

SERVICE MANUAL  
Level 1&2

# NOKIA C6-01

RM-718 / RM-601



### Transceiver characteristics

**Band:**

GSM 850/900/1800/1900  
WCDMA 850/900/1700/1900/2100

GSM 850/900/1800/1900  
WCDMA 900/1700/1900/2100

**Display:**

3.2" nHD (640x360 pixels) AMOLED, 16M colors

**Camera:**

8 Mpix full focus camera, dual LED flash, 2x Digital zoom. 2<sup>nd</sup> VGA camera.

**Operating System:**

Symbian^3

**Connections:**

- WCDMA DL 384k HSDPA 10M; UL 384k HSUPA 2M
- GSM CS data 9.6/14.4/HSCSD MSC6
- GSM GPRS data class 32, GSM EGPRS data class 32, DTM 11
- WLAN IEEE802.11 b/g/n
- USB 2.0 high-speed through micro USB connector. USB OTG
- Bluetooth wireless technology 3.0 & 2.1 + EDR

### Transceiver with BL-5CT battery pack

Talk time	Standby
<b>GSM:</b> Up to 11 hours	<b>GSM:</b> Up to 400 hours
<b>WCDMA:</b> Up to 4 hours	<b>WCDMA:</b> Up to 450 hours

**Note:**

Talk times are dependent on network parameters and phone settings

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**CHANGE HISTORY**

Status	Version No.	Date	Comments
Approved	1.0	2.09.2010	First approved version

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:

**Nokia Care Academy**  
[service.manuals@nokia.com](mailto:service.manuals@nokia.com)

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

## 1. 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.

## 2. 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:

### 2.1 Warnings

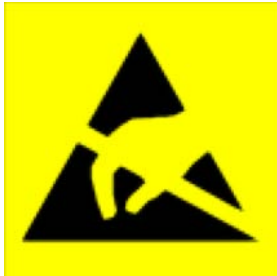
1. CARE MUST BE TAKEN ON INSTALLATION IN VEHICLES FITTED WITH ELECTRONIC ENGINE MANAGEMENT SYSTEMS AND ANTI-SKID BRAKING SYSTEMS. UNDER CERTAIN FAULT CONDITIONS, EMITTED RF ENERGY CAN AFFECT THEIR OPERATION. IF NECESSARY, CONSULT THE VEHICLE DEALER/MANUFACTURER TO DETERMINE THE IMMUNITY OF VEHICLE ELECTRONIC 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.

### 2.2 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

### 3. 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.

## 4. CARE AND MAINTENANCE

This product is of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfil 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.

## 5. 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. Shortcircuiting 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).

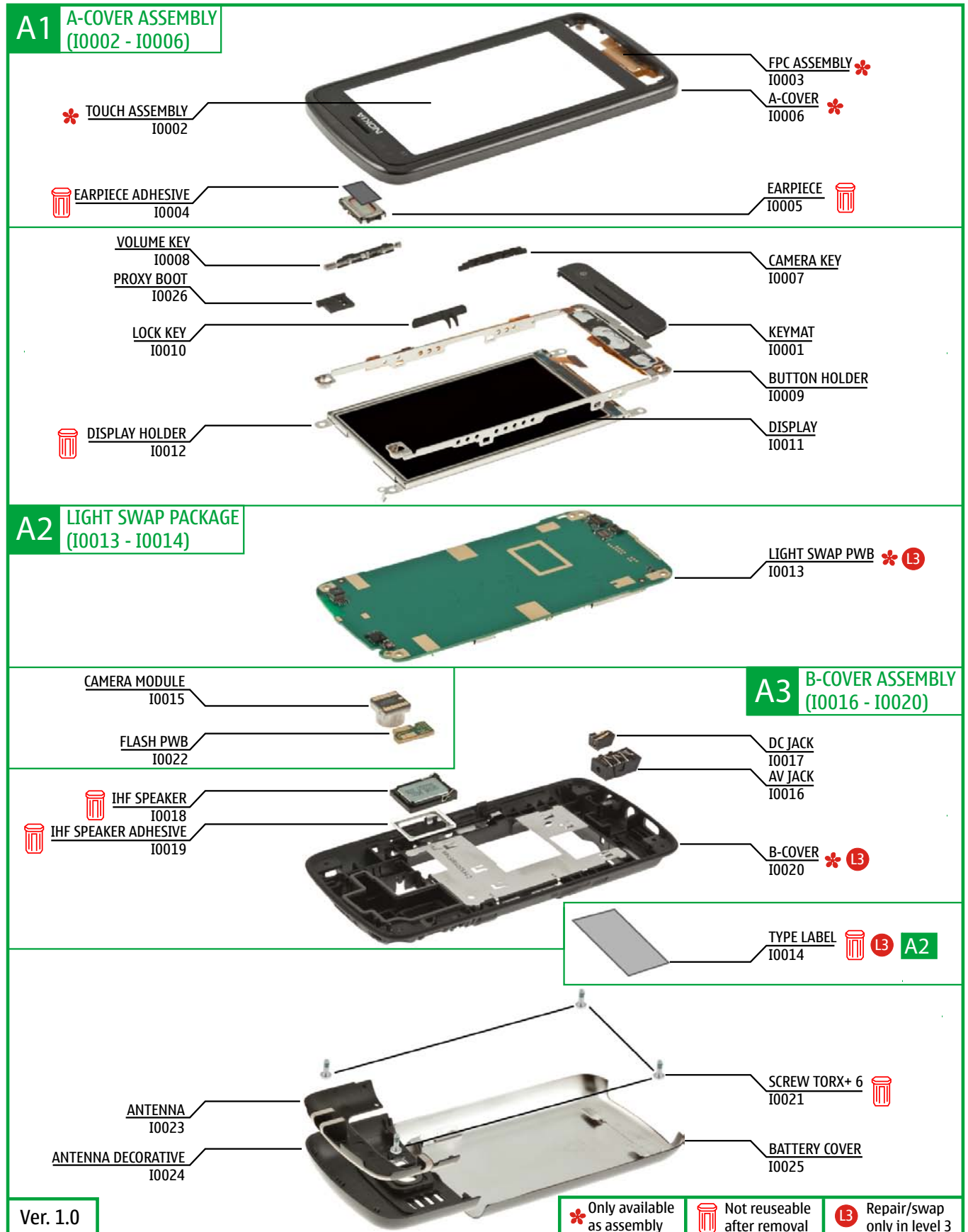
A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Batteries' performance is particularly limited in temperatures well below freezing.

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

Do not dispose as household waste.



## 6. EXPLODED VIEW



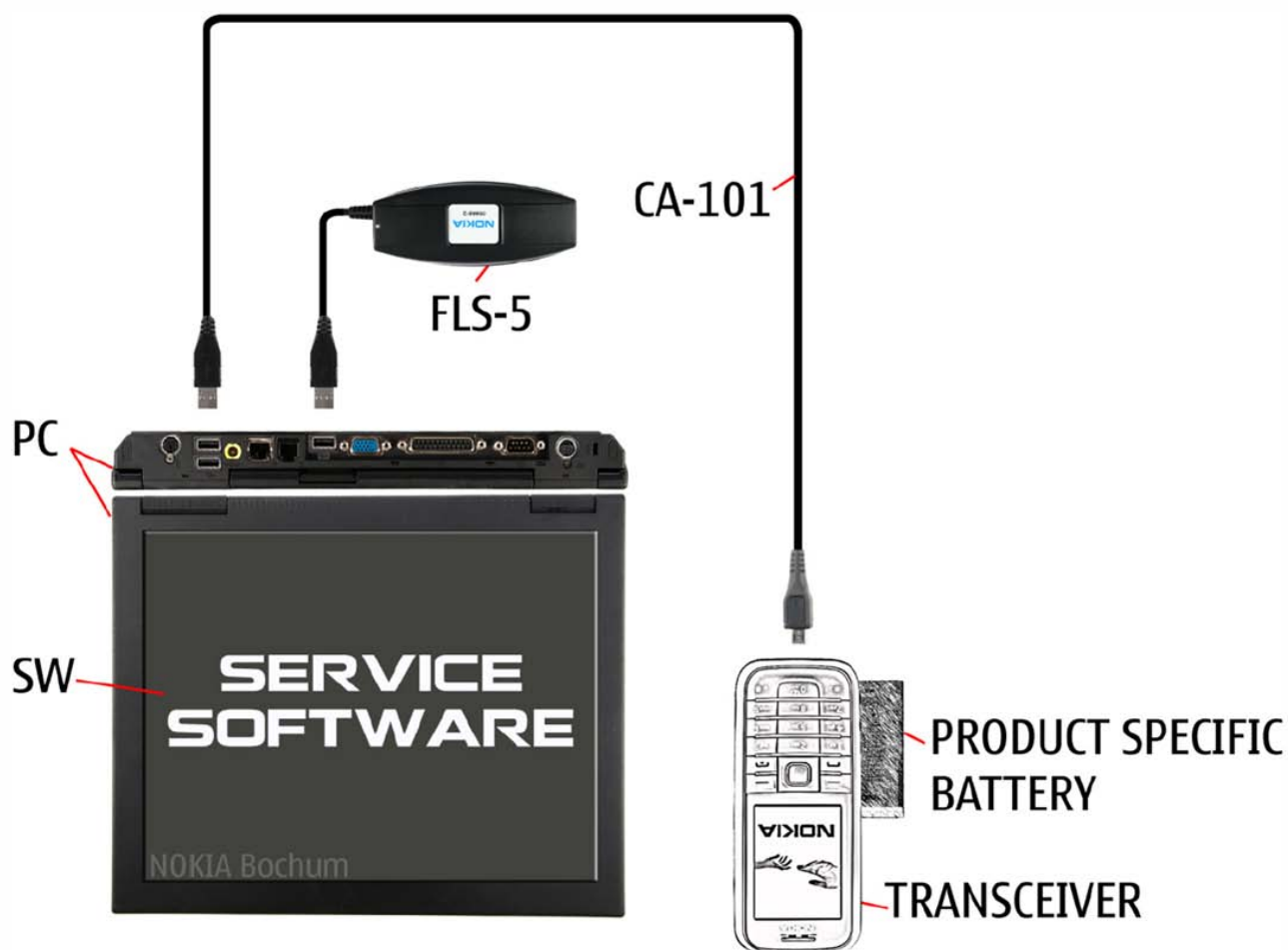
## 7. SERVICE DEVICES

 <p>FLS-5</p> <p>FLS-5 Flash Device</p>	 <p>CA-101</p>	 <p>AC-15 Travel Charger</p>
 <p>BL-5CT Battery</p>	 <p>SS-186 Camera Removal tool</p>	 <p><b>Nokia Standard Toolkit (v2)</b> 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>

## 8. SOFTWARE UPDATE

### Flash concept (Point of Sale)

To use the FLS-5 Flash Dongle, follow the user guide inside the sales package. Please check always for the latest version of flash software, which is available on Nokia Online.



## 9. DISASSEMBLY INSTRUCTIONS



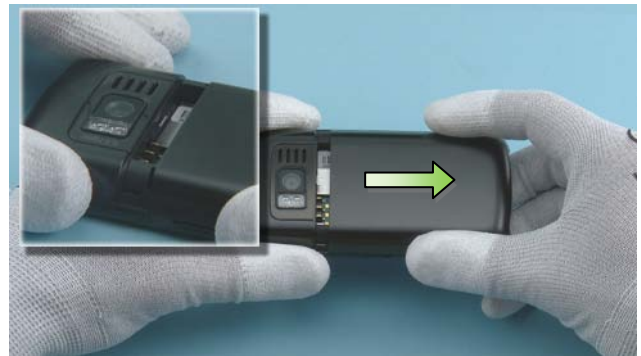
1) Nokia C6-01 disassembly.



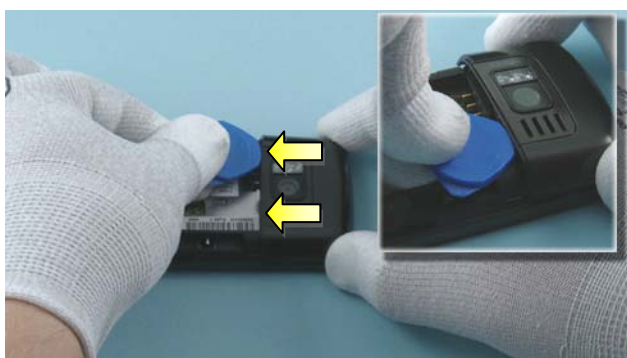
2) For disassembling you need the Nokia Standard Toolkit version 2 and the camera removal tool SS-186.



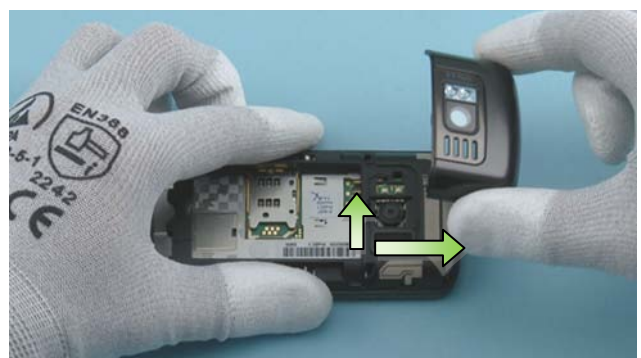
3) Protect the A-COVER with protective film.



4) Pull the BATTERY COVER to direction shown to remove it.

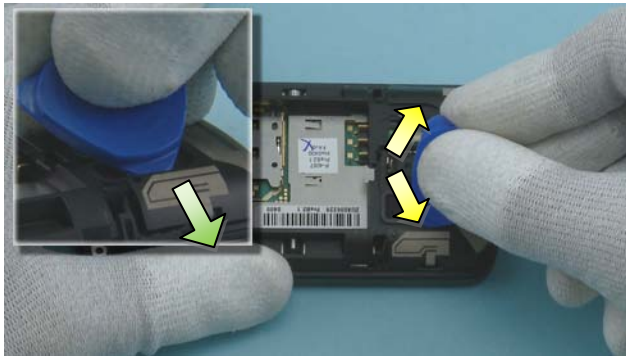


5) Use the SRT-6 to release the ANTENNA DECORATIVE from the shown places.



6) Lift up the bottom end of the ANTENNA DECORATIVE and then pull it to the direction shown. The ANTENNA DECORATIVE can now be removed.





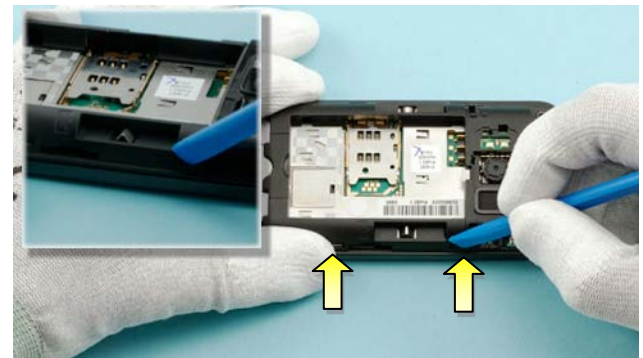
7) Use the SRT-6 to release the ANTENNA from the shown places. While lifting up the ANTENNA with the SRT-6, push the ANTENNA carefully outwards to release the clips holding it.



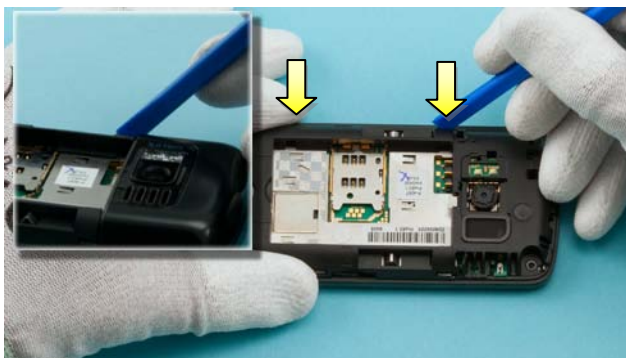
8) Remove the ANTENNA.



9) Unscrew the four TORX+ size 6 screws in the order shown. Do not use them again!



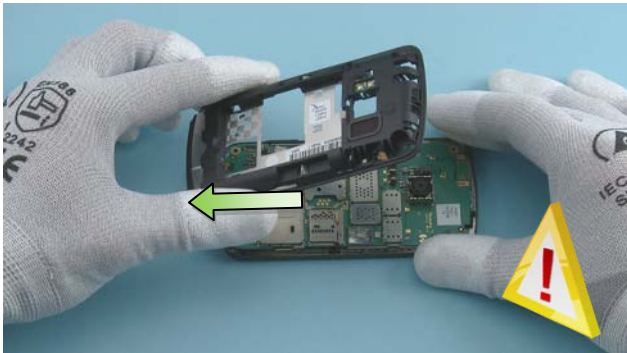
10) Before removing the B-COVER, remember to remove the microSD card. Use the SS-93 to open the two shown clips holding the B-COVER.



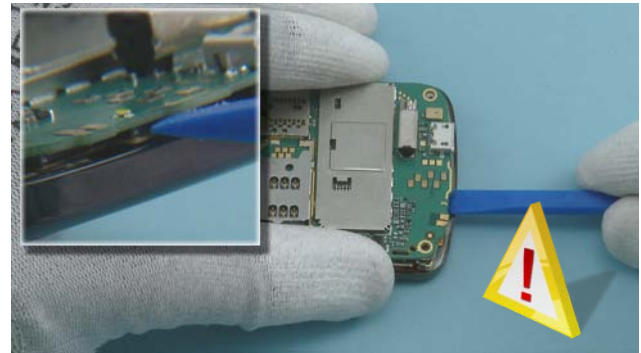
11) Open also the two clips on the other side with the SS-93.



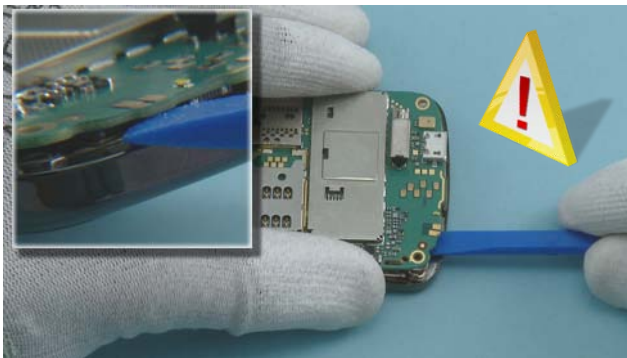
12) Use the SS-93 to release the clip holding the B-COVER and the ENGINE BOARD together.



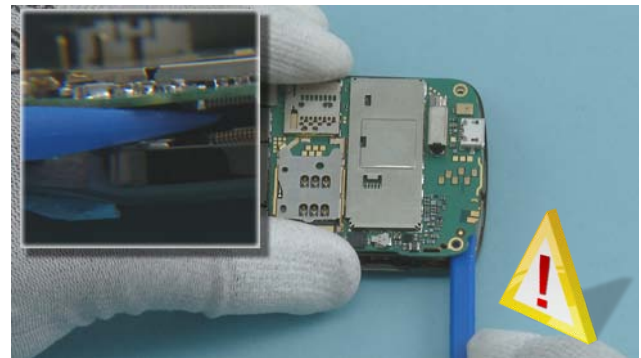
13) Remove the B-COVER to the direction shown, so that the USB connector is not damaged.



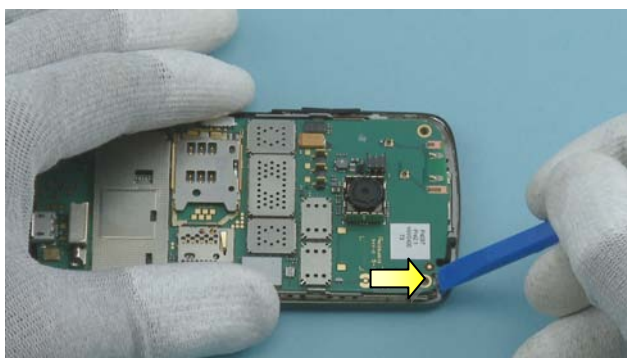
14) Lift up carefully the ENGINE BOARD and open the A-COVER connector with the SS-93. Be careful not to damage the connector!



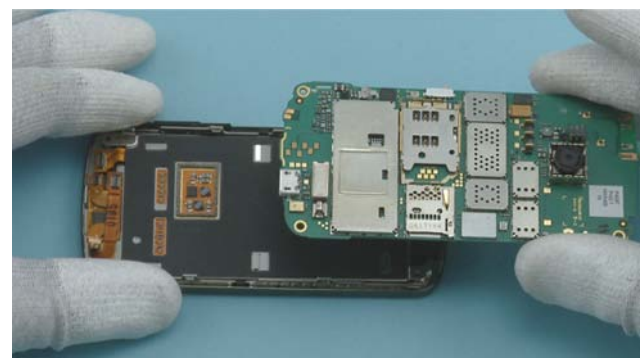
15) Then open the DISPLAY connector with the SS-93. Be careful not to damage the connector!



16) Finally open the KEYMAT connector. Be careful not to damage the connector!

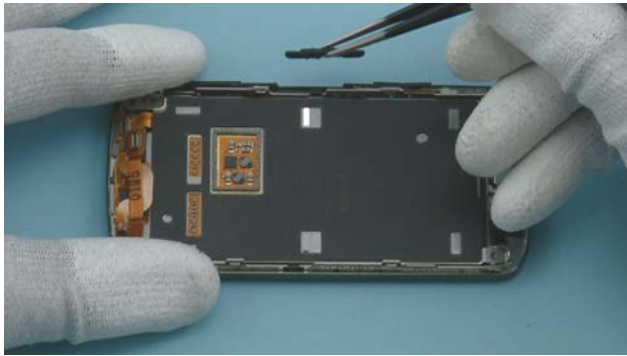


17) Open the clip with the SS-93 holding the ENGINE BOARD and the DISPLAY together.

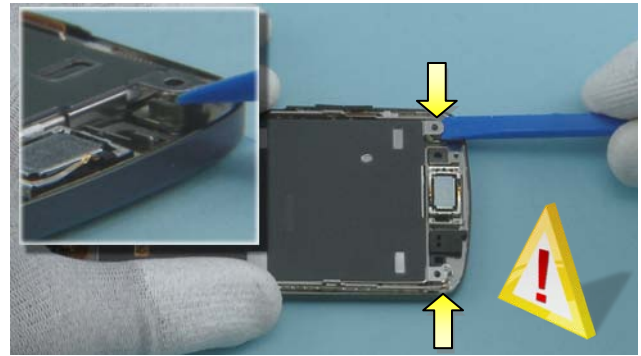


18) The ENGINE BOARD can now be separated.

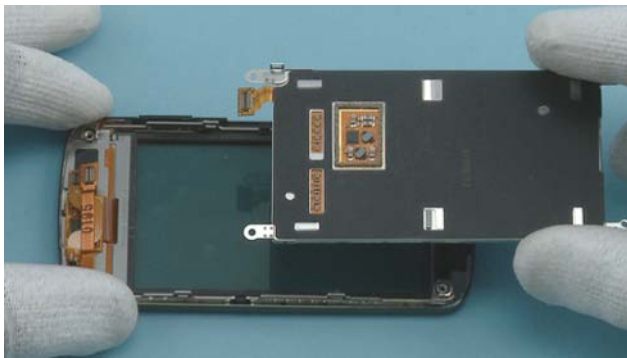




19) Remove the LOCK KEY with the tweezers.



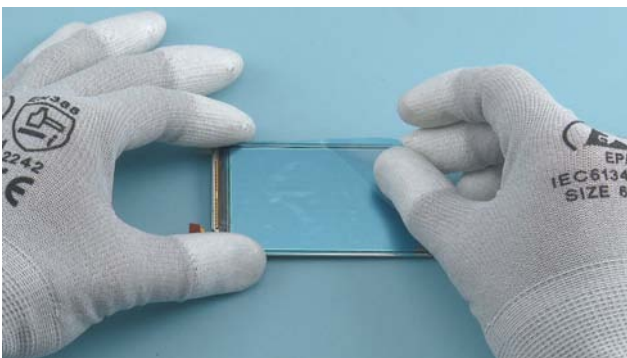
20) Lift up the DISPLAY with the SS-93 from the shown places. Be careful not to damage the DISPLAY.



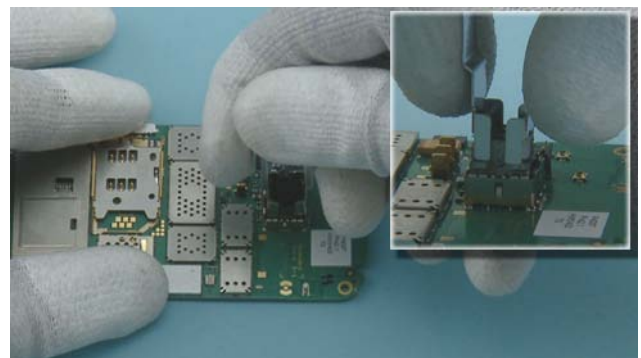
21) The DISPLAY can now be removed. Please note that if the DISPLAY is removed, do not leave the DISPLAY exposed to UV light for several days.



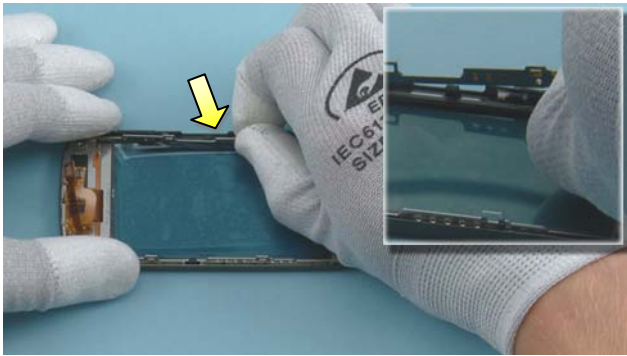
22) Protect the other side of the A-COVER with protective film.



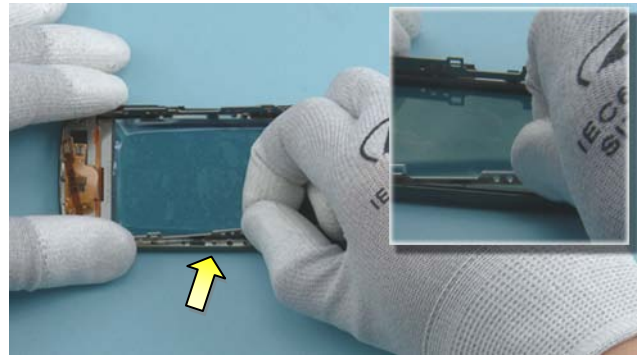
23) Protect the DISPLAY with protective film.



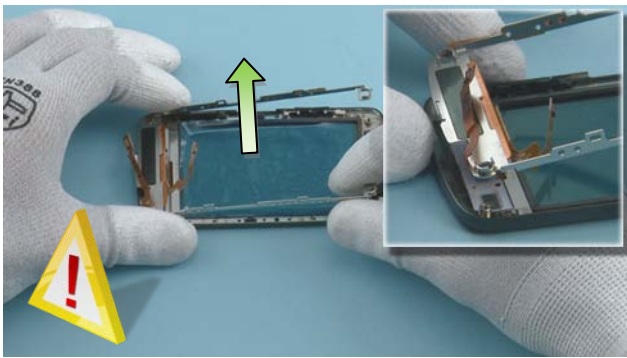
24) To remove the CAMERA MODULE, press down the camera removal tool SS-186 until the camera retaining clips are released. Lift up the SS-186 and remove the CAMERA MODULE.



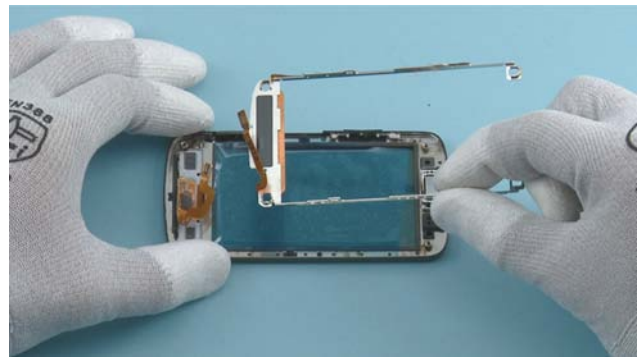
25) Release the shown clip holding the BUTTON HOLDER by pressing it inwards.



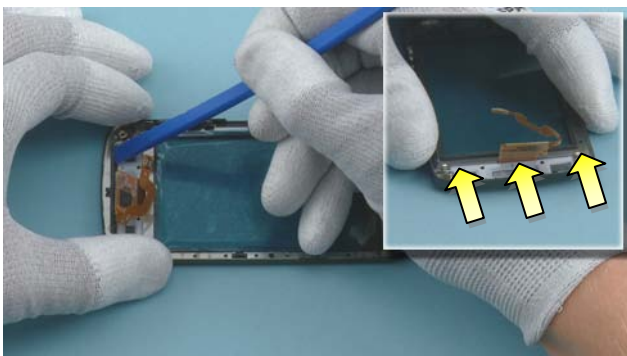
26) Release the shown clip holding the BUTTON HOLDER on the other side by pressing it inwards.



27) Lift up the BUTTON HOLDER. Be careful not to damage the flex.



28) Remove the BUTTON HOLDER.

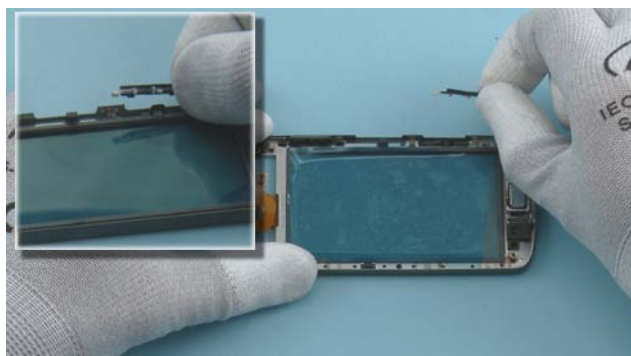


29) Use the SS-93 to release the clips holding the KEYMAT.

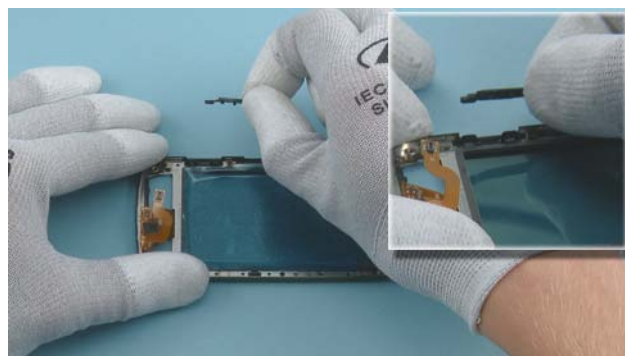


30) Remove the KEYMAT.





31) Remove the CAMERA KEY.



32) Remove the VOLUME KEY.



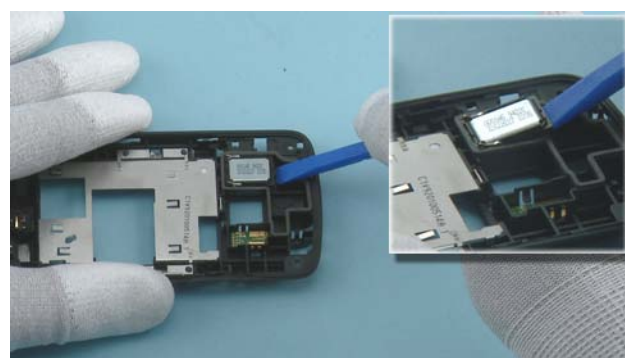
33) Use the sharp end of the SS-93 to release the EARPIECE.



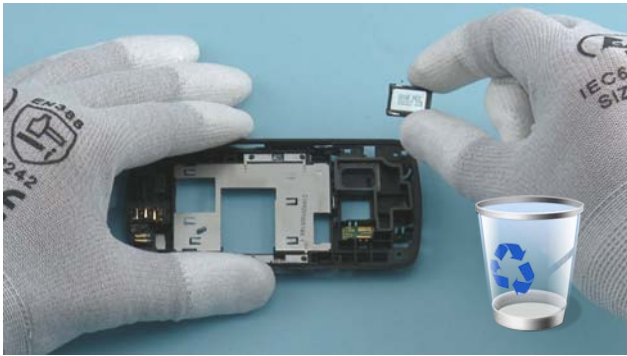
34) Remove the EARPIECE. Do not use it again. Discard it. Remove also the EARPIECE adhesive remains.



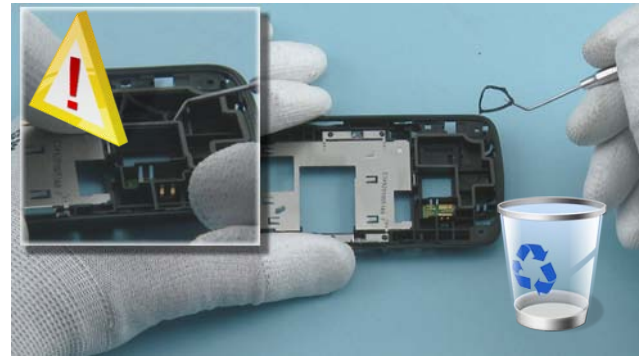
35) Use the SS-93 to release the PROXY BOOT and remove it.



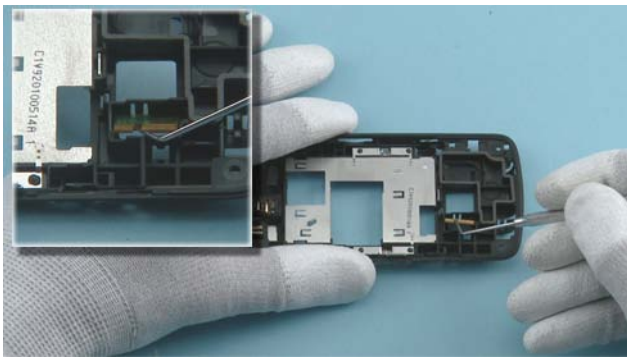
36) Use the SS-93 to lever up the IHF SPEAKER.



37) Remove the IHF SPEAKER. Do not use it again. Discard it.



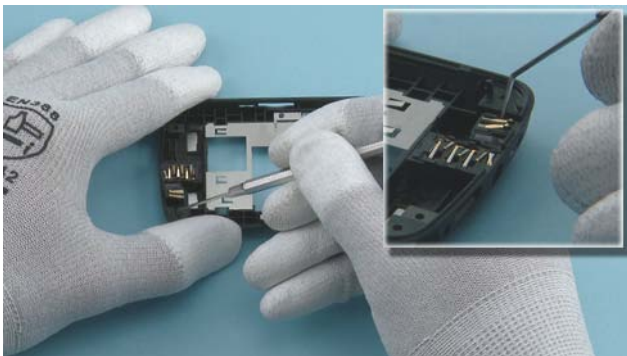
38) Use the dental tool to remove the IHF SPEAKER ADHESIVE. Do not use it again. Discard it. Be careful not to injure yourself with the sharp end of the dental tool!



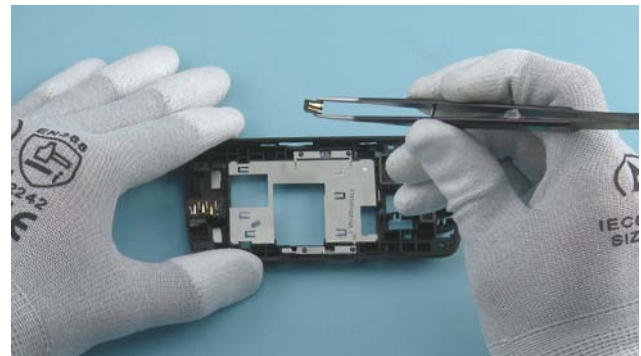
39) Use the dental tool to lever up the FLASH PWB.



40) Remove the FLASH PWB with the tweezers.



41) Use the dental tool to lever up the DC JACK.



42) Remove the DC JACK with the tweezers.



43) Use the dental tool to lever up the AV JACK.



44) Remove the AV JACK with the tweezers.

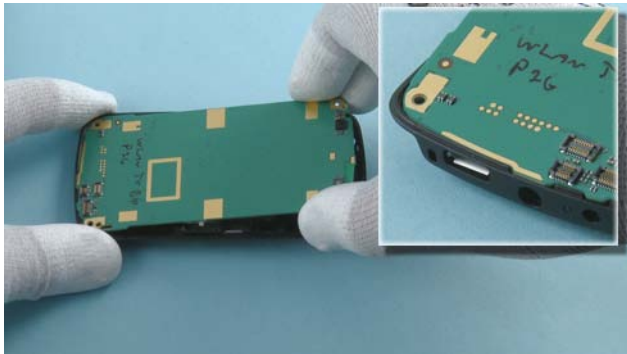


45) Nokia C6-01 disassembly is now complete.

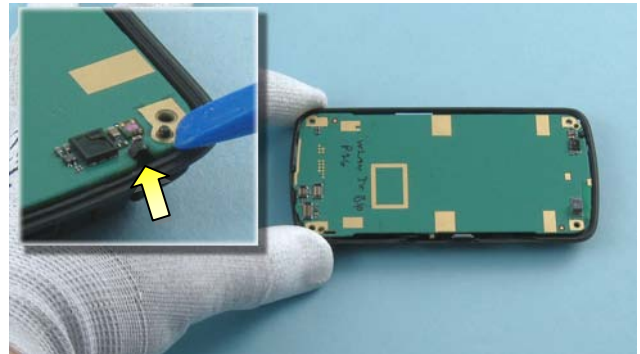
-END OF DISASSEMBLY-



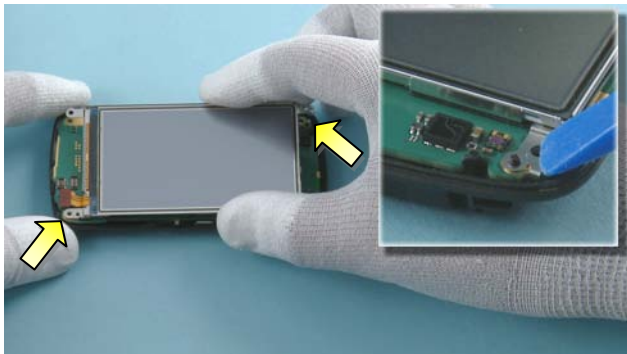
## 10. ASSEMBLY HINTS



1) Place the bottom part of the ENGINE BOARD to the B-COVER. Make sure that the USB connector is correctly placed.



2) Lower down the top part of the ENGINE BOARD. Make sure that the shown clip is attached and unharmed.



3) Place the DISPLAY on top of the ENGINE BOARD. Make sure that the shown guiding pins are placed correctly.



4) Connect the DISPLAY connector with the SS-93.



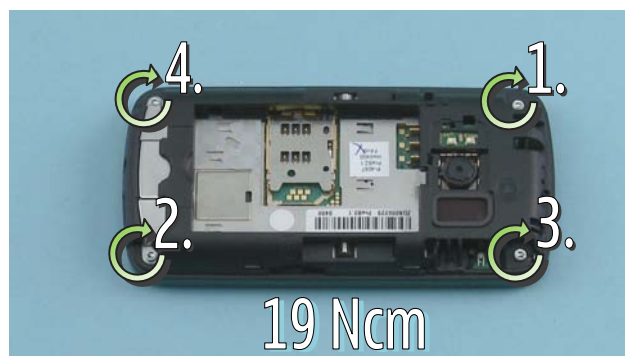
5) Hold the A-COVER as shown and carefully connect the A-COVER connector with the SS-93. Be careful not to damage the flex, the connector or any nearby components!



6) Connect also the KEYMAT connector with the SS-93. Be careful not to damage the flex, the connector or any nearby components!



7) Place the LOCK KEY with the tweezers. Make sure that the LOCK KEY is correctly placed.



8) Tighten the four TORX+ size 6 screws to the torque of 19 Ncm in the order shown.



9) Place the ANTENNA directly on top of the B-COVER. Press the ANTENNA carefully so that the two shown guiding pins are attached.

11. SOLDER COMPONENTS

