

# Working Instruction, Mechanical

Applicable for T39m and T39mc

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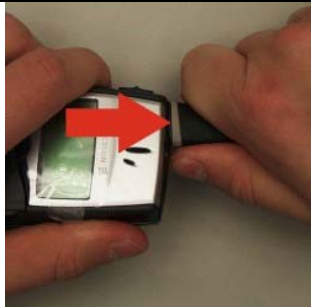

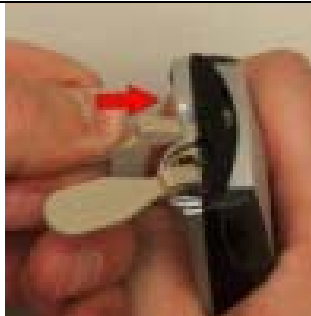
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# 1 Disassembly

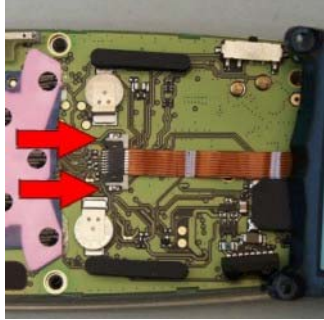

## 1.1 Process Tools

- Front-disassembly-tools.
- Torque screwdriver, torx no.6 pre-set to 33 Ncm.

## 1.2 Instructions

#	Figure	Instruction	Note
1		Remove the battery.	Keep all contact-surfaces/display clean of skin oil. Use gloves!
2		Remove the antenna by slightly moving it side by side at the same time as pulling it out from the phone.	Don't break, the antenna holder/connector may be damaged.
3		Slide in a top tool under the front. Make sure that it's pushed in to the stop on the tool .	Be carefully, don't slide with the tools, the frame or the front will easily be scratched.
4		Push in the other top tool right beside of the antenna house. Push until a snap is heard. Remove the tool	Don't bend with the tool just push.

#	Figure	Instruction	Note
5		Slide in the top tool under the front to the left of the buzzer hole .	
6		Place the side-opening tool in the gap at the top on the phone and slide it down the phone. Make sure that the tool always has contact with the frame under this operation. Repeat with the other side.	
7		Carefully pull off the front cover by lifting and turning it around the system connector .	Carefully so you don't damage the snap holder in the front or stretch the mic-cable.
8		Disconnect the mic-cable from the board.	
9		Remove the four display assembly screws.	

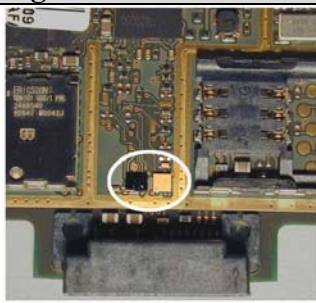


#	Figure	Instruction	Note
10		Remove the display assembly by carefully lifting it upwards. Release the flexfilm by pushing plastic lock upwards.	
11		Remove the three board screws and place the board on an ESD-protected surface.	


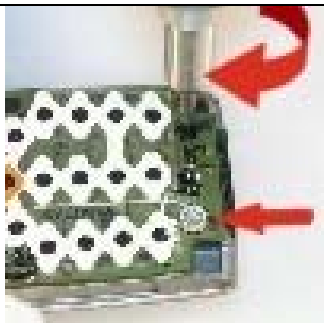


## 2 Reassembly

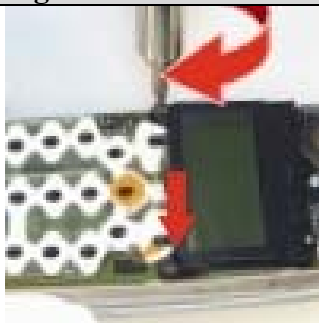
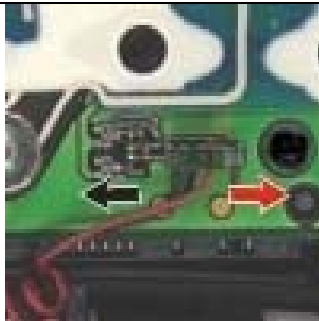

### 2.1 Process Tools

- Torque screwdriver, torx no.6 pre-set to 33 Ncm.
- Tweezers.

### 2.2 Instructions

#	Figure	Instruction	Note
1		On all units that have their front cover removed two support pads SXA 104 4498 must be added. Use tweezers to put a pad each on N701 and N801. Make sure the pads don't cover the areas where the EMC gasket is in contact with the board.	Reference: "SI T39 Mandatory Action" implemented Feb 22 2002 number 8889-29146
2		To prevent future problems all units shall also have a support pad, SXA 109 3035, added to the Ingela circuit (D 201).  Use tweezers and put the pad centered on the BGA circuit.	
3		Control every contact-surfaces on the board is cleans and not damaged.	<b>Keep all contact-surfaces/display clean of skin oil. Use gloves!</b>
4		Place the board on the frame and control that the vibrator connector board is correctly mounted with the cables pointed downward.	

#	Figure	Instruction	Note
5		Assemble a short screw over the vibrator connector and tighten with the torque screwdriver.	
6		Assemble one long screw on the left side (washer) of the system-connector and one short screw of the other side. Tighten them with the torque screwdriver.	
7		Control there is no dust/dirt on the El-lamp or on the backside of the display.	
8		Carefully slide in the flexfilm in to the connector and lock it by pushing the plastic lock downwards.	<b>Make sure that the flexfilm is pushed all the way in.</b>
9		Assemble two long screws beside the loudspeaker and tighten them with the torque screwdriver.	

#	Figure	Instruction	Note
10		Assemble two long screws in the lower corners of the carrier and tighten them with the torque screwdriver.	
11		Make a visual control there are no fissures in the front cover and its snapholders.	
12		Assemble the mic-cable on the board with the cables pointed downwards (red cable to the right and black to the left).	Carefully so you don't stretch the mic-cable.
13		Control there is no dust/dirt on the display or on the inside of the window.	
14		Press the phone together and control there is no gap between front and frame.	Control that the mic-cable is into the cavity between the hinge and the spring
15		Push the volume button up and down to make sure that it's snapped onto the volume-switch.	
16		Assemble the antenna and the battery	

## 3 Replacement of Mechanical Parts


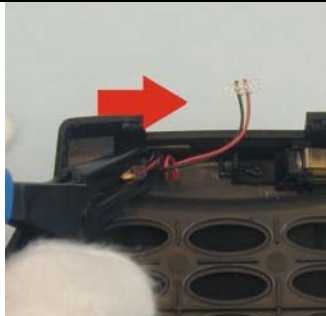
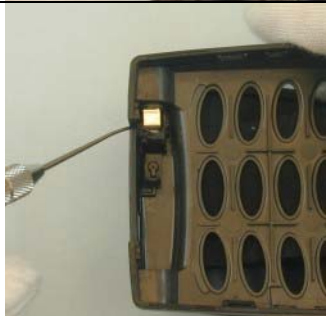
### 3.1 Flip

#### 3.1.1 Process Tools


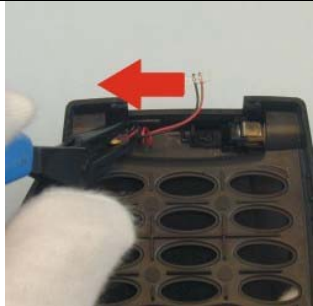
- Flat nose pliers
- Flip removal tool

#### 3.1.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-8.

#	Figure	Instruction	Note
		Place the flip removal tool between the flip and the front	
		Remove the microphone cable contact by pulling it out wards.	
		Remove the hinge clamp	



#	Figure	Instruction	Note
		Open the flip and remove the hinge.	
5		Remove the old flip and place the new one in it's place	
6		Hold the flip in the open position and push in the hinge.	
7		Assemble the hinge clamp	Make sure that it's snaps has locked the hinge clamp in the right place.
8		Close the flip with the flip assembly tool between the front and flip and insert the microphone cable contact.	Make sure that the microphone cable contact is pressed in all the way.

- Assemble the phone as described in 2 *Reassembly*, step 9-14.

**NOTE!** After assembled the phone reset the microphone in the service menu. The Service menu is entered using the following key sequence:  
→ \* ← ← \* ← \*, select "Service Settings", "Select Flip" and Reset 2.


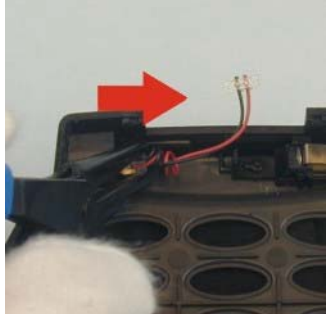

## 3.2 Front Cover


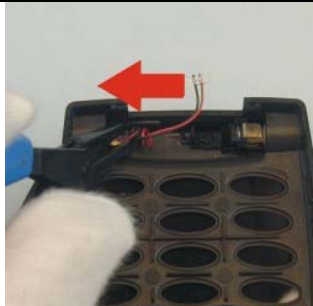
### 3.2.1 Process Tools

- Flat nose pliers.
- Flip removal tool

### 3.2.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-8.

#	Figure	Instruction	Note
		Place the flip removal tool between the flip and the front	
		Remove the microphone cable contact by pulling it out wards.	
		Remove the hinge clamp	

#	Figure	Instruction	Note
		Open the flip and remove the hinge and the flip. Take a new front.	
6		Hold the flip in the open position and push in the hinge.	
7		Assemble the hinge clamp.	Make sure that it's snaps has locked the hinge clamp in the right place.
8		Close the flip with the flip assembly tool between the front and flip and insert the microphone cable contact.	Make sure that the microphone cable contact is pressed in all the.
5		Remove the protection gasket inside the window.	

- Assemble the phone as described in 2 *Reassembly*, step 9-14.


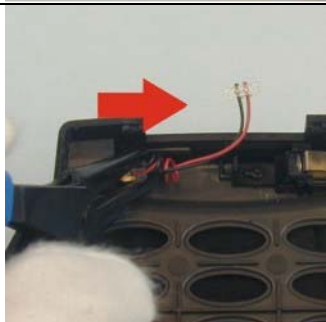
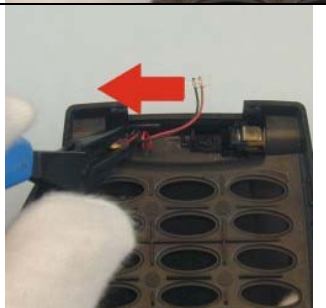
### 3.3 Microphone-cable

#### 3.3.1 Process Tools

- Flat nose pliers.
- Flip removal tool

#### 3.3.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-8.




#	Figure	Instruction	Note
1		Place the flip removal tool between the flip and the front	
2		Remove the microphone cable contact by pulling it out wards.	
8		Take a new microphone cable and insert the microphone cable contact.	Make sure that the microphone cable contact is pressed in all the.

- Assemble the flip as described in *2 Reassembly*, step 9-21.

## 3.4 Volume Button

### 3.4.1 Instructions

- No Disassembly or Reassembly.

#	Figure	Instruction	Note
1		Remove the volume button by pressing in your nail between the button and the front and pull carefully outwards.	Be careful, not to damage the front and control that no snapholders comes loose and stays inside the phone.
2		Take a new volume button.	
3		Assemble the volume button in the lower edge in the front cover with the lower snapholders first.	The triangle arrow inside the button will point upward.
4		Push the volume button up and down to make sure that it's snapped onto the volume-switch.	


## 3.5 Buzzer Gasket

### 3.5.1 Process Tools

- Tweezers.

### 3.5.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-8.

#	Figure	Instruction	Note
1		Remove the gasket from the front cover with a tweezers.	
2		Take a new buzzer gasket.	
3		Assemble the gasket inside the front cover.	Check that the adhesive part on the gasket does not cover the sound channel.

- Assemble the phone as described in *2 Reassembly*, step 9-14.

## 3.6 Keyboard

### 3.6.1 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-8.

#	Figure	Instruction	Note
1		Replace the old keyboard with a new keyboard.	

- Assemble the phone as described in *2 Reassembly*, step 9-14.




## 3.7 Display Assembly

### 3.7.1 Process Tools

- Tweezers.

### 3.7.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-10.

#	Figure	Instruction	Note
1		Press the loudspeaker through the hole in the old carrier.	Do not touch the display or contact surface with your fingers use gloves!
2		Remove the old loudspeaker gasket carefully.	
3		Assemble a new gasket. Make sure that the angel between the carrier and the gasket tape is 90° and that the gasket is positioned with an equal amount of the gasket is visible within the inner contour of the speaker hole.	
4		Assemble the loudspeaker in the hole and press a few seconds without pressing on the LCD or the gasket.	

- Assemble the phone as described in *2 Reassembly*, step 6-14.






## 3.8 Loudspeaker

### 3.8.1 Process Tools

- Tweezers.

### 3.8.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-10.

#	Figure	Instruction	Note
1		Press the loudspeaker through the hole in the carrier.	Do not touch the display or contact surface with your fingers use gloves!
2		Remove the old loudspeaker gasket carefully.	
3		Assemble a new gasket. Make sure that the angel between the carrier and the gasket tape is 90° and that the gasket is positioned with an equal amount of the gasket is visible within the inner contour of the speaker hole.	
4		Assemble a new loudspeaker in the hole and press a few seconds without pressing on the LCD or on the gasket.	
5		Assemble a new loudspeaker support beside the hole onto the loudspeaker.	

Assemble the phone as described in 2 *Reassembly*, step 6-14.

**NOTE!** After assembled the phone reset the Loudspeaker in the service menu.  
The Service menu is entered using the following key sequence:  
→ \* ← ← \* ← \*,select “Service Settings”, “Select speaker” and Reset 1.


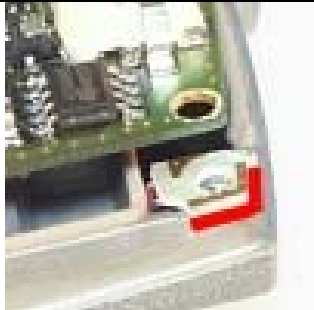

## 3.9 Vibrator Assembly

### 3.9.1 Process Tools

- Tweezers.

### 3.9.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-11.

#	Figure	Instruction	Note
1		Remove the vibrator-assembly with a tweezers by lifting it in the flywheel. If necessary, remove residue from the adhesive gasket.	Be careful, do not damage the EMI-gasket on the frame.
2		Take a new vibrator-assembly and apply the adhesive gasket on the rubber.	
3		Assemble the vibrator-assembly with the flat side up into the specific cavity in the frame.	
4		Place the board on the frame and control that the vibrator connector board is correctly mounted with the cables pointed downward.	
5		Assemble a short screw over the vibrator connector and tighten it with the torx screwdriver.	

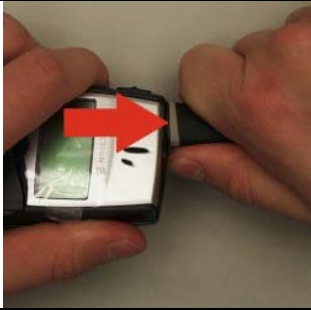
#	Figure	Instruction	Note
6		Break off the vibrator connector board.	

- Assemble the phone as described in 2 *Reassembly*, step 1-14.

## 3.10 Antenna

### 3.10.1 Instructions

- No Disassembly or Reassembly.

#	Figure	Instruction	Note
1		Remove the antenna by slightly moving it side by side at the same time as pulling it out from the phone.	
2		Take a new antenna. Place it in the antenna house and push until a click is heard	



## 3.11 Plug

### 3.11.1 Process Tools

- Tweezers.

### 3.11.2 Instructions

- Disassemble the phone as described in *1 Disassembly*, step 1-11.

#	Figure	Instruction	Note
1		Remove the plug	Be careful, do not damage the EMI-gasket on the frame.
2		Take a new plug.	
3		Assemble the plug into the specific cavity in the frame.	

- Assemble the phone as described in *2 Reassembly*, step 1-14.

## 4 Revision History

Rev.	Date	Changes / Comments
A	2001-05-10	First release
B	2001-07-11	Reset instruction added in chapter 3.1 and 3.8
C	2002-03-15	Item #1, support pads, added in reassembly instruction 2.2
D	2002-05-31	Item #2, support pads for Ingela, added in paragraph 2.2