SERVICE MANUAL
Level 1&2

NOKIA 6300 NOKIA 6300b

RM-217 **RM-222**

Transceiver characteristics:

Band:

-RM-217: Tri-band EDGE phone for EGSM 900/1800/1900MHz

-RM-222: Tri-band EDGE phone for EGSM 850/1800/1900MHz

Camera: 2.0 Megapixel, 8x digital zoom

Display: 5.08cm (2inch) QVGA display with 16.7M true colors, resolution 240 x 320 pixel

Operating System: Series 40

Bluetooth

FM stereo radio

Memory card: microSD

Connector: mini USB Connector

Transceiver with BL-4c Li-Ion battery pack

Talk time	Standby	Note
up to 3.5h	up to 14.5days	Depends on network parameters

Environmental characteristics:

- Lead-free soldered

TABLE OF CONTENTS

CHANGE HISTORY

Status	Version No.	Date	Comments
Draft	0.1	24.Nov.2006	Initial draft
Approved	1.0	9.Jan.2007	Approval
Approved	2.0	19.Apr.2007	Exploded view & Spare Parts overview updated
Approved	3.0	31.May.2007	Disassy/Assy instruction updated (microSD card removal first)

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:

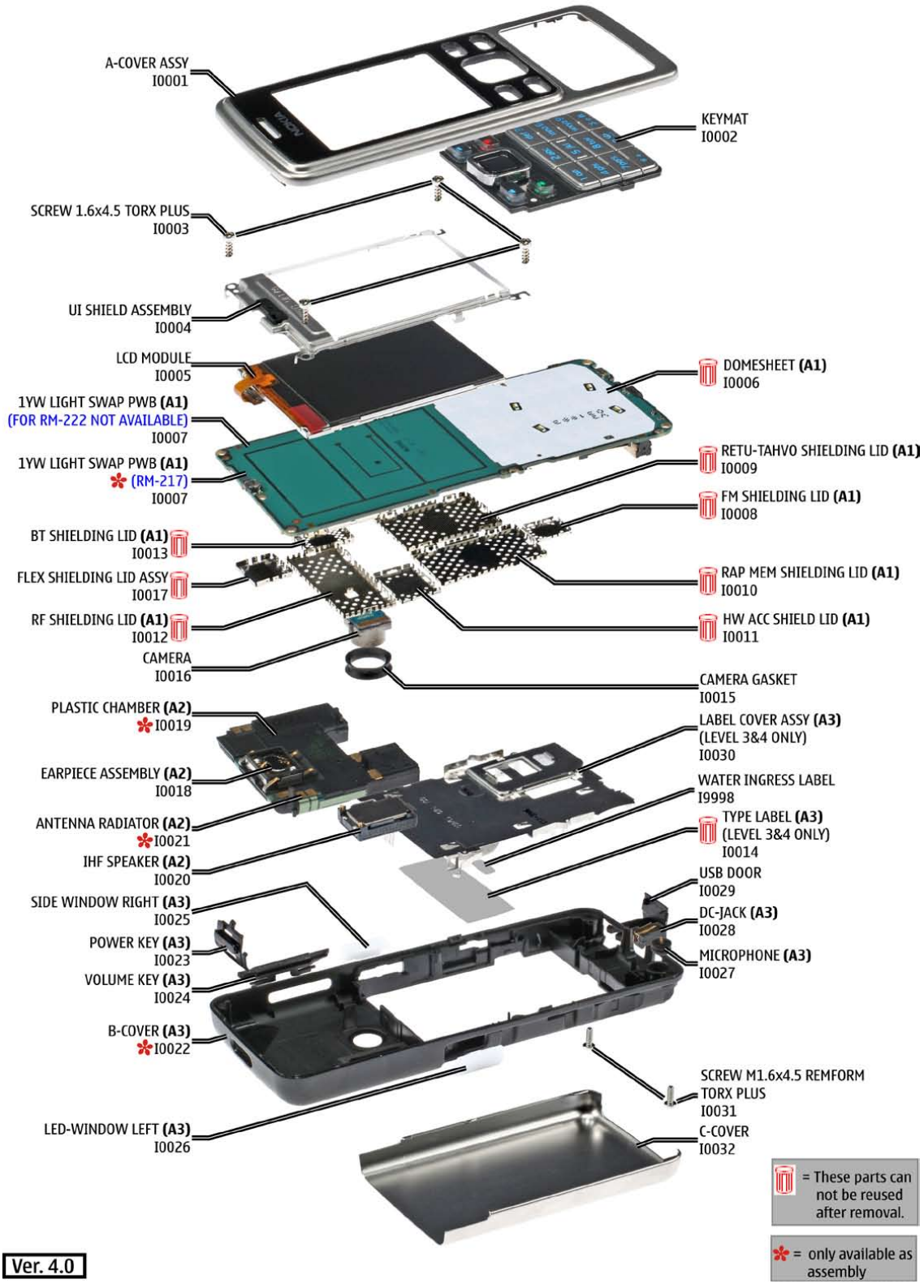
1. Servicing and alignment must be undertaken by qualified personnel only.
2. Ensure all work is carried out at an anti–static workstation and that an anti–static wrist strap is worn.
3. Use only approved components as specified in the parts list.
4. Ensure all components, modules screws and insulators 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. EXPLODED VIEW

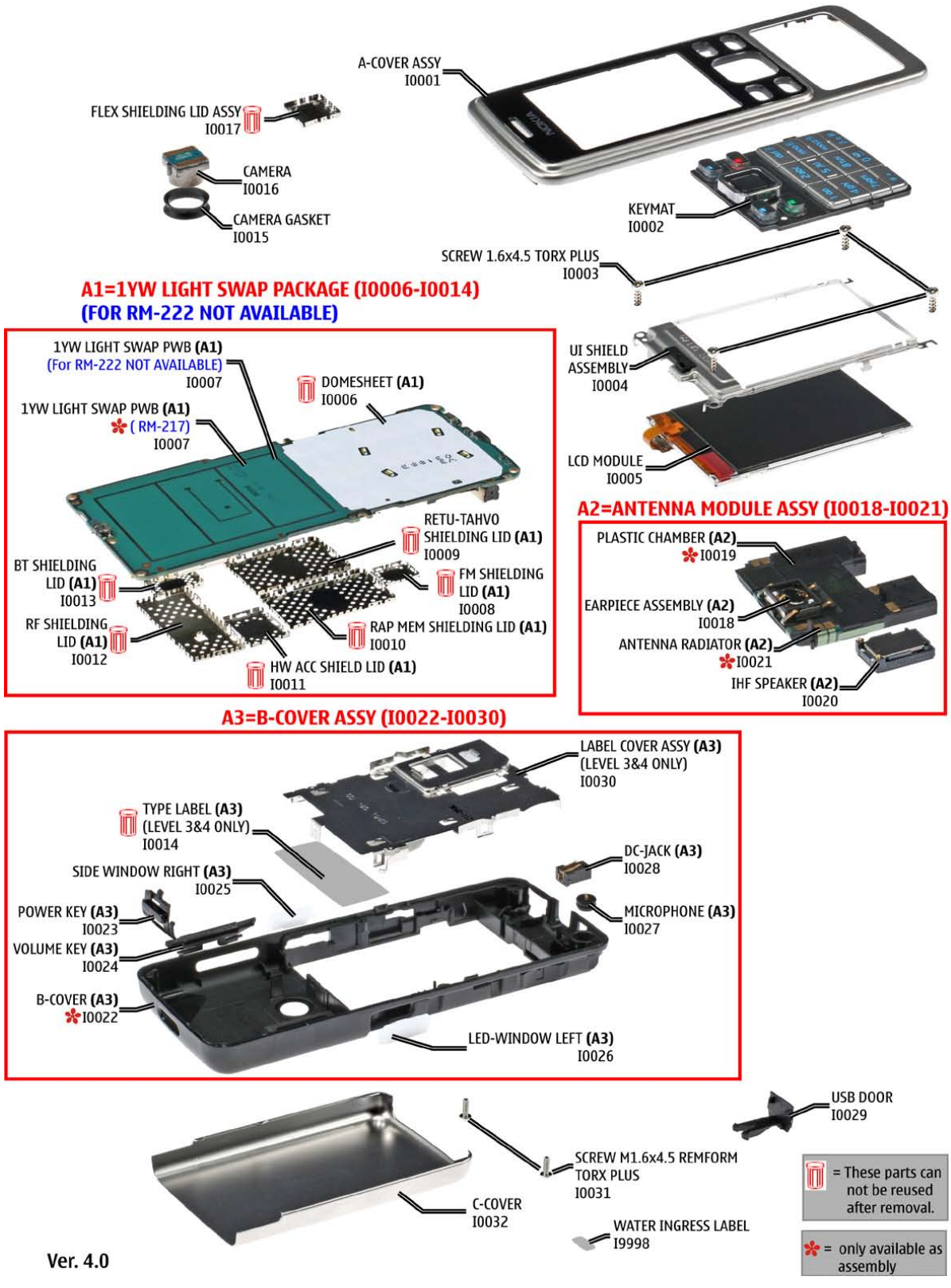
See corresponding ITEM/CIRCUIT REF in the Spare Parts Service Bulletins on NOL.

6300 RM-217 / 6300b RM-222 EXPLODED VIEW



3. SPARE PARTS OVERVIEW

6300 RM-217 / 6300b RM-222 SPARE PARTS OVERVIEW



4. GENERAL RECYCLING RECOMMENDATION

NOKIA
CMO Operations & Logistics
Training and Vendor Development
Multimedia Creation & Support

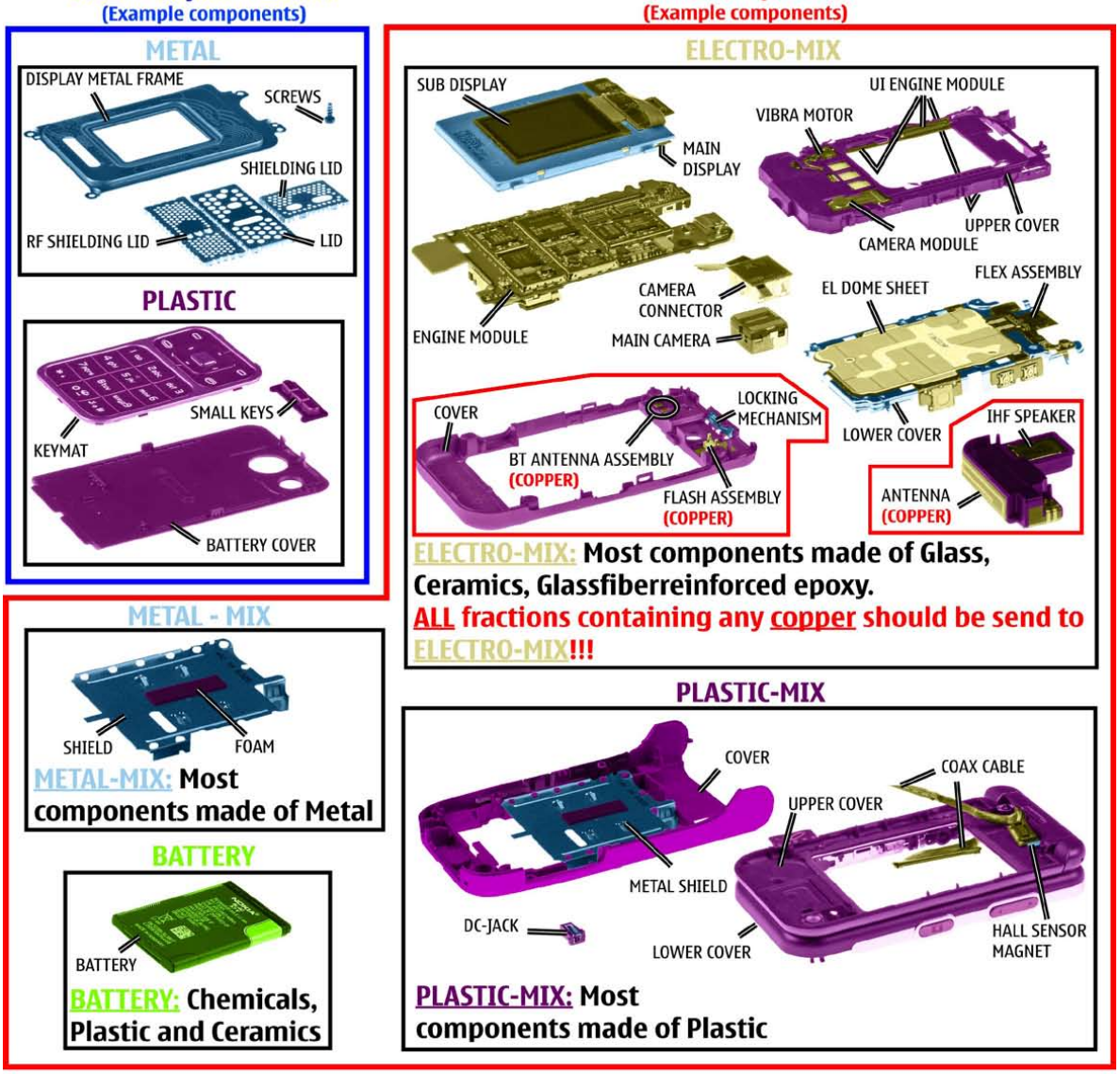
Confidential

13.11.2006
MGR

General Recycling recommendation

100% - only one Material
(Example components)

Mixed components
(Example components)



Some of these options can be utilized directly and some need pretreatment as for instance dismantling, grinding, milling, etc.
For sorting the waste into fractions for recycling, your recycler will offer you more specific information, but a GENERAL RULE is:
Elecronic Equipment: There are recyclers that can process this "multimaterial" for high recycling yields.
Metals: Fractions containing metals must always be collected and sent for (metal) material recycling.
Plastics: Pure plastics fractions (i.e. covers) can be sent for (plastics) materials recycling.
Mixed Plastic/Metals: A metal fraction contaminated with plastics does not represent a problem for metal recycling/recovery whereas recycling/recovery of plastics is generally sensitive for contamination by other materials.

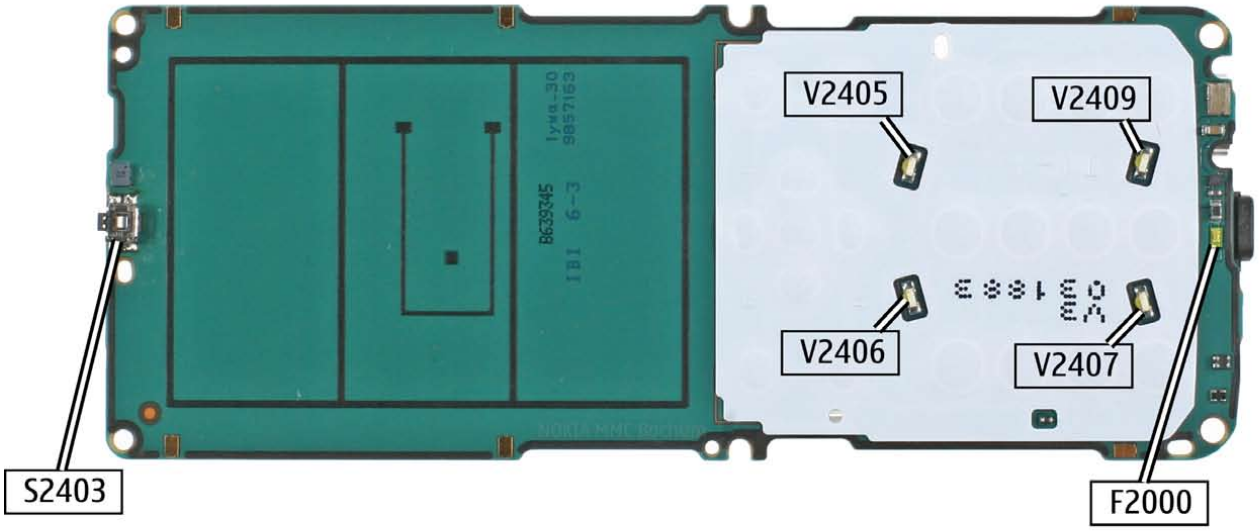
ELECTRO METAL PLASTIC BATTERY

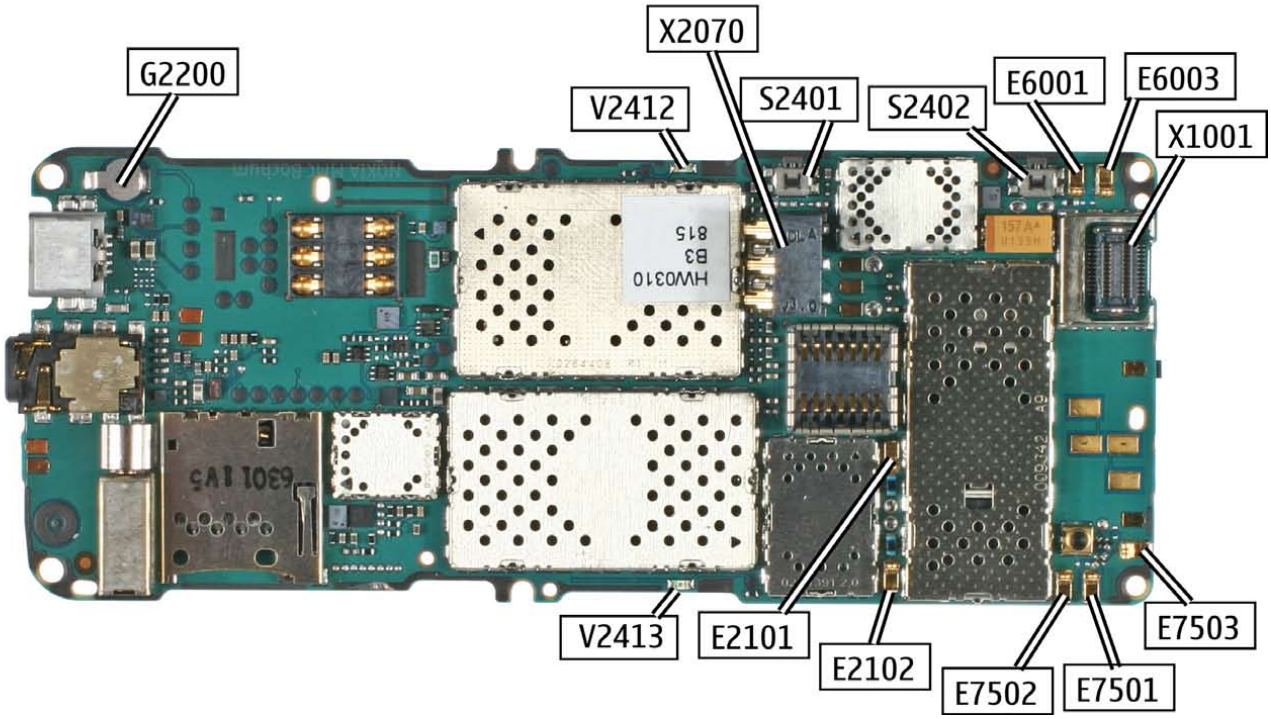
Ver. 3.0

5. LEVEL 2 SOLDER COMPONENTS

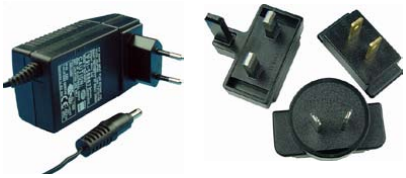
N6300 RM-217/ 6300b RM-222 Components overview

Solder components only for LEVEL 2





6. SERVICE DEVICES

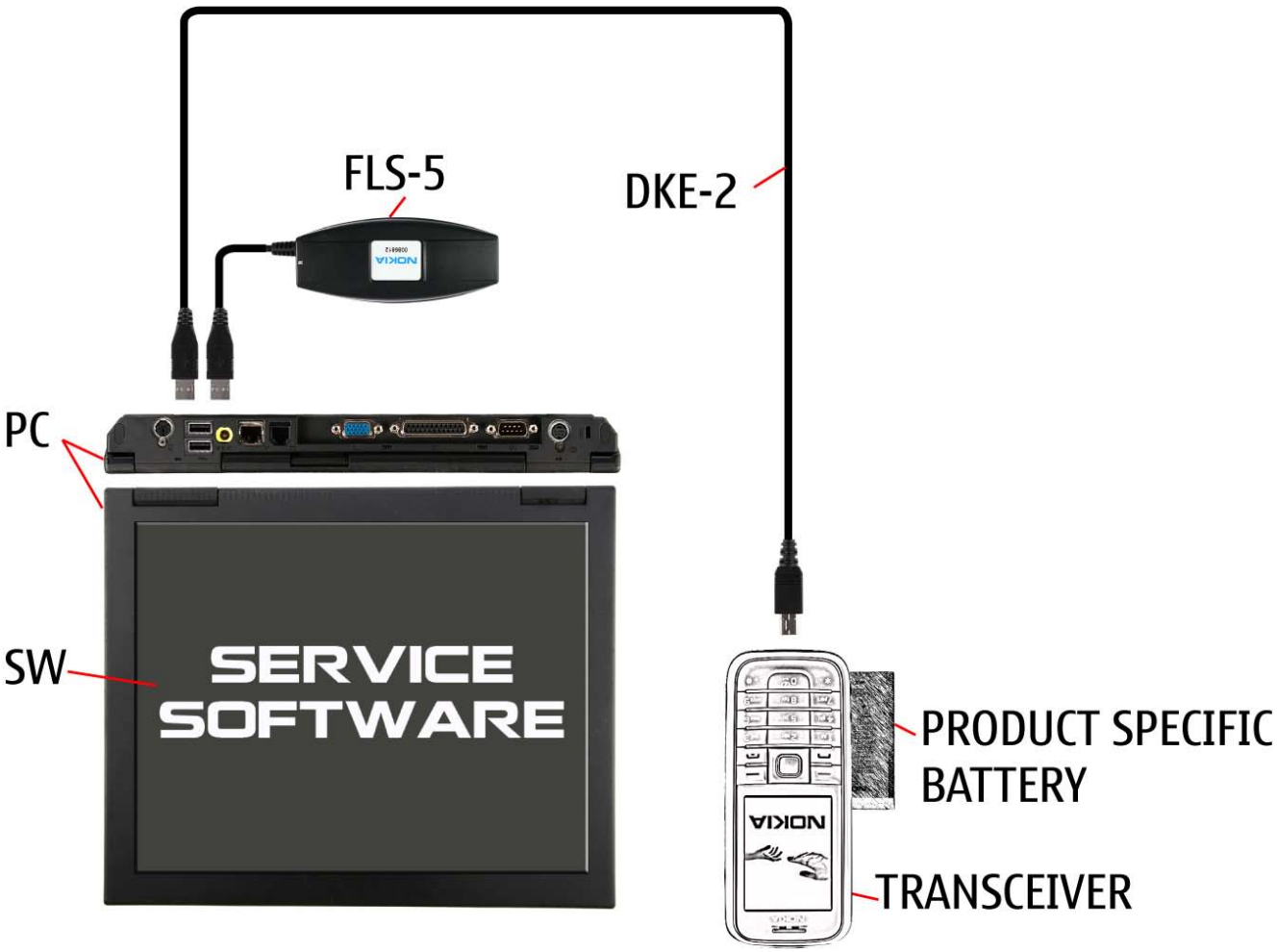
	**FLS-5 incl. ACF-8, Driver and User Guide** Dongle and flash device incorporated into one package, developed specifically for POS use.
	**ACF-8** Universal Power Supply is used to power FLS-4S.
	**Travel Charger AC-4** Small and lightweight charger for fast charging of your phone battery.
	**Internal Battery BL-4c** Inserted under the back cover, this Li-Ion battery provides power in a lightweight package.
	**SS-45** Camera removal tool.
	**DKE-2** Service Cable to connect the PC with the mini USB connector.
	**SS-101** Domesheet alignment jig

	**RJ-148** Soldering Jig
	**Lead-free Solder Wire** Mandatory for lead-free products (Level 2 only).
	**0772040 NMP Standard Toolkit (V2)** For more informations 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.

7. 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.



8. DISASSEMBLY - HINTS

1. Needed tools: SRT-6, metal tweezers, SS-93, SS-45 camera removal tool, a straight bladed screwdriver, dental pick, bit holder with a torx plus size 6 bit, a torque driver, DC plug

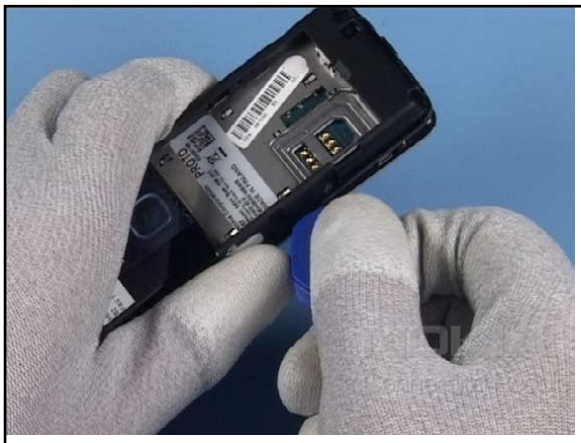
2. Always cover the windows with a protective film.

3. Shift out the C-COVER.

4. **Note! Before disassembling the phone, make sure that the micro SD card has been removed**. Remove both screws in the order shown.

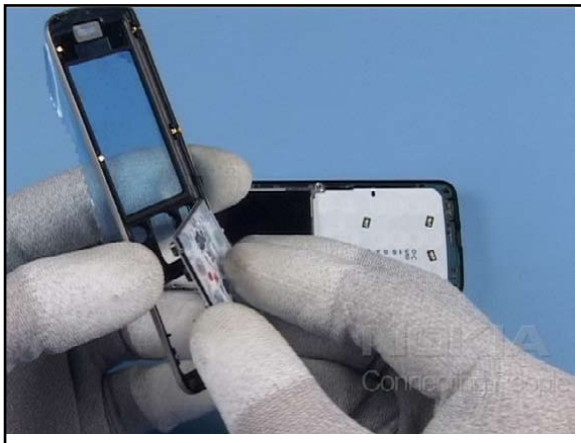
5. Remove the screws.

6. Unlock the plastic clips of the A-COVER with the SRT-6...

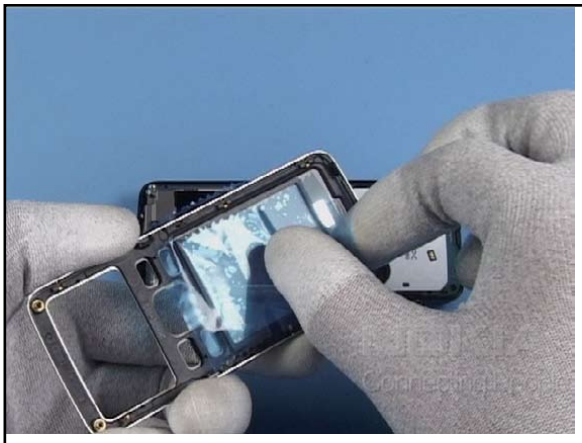


7. ...on both sides.

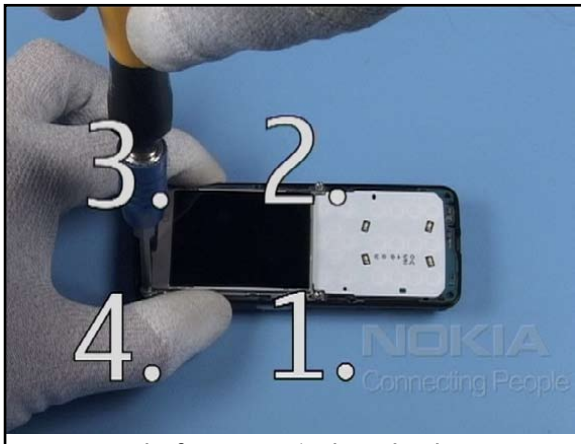
8. Lift up the cover now.



9. Remove the KEYMAT



10. Protect the window from inner side.

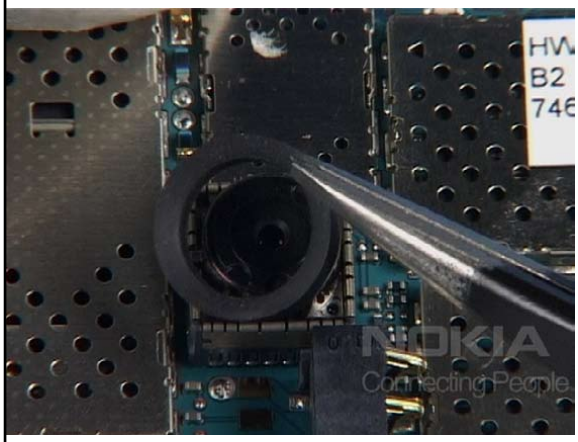


11. Unscrew the four screws in the order shown.

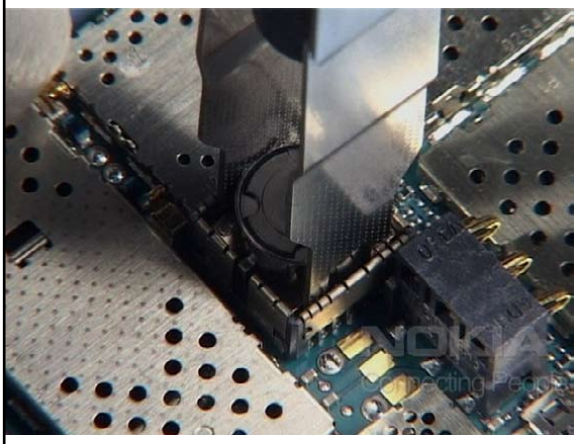
12. Remove the screws. Separate these screws, do not mismatch them with the others.

13. Cover the display with a film.

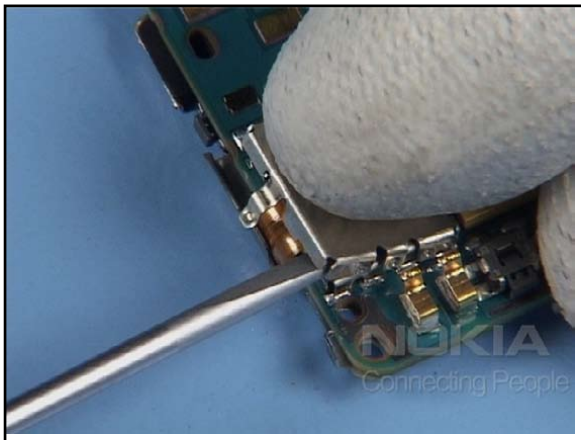
14. **Note! Before removing the B-COVER, make sure that the micro SD card has been removed.** Turn the assembly, lift up the B-COVER.



15. Remove the CAMERA GASKET.



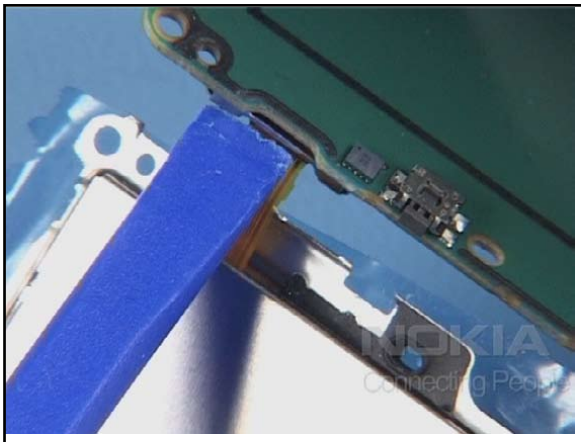
16. Unlock and remove the CAMERA with the SS-45.



17. Release the FLEX SHIELDING LID and discard it.

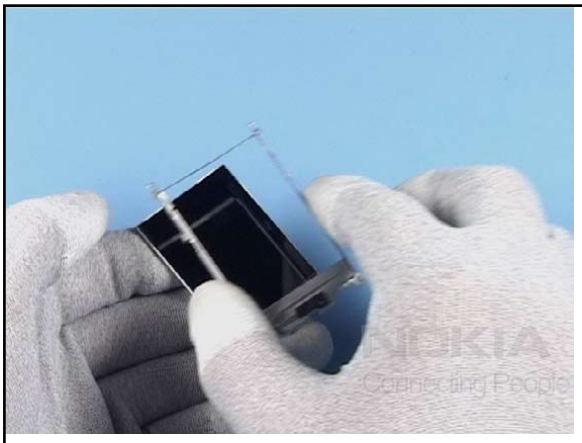
18. Do not use it again.

19. Unlock both metal clips of the UI SHIELD.



20. Carefully unlock the flex connector of the LCD MODULE.

21. Peel up the protective film.



22. Now separate the parts as shown.

23. Cover the display with a film again.

24. Remove the MICROPHONE and the DC JACK.

25. Carefully lever out the EARPIECE ASSEMBLY.

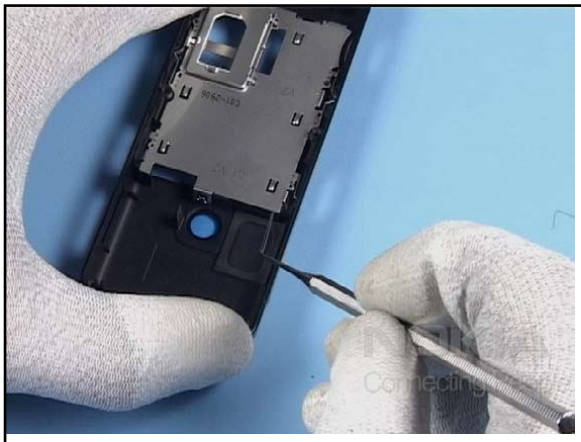
26. Carefully unlock the clip securing the PLASTIC CHAMBER.

27. Now remove it.

28. The IHF SPEAKER is not glued and can be removed easily.

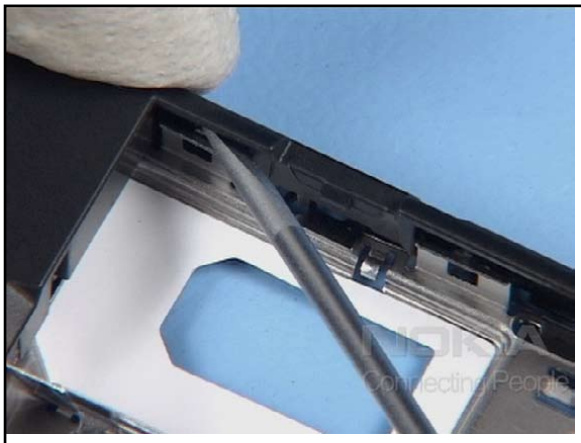
29. Carefully release the clips of the LED- and the SIDE WINDOW.

30. The POWER- and the VOLUME KEY can be removed easily.



31. Release the shown metal snaps of the LABEL COVER ASSY with the dental pick.

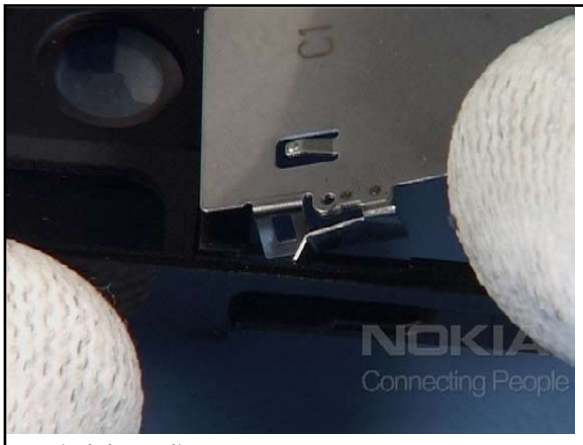
32. Turn the assembly and open the SIM lid.



33. Now release these two latches.

34. Use the dental tool to push out the last clips.

35. Release the LABEL COVER ASSEMBLY, beginning from the bottom side.

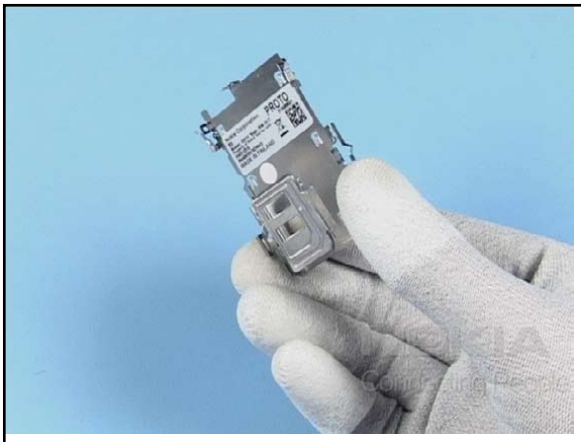


36. Mind these clips.

37. The disassembly procedure is now completed.

9. ASSEMBLY - HINTS

1. Assembly hints:



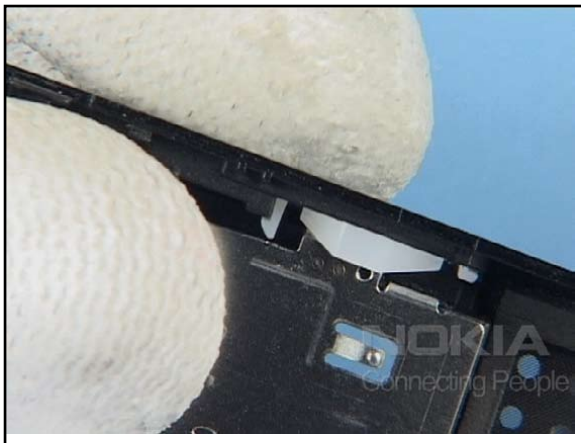
2. Keep in mind that the LABEL COVER ASSEMBLY with the TYPE LABEL must always be assembled together with the corresponding engine module.

3. Insert the LABEL COVER ASSEMBLY into the B-COVER as shown.

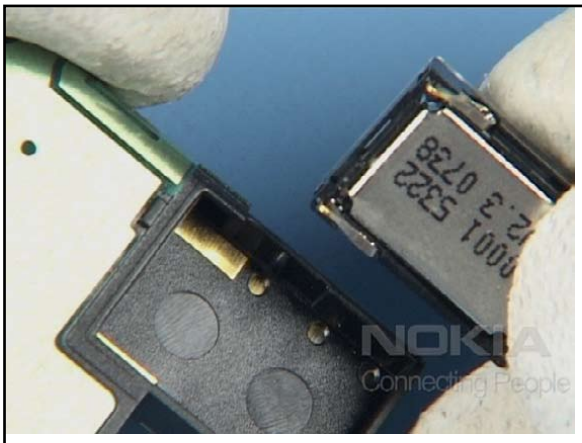
4. Carefully push all latches into their places.

5. Close the SIM lid.

6. Check the correct positioning of all these latches.



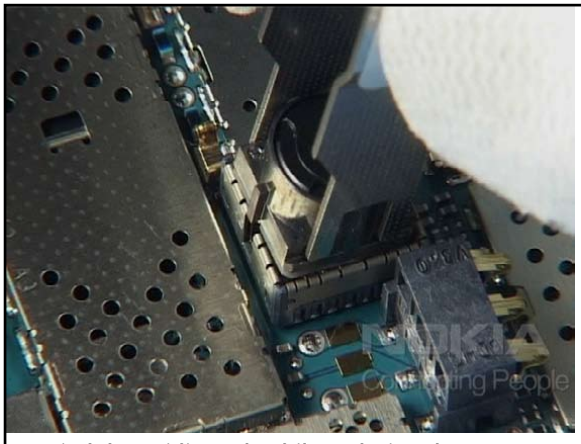
7. Insert the LED- and the SIDE- WINDOW. Note that they can't be interchanged.



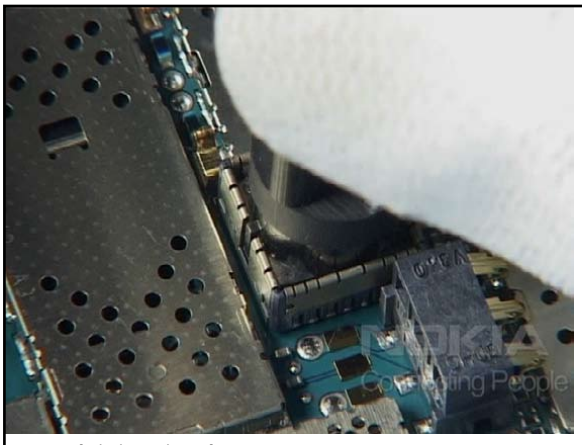
8. Note that the IHF SPEAKER contacts belongs to their pads.

9. Secure all clips of the PLASTIC CHAMBER before going on.

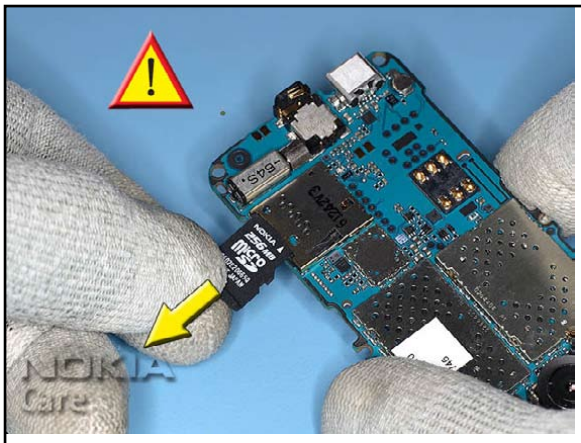
10. Always use a new FLEX SHIELDING LID.



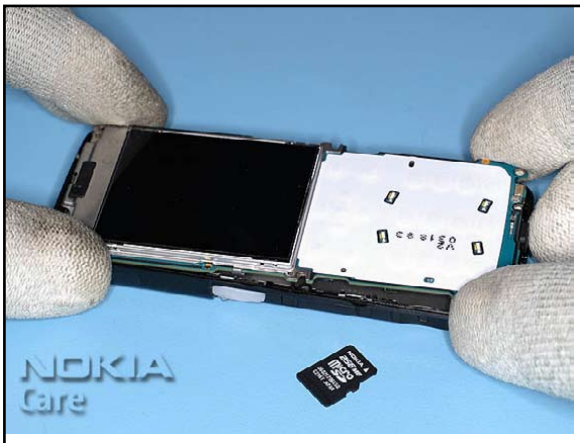
11. Mind the guiding tab while replacing the CAMERA.



12. Push it into its place.

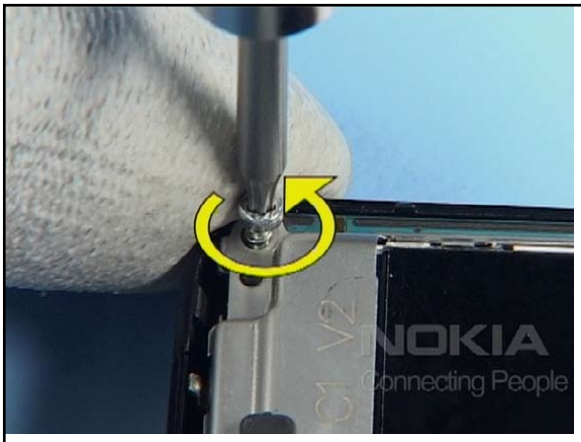


13. Make sure that the microSD card is not inserted, otherwise remove them.



14. Place the assembly onto the B-COVER.

15. Set the correct torque.



16. Turn the screws to the left first to engage the threads, then tighten them slightly.

17. Apply the correct torque to all screws in the order shown.

18. Tighten both screws of the C-COVER in the order shown, too.

10. 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).

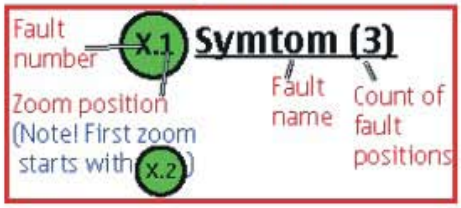
Only marked components can be replaced.
If additionally "**=CHANGE ASSY**" appears, then change the whole assembly (e.g. A4=D-COVER ASSEMBLY).

Cloth usage: Check pads or contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.

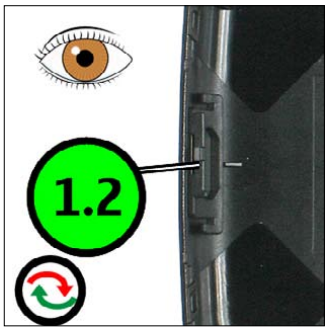
Measure component for electrical functionality and change, if needed.
(Level 2 only)

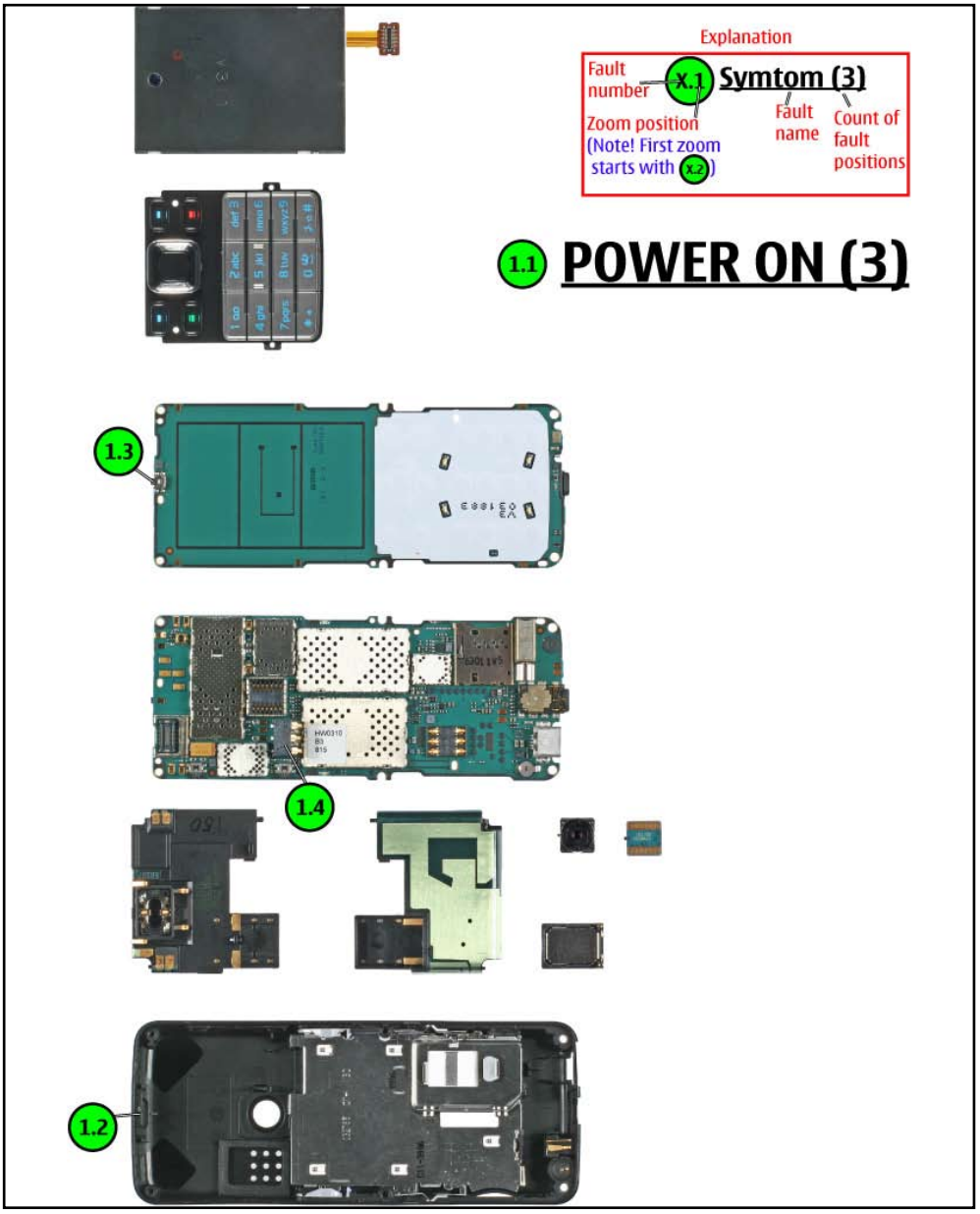
ESD Brush usage: Check contacts for optical and mechanical condition particularly regarding to corrosion. Clean it if necessary.

Explanation

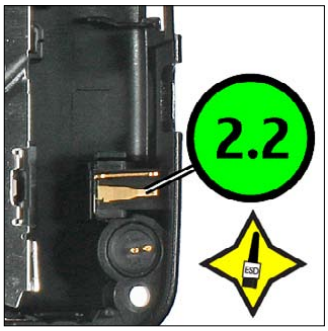


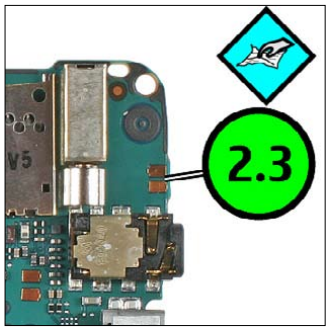
11. QUICK TROUBLE SHOOTER - POWER ON

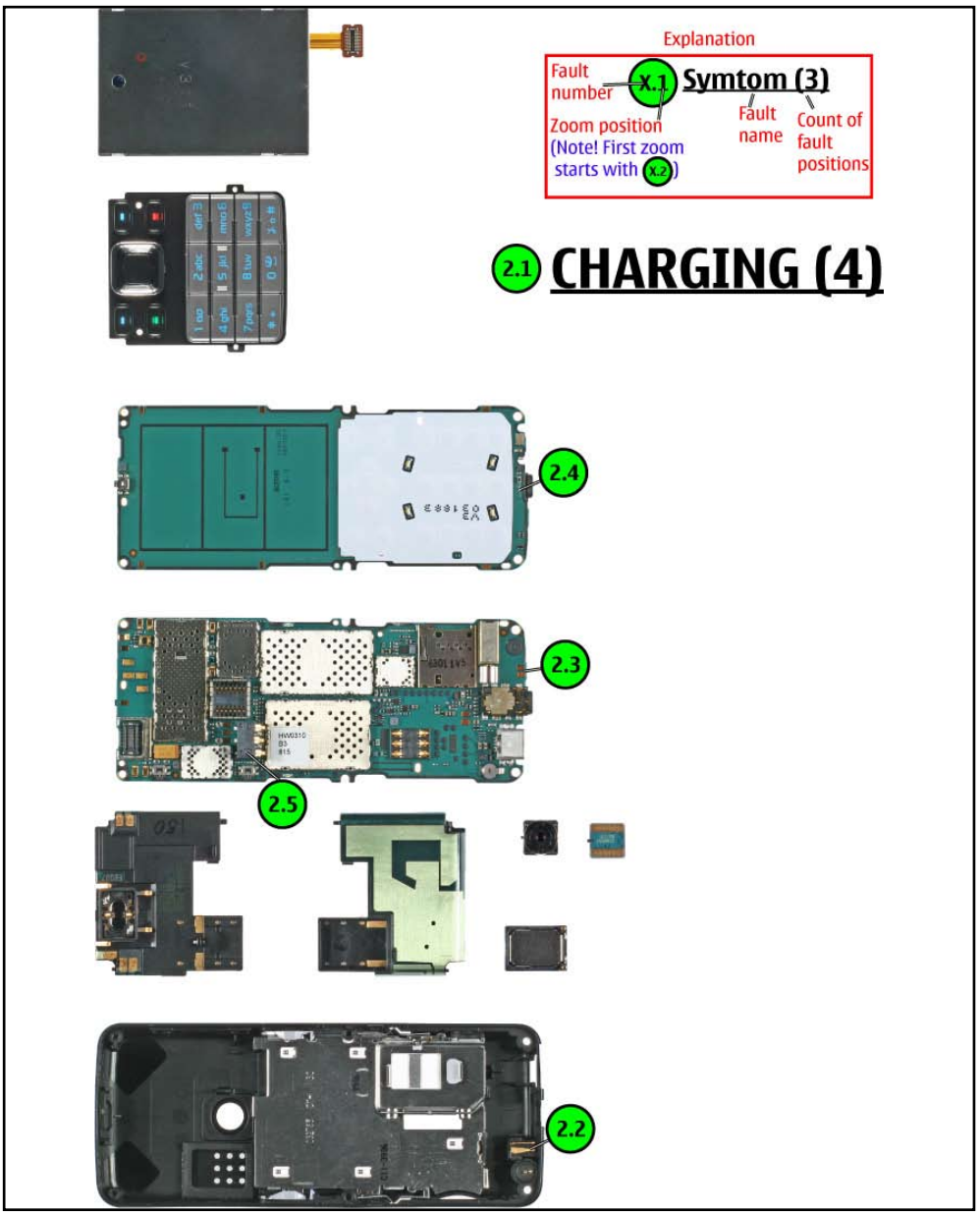




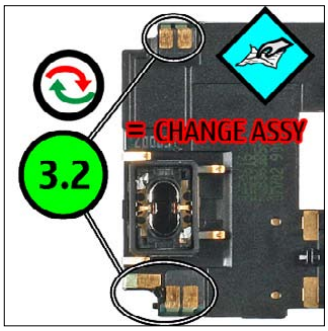
12. QUICK TROUBLE SHOOTER - CHARGING

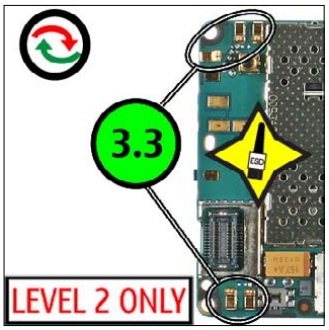


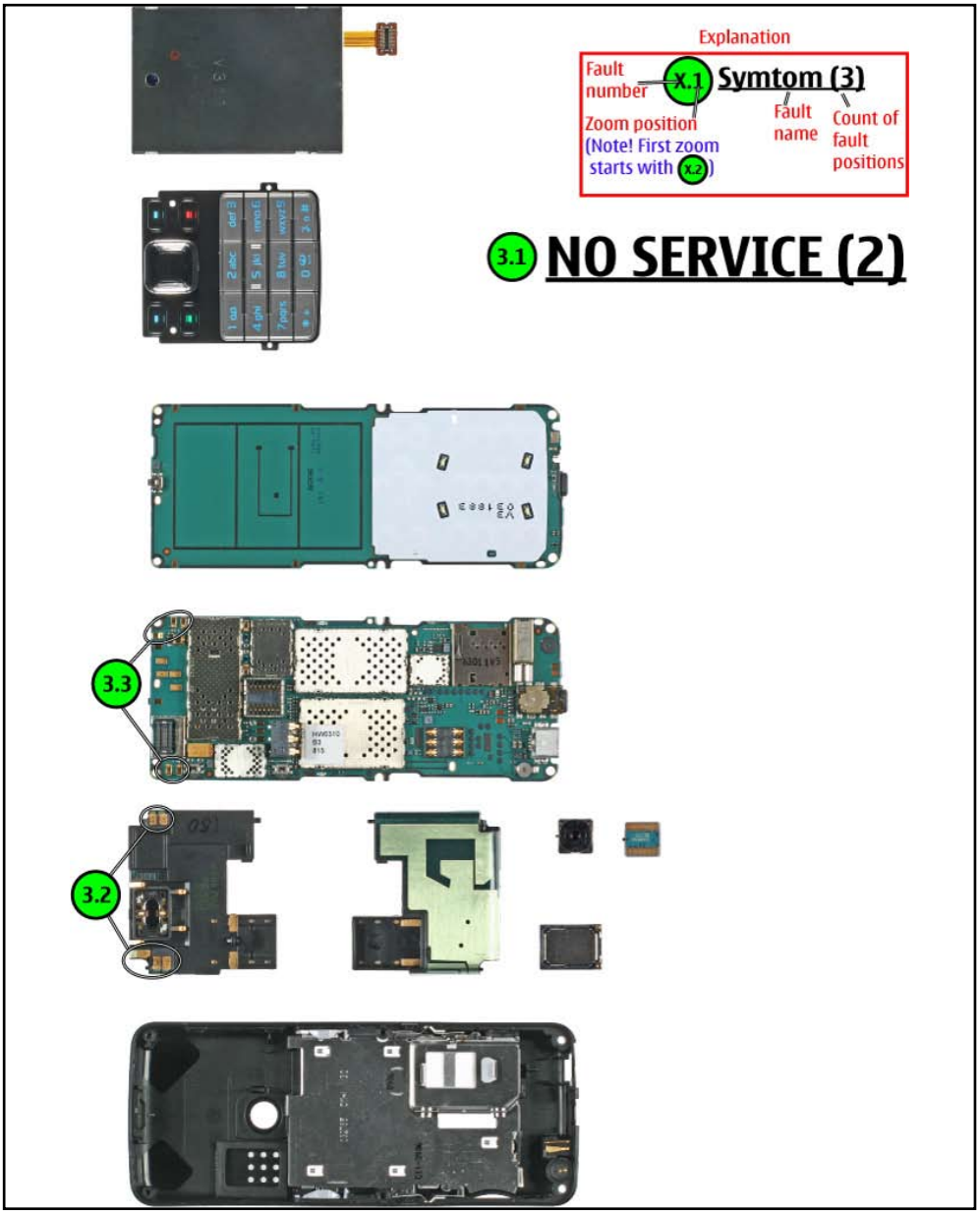




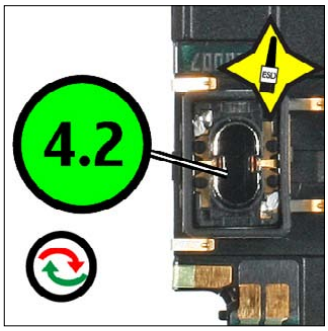
13. QUICK TROUBLE SHOOTER - NO SERVICE

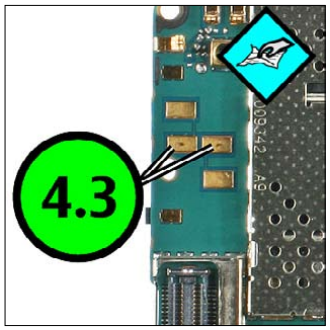


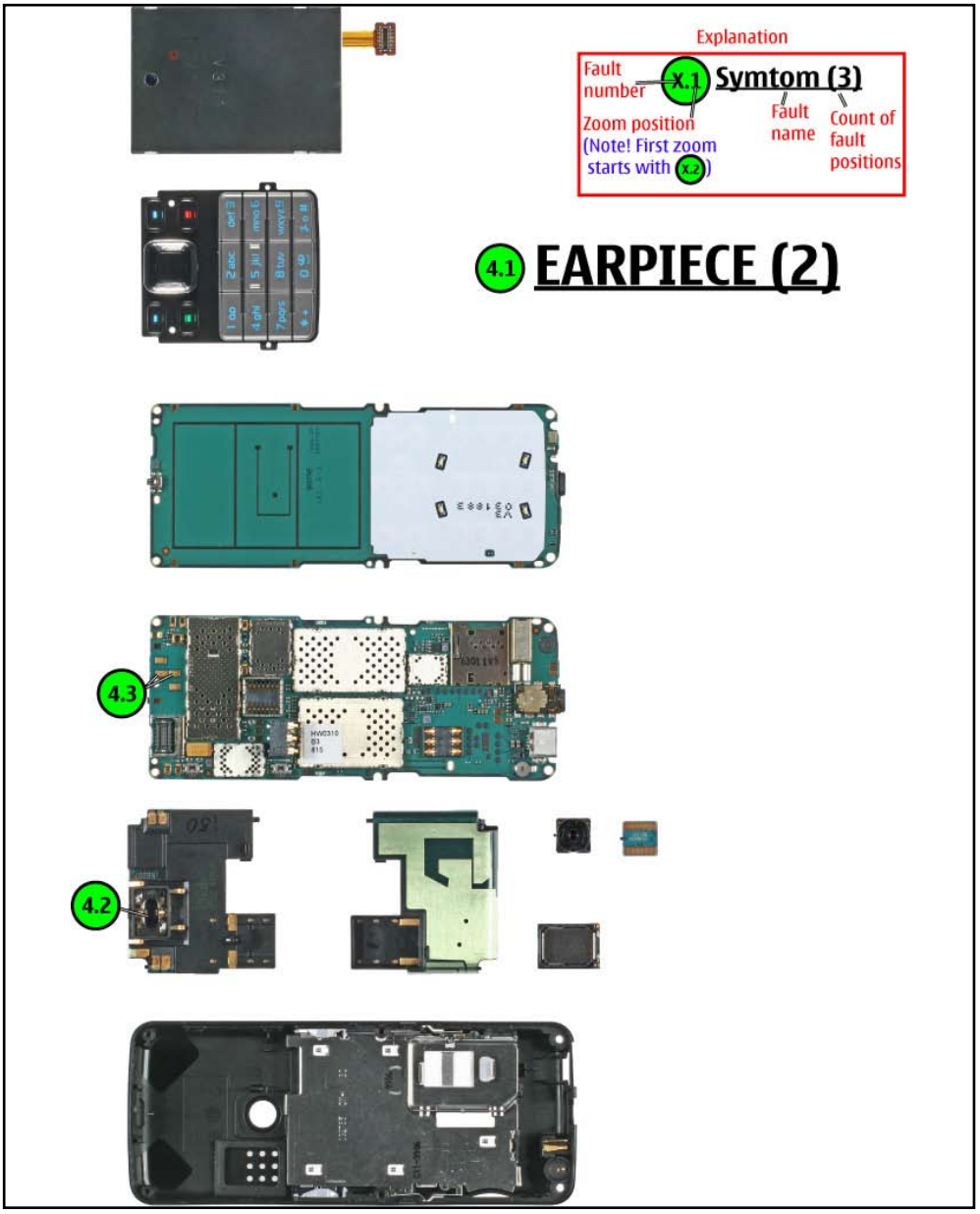




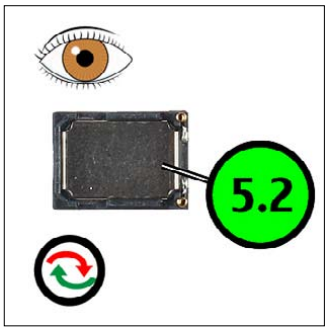
14. QUICK TROUBLE SHOOTER - EARPIECE

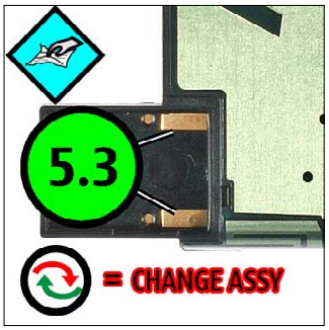


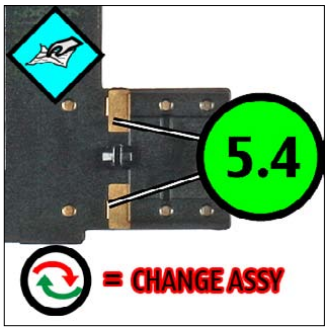


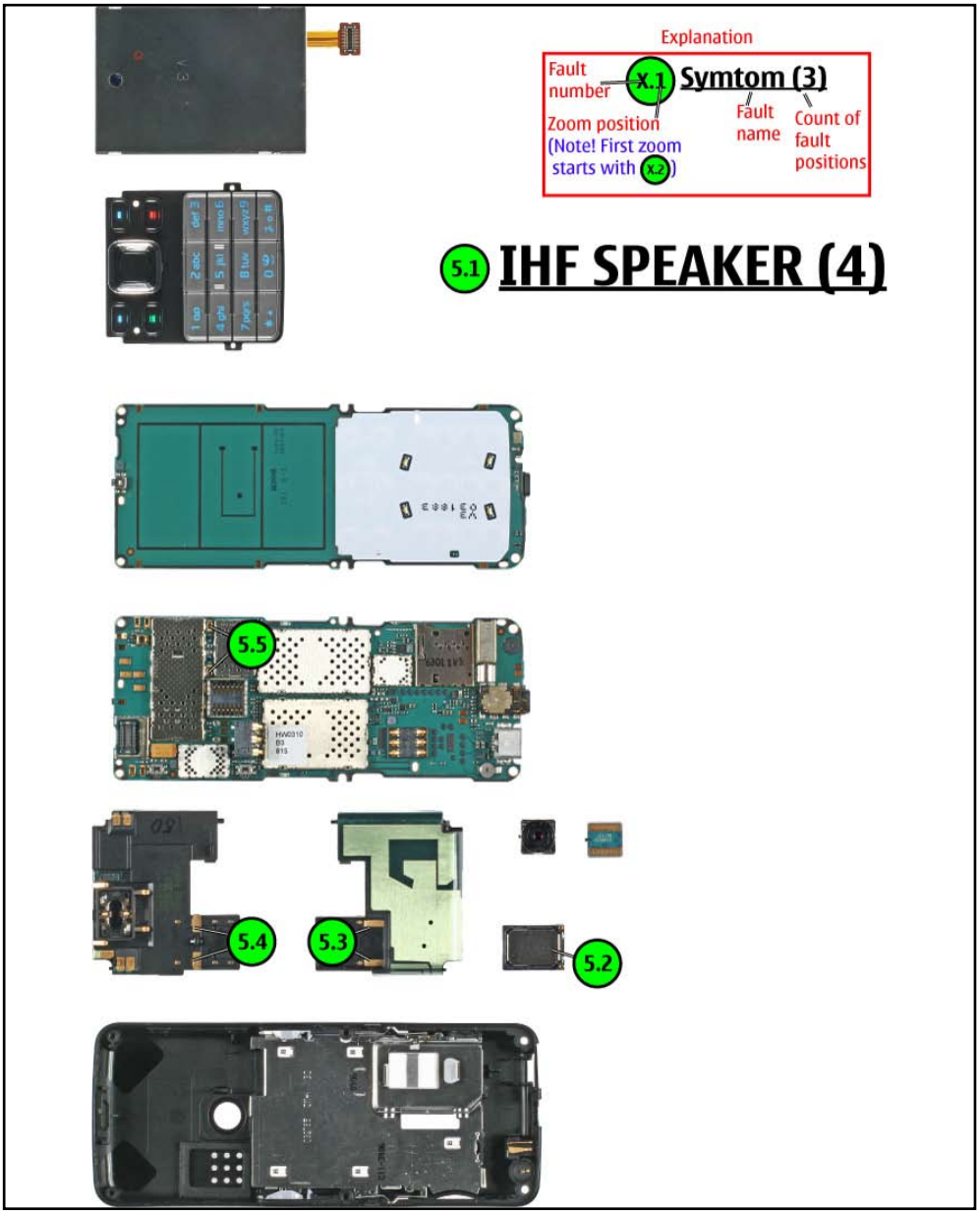


15. QUICK TROUBLE SHOOTER - IHF SPEAKER

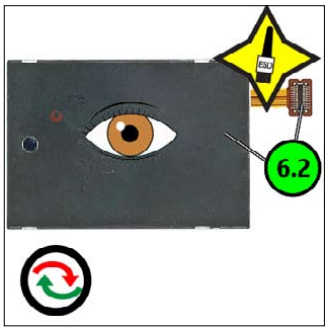


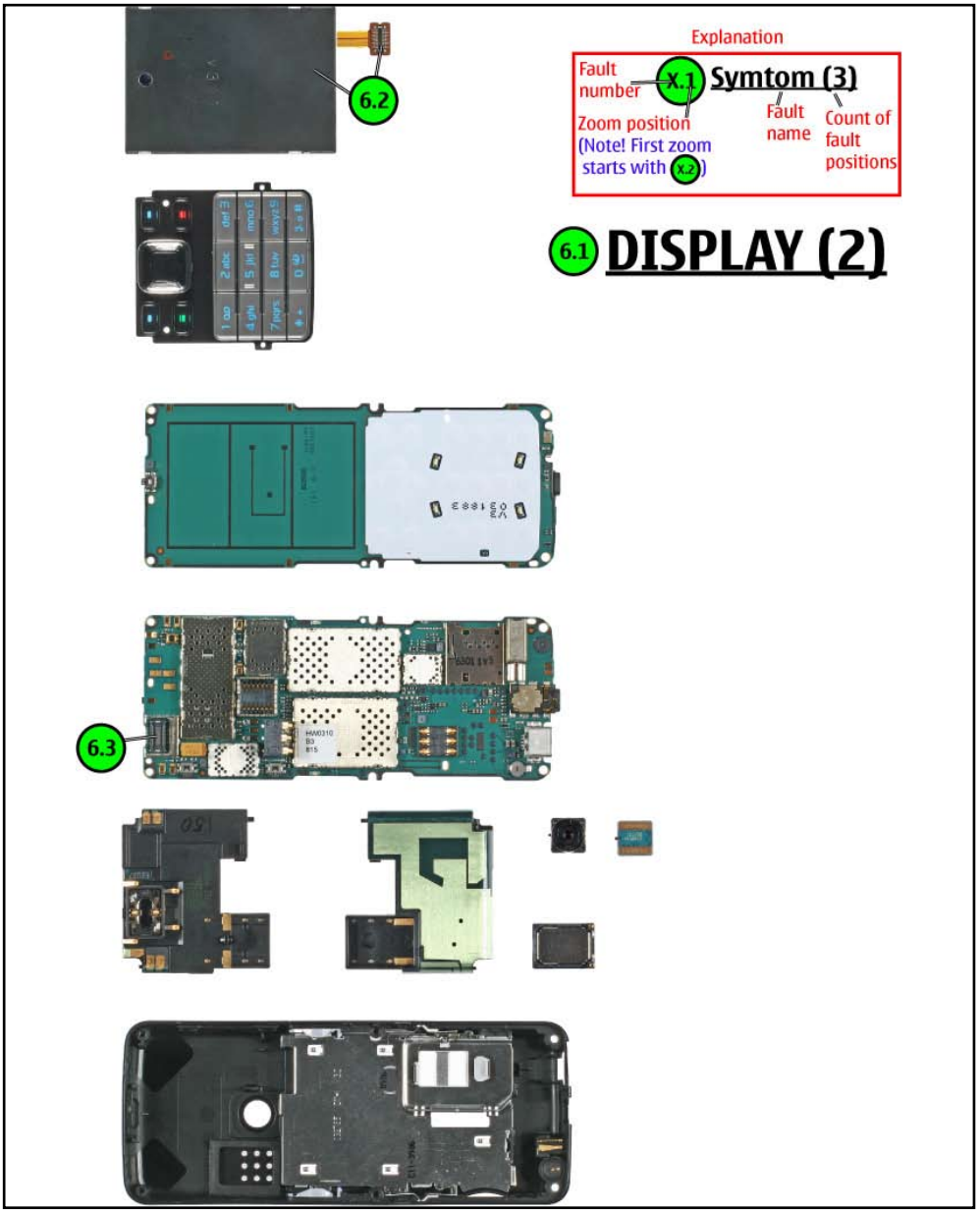




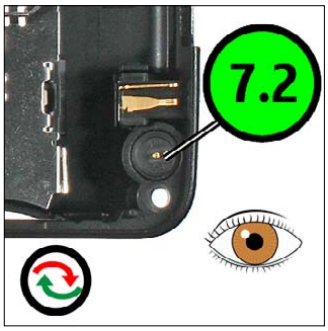


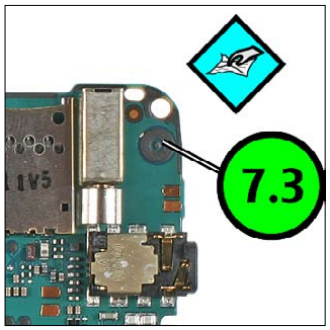
16. QUICK TROUBLE SHOOTER - DISPLAY

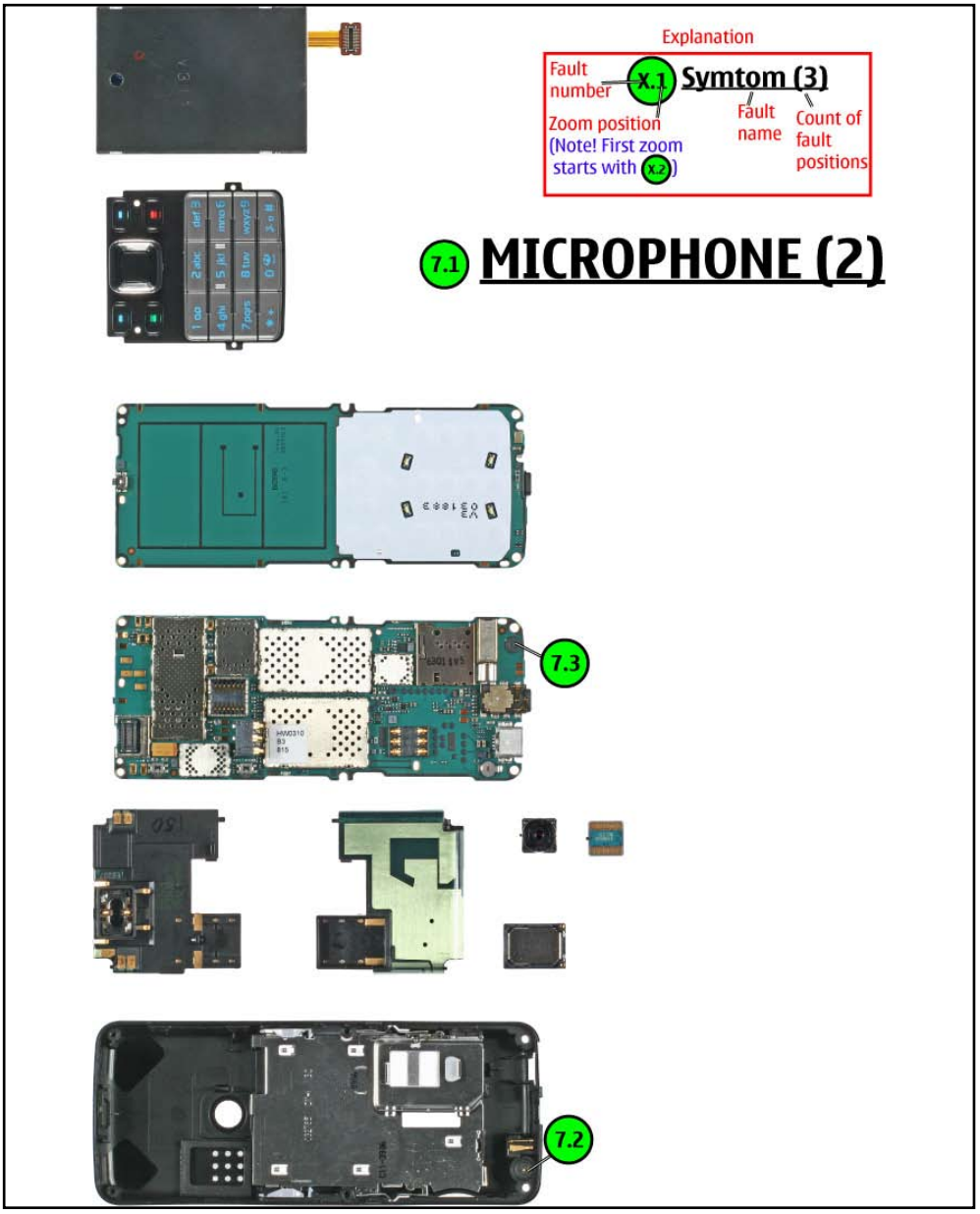




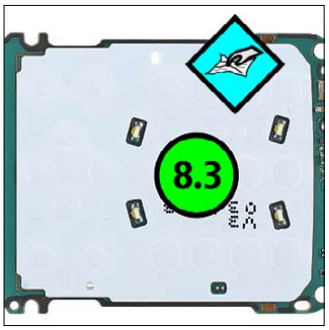
17. QUICK TROUBLE SHOOTER - MICROPHONE

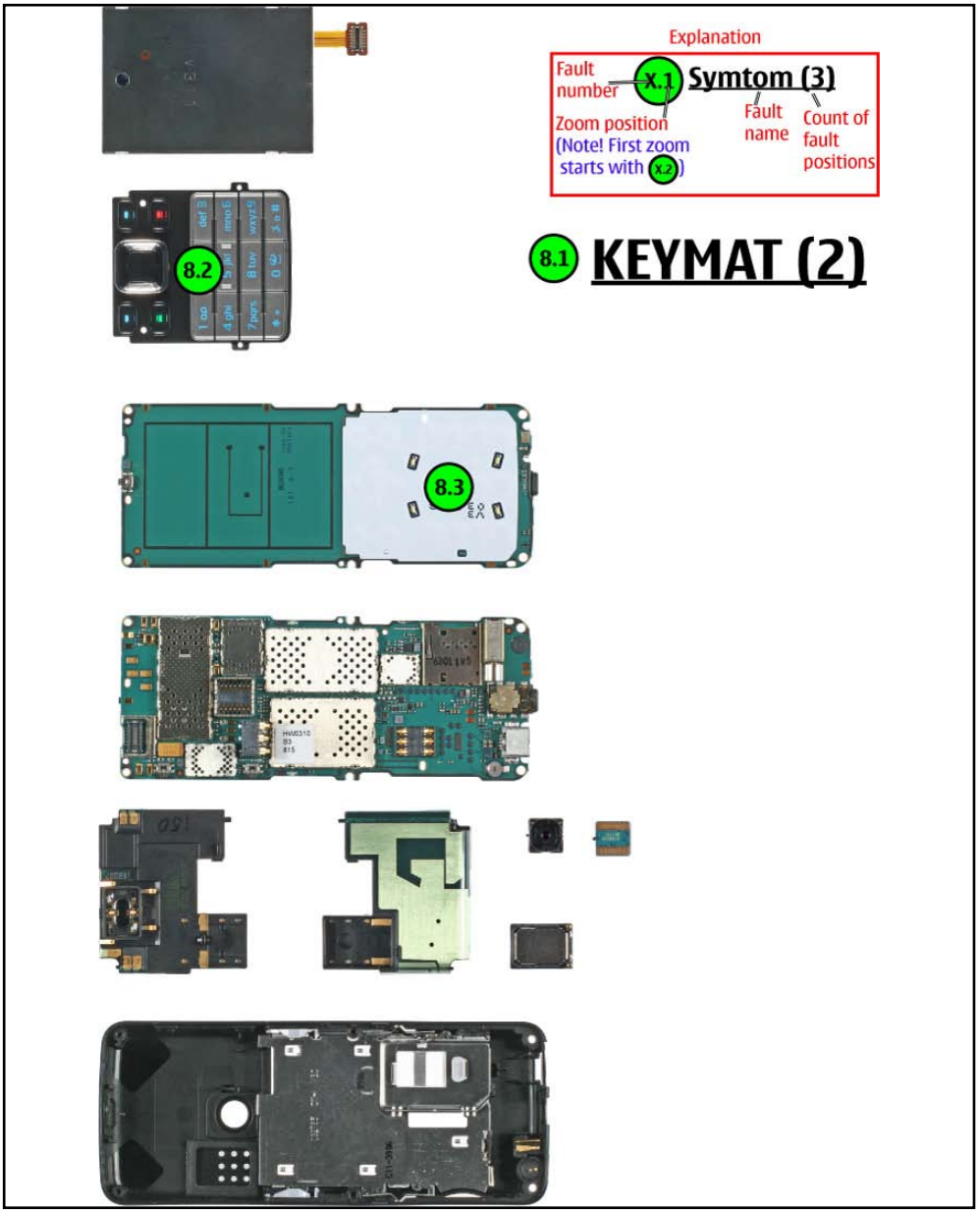




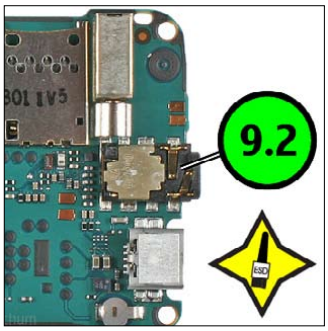


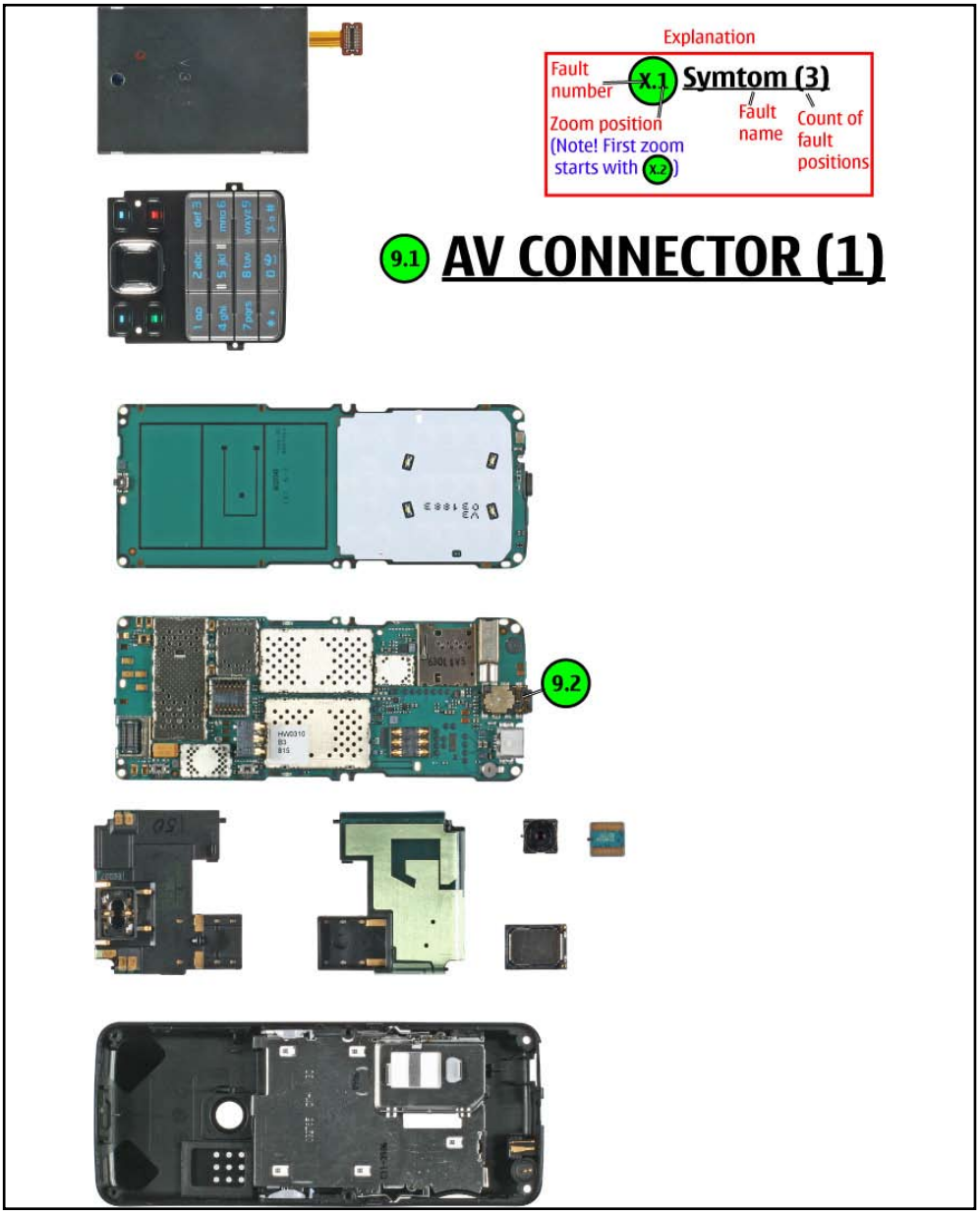
18. QUICK TROUBLE SHOOTER - KEYMAT



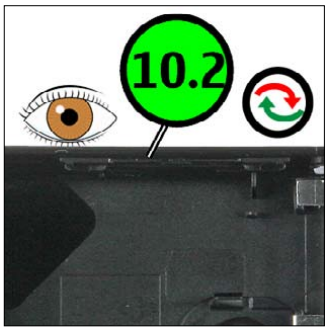


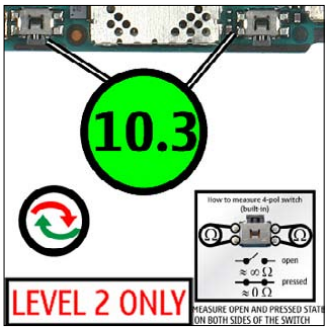
19. QUICK TROUBLE SHOOTER - AV CONNECTOR

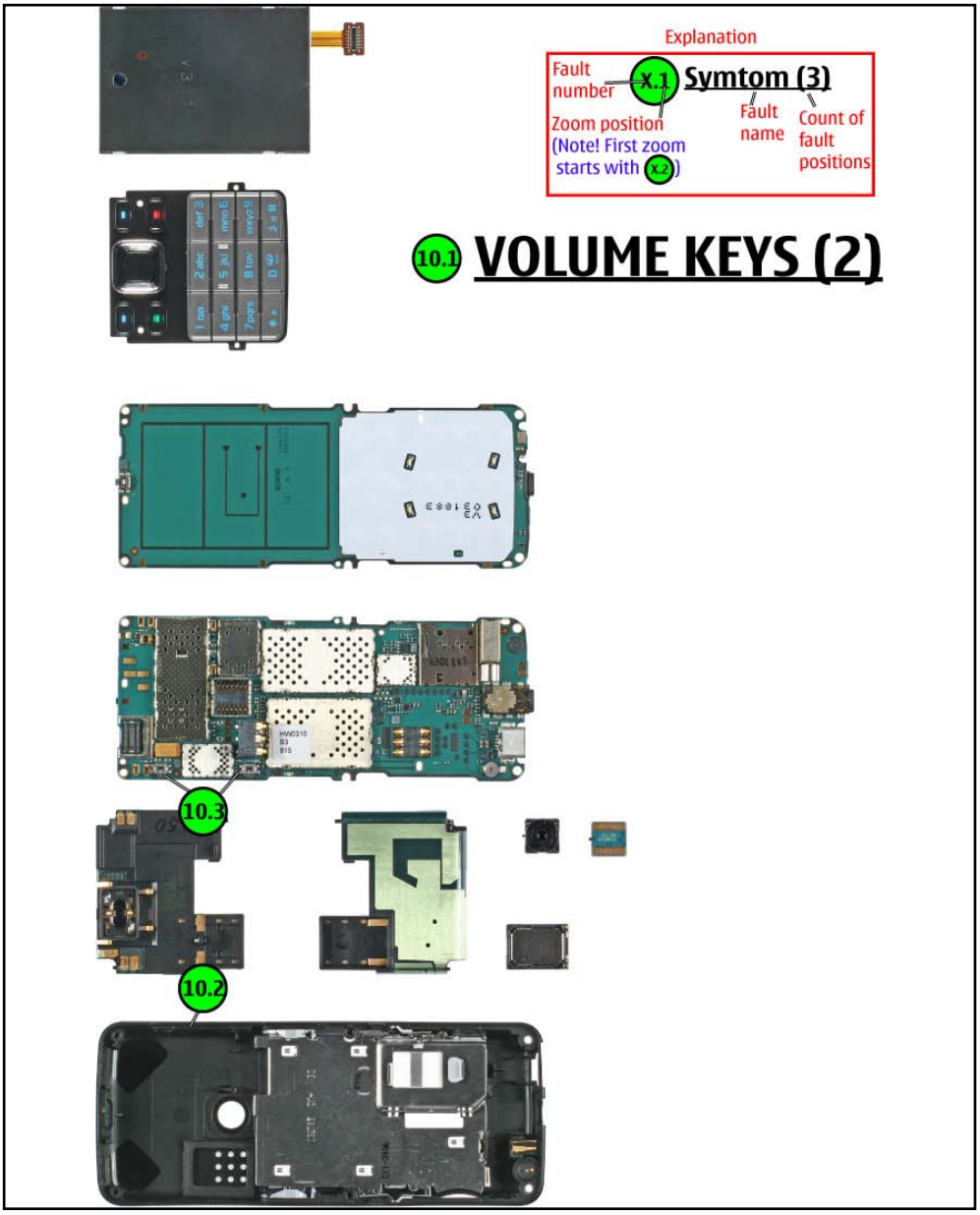




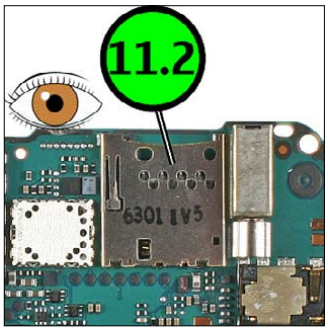
20. QUICK TROUBLE SHOOTER - VOLUME KEYS

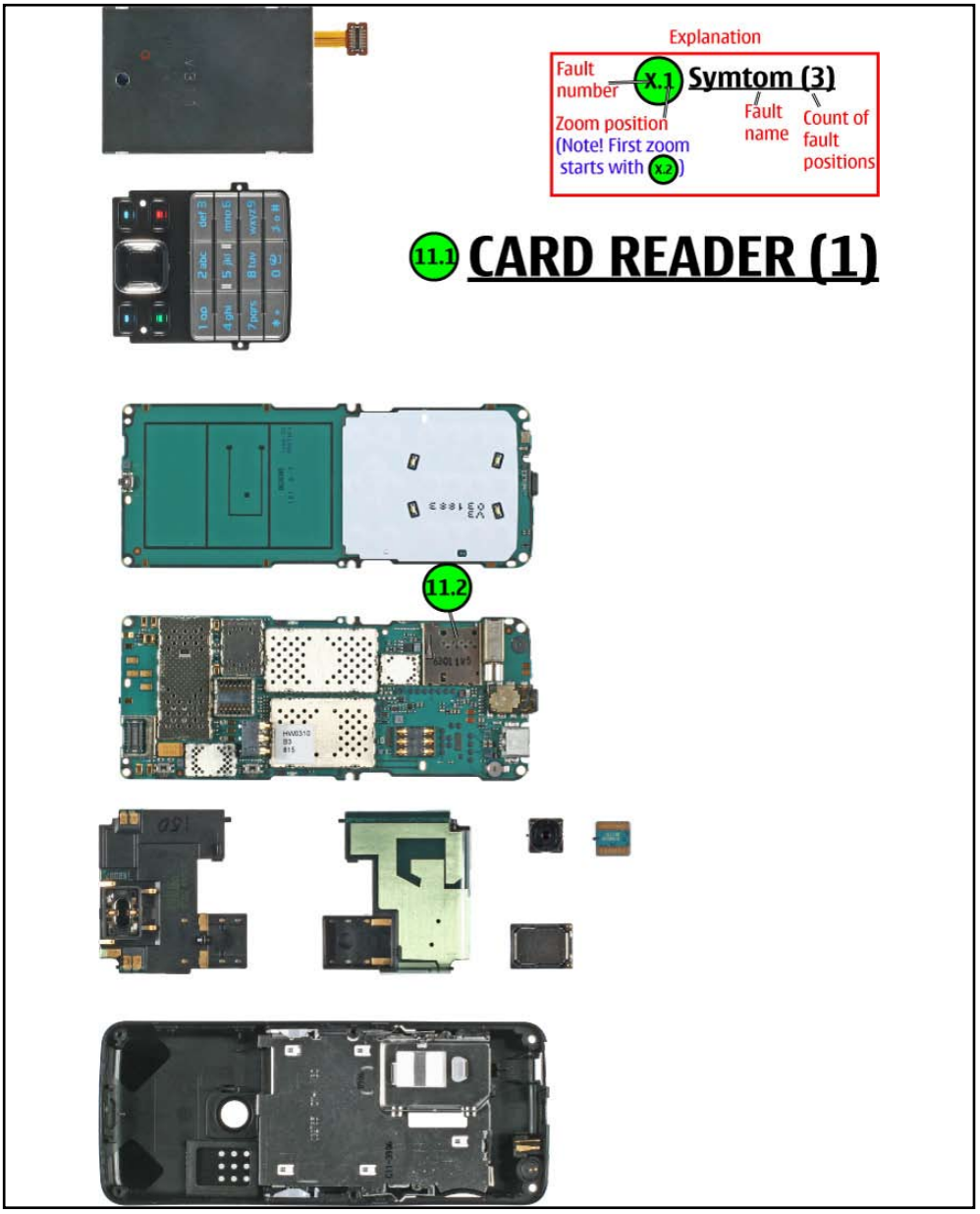






21. QUICK TROUBLE SHOOTER - CARD READER





22. QUICK TROUBLE SHOOTER - CAMERA