

SERVICE MANUAL

Level 1&2

NOKIA

7390

RM-140



Transceiver characteristics:

Series: S40

Band: Tri-band phone for GSM 900/1800/1900MHz & WCDMA 2100

Camera:

-Main Camera: 3Mpix with autofocus

- Second Camera: VGA camera

Display: Napa dual display Main:

1st: QVGA (240x320) 2.2" 16M colors

2nd: 128x160, 262k colours

Bluetooth

IRDA

FM radio

Memory: microSD™

Connector: Mini USB

Transceiver with BP-5M Li-Ion battery pack

| Talk time | Standby | Note |
|---|---------------|-------------------------------|
| up to 4h GSM up to 2 1/2h WCDMA up to 1 1/2h video call | up to 11 days | Depends on network parameters |

Environmental characteristics:

- Lead-free soldered

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CHANGE HISTORY

| Status | Version No. | Date | Comments |
|----------|-------------|-------------|--|
| Draft | 0.1 | 13.Okt.2006 | Initial draft |
| Approved | 1.0 | 24.Okt.2006 | Approval |
| Approved | 2.0 | 31.Okt.2006 | Exploded- and Spare Parts overview updated (Naming I005 and I006 interchanged) |
| | | | |

1. INTRODUCTION

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:

<mailto:cc-ts-rc.documentation@nokia.com>

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

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.



Electrostatic discharge can easily damage the sensitive components of electronic products. Therefore every Service Supplier has to take care of all precautions, which are mentioned in the service level related "Service Partner Requirements", available on NOKIA Online. Also see ESD Protection Requirements in this Service Manual.

2. GENERAL REPAIR INFORMATION

In this section the technician will get some general hints how to carry out repairs:

- To familiarize oneself with NOKIA product read the tutorials or user guide on www.nokia.com -->Support--> Phones, by selecting the Phone Model.
 - Before starting the repair you must take care of ESD precautions like being in your ESD Protected Area and connecting your wristband.
 - Use gloves to avoid corrosion and fingerprints.
 - Protect windows and displays with a film to avoid dust and scratches.
 - When cleaning the LCD Module any lint-free cloth can be used (e.g. Micro-Fibre cloth).
 - When cleaning the pads you have to use a soft cloth/ESD brush and Isopropanol. It is not allowed to use a glass fiber pencil because it scratches the surface and will lead later on to corrosion.
 - Mechanical parts (except shielding lids and bent parts), which didn't repair the failure, can be reused, if they are not soldered.
 - When removing the shielding lids make sure to replace them with new ones, otherwise the high-frequency leakage can have an influence on the device.
 - Always use original NOKIA spare parts.
 - Check the soldering joints of the parts, which are concerned regarding the indicated error (e.g. soldered connectors or switches) and resolder them if necessary (Level 2 only).
 - Remove redundant soldering flux after repair.
 - Meet the torque requirements when assembling the unit (see also the document "torques for transceiver assembly" on NOKIA Partner Web Site/NOKIA Online).
 - Always use your own equipment for testing where you are sure that it works. E.g. if the customer complains about charger function, please test the phone with your own charger to be sure if phone or charger causes the malfunction.
 - A SIM card is needed for all GoNoGo tests.
 - When doing the fault log entries, always note the Item code, which caused the malfunction. Also, fill in the appropriate part code from the assembly, if needed.
 - Please be aware that some malfunctions could be software related and solved by an update.
-
- There are several documents available on NOL, which have to be followed:
 - First, take care for the latest content pages of Service Bulletins, which are always available for each folder on NOKIA Online. This is also important to recognize, if existing documents have become invalid.
 - The service level indicator at the bottom of each document tells the appropriate destination.

Downloads > Support Library >

1. Instructions
 2. General Service Bulletins
 3. Product related documents
 4. Spare Part Service Bulletins
 5. Service Tools Service Bulletins
 6. Common Software Service Bulletins
- etc,...

Use General SB-217 as a reference or overview.

Please also check NOKIA Online (NOL) for latest news and files on a regular basis.

3. PATHFINDER FOR WORKSHOP STAFF

This is the NOL page (NOKIA Online) which is currently available in Europa, Middle East and Africa only!

In addition to the information in this Service Manual, there are several instructions and information, which have to be followed. Main documentation database is [NOKIA Online](#) with the purpose of serving different multimedia content, like video clips or interactive tutorials.

It is mandatory to watch for newest technical and organizational information on a daily basis to be updated as required (see **“Latest files in Support Library”**). Every new information has to be processed and implemented as soon as possible.

When logged into NOL you can also find needed information in different folder like:

Support Library



- Service Manuals
- Service Bulletins
- Software
- Repair Information

Level 1&2 e-learning (former NOKIA CarePoint) on NOKIA Online

| | | |
|---|--|---|
| Former NOKIA CarePoint content, such as | <ul style="list-style-type: none"> • Online Troubleshooting • Product information • Videos – Disassembly/Assembly | can be found on NOKIA Online |
| | | <p>NOKIA Online</p> <p>↓</p> <p>Care Services</p> <p>↓</p> <p>Training</p> <p>↓</p> <p>Phone Models</p> |

Level 1&2 e-learning courses offer a quick overview of the NOKIA phone and support for how to repair and use the phone:

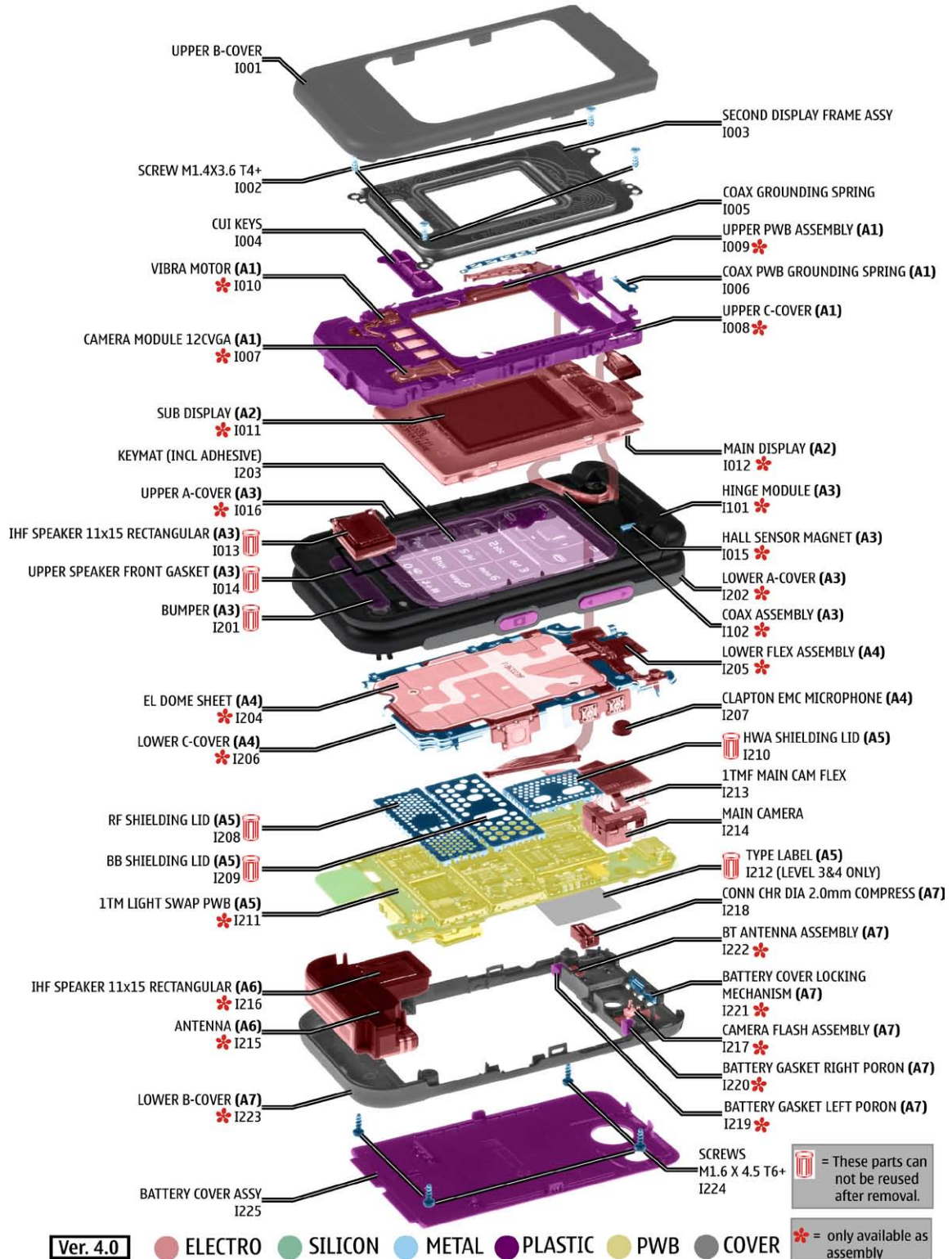
| | | |
|---|--|--|
| <p>Overview & Guides Basic information about the phone, features and technologies</p> | <p>Disassembly & Assembly Instructions how to disassemble and assemble the phone</p> | <p>Troubleshooting Step-by-step instructions on how to locate and repair the most common problems with the phone</p> |
|---|--|--|

To reduce the server traffic it is recommended to download newest version of huge files like videos, Phoenix packages or Service Manuals only once and distribute it internally for further use.

4. EXPLODED VIEW AND COMPONENT DISPOSAL

Recommendation for the ecologically friendly disposal of components. Colorized components show the different categories. See corresponding ITEM/CIRCUIT REF in the Spare Parts Service Bulletins on NOL.

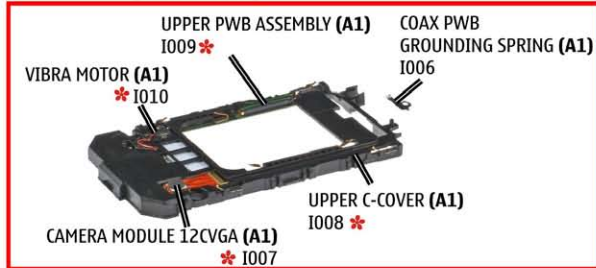
7390 RM-140 Exploded view



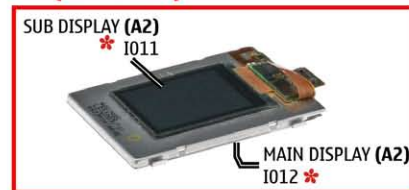
5. SPARE PARTS OVERVIEW

7390 RM-140 Spare Parts overview

**A1=UPPER C-COVER ASSY
(I006-I010)**



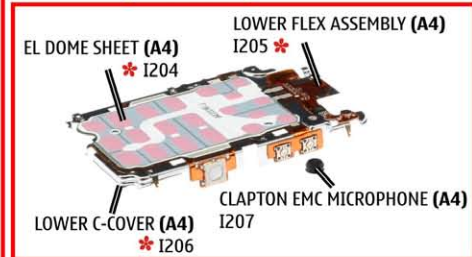
**A2=LCD AM QVGA+128x160 COF
16Mco Napa Sh
(I011-I012)**



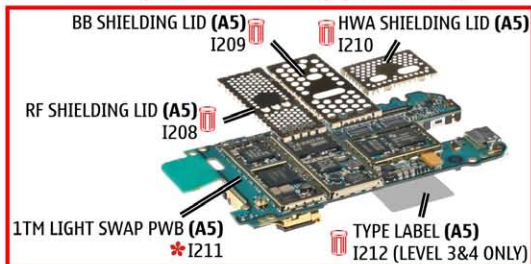
**A3=A-COVER ASSY
(I013-I016, I101-I102, I201-I202)**



**A4=LOWER C-OVER ASSY
(I204-I207)**



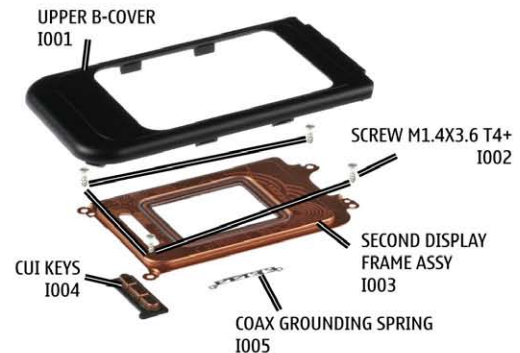
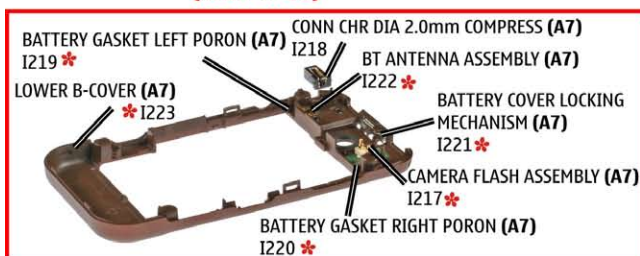
**A5=1TM LIGHT SWAP PACKAGE
(LEVEL 3&4 ONLY) (I208-I212)**



**A6=ANTENNA ASSY
(I215-I216)**



**A7=LOWER B-COVER ASSY
(I217-I223)**



= These parts can not be reused after removal.

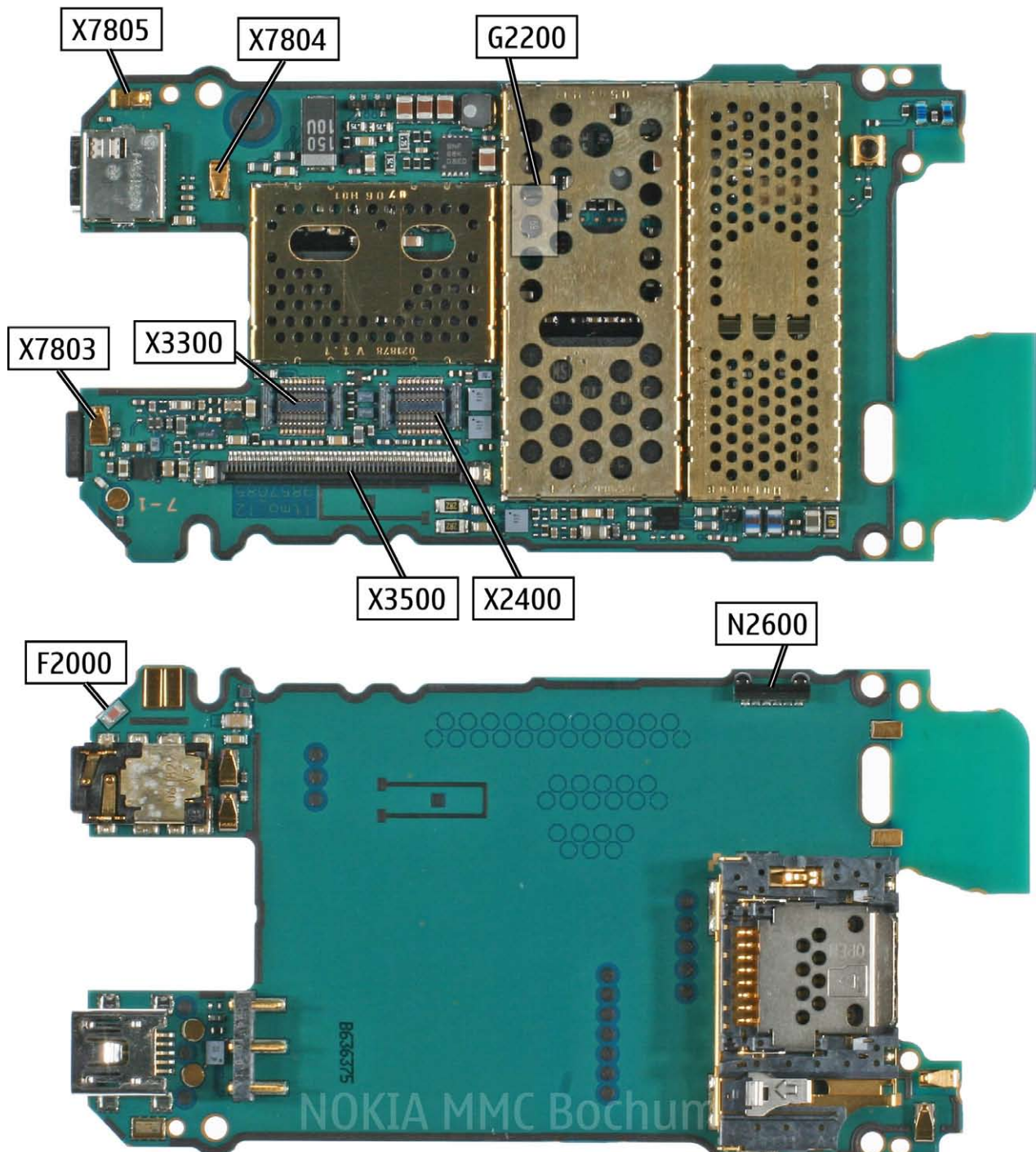
= only available as assembly

Ver. 2.0

6. LEVEL 2 SOLDER COMPONENTS

7390 RM-140 Level 2 solder components

Solder components only for LEVEL 2



7. NOKIA ONLINE (NOL)

NOL is the database where you can find the latest corresponding Service Bulletins (spare parts, SWAP units and service tools).

This will ensure, that you are using up-to-date order codes only.

Therefore Service Bulletins have to be checked from NOL on daily basis.

[Home](#) | [User](#) | [Sitemap](#) | [Log Out](#)

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Files for Service level 1 Date:16.02.2005

- XXXXXXXXXXXXXXXXXXXX
- XXXXXXXXXXXXXXXXXXXX
- XXXXXXXXXXXXXXXXXXXX

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8. SERVICE TOOLS

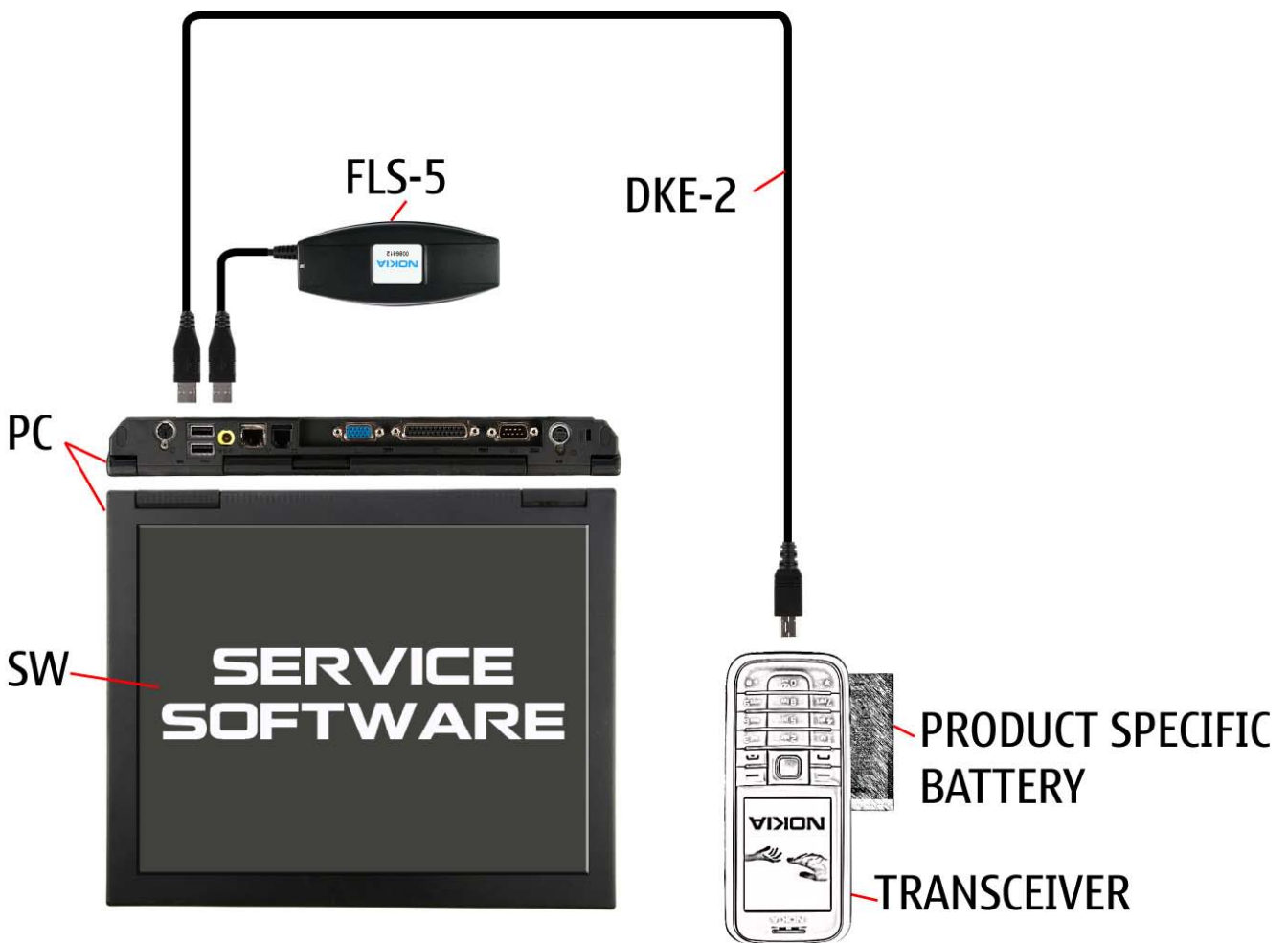
| | |
|--|--|
|  | <p>FLS-5 Dongle and flash device incorporated into one package, developed specifically for POS use.</p> |
|  | <p>ACF-8 Universal Power Supply is used to power FLS-5.</p> |
|  | <p>Travel Charger AC-4 Small and lightweight charger for fast charging of your phone battery.</p> |
| <p>BP-5M</p>  | <p>Internal Battery -BP-5M Inserted under the back cover, this Li-Ion battery provides power in a lightweight package.</p> |
| <p>SS-81</p>  | <p>SS-81 Camera removal tool.</p> |
|  | <p>DKE-2 Service Cable to connect the PC with the mini USB connector.</p> |

| | |
|--|--|
|  | <p>RJ-112 Soldering Jig</p> |
|  | <p>Lead-free Solder Wire Mandatory for lead-free products (Level 2 only).</p> |
|  | <p>0772040 NMP Standard Toolkit (V2)</p> <p>For more informations refer to the Service Bulletin (SB-011) on NOKIA Online.</p> <p>Supplier or manufacturer contacts for tool re-order can be found in “Recommended service equipment” document on NOKIA Online.</p> |

9. SW-UPDATE

Flash Concept – (Point of Sales)

To use FLS-5 Flash Dongle you have to follow the user guide inside the sales package. Please check always for the latest version of flash software, which is available on [NOKIA Online](#).



10. UPPER BLOCK DISASSEMBLY INSTRUCTION



1. Needed tools: a Torx driver, a torque driver with a bit holder, a Torx plus size 4 bit, the SS-93, metal tweezers, the SS-111 connector opening tool and the SRT-6.



2. Always cover all sensitive surfaces with a protective film.



3. Open and remove the BATTERY COVER. If a battery is inserted, take it out.



4. Protect the window with the film.



5. To separate the covers of the upper block begin with the SRT-6 on the shown side.



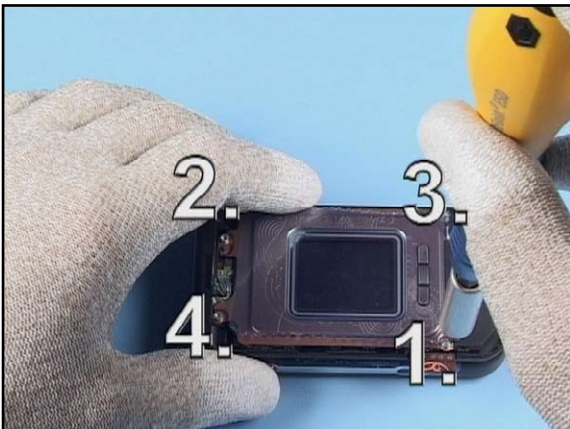
6. Gently, slide the opening tool along the gap to open all snaps of the cover.



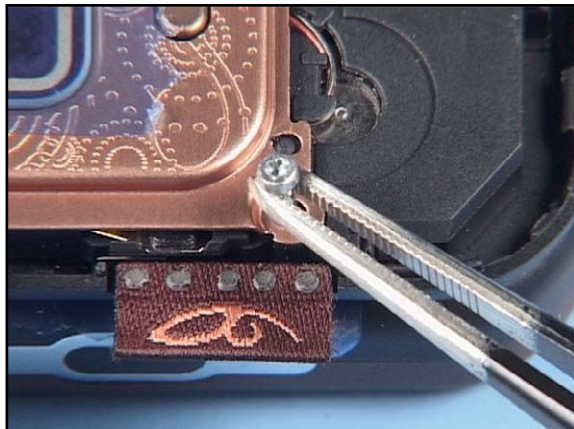
7. Do the same on the shown side.



8. Now, remove the UPPER B-COVER.



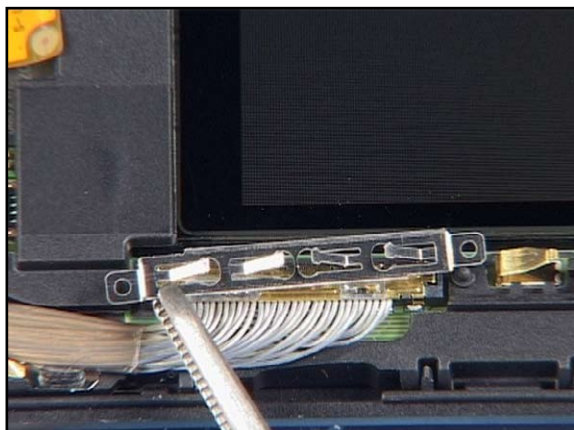
9. Locate the (4) M1.4x3.6 Torx Plus 4IP screws and unscrew them in the order shown.



10. Remove the screws.



11. Remove the SECOND DISPLAY FRAME ASSY.



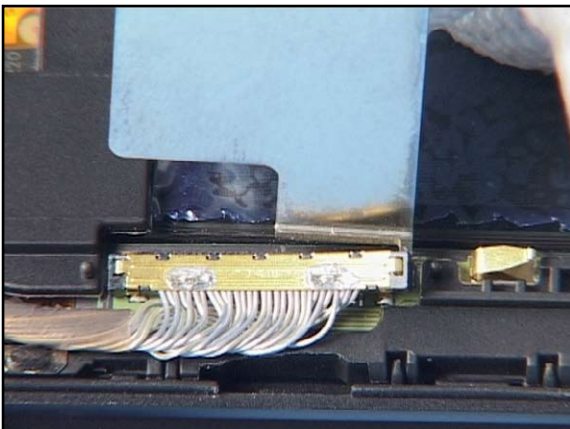
12. Use tweezers to remove COAX GROUNDING SPRING.



13. Remove the CUI KEYS.



14. Cover the display surface with the protective film.



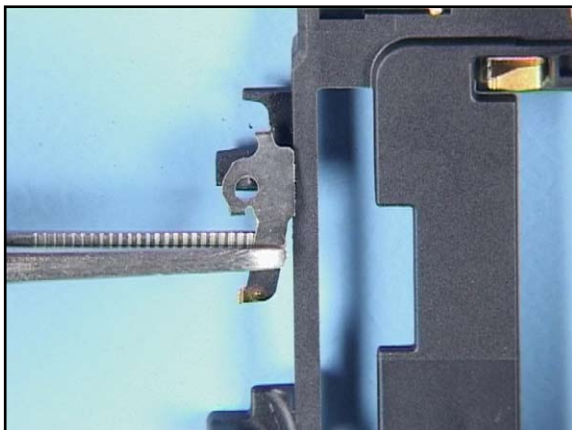
15. Be very careful, when opening the COAX CONNECTOR . Start on the shown side and gently raise the connector with opening tool.



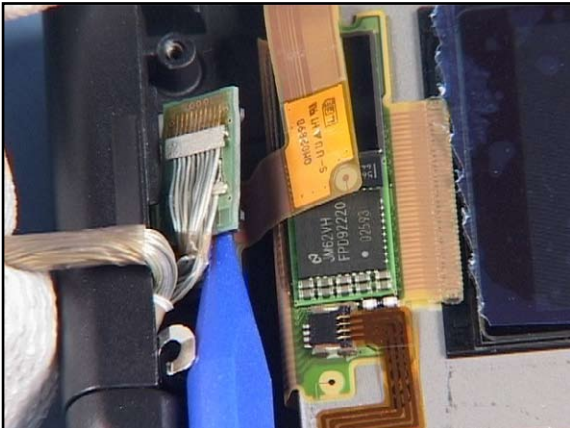
16. Unlock the UPPER C-COVER ASSY using the SS-93...



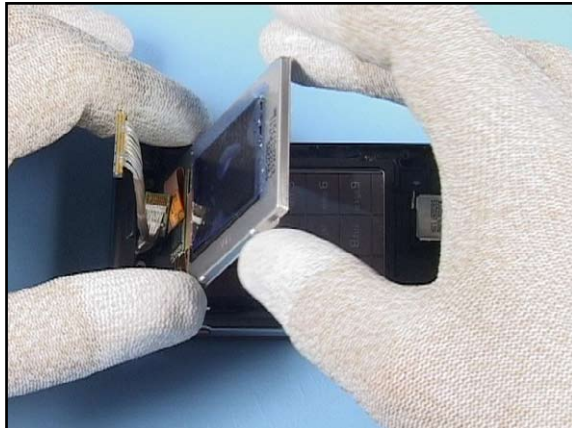
17. ...and remove it from the A-COVER ASSY.



18. Now, the COAX PWB GROUNDING SPRING can be removed.



19. Using SS-93, gently open the display connector.



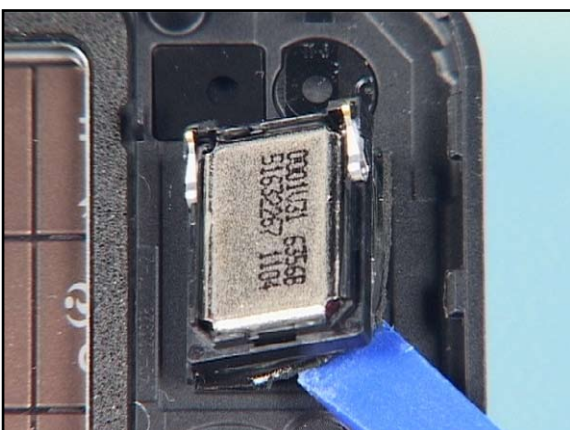
20. Lift the display assembly as shown...



21. ...and, using SS-93, carefully pull out the display connector from the UPPER A-COVER.



22. Cover the display surface with the protective film.



23. Remove the IHF SPEAKER, first breaking the adhesive seal and then lifting it from position and discard it.

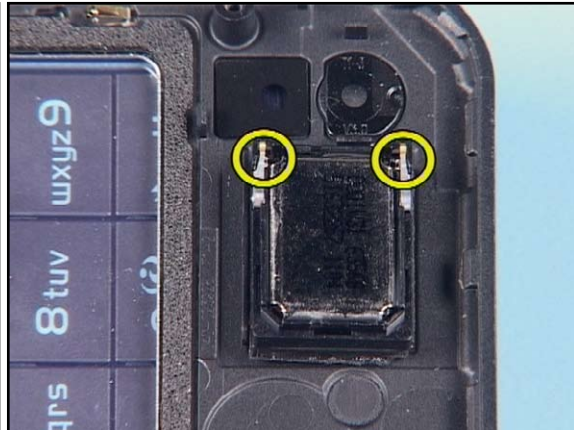


24. The disassembly procedure is now completed.

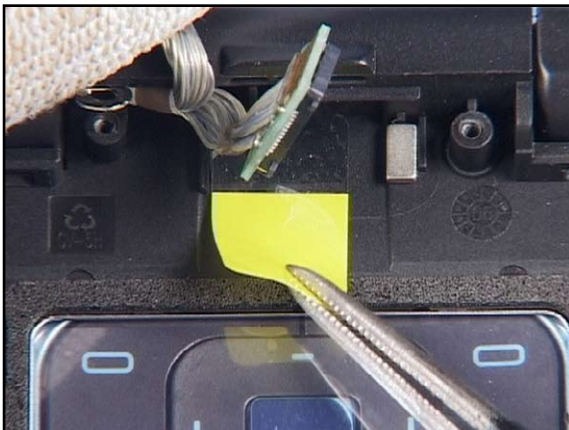
11. UPPER BLOCK ASSEMBLY INSTRUCTION



1. Always use a new IHF SPEAKER if once removed.



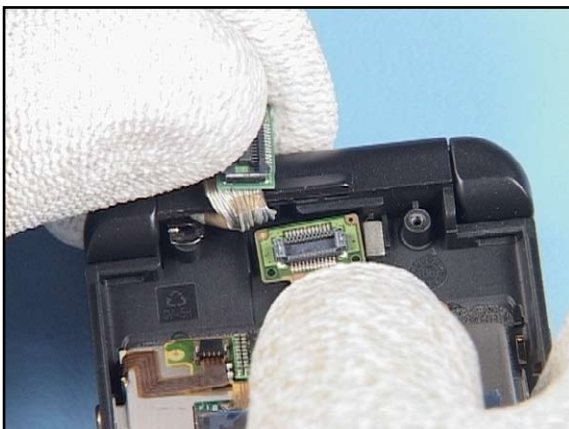
2. Pay attention to the right position of the IHF SPEAKER when assembling. Do not touch the spring contacts.



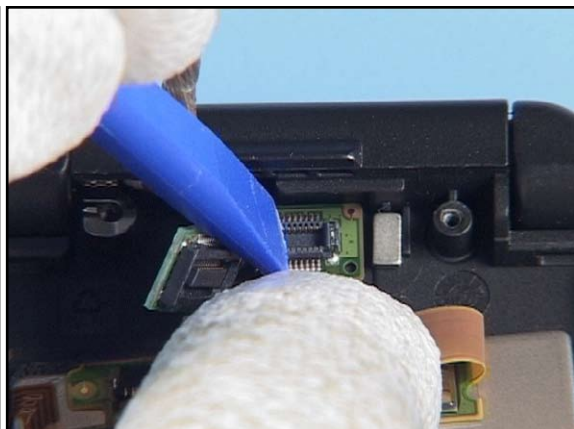
3. When using a new A-COVER ASSY remove the adhesive seal protection film.



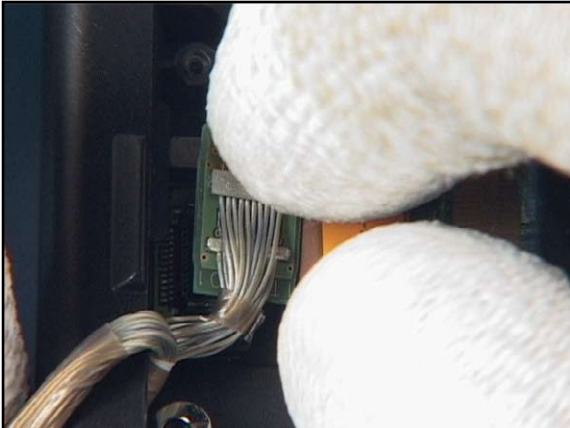
4. Remove the protection film...



5. ...and maneuver the display connector exactly into place over the adhesive tape.



6. And secure it by pressing it gently.



7. Close the display connector.



8. Fit the COAX PWB GROUNDING SPRING to the UPPER C-COVER.



9. Now, remove the protection film.



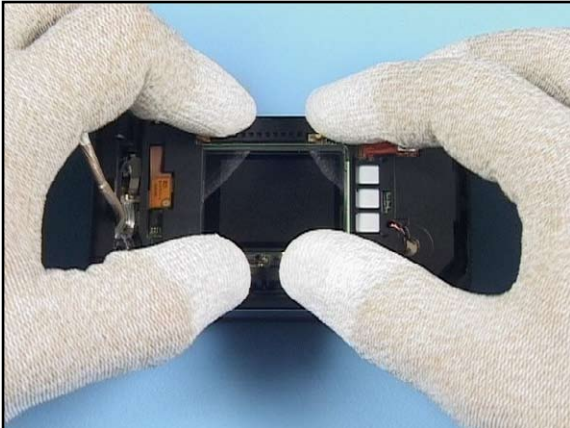
10. Lift the metal tab as shown...



11. Fit the UPPER C-COVER ASSY.



12. Pay attention to the right position of the metal tab. It must be placed over the screw hole of the UPPER C-COVER.



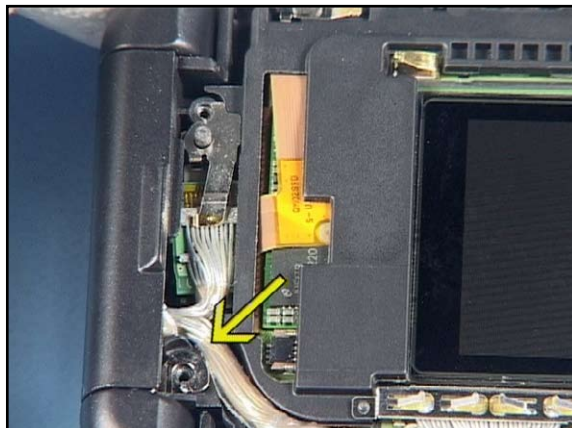
13. Secure the UPPER C-COVER ASSY by pressing it into its position.



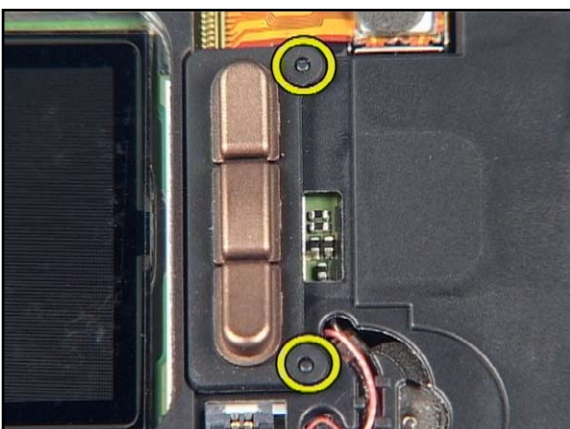
14. After covering the display, gently close the COAX CONNECTOR.



15. Place the COAX GROUNDING SPRING over the connector.



16. Check the right position of the COAX CABLE.



17. Fit the CUI KEYS and check the right position.



18. Align the SECOND DISPLAY FRAME ASSY with the UPPER C-COVER.



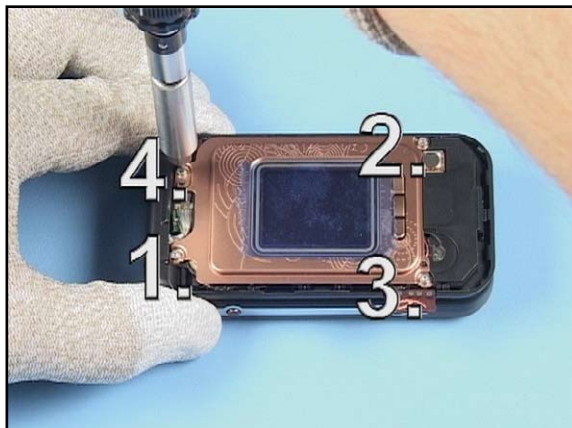
19. Insert the screws.



20. Set the torque driver to the torque of 15 Newton centimeter.



21. To avoid damaging the threads first turn the screws slightly left to engage the threads and then tighten them lightly.



22. Tighten the screws to the correct torque in the order shown.

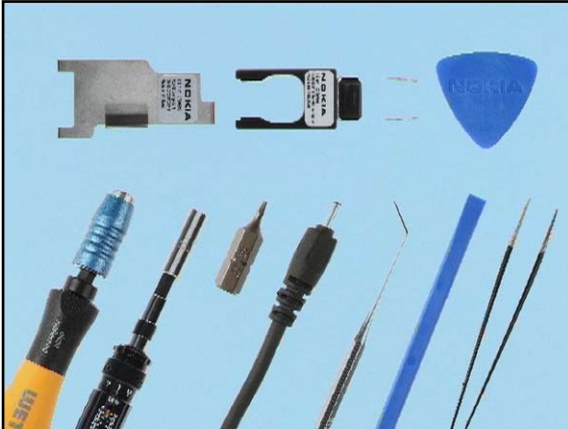


23. Fit the UPPER B-COVER...



24. ...and secure it by squeezing the covers.

12. LOWER BLOCK DISASSEMBLY INSTRUCTIONS



1. Needed tools: a Torx driver, a torque driver with a bit holder, a Torx plus size 6 bit, a DC-plug, a dental pick, the SS-93, metal tweezers, the SS-111 connector opening tool, the SS-81 camera removal tool and the SRT-6.



2. Open and remove the BATTERY COVER. If a battery is inserted, take it out.



3 Cover the sensitive surfaces with a protective film.



4. Use the SS-93 to unlock the KEYMAT start on the shown side.



5. Remove the KEYMAT from the LOWER A-COVER.



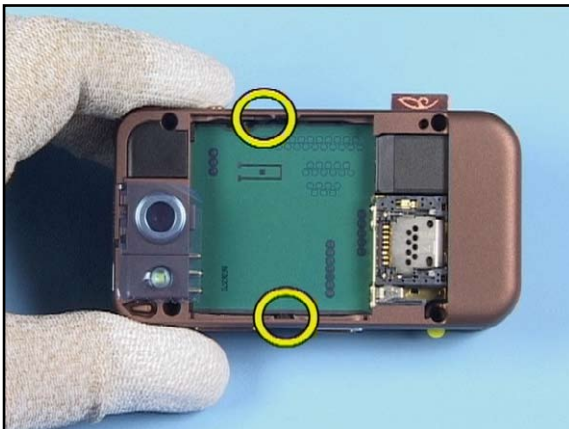
6. Unscrew the screws in the order shown.



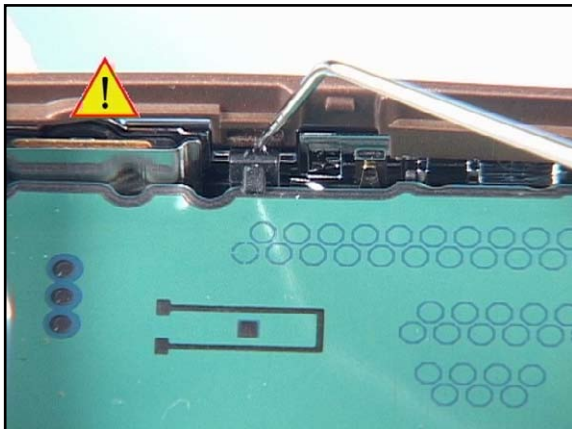
7. Remove the SCREWS.



8. Start to release the LOWER B-COVER by opening the snaps on the shown side.



9. The LOWER B-COVER is additionally secured with two snaps to the LOWER A-COVER.



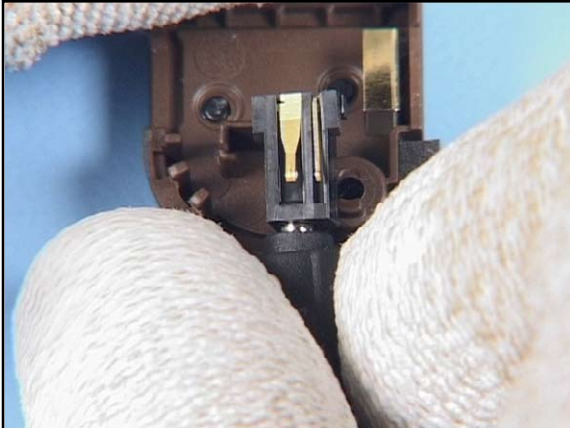
10. Gently, open the snaps on both sides with the dental pick.



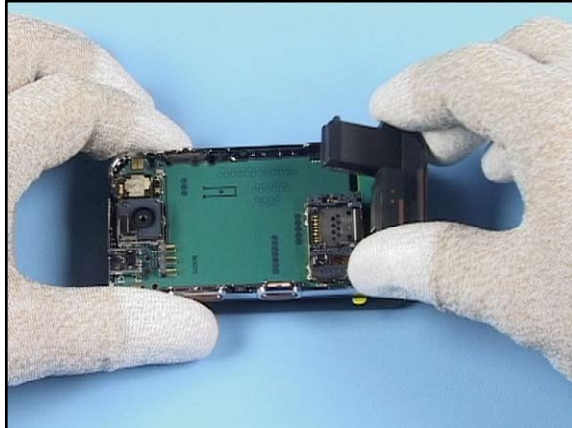
11. Lift a bit the LOWER B-COVER, ...



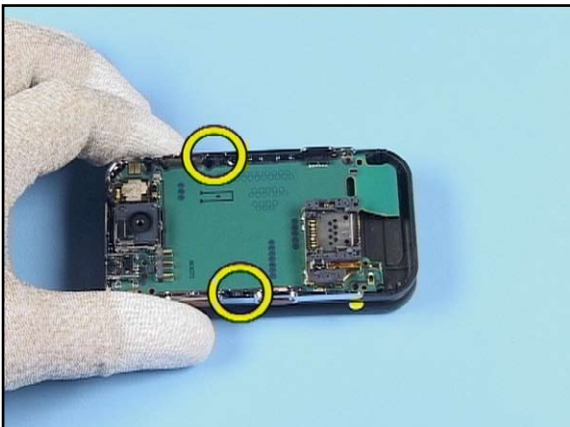
12. ...unlock the remaining snaps and remove the LOWER B-COVER.



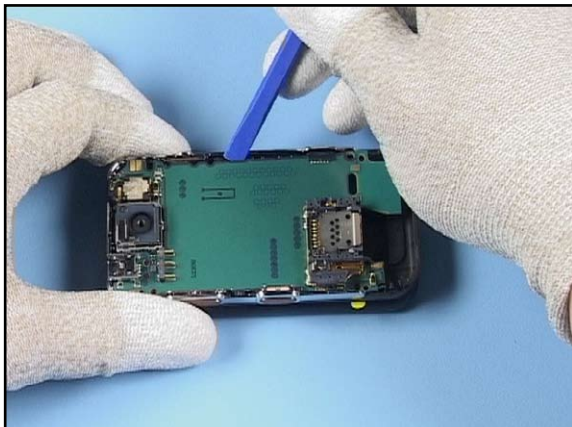
13. Use the DC-plug to remove the DC-JACK.



14. Remove the ANTENNA ASSY.



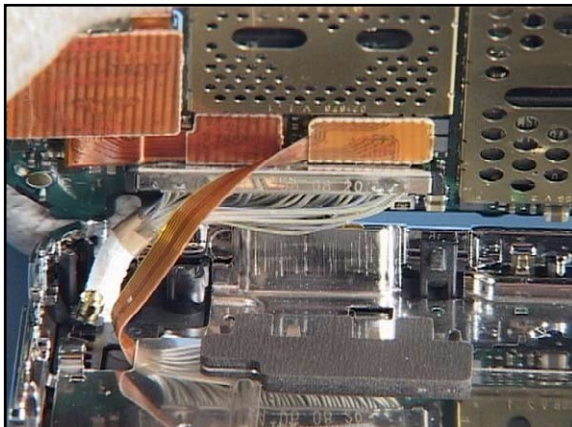
15. The PWB is secured with two snaps to the LOWER A-COVER.



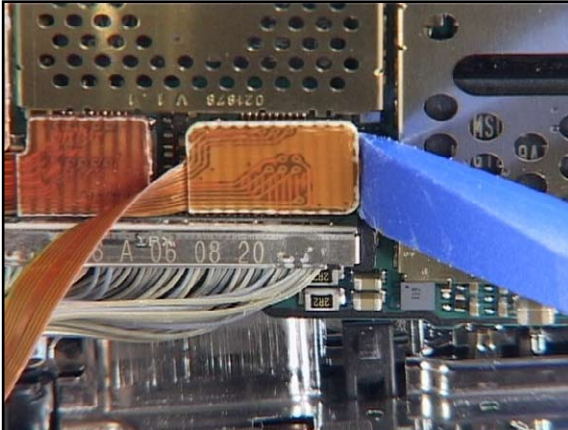
16. Release the PWB...



17. and very gently, open it as shown.



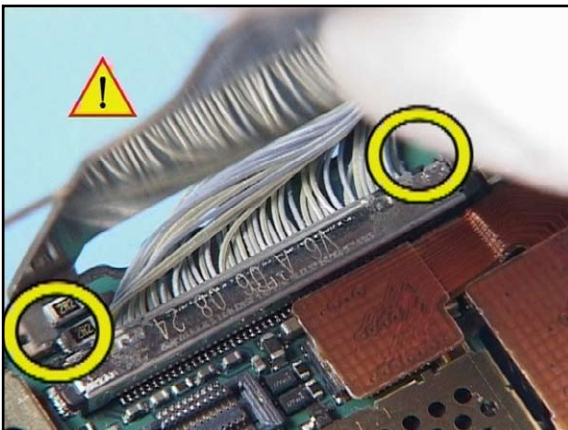
18. Take a special care the on flexible cords.



19. First open the connector of the LOWER FLEX ASSEMBLY...



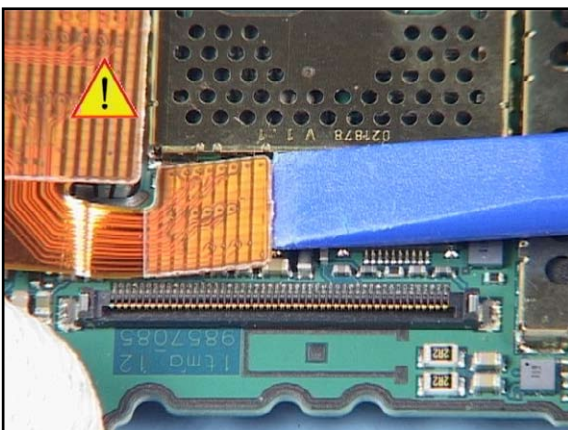
20. ...and than gently place the PWB on the table.



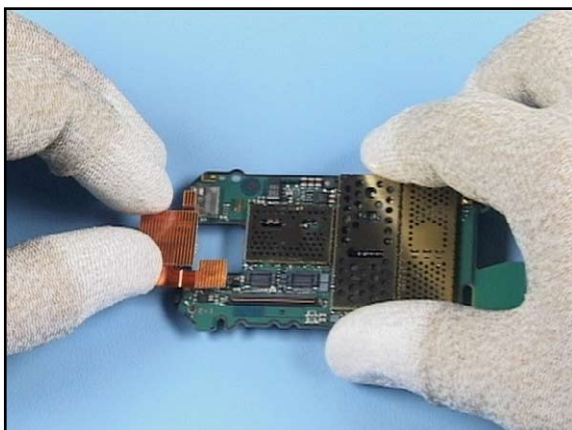
21. Insert the SS-111 below the flanks of the COAX CONNECTOR. Do not touch surrounding components.



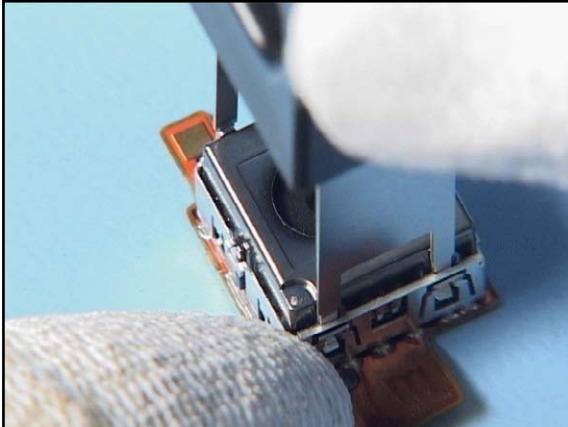
22. Very gently lever the COAX CONNECTOR.



23. Disconnect the MAIN CAMERA with SS-93 paying attention on fragile components.



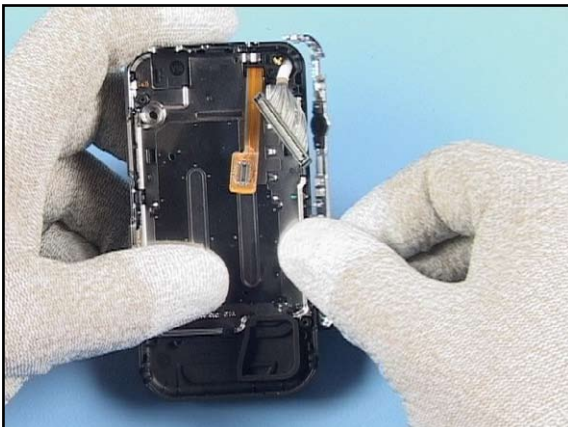
24. Take out the MAIN CAMERA from the PWB.



25. Insert the SS-81 into the CAMERA socket until the snaps open and remove the MAIN CAMERA from the CAMERA FLEX CONNECTOR.



26. Remove the MICROPHONE.



27. Before removing the LOWER C-COVER ASSEMBLY, first remove the shown decoration part. Be careful as this is no a spare part.



28. Bend a bit the LOWER A-COVER to release the metal clips of the LOWER C-COVER.



29. and remove the LOWER C-COVER ASSEMBLY.

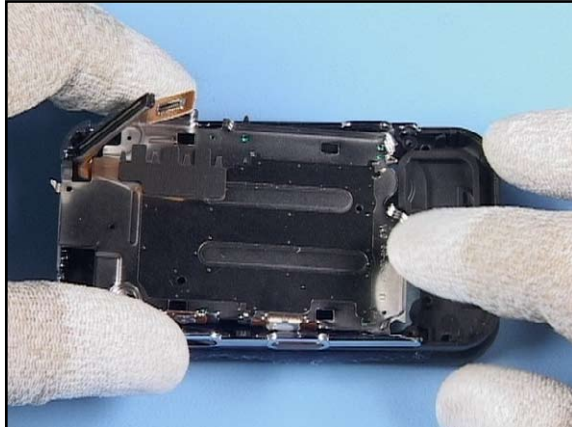


30. The disassembly procedure is now finished.

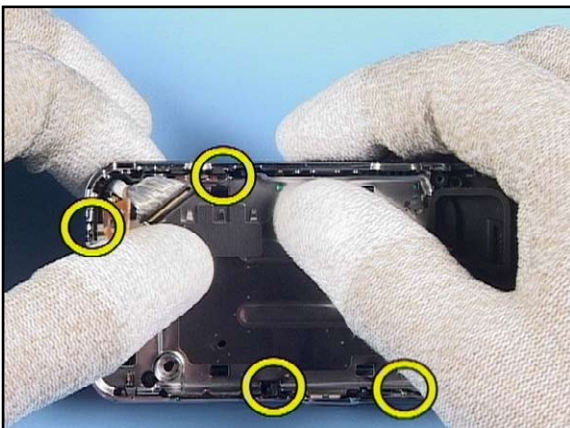
13. LOWER BLOCK ASSEMBLY INSTRUCTION



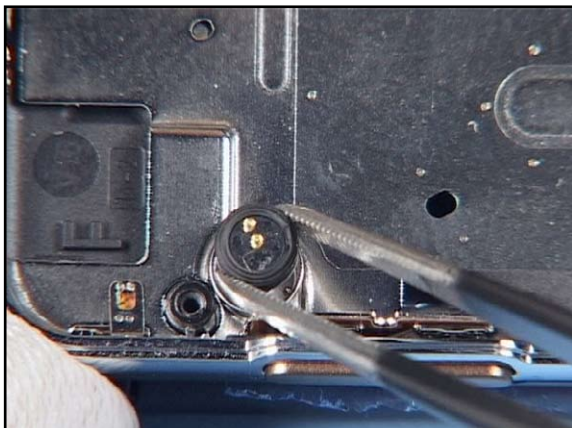
1. Gently fit the decoration part.



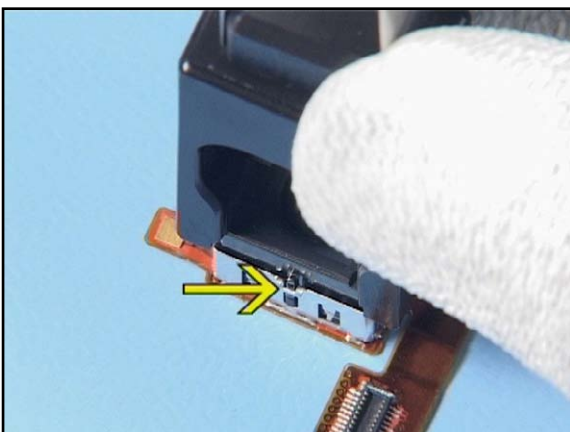
2. Place the LOWER C-COVER into the LOWER A-COVER beginning on the lower side.



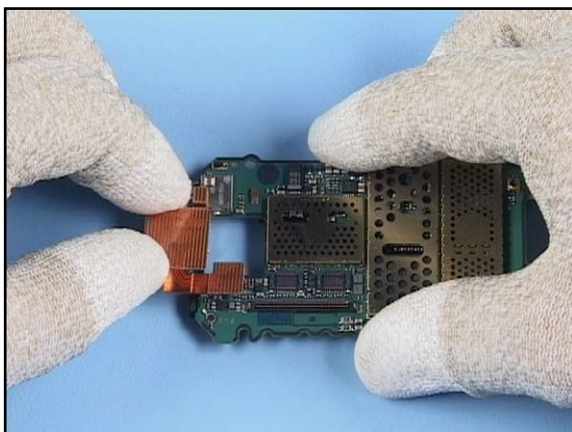
3. Secure the LOWER C-COVER ASSY by pressing it into its position.



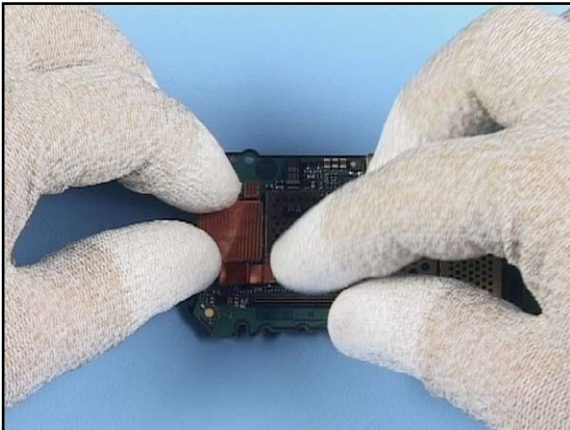
4. Insert the MICROPHONE avoiding to bend the spring contacts.



5. Insert the MAIN CAMERA into its socket paying attention to the right position of the guide.



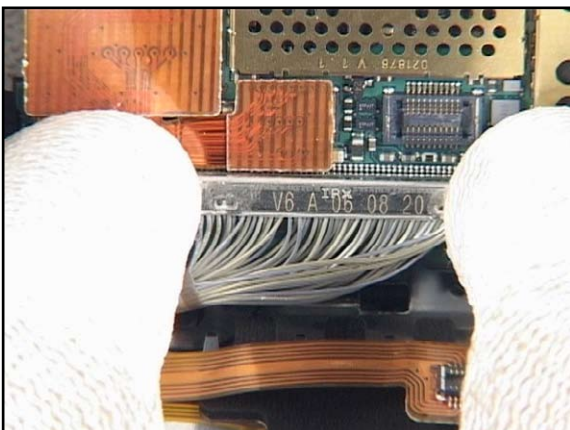
6. Append the MAIN CAMERA assembly to the PWB.



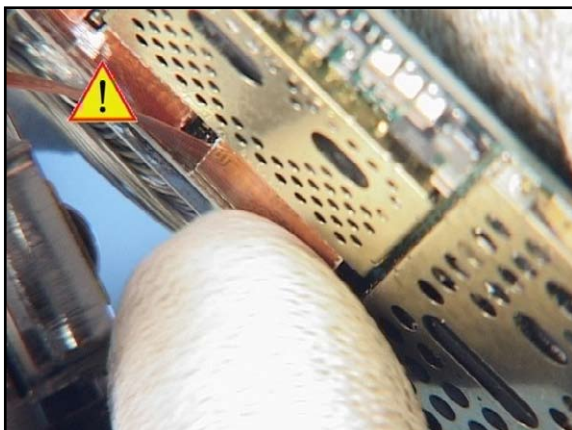
7. Close the MAIN CAMERA connector.



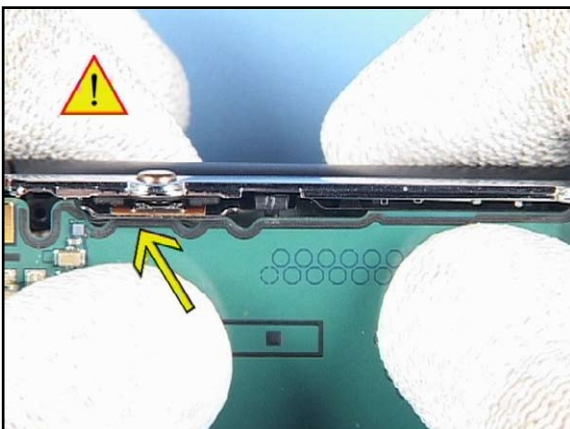
8. Lift up the PWB and hold it as shown...



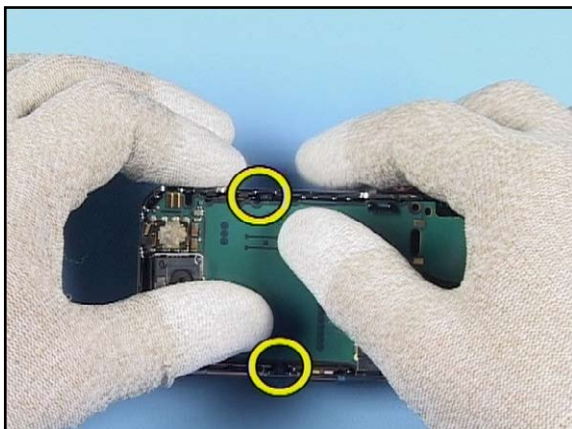
9. Align the COAX CONNECTOR with the PWB CONNECTOR and close it carefully.



10. Connect the LOWER FLEX CONNECTOR to the PWB. Avoid to strain at the cords.



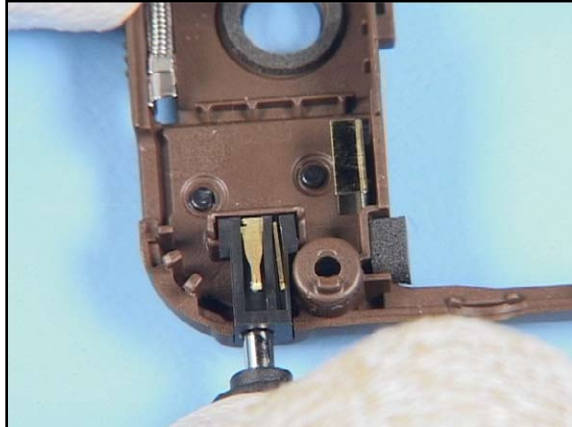
11. Be sure that the cords are not squeezed.



12. Now, secure the PWB into its position.



13. Fit the ANTENNA ASSY.



14. Insert the DC-Jack paying attention to the spring contacts.



15. Align the LOWER B-COVER with the LOWER A-COVER...



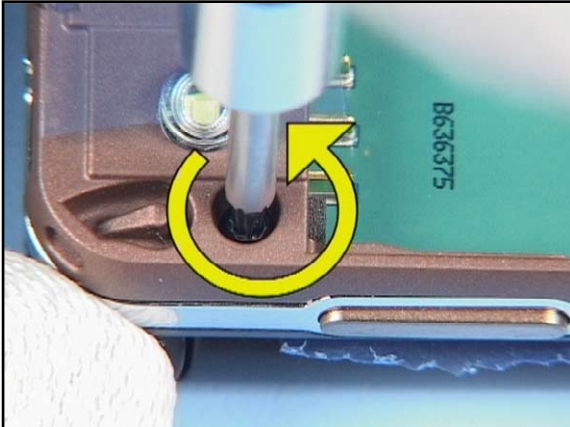
16. ... and gently press the covers together.



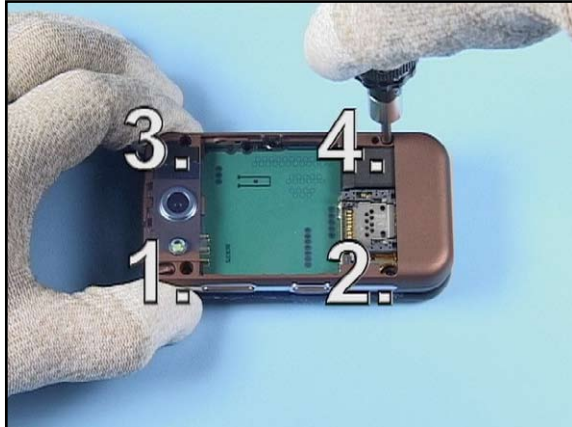
17. Insert the screws.



18. Set the torque driver to the torque of 20 Newton centimeter.



19. To avoid damaging the threads first turn the screws slightly left to engage the threads and then tighten them lightly.



20. Tighten the screws to the correct torque in the order shown.



21. Fit the BATTERY COVER.



22. Place the KEYMAT onto the LOWER A-COVER...















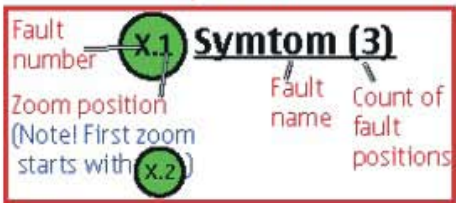


23. ...and secure it into its position.

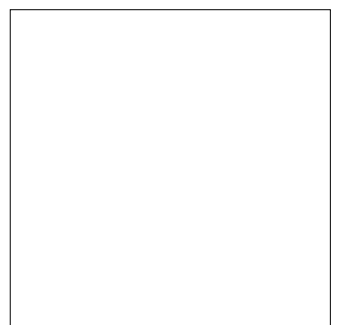
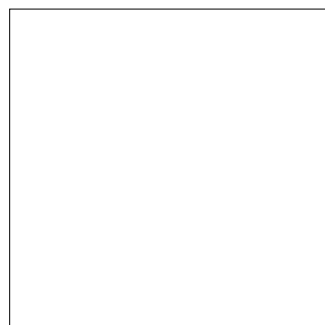
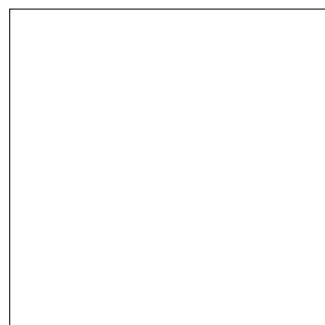
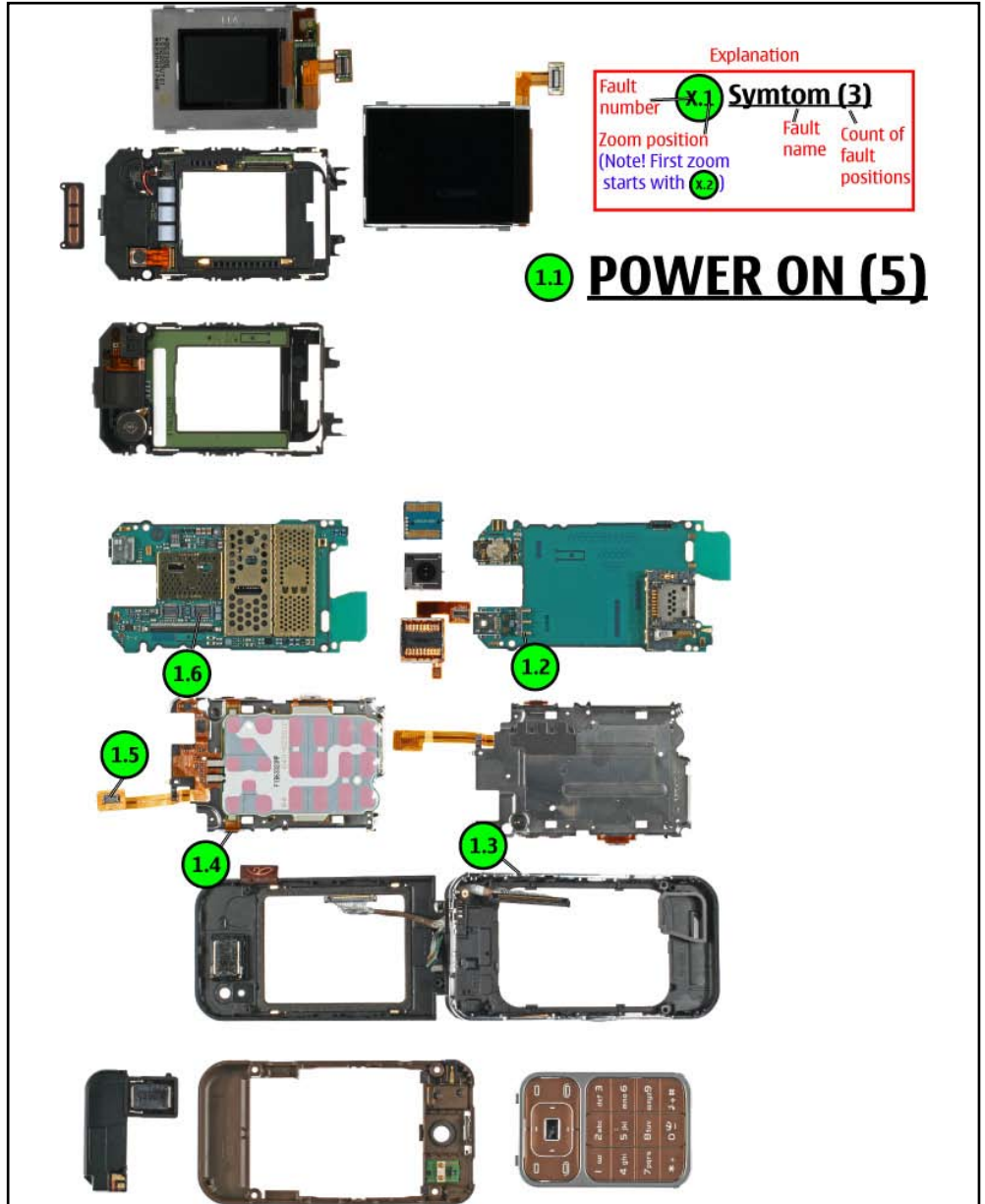
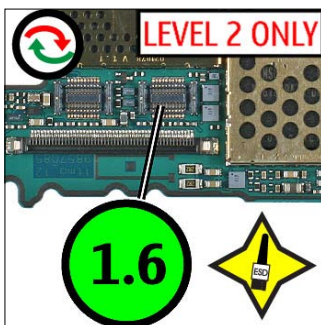
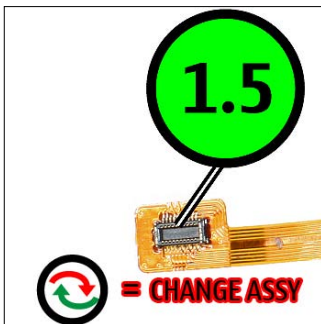
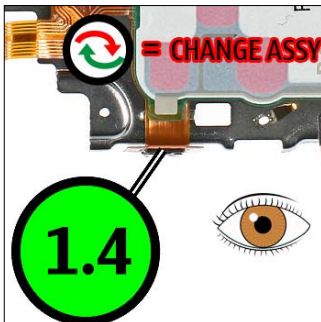
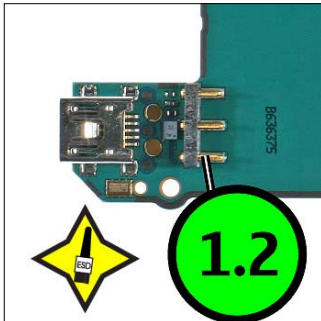


24. Using a new A-COVER ASSY fit the new BUMPER.

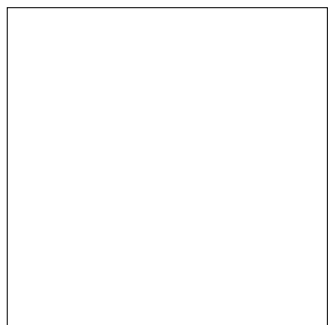
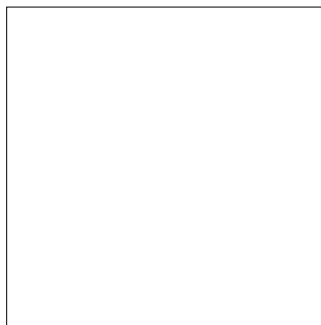
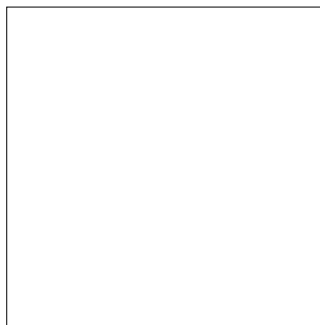
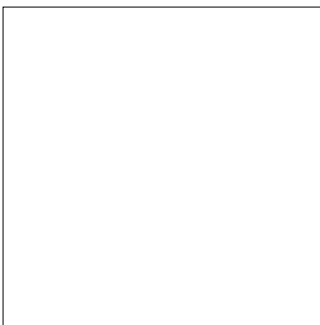
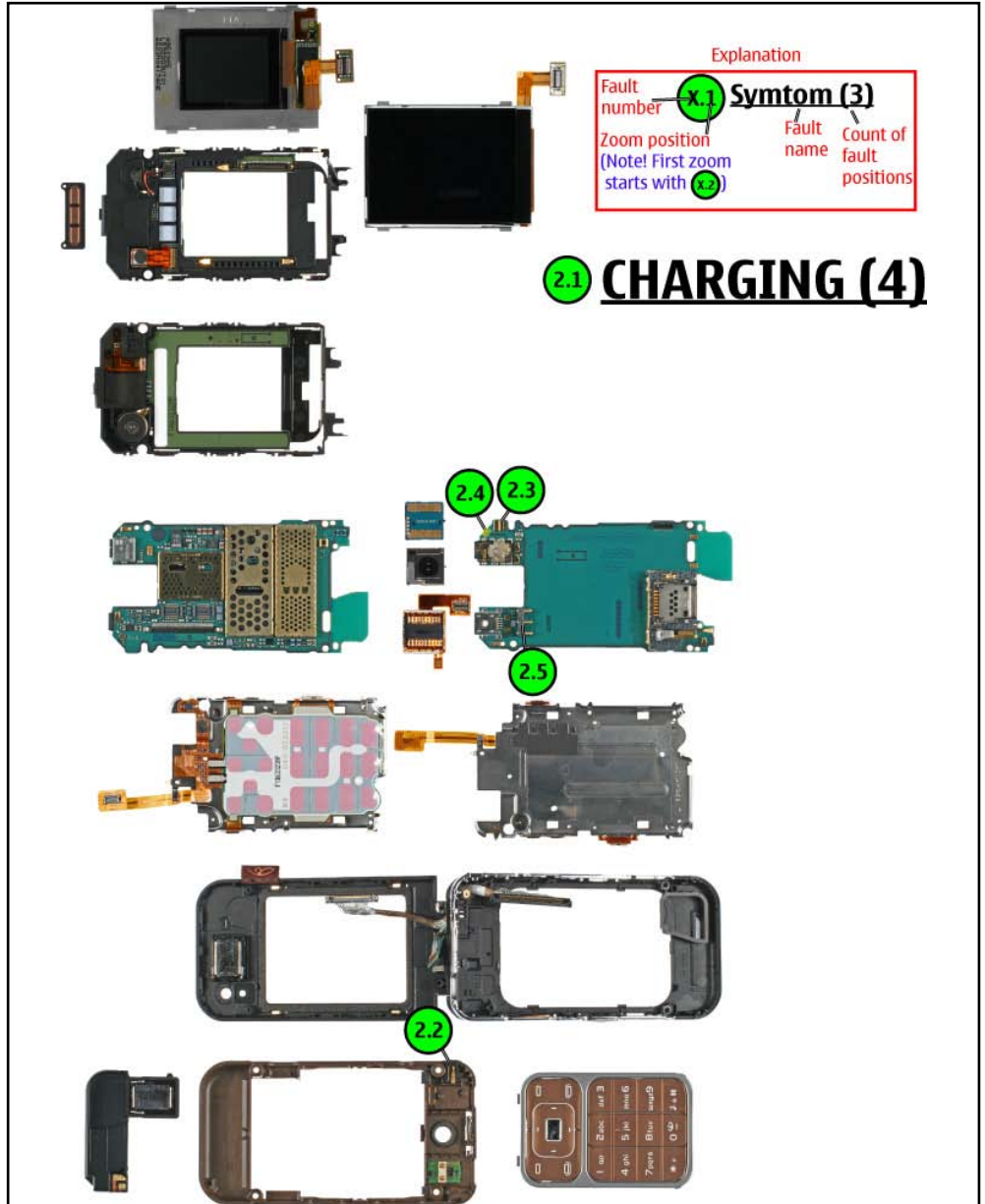
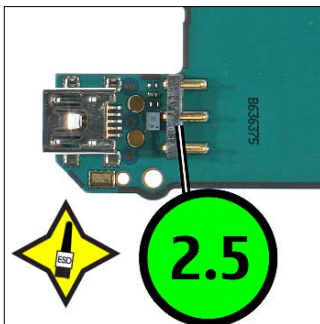
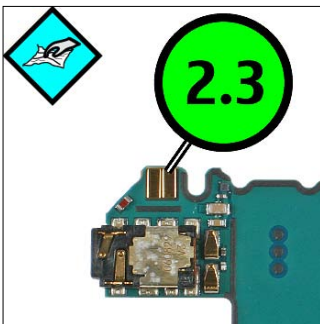
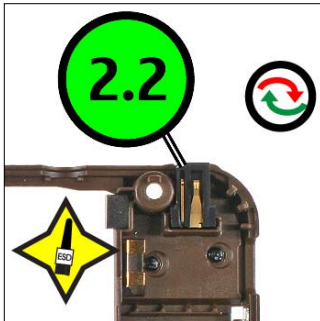
14. LEGEND FOR QUICK TROUBLE SHOOTER

| Legend for Quick Trouble Shooter | |
|---|--|
| This legend is valid for all parts of the Quick Trouble Shooter | |
| Follow the steps until the problem is solved. If this doesn't help, you are not authorized to go forward. | |
|  | Check the mechanical condition of the component (bent, broken or missing). |
|  | Only marked components can be replaced. If additionally " =CHANGE ASSY " appears, then change the whole assembly (e.g. A4=D-COVER ASSEMBLY). |
|  | Cloth usage: Check pads or contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.    |
|  | Measure component for electrical functionality and change, if needed. (Level 2 only)   |
|  | ESD Brush usage: Check contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.    |
|  | <p>Explanation</p>  |

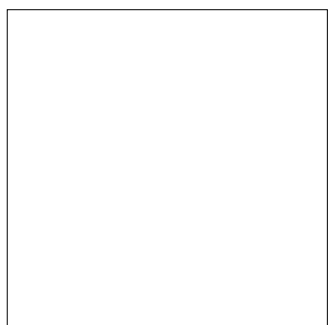
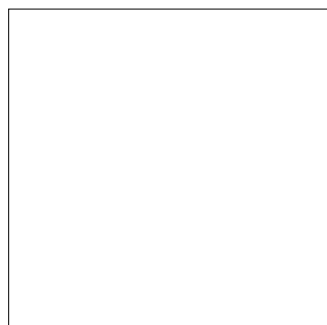
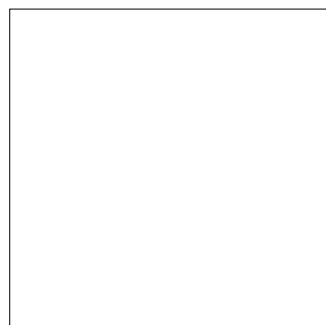
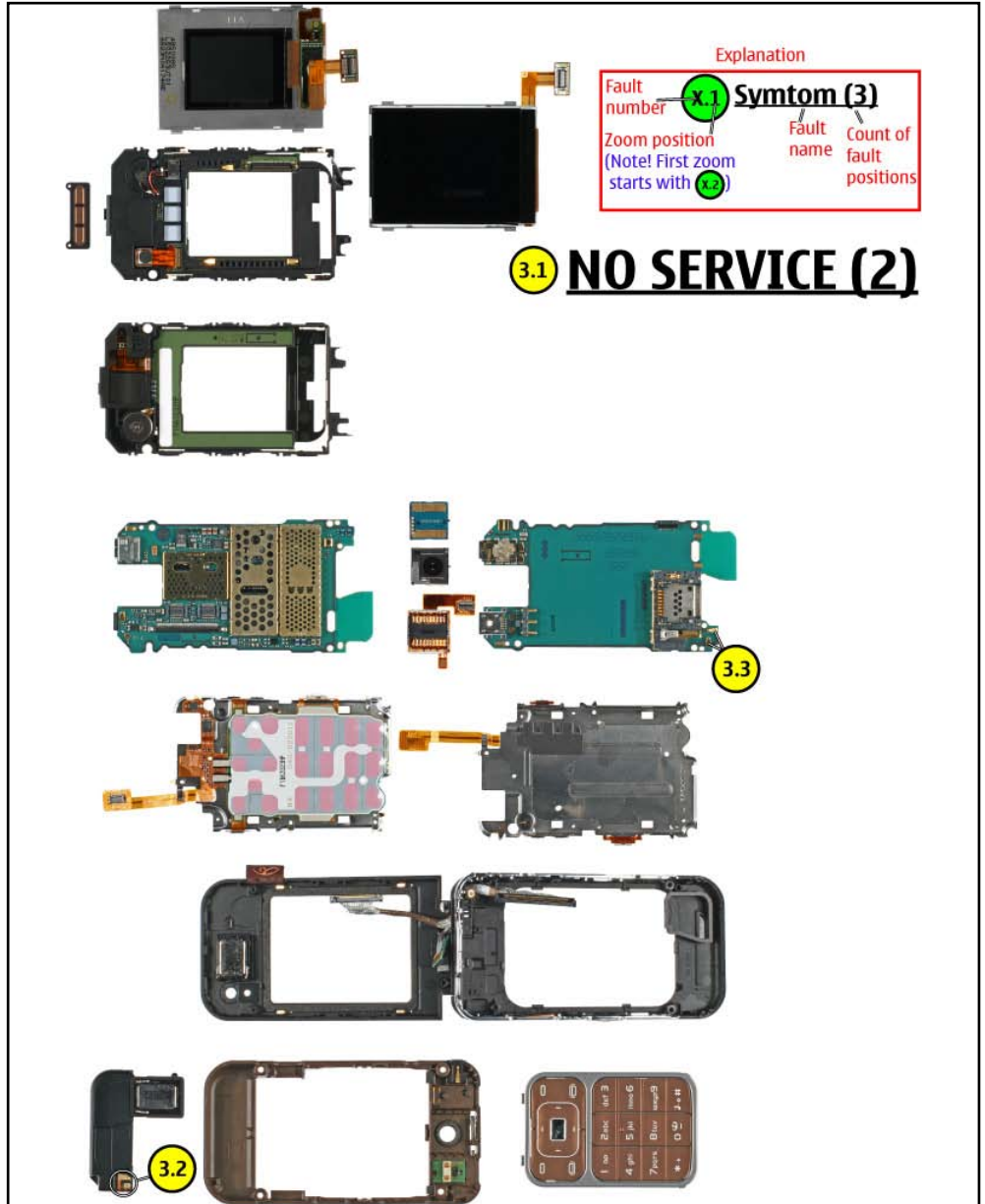
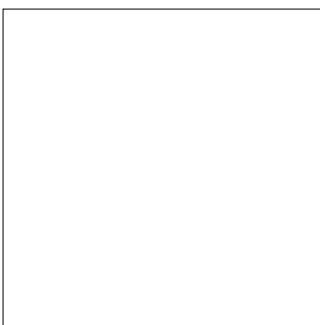
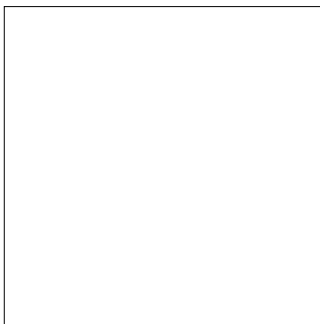
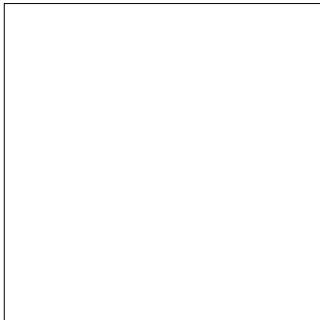
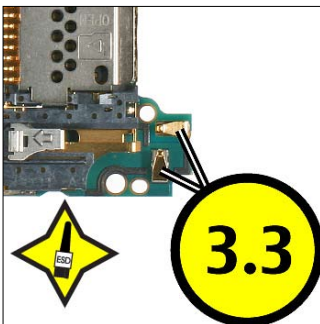
15. QUICK TROUBLE SHOOTER - POWER ON



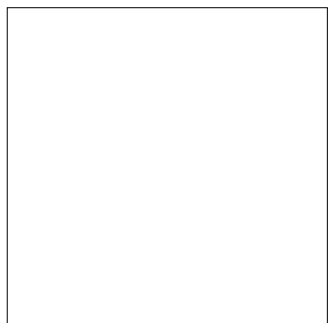
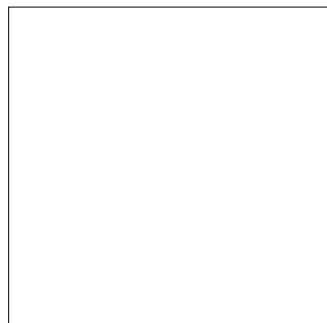
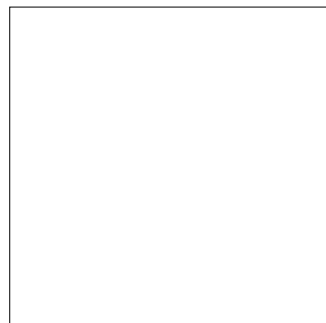
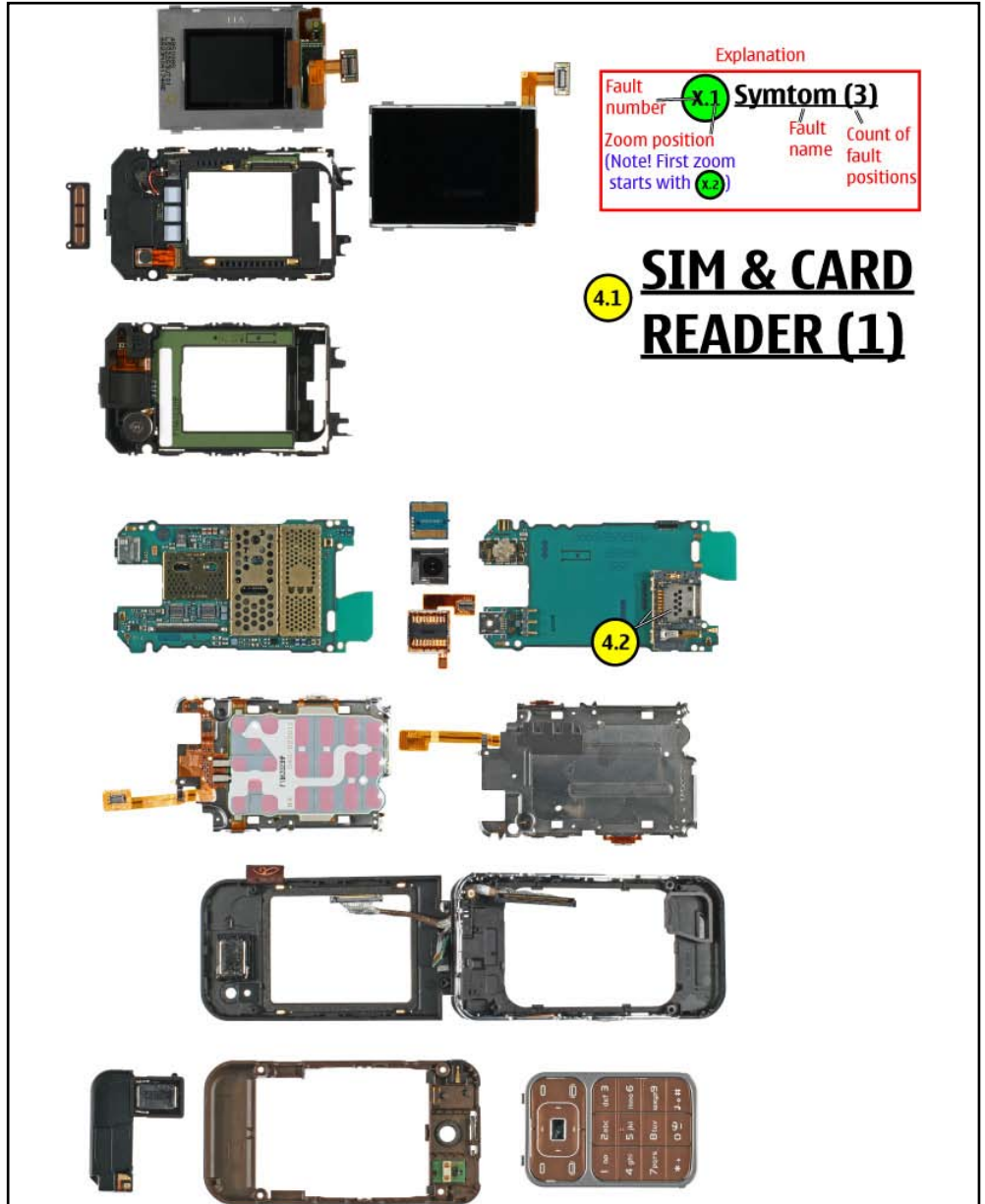
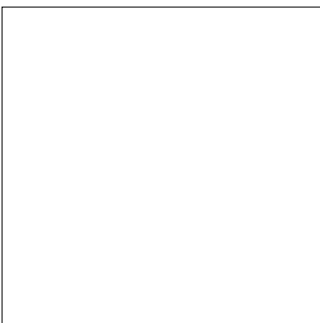
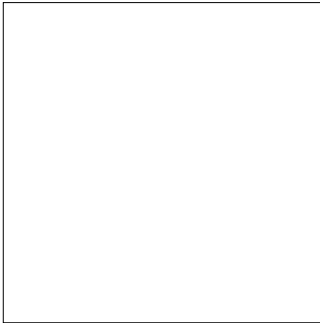
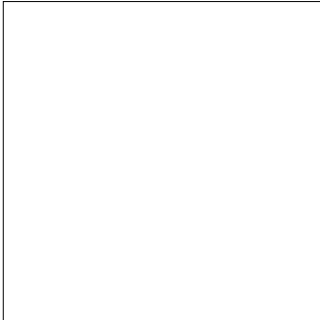
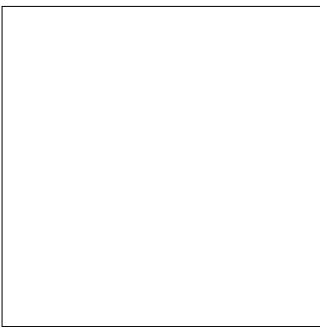
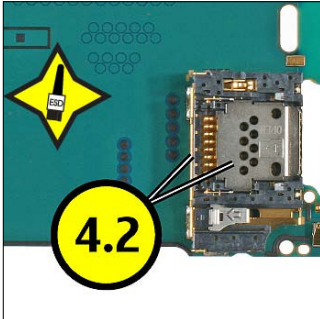
16. QUICK TROUBLE SHOOTER - CHARGING



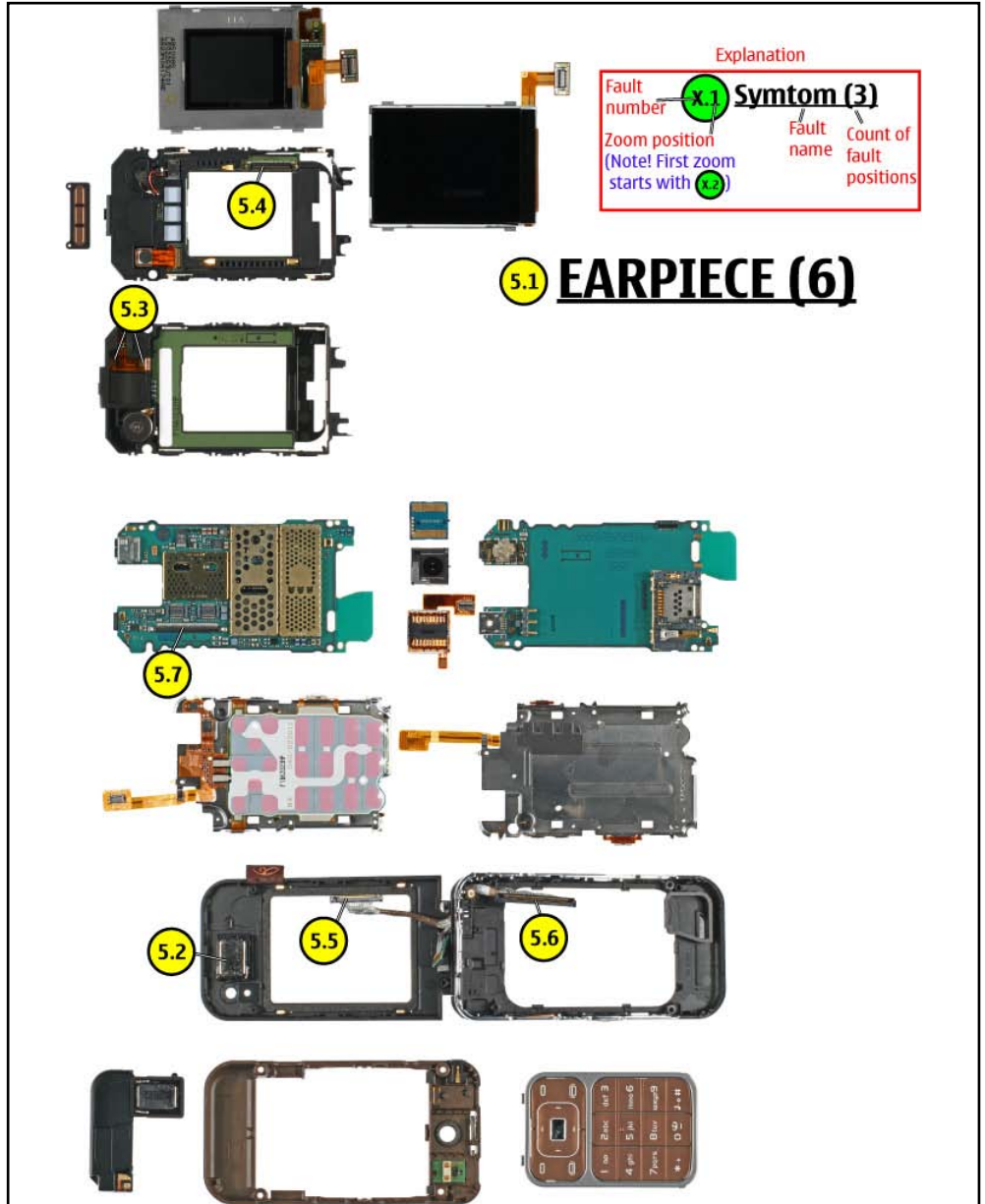
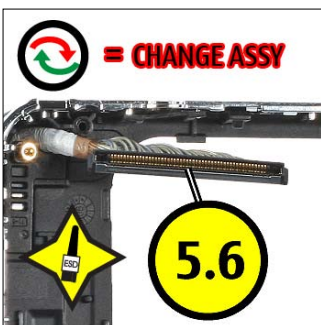
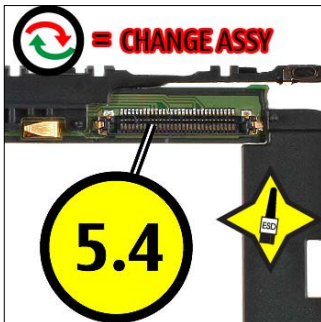
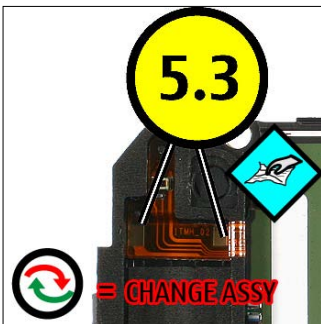
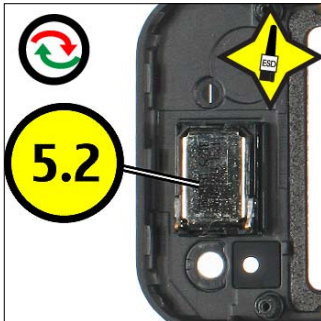
17. QUICK TROUBLE SHOOTER - NO SERVICE



18. QUICK TROUBLE SHOOTER - SIM & CARD READER

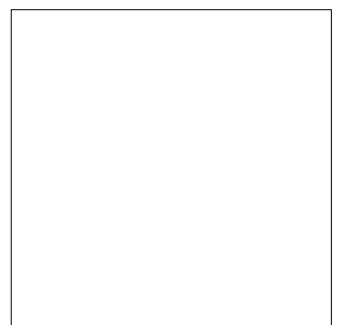
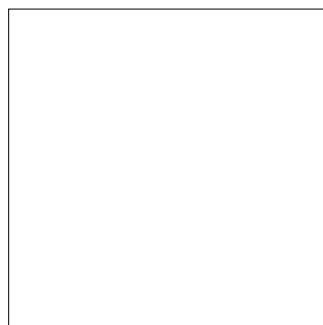


19. QUICK TROUBLE SHOOTER - EARPIECE

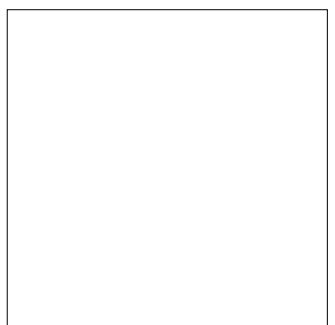
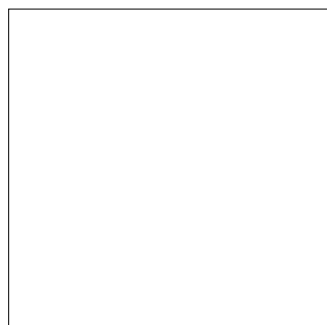
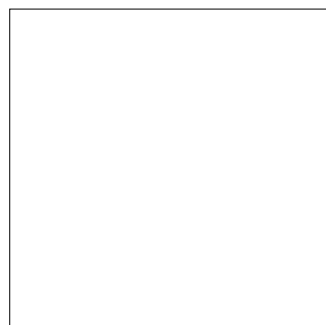
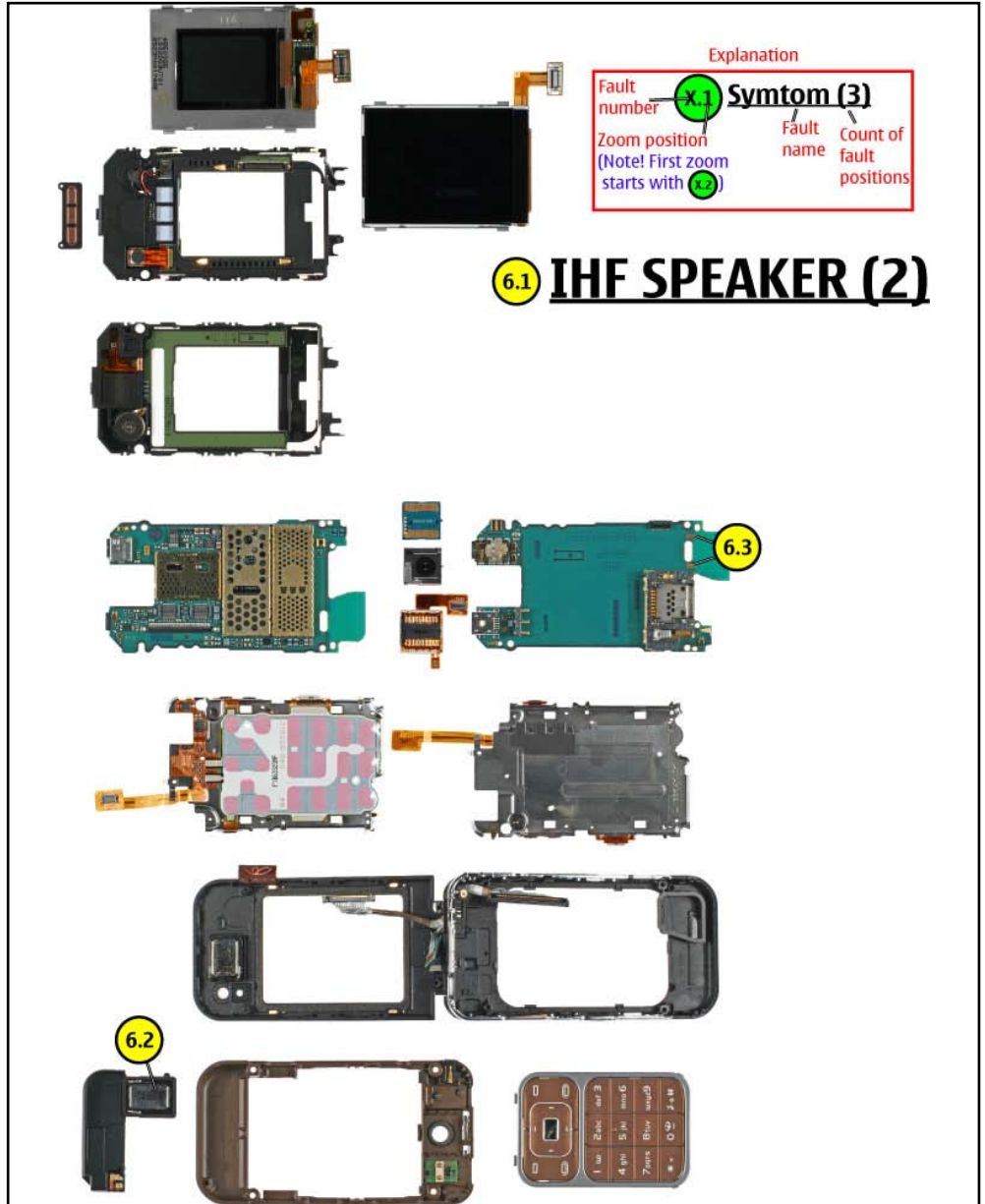
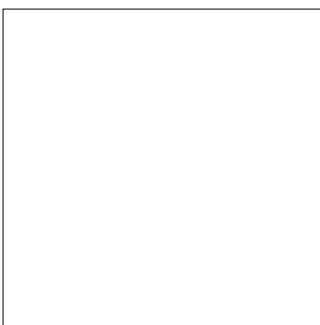
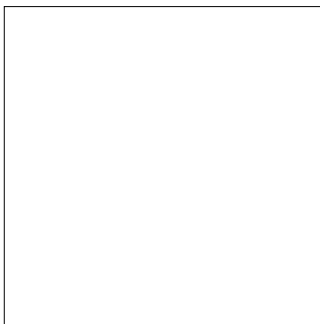
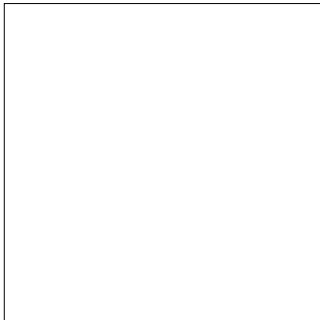
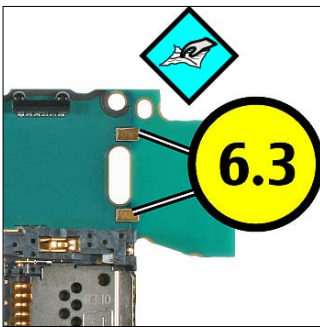


| Explanation | | |
|--|-----|--------------------------|
| Fault number | X.1 | Symtom (3) |
| Zoom position (Note! First zoom starts with X.2) | | Fault name |
| | | Count of fault positions |

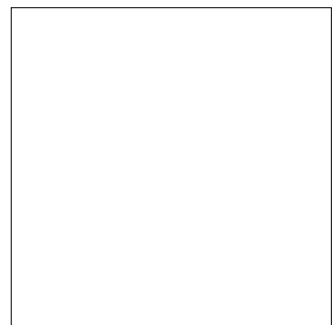
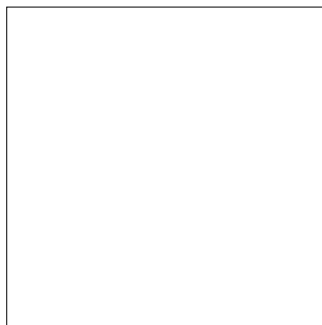
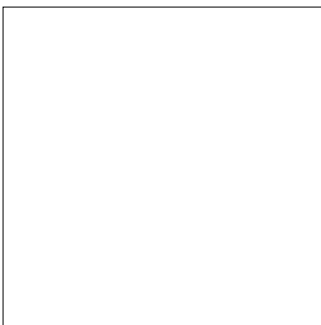
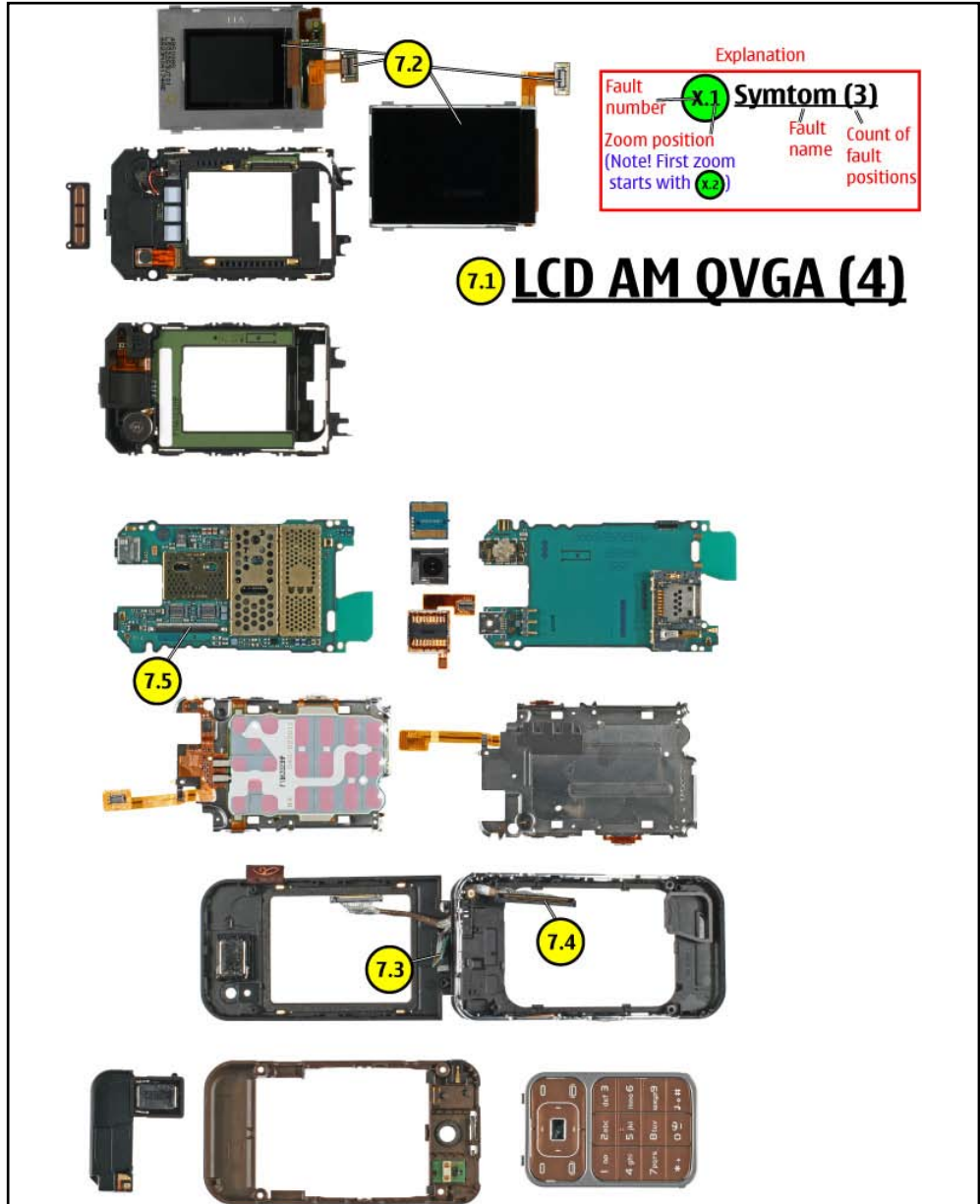
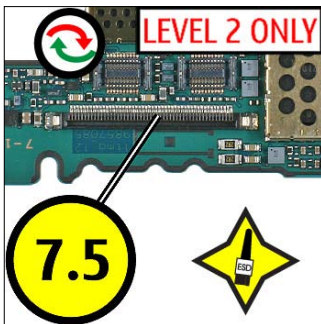
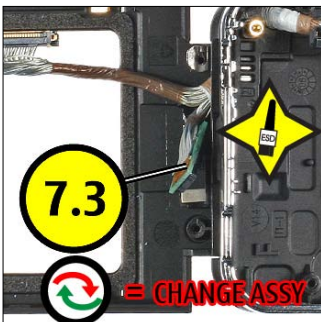
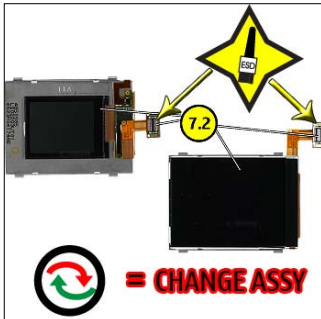
5.1 EARPIECE (6)



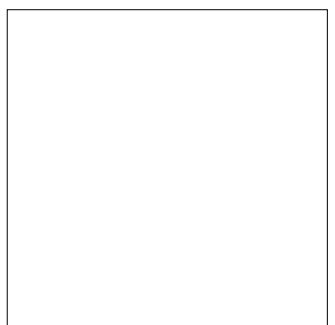
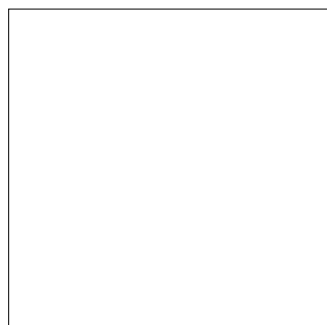
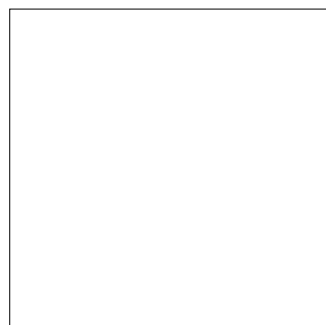
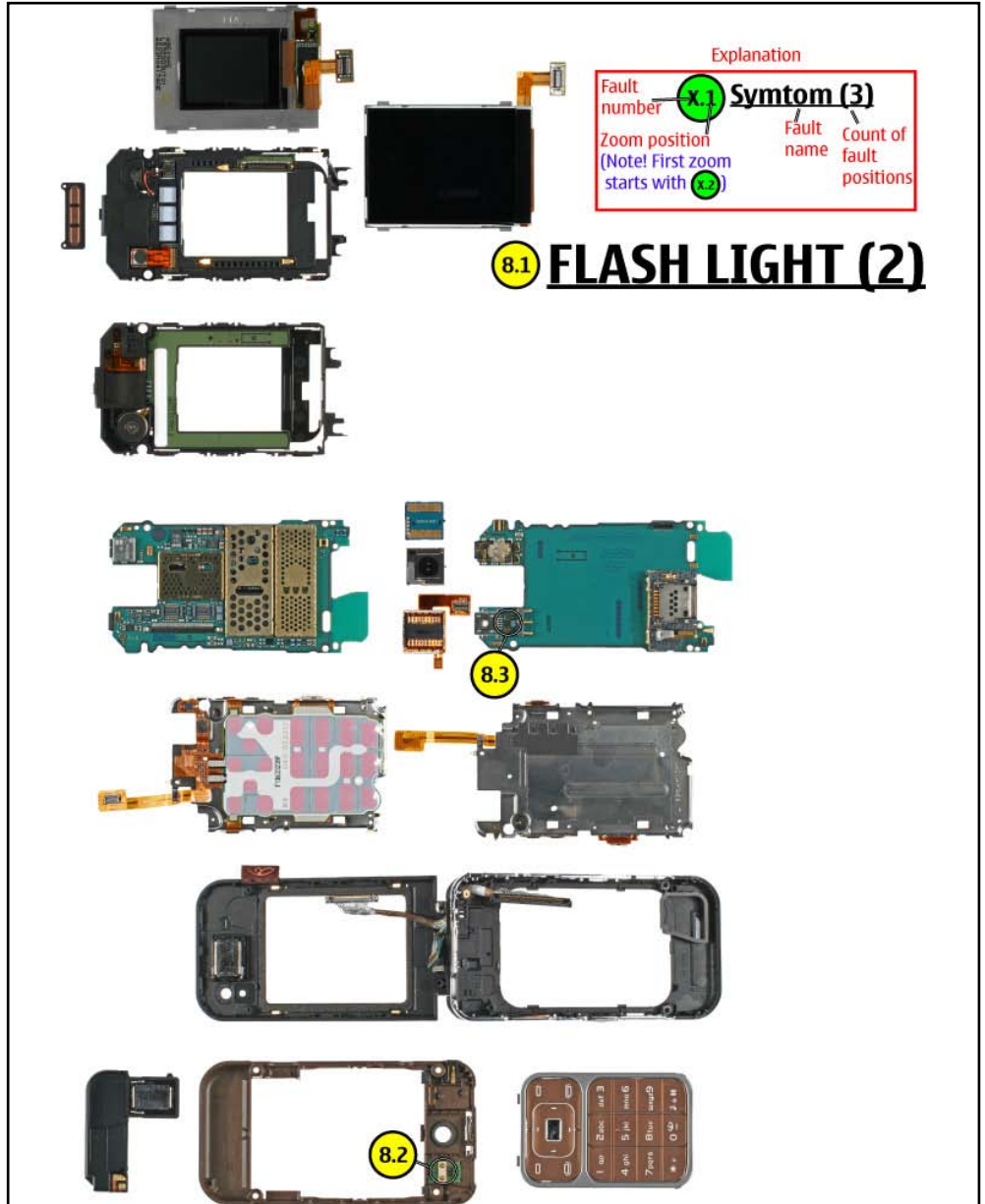
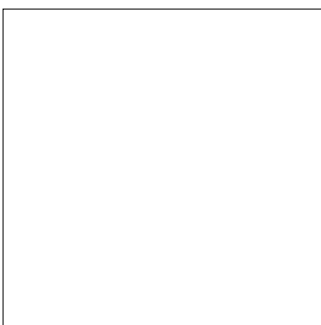
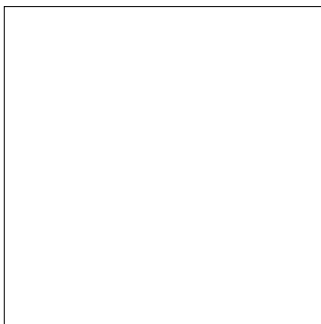
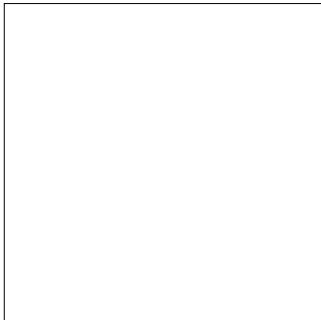
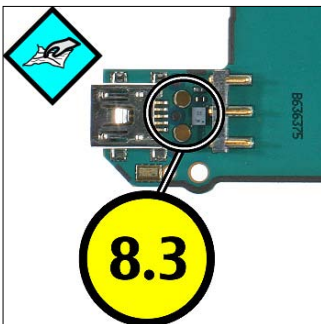
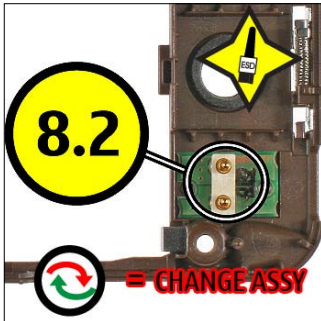
20. QUICK TROUBLE SHOOTER - IHF SPEAKER



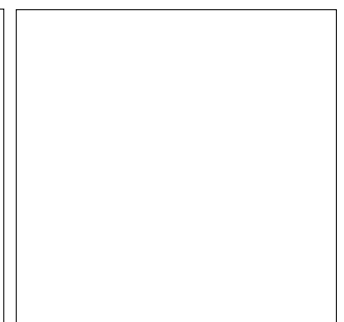
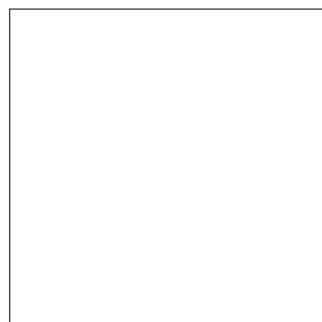
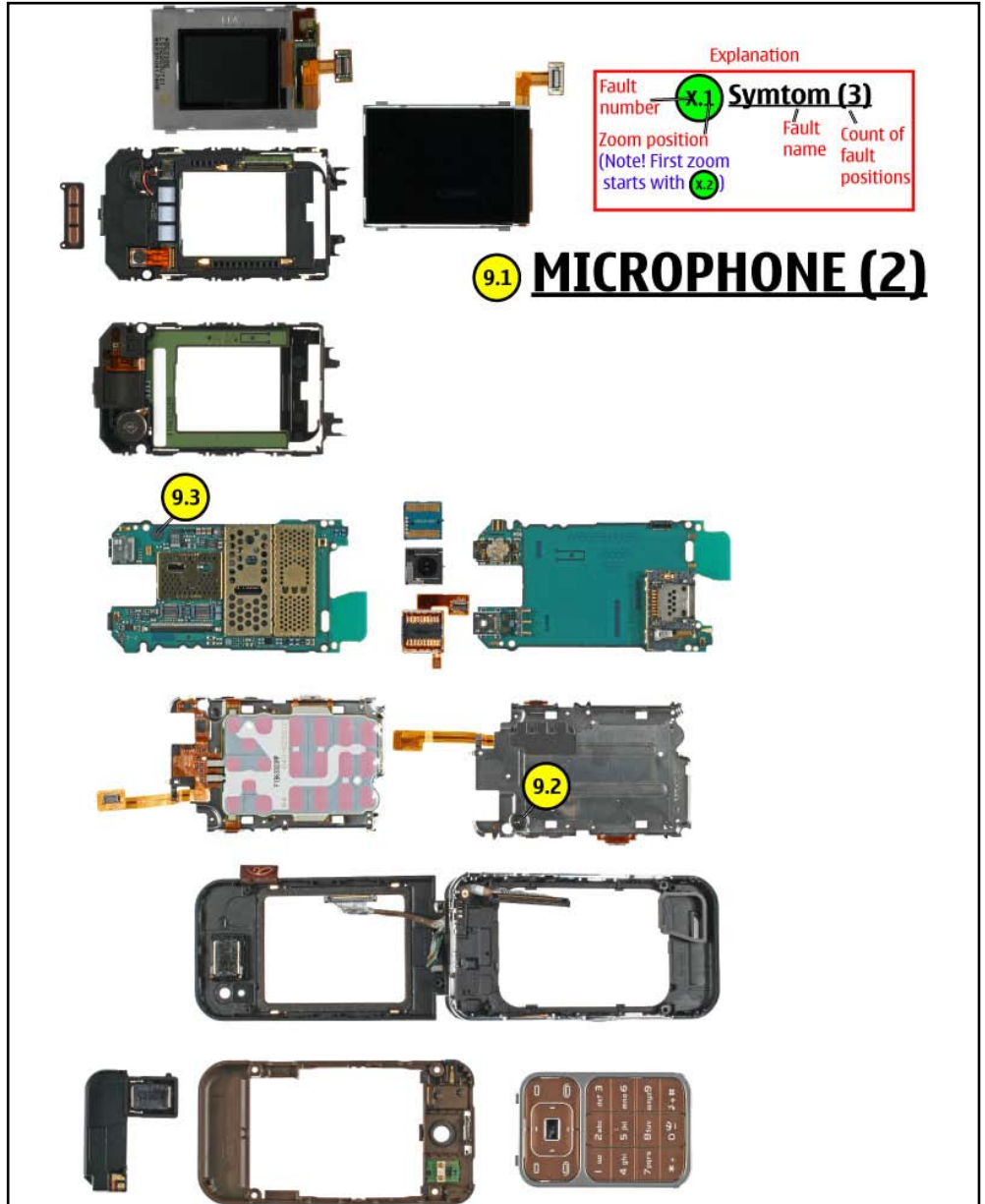
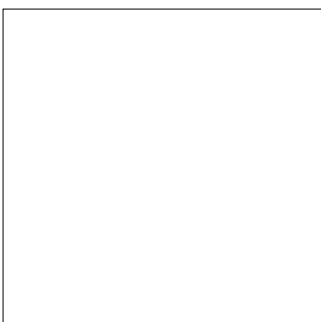
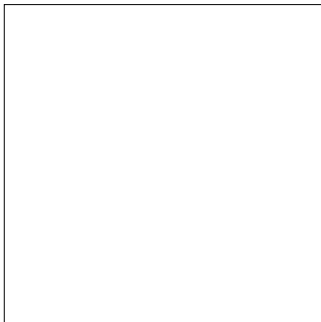
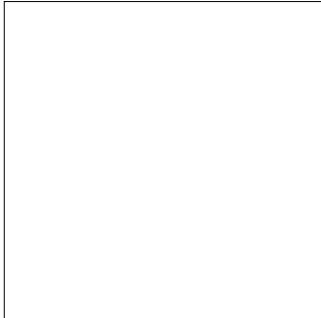
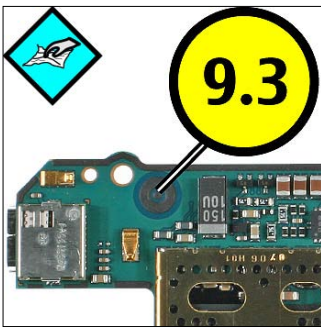
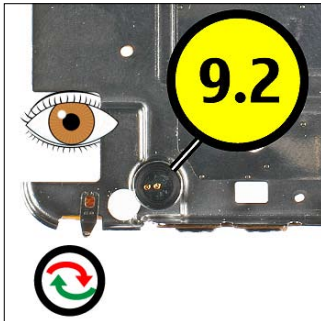
21. QUICK TROUBLE SHOOTER - DISPLAY



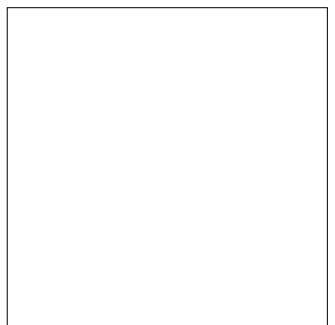
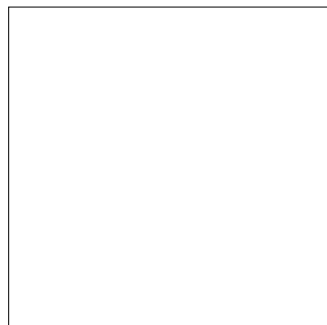
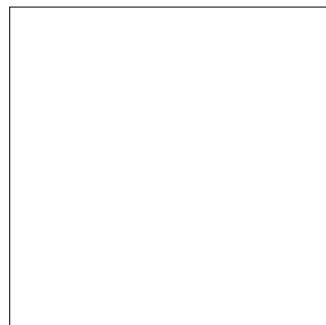
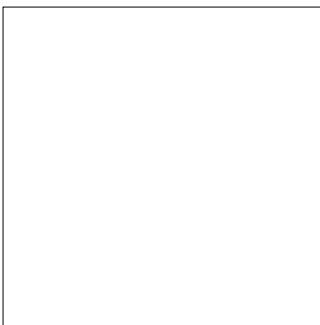
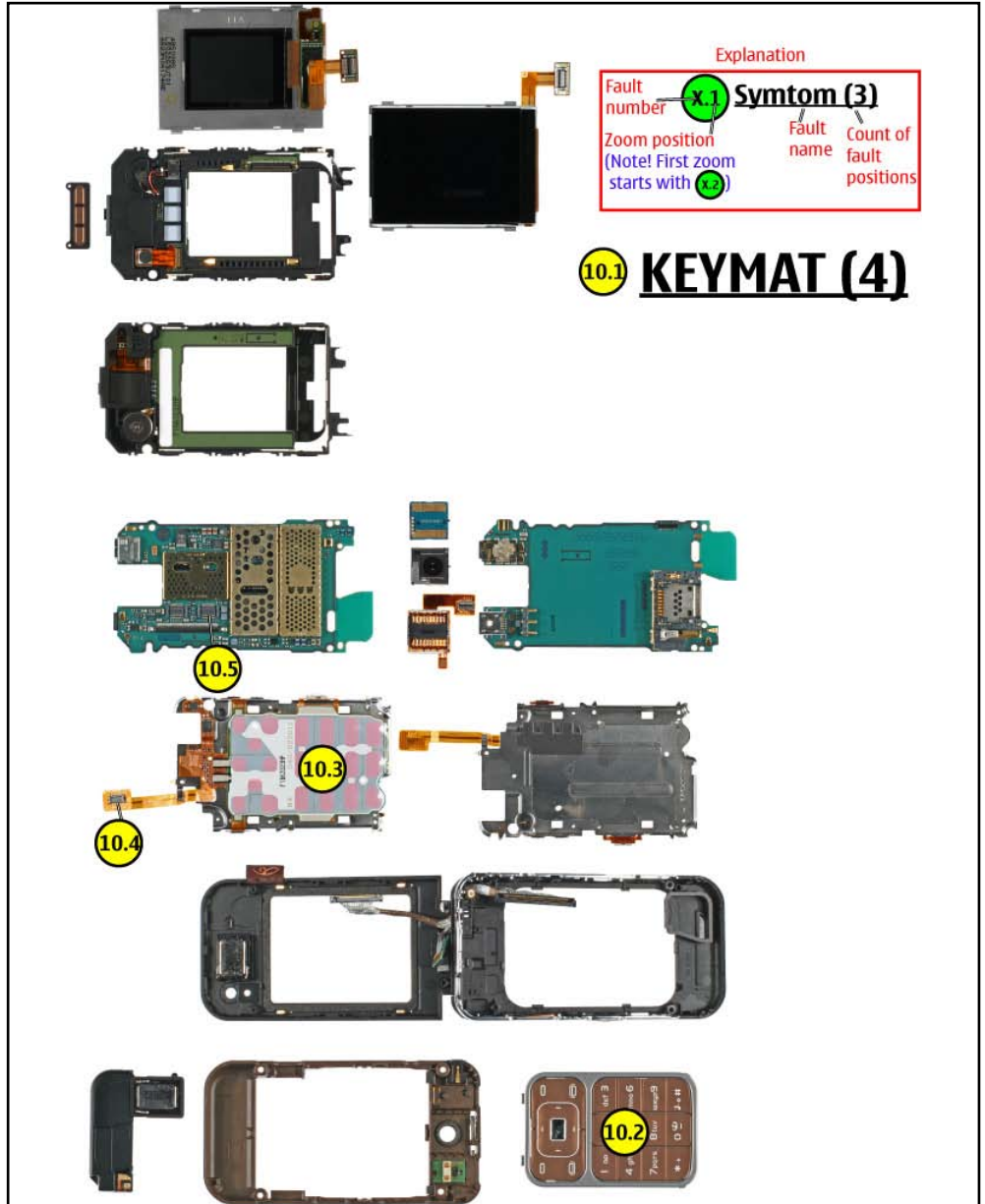
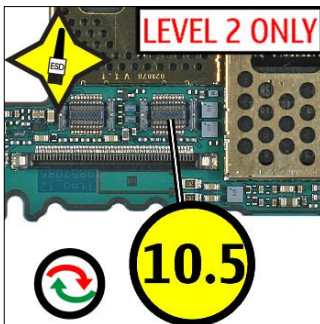
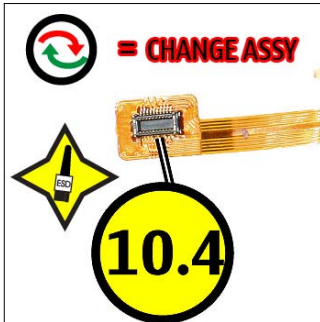
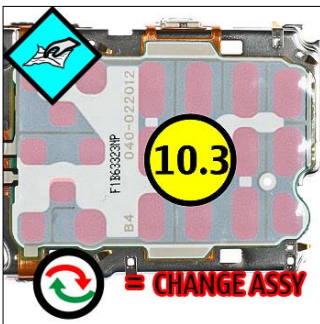
22. QUICK TROUBLE SHOOTER - FLASHLIGHT



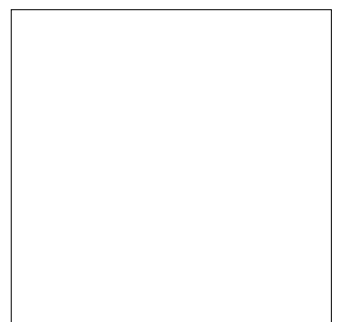
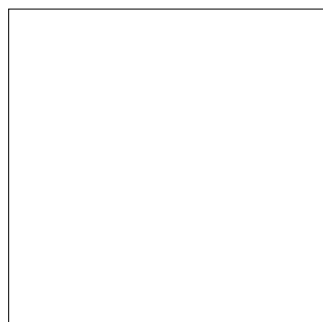
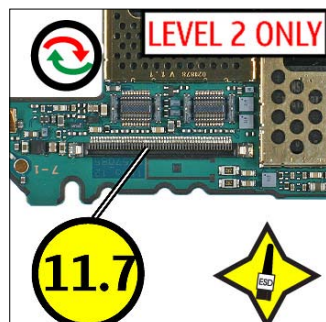
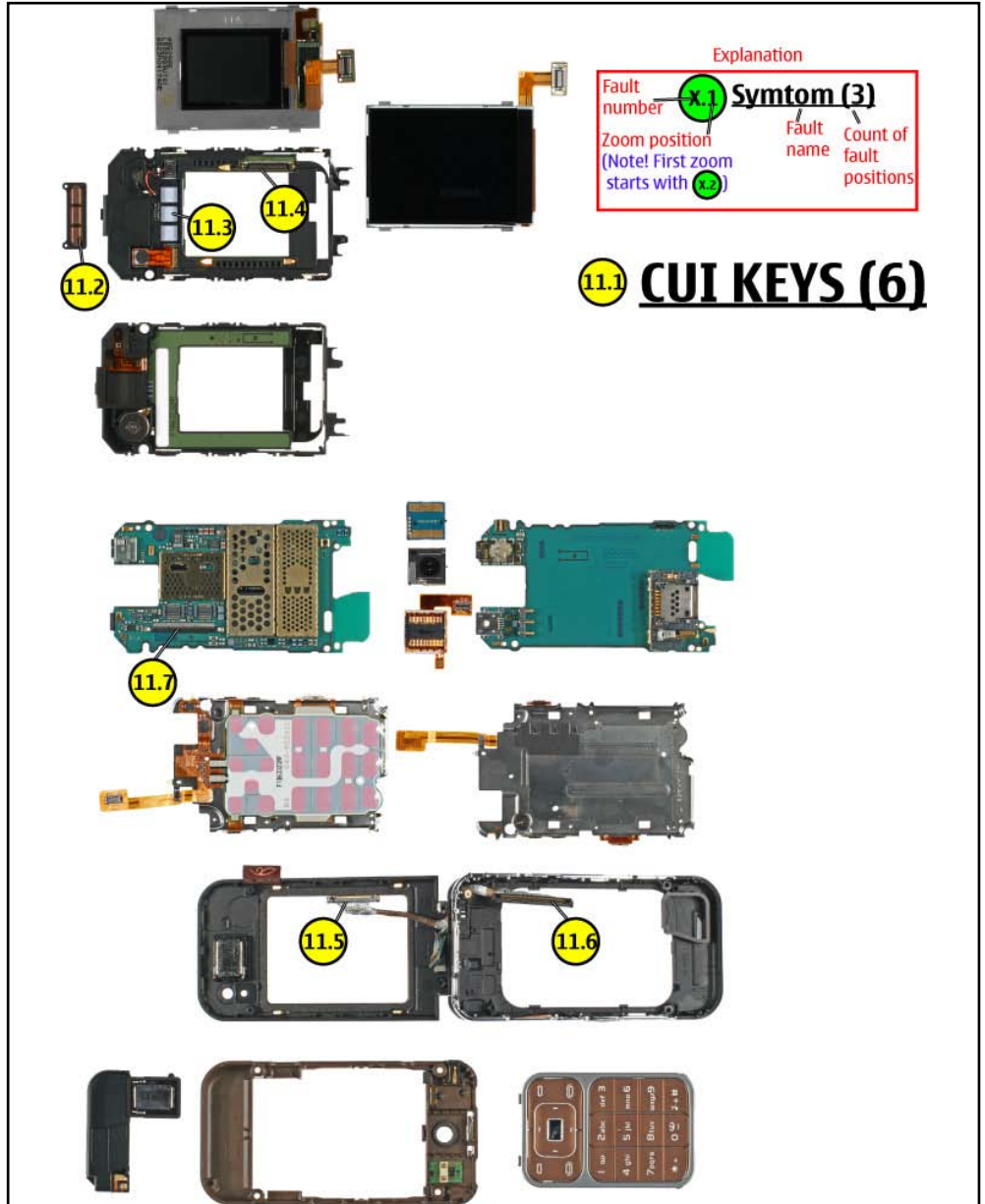
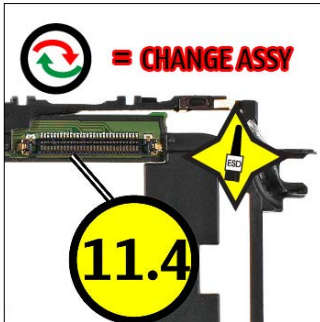
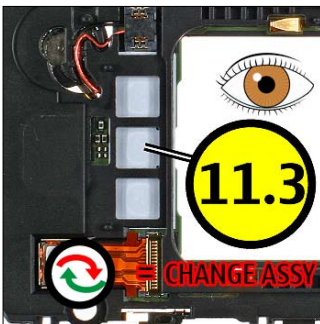
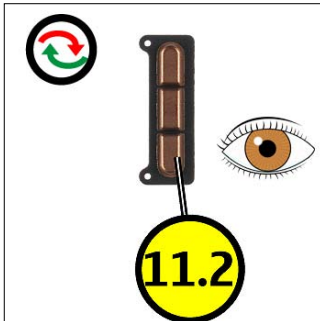
23. QUICK TROUBLE SHOOTER - MICROPHONE



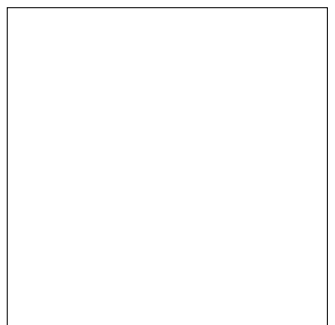
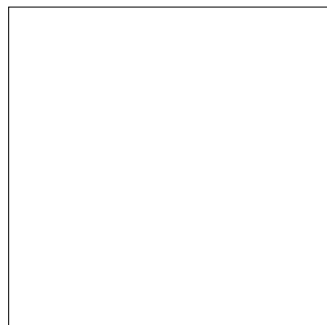
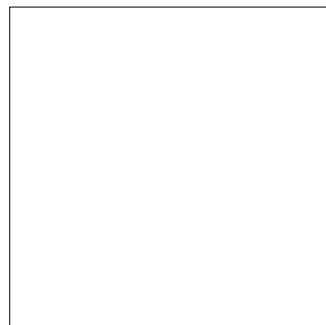
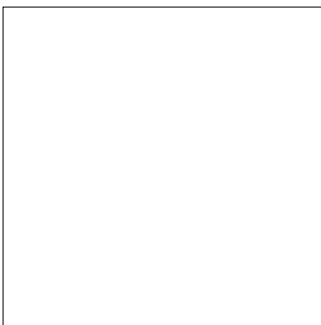
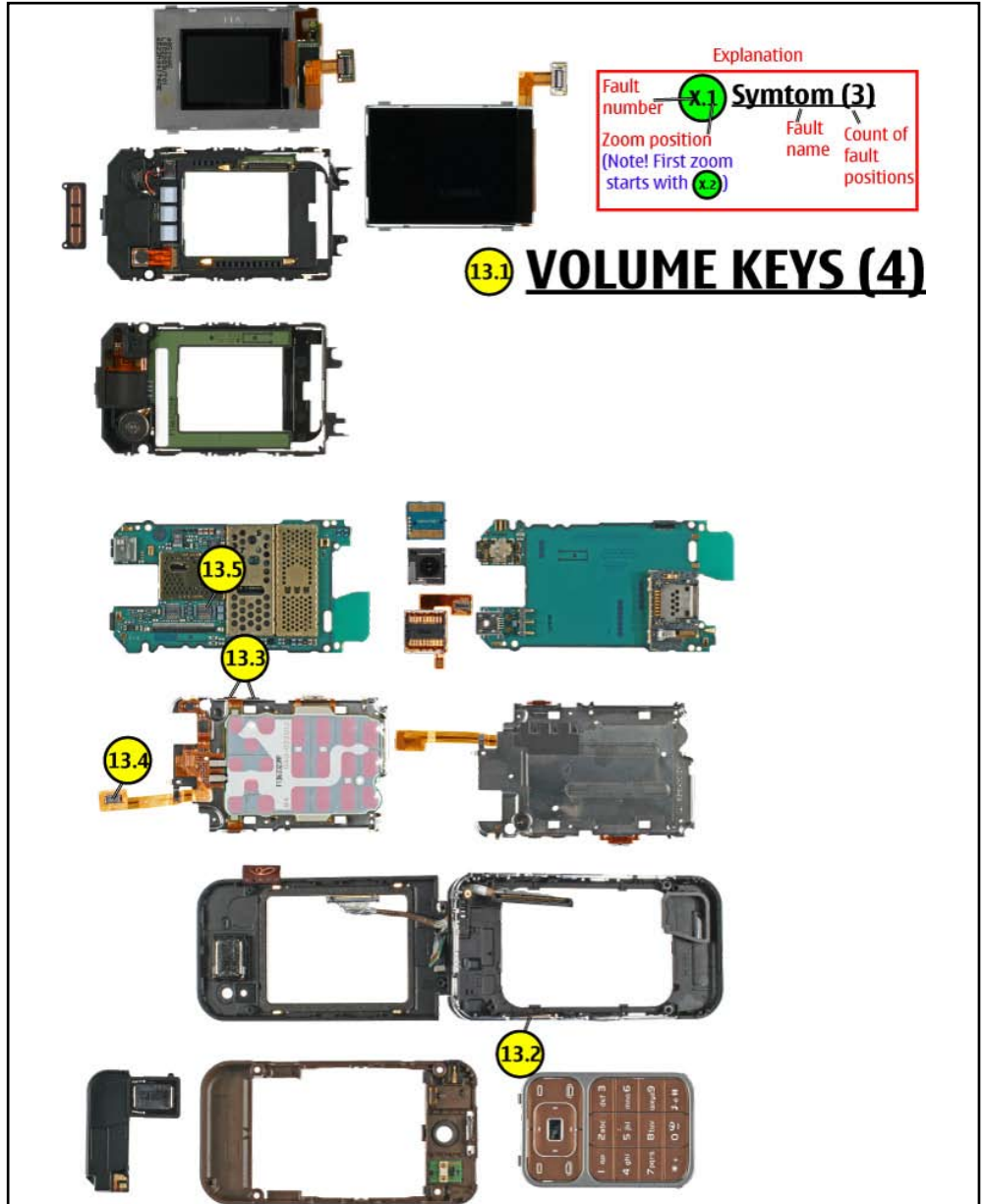
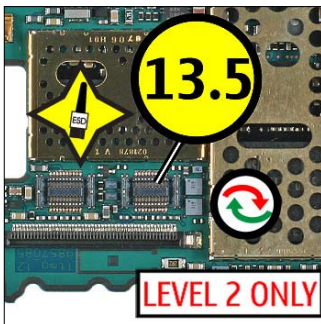
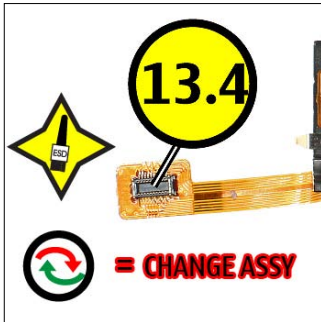
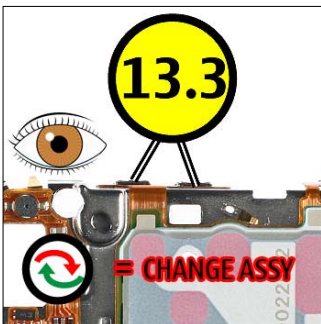
24. QUICK TROUBLE SHOOTER - KEYMAT



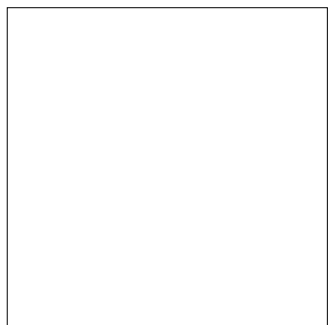
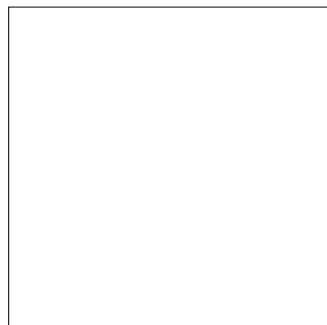
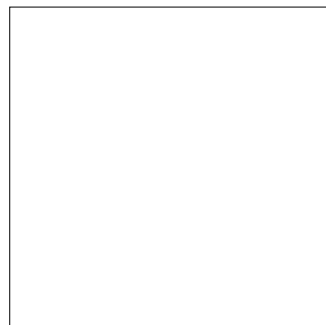
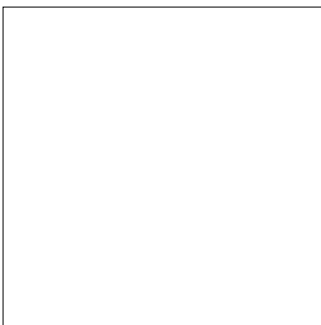
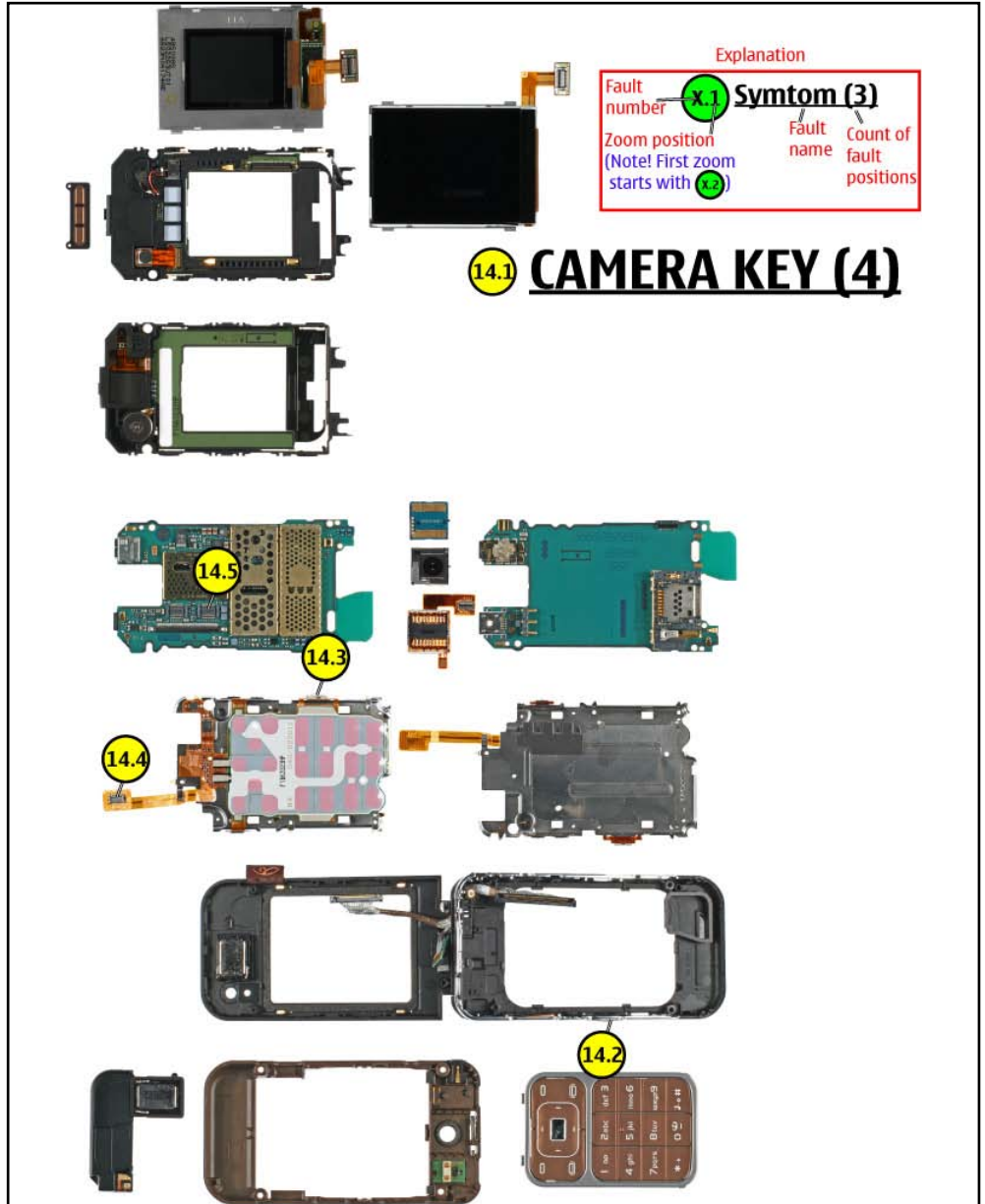
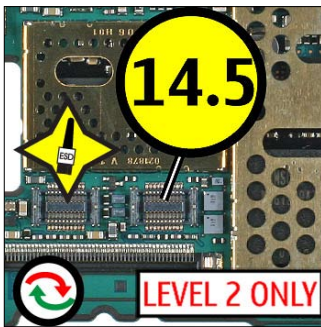
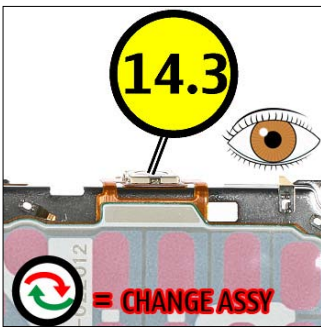
25. QUICK TROUBLE SHOOTER - CUI KEYS



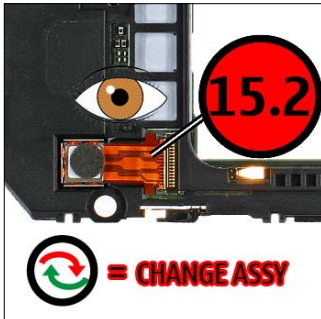
26. QUICK TROUBLE SHOOTER - VOLUME KEYS



27. QUICK TROUBLE SHOOTER - CAMERA KEY



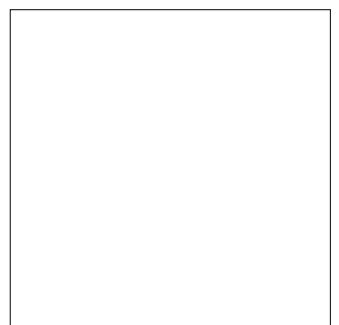
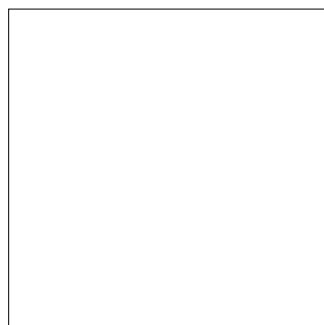
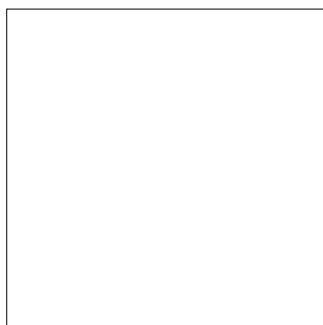
28. QUICK TROUBLE SHOOTER - CAMERA SMALL



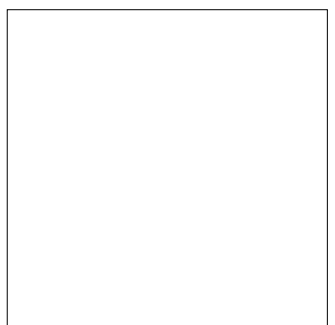
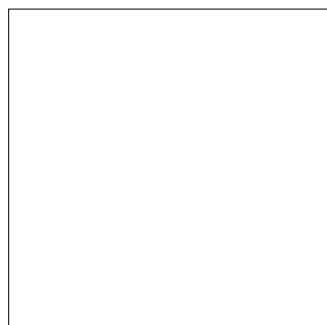
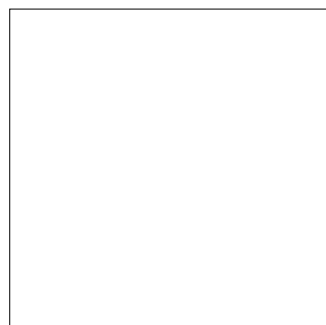
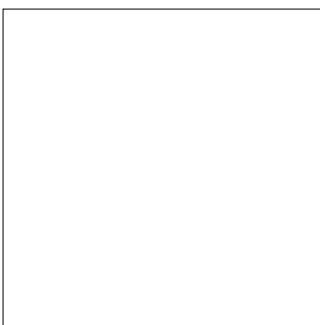
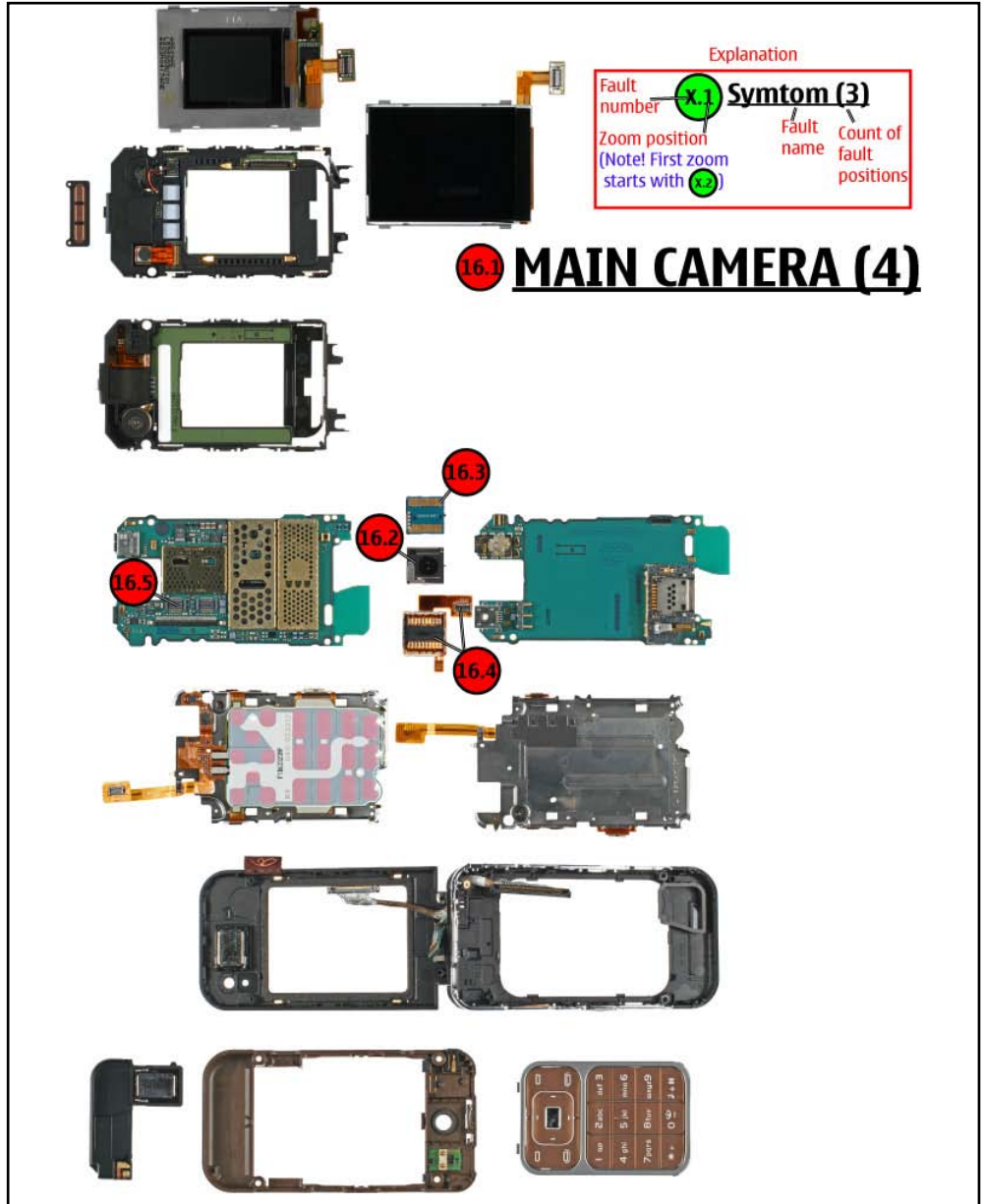
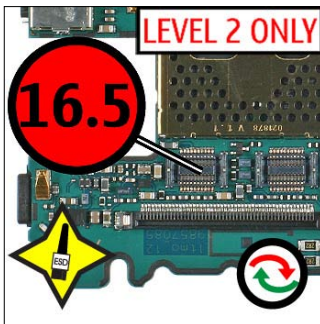
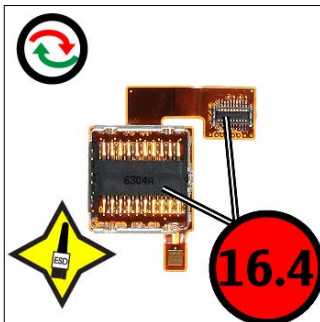
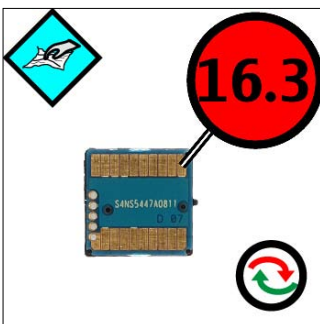
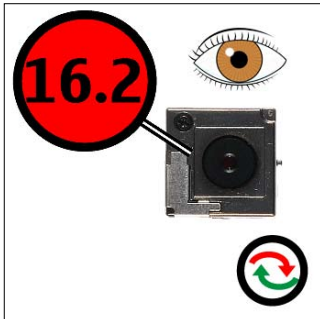
Explanation

| | | | |
|---|-----|-------------------|--------------------------|
| Fault number | X.1 | Symtom (3) | |
| Zoom position (Note! First zoom starts with X.2) | X.2 | Fault name | Count of fault positions |

CAMERA MODULE
12VGA (5)



29. QUICK TROUBLE SHOOTER - CAMERA



30. GONOGO TEST

To test the Camera, Bluetooth and IRDA functionality refer to the phone User's guide.

The User's Guide is available on www.nokia.com.

Before starting the GoNoGo test, check that camera window is clean. If not, clean the window with cloth.



Bluetooth test

You need another Bluetooth device (e.g. 6230) to do a GoNoGo test. Make sure that Bluetooth is activated in the reference unit. The distance of the devices should be not more than 5m from each other.

Infrared test

You need another infrared device (e.g. 6230) to do a GoNoGo test. The infrared windows of the devices must be directed to each other and should have a distance of approximate 15 cm. Make sure that infrared is activated in receiver device.

Warning: Do not point the IR (infrared) beam at anyone's eye or allow it to interfere with other IR devices. This device is a Class 1 Laser product.



Reference unit, Bluetooth /infrared activated

Test unit

31. BATTERY TEST

A battery tester lets you test the capacity of NOKIA batteries.

Please refer to the actual information on NOKIA Online.



<http://www.astratec.co.uk/>



<http://www.cadex.com/>