin (SB-011) on NOKIA Online. Supplier or manufacturer contacts for tool re-order can be found in "Recommended service equipment" document on NOKIA Online.</p>

10. SW-UPDATE

Flash Concept – (Point of Sales)

Please check always for the latest version of flash software, which is available on [NOKIA Online](#).



For detailed flashing instruction, please refer to Nokia Care Suite Store version user manual.

11. DISASSEMBLY INSTRUCTION



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Disassembly

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1. Nokia 8208 disassembly.



2. You will need the Nokia Standard Toolkit version 2. Also refer to the General Mechanical Guideline Video for additional hints about the tools and component handling.



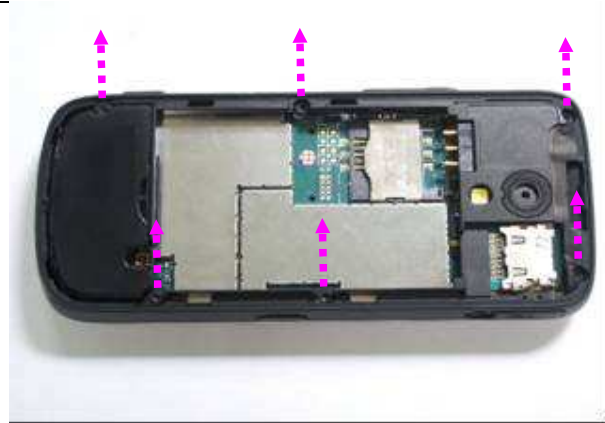
3. Protect the main lens surface with a film.



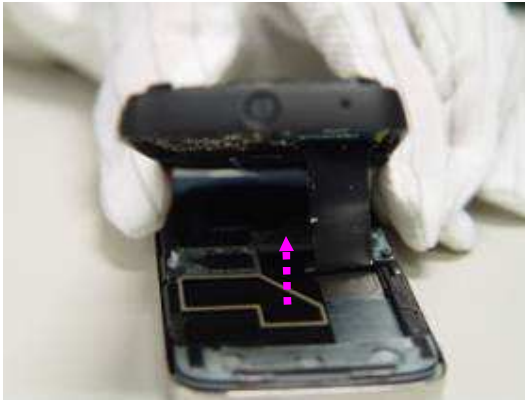
4. Press the battery latch to open battery cover.



5. Pull upward to remove battery.



6. Use a TORX T5 screwdriver to loosen and remove six Torx screws (T1.6x2.2). When using torque driver, set torque to 8Ncm @ 450 rpm. The tolerance is +/- 0.5Ncm.



7. Pull upward to open D-cover assembly.



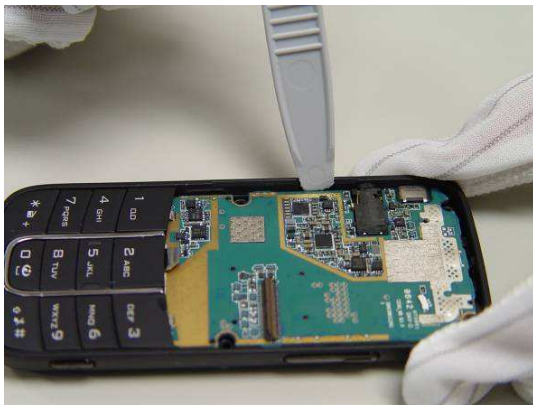
8. Use tweezers to clip FPC connector and pull upward to release FPC from the main board.



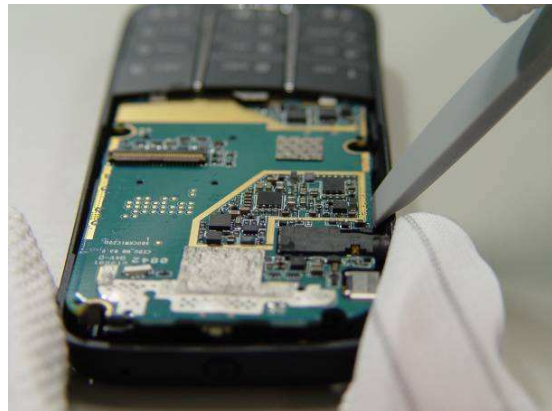
9. Pull left to remove the music key pad from A-cover assembly.



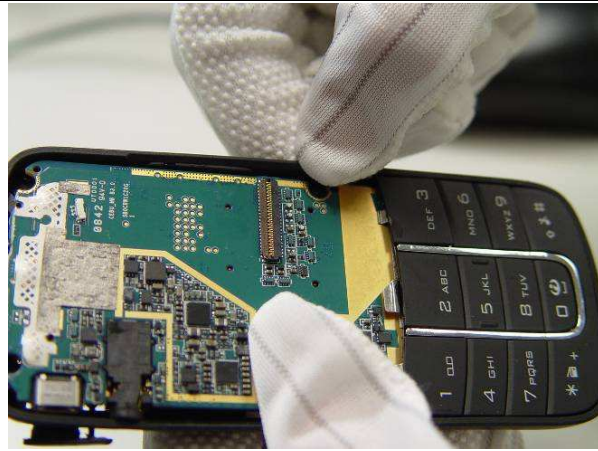
10. Open the A-cover assembly from D-cover assembly.



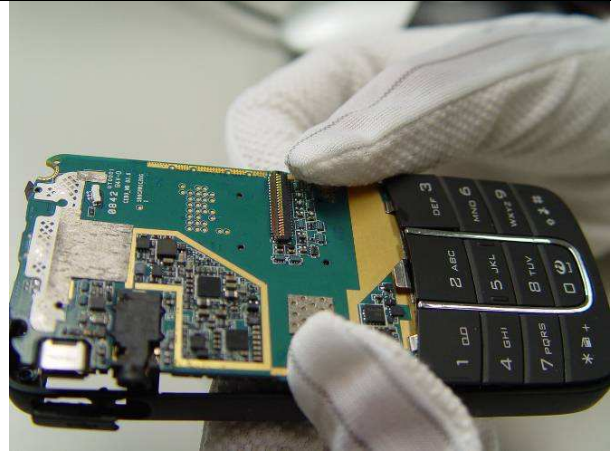
11. Place the pick into gap between D-cover and main board.



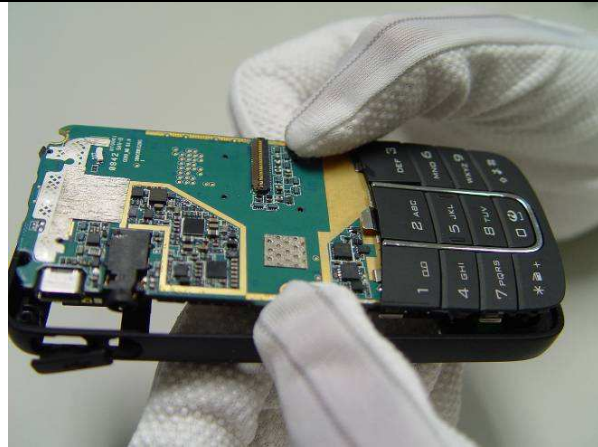
12. Use a pick to separate the right side of main board from the jack hold of D-cover.



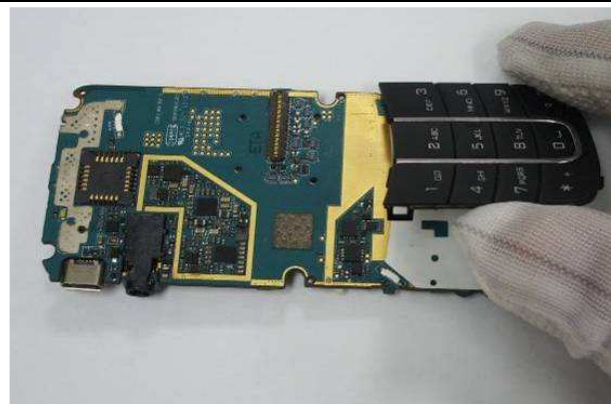
13. Pull D-cover lip to separate main board from right hook of D-cover.



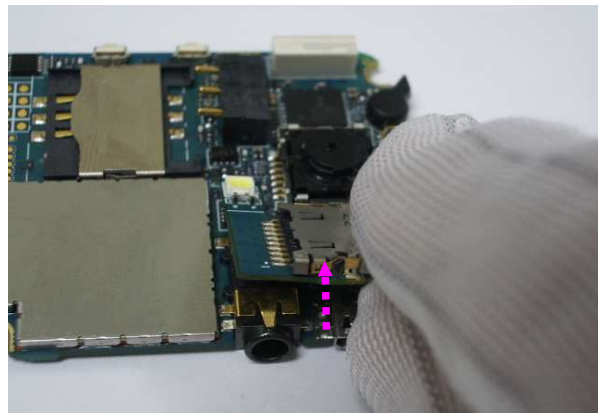
14. Push main board from left side to right side to separate main board from left hook of D-cover.



15. Remove the main board from D-cover.



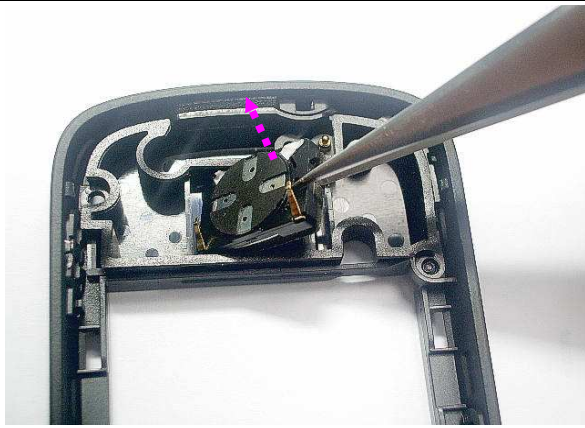
16. Pull upward to release number keypad from the main board.



17. Push upward to release sub PWB from the main board.



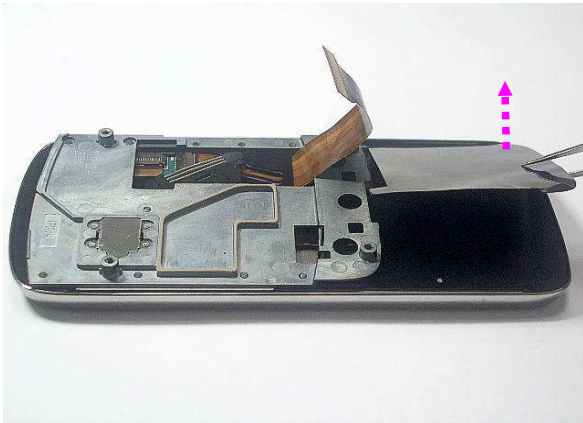
18. Use tweezers to clip camera module and pull upward to release it from the main board.



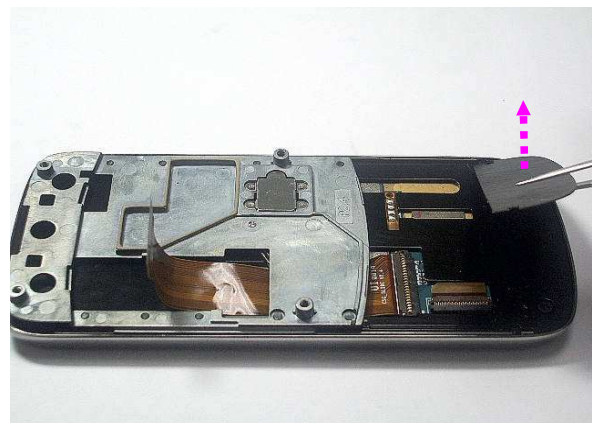
19. Use tweezers to clip speaker and pull upward to remove it from D-cover.



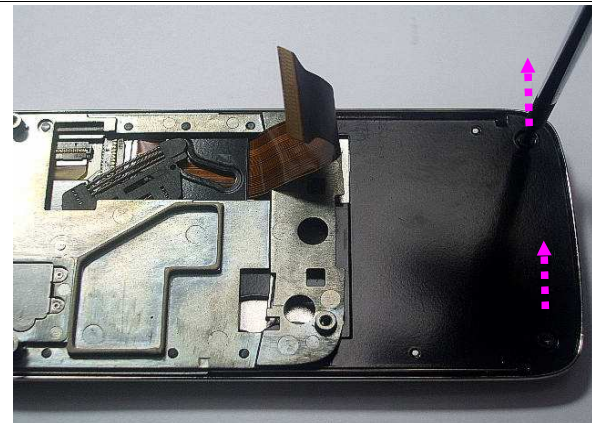
20. Piece parts list of D-cover assembly.



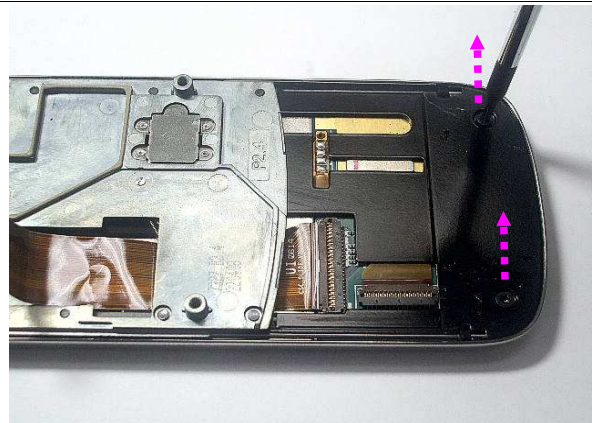
21. Use tweezers to clip adhesive cosmetic bar-upper and release it from A-cover assembly.



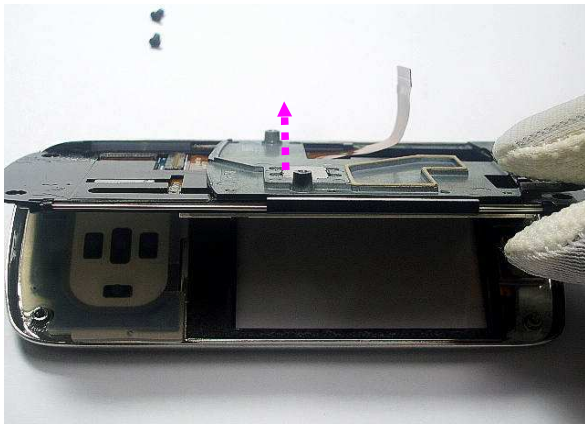
22. Use tweezers to clip adhesive cosmetic bar-lower and release it from A-cover assembly.



23. Use a TORX T5 screwdriver to loosen and remove two Torx screws (T1.6x2.2). When using torque driver, set torque to 8Ncm @ 450 rpm. The tolerance is +/- 0.5Ncm.



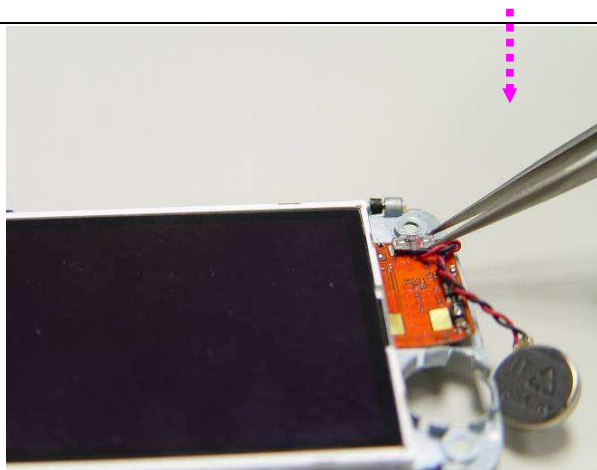
24. Use a TORX T5 screwdriver to loosen and remove two Torx screws (T1.6x2.2). When using torque driver, set torque to 8Ncm @ 450 rpm. The tolerance is +/- 0.5Ncm.



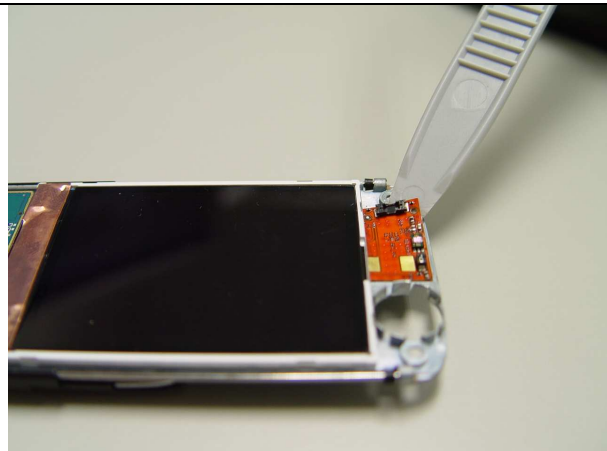
25. Pull upward to release the slide assembly module from A -cover.



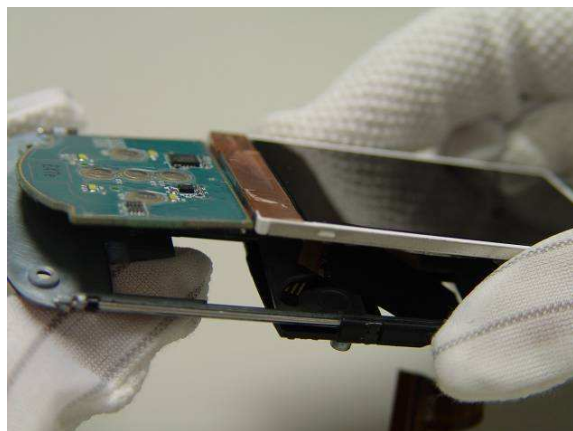
26. Use hands to push bottom of vibrator and pull upward to remove it from the slider module.



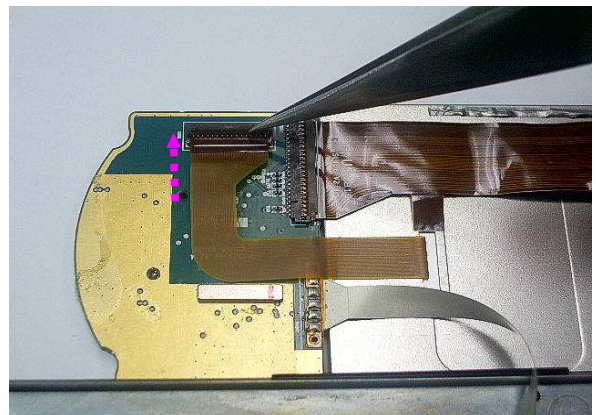
27. Use tweezers to clip connector of vibrator and pull upward to remove it from FPC.



28. Peel off the FPC by pick.



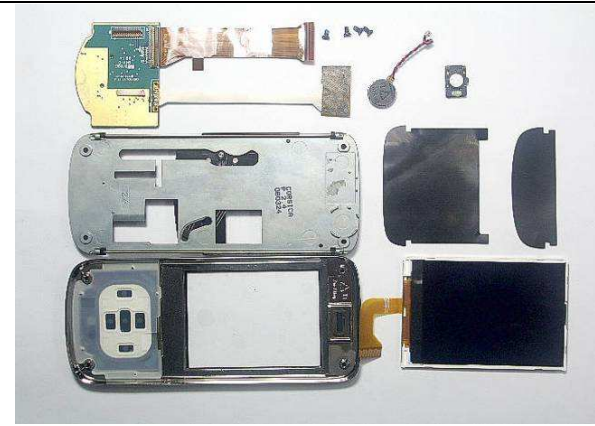
29. Press the bottom side of LCD lens to separate the lens from slider module.



30. Use tweezers to clip FPC connector and pull upward to release FPC from the LCD board.



31. Use tweezers to clip the receiver and pull upward to remove it from A - cover.



32. Piece parts list of A - cover assembly.

12. ASSEMBLY INSTRUCTION



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Assembly



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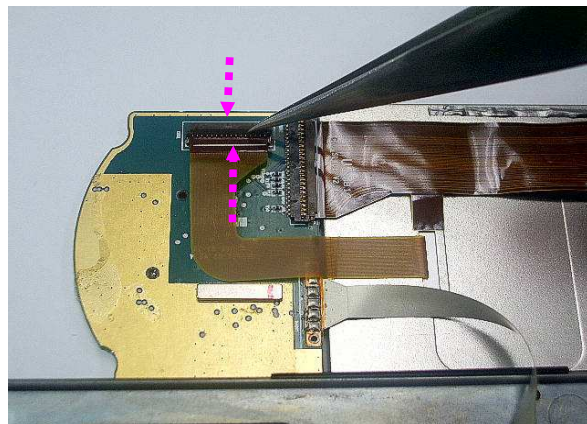
1. Nokia 8208 assembly.



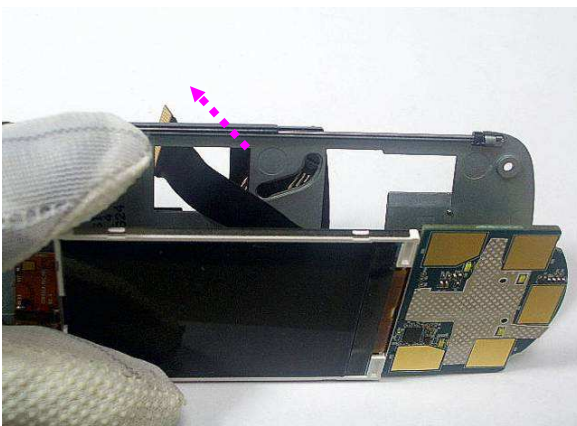
2. You will need the Nokia Standard Toolkit version 2. Also refer to the General Mechanical Guideline Video for additional hints about the tools and component handling.



3. Use tweezers to clip the receiver and put it downward into the concave hole of A - cover.



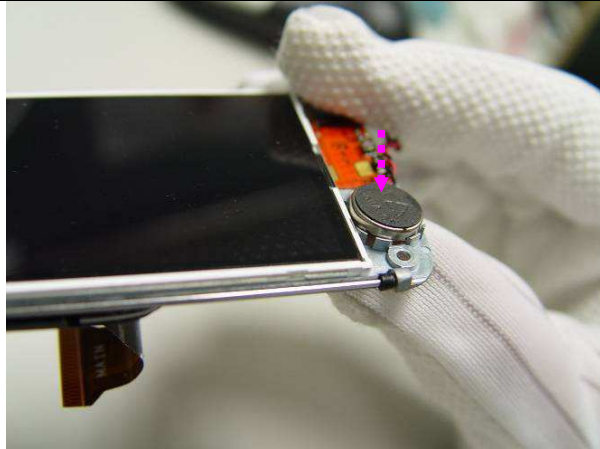
4. Use tweezers to clip FPC and insert into the connector of main board.



5. Insert FPC cable of LED through the hole of slider module.



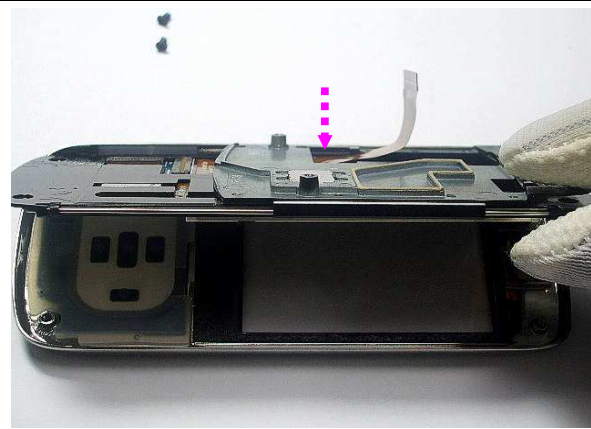
6. Press the main board and FPC on slider module and make it sure is stuck on plate firmly.



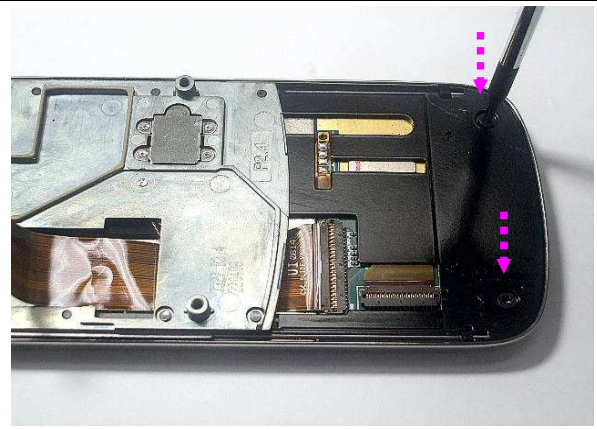
7. Use hands to put vibrator downward into the concave hole of slider module.



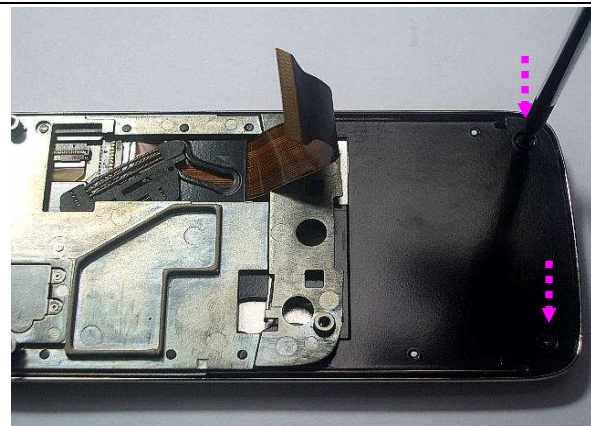
8. Use tweezers to clip connector of vibrator and put it downward to insert into FPC.



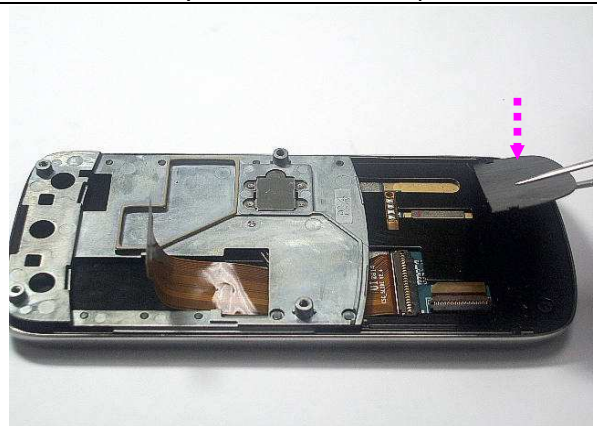
9. Put the slide assembly module downward into the A-cover



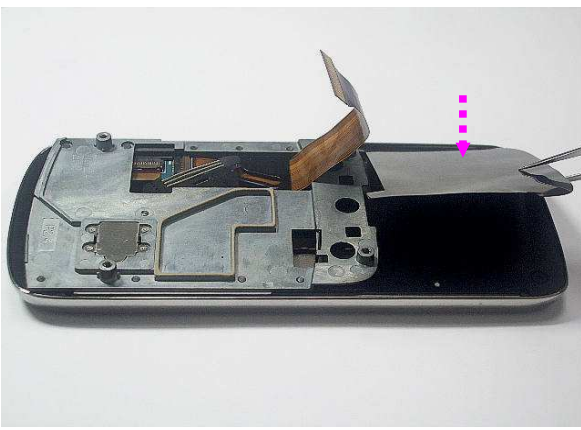
10. Use a TORX T5 screwdriver to assemble two TORX screws (T1.6x2.2). When using torque driver, set torque to 8Ncm @ 450 rpm. The tolerance is +/- 0.5Ncm.



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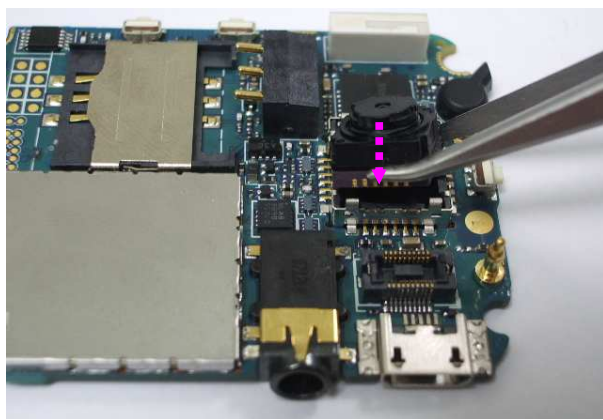
12. Use tweezers to clip adhesive cosmetic bar-lower and put it downward on A-cover assembly.



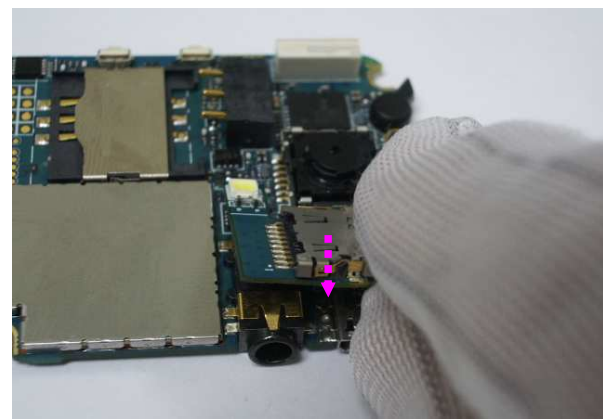
13. Use tweezers to clip adhesive cosmetic bar-upper and put it downward on A-cover assembly.



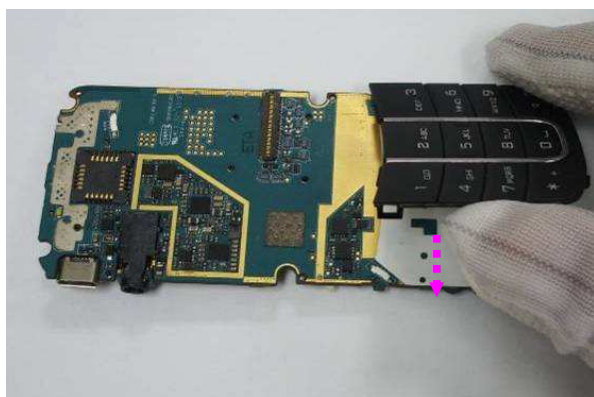
14. Use tweezers to clip speaker and put it into the concave hole of D-cover.



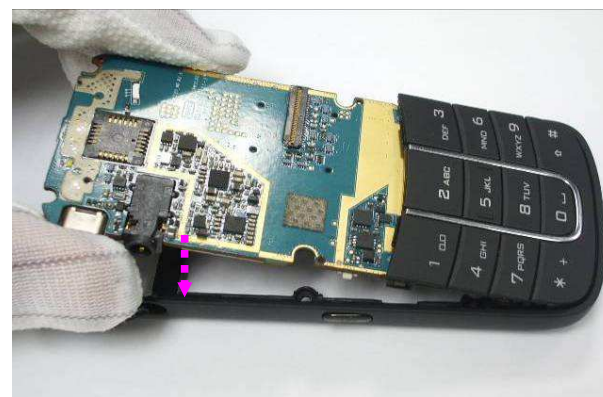
15. Use tweezers to clip camera module and put it downward into the main board.



16. Put sub PWB downward into the main board.



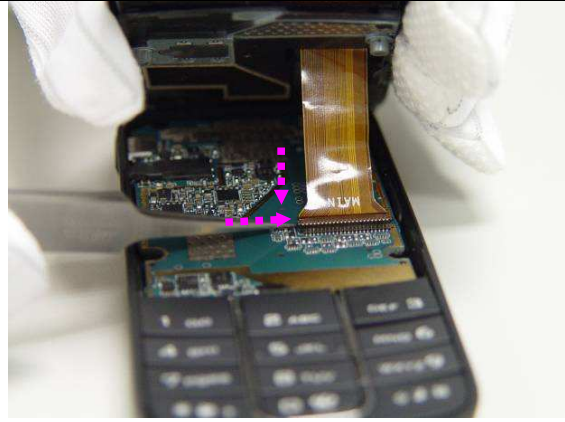
17. Put number key on the main board.



18. Put the main board into D-cover.



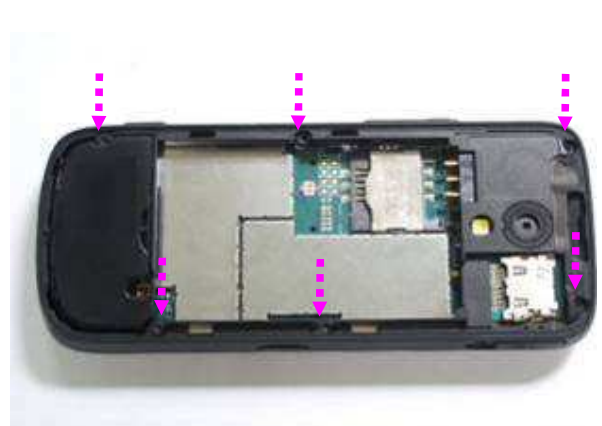
19. Insert the music key pad into A-cover assembly.



20. Use tweezers to clip FPC and insert into the connector of main board.



21. Put the D-cover on the A-cover.



22. Use a TORX T5 screwdriver to assemble six TORX screws (T1.6x2.2). When using torque driver, set torque to 8Ncm @ 450 rpm. The tolerance is +/- 0.5Ncm.


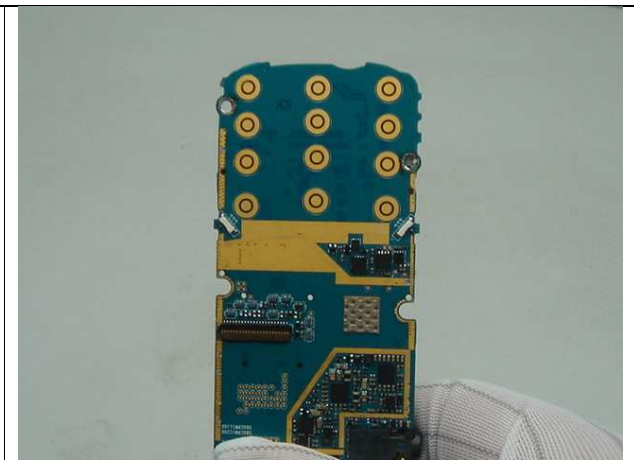
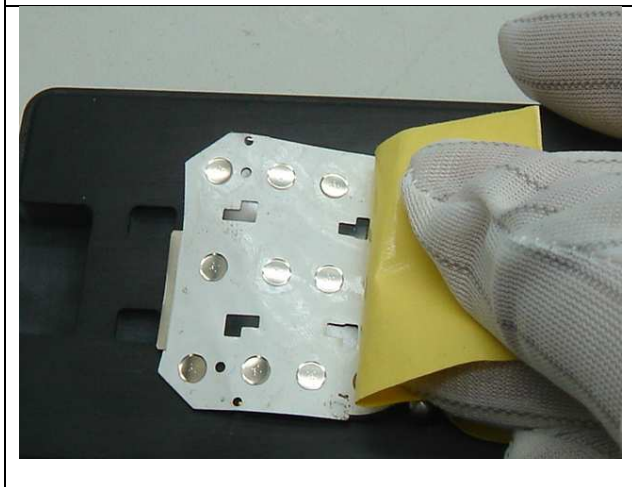



23. Put battery into D-cover.



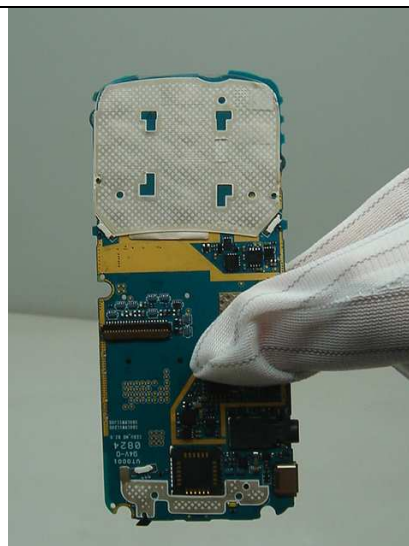
24. Press Battery-Cover on D-Cover peripherally.

13. DOMESHEET ALIGNMENT JIG INSTRUCTION

	
<p>1. Use the tweezers to peel the dome sheet.</p>	<p>2. Remove the dome sheet.</p>
	
<p>3. Place a new dome sheet on the Dome sheet Alignment Jig.</p>	<p>4. Align the guide pins and place the PWB on the Jig.</p>



5. Press firmly on the PWB to ensure correct bonding of the dome sheet.



6. Inspect to ensure proper adhesion of dome sheet to PWB.