



Working Instructions, Mechanical

Applicable for P900 and 908

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1 Disassembly Front / Frame

Tools



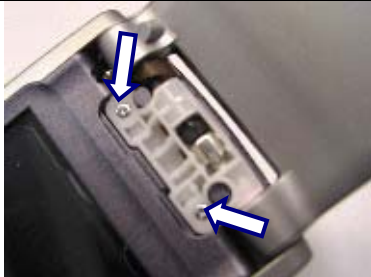
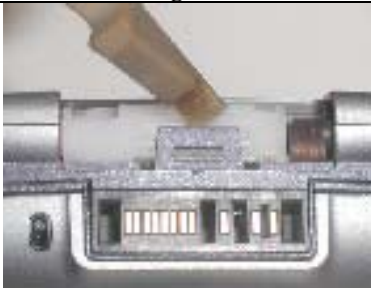
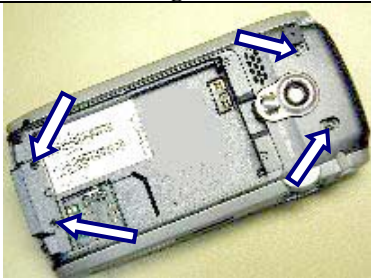
- Screwdriver
- Blunt Pair of Tweezers
- Tool NTZ 112 302/2

Instruction




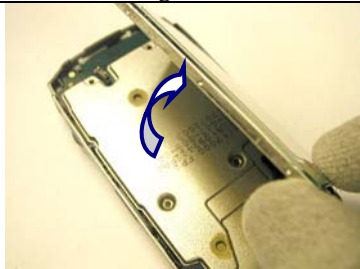
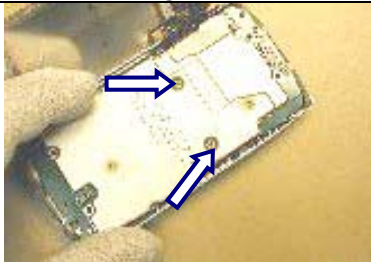
Use gloves!

#	Figure	Instruction	Note
1	 <i>Fig. 1.1</i>	Remove the battery cover by pressing on the triangle mark on the battery cover and move the battery cover in the arrow direction.	Check that the memory stick is removed.
	 <i>Fig 1.2</i>	Take out the battery.	Check that the SIM-card is removed
2	 <i>Fig. 1.3</i>	Take out the stylus in the direction of the arrow	

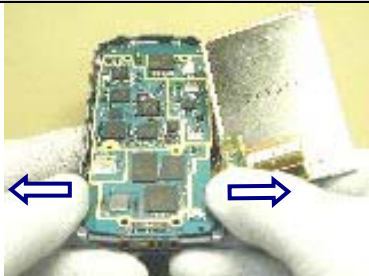
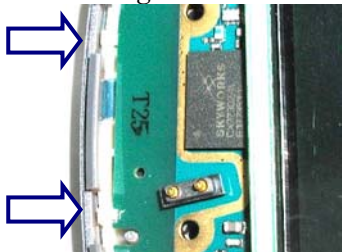




#	Figure	Instruction	Note
3	 <i>Fig. 1.4</i>  <i>Fig. 1.5</i>	<p>Remove the flip bezel by carefully lifting the lower part of the cover until the hooks come loose.</p> <p>If it is hard to loose you can use the stylus. There is a notch in the bezel.</p>	<p>Be careful not to damage the Stylus and Bezel.</p>
4	 <i>Fig. 1.6</i>	<p>Remove the two screws at the arrows</p>	<p>Screws are not to be reused.</p>
5	 <i>Fig. 1.7</i>	<p>Remove the flip by gently loose the hook with the opening tool NTZ 112 203/2 and then lift the whole flip up.</p>	<p>Be careful not to damage or pollute the flex-film and its contact surfaces.</p> <p>(You can also see users manual)</p>
6	 <i>Fig. 1.8</i>	<p>Remove the screws at the arrows.</p> <p>To remove the upper two screws, first you have to remove the rubber plugs, use a dentist hook.</p>	<p>Be careful not to scratch the frame with the dentist hook. The rubber plugs is not to be reused.</p>



#	Figure	Instruction	Note
7	 <p><i>Fig. 1.9</i></p>  <p><i>Fig 1.10</i></p>  <p><i>Fig 1.11</i></p>	<p>To remove the front you have to loose the latches on the front inside located at the arrows in Fig 1.9</p> <p>Start in the gap between front and frame beside the system connector as the Fig 1.10 shows. Use the opening tool NTZ 112 203/2. Then, if necessary, go on doing the same at the other side.</p> <p>Lift the front gently upwards and remove it.</p>	<p>Be careful not to loosen the silver coloured side parts of the front.</p>
8	 <p><i>Fig. 1.12</i></p>	<p>Lift the display up as the Fig 1.12 shows</p>	
9	 <p><i>Fig. 1.13</i></p>	<p>Remove the two screws at the arrows, and remove the shielding can.</p>	<p>Be careful not to damage the flex film connected to the display.</p>



#	Figure	Instruction	Note
10	 <i>Fig 1.14</i>  <i>Fig 1.15</i>	<p>Lift up the PCB from the frame, by gently bend apart the frame sides as fig 1.14 shows. If necessary push gently on the SIM contact on the other side. The jog dial flex film is connected with the board, if necessary gently loose it with a blunt pair of tweezers.</p> <p>The PCB is a little bit tricky to loose because of the antenna connector in the right corner and the upper hooks at the arrows.</p>	<p>Be careful when loosening the PCB from the frame. It works but it is a little bit tricky.</p> <p>It is a risk damaging the antenna connector in the right corner if you do not act carefully.</p>
11	 <i>Fig 1.16</i>	<p>Remove the display connector from the board with a pair of tweezers.</p>	
12	 <i>Fig 1.17</i>	<p>Remove the Camera grommet with a pair of tweezers.</p>	<p>The Camera grommet can follow the PCB when lifting it up, then this operation will be unnecessary.</p>



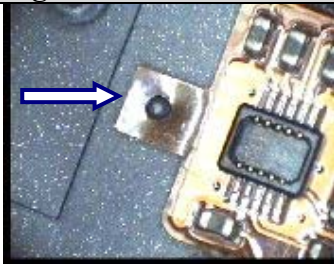

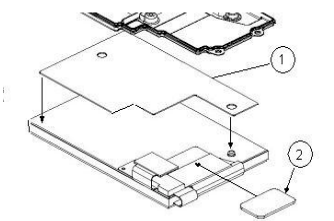
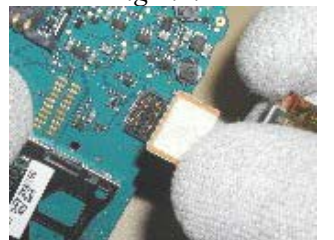
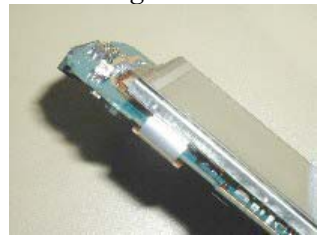
2 Reassembly Front / Frame

Tools



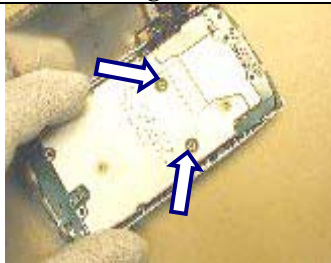


- Screwdriver
- Blunt Pair of tweezers

Instruction

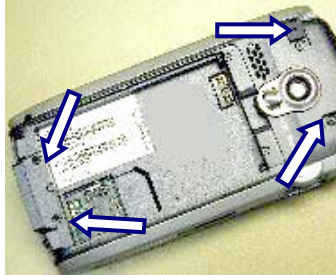

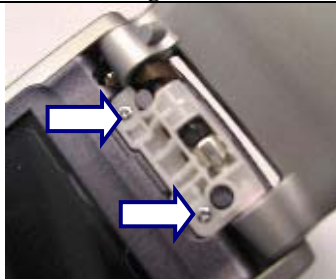
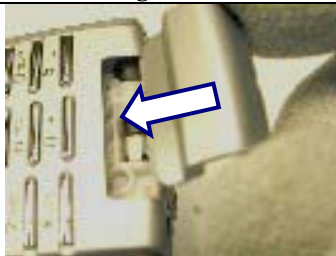


Use gloves!

#	Figure	Instruction	Note
1	 <p><i>Fig 2.1.1</i></p>  <p><i>Fig 2.1.2</i></p>	<p>Make sure there is no dust and small particles left in the frame cavity.</p> <p>Place the Jog dial flex film in the proper position there is a guide pin in the frame and a hole in the flex film at the arrow. Fig 2.1.1</p> <p>Mount the Camera grommet according to the Fig 2.1.2</p> <p>Note the guiding pins in the circles.</p>	<p>The contact on the flex film must be in the proper position to make it possible to fit into the contact at the PCB.</p> <p>The camera grommet must be in the correct position to make it possible to fit the PCB in proper position.</p>
2	 <p><i>Fig 2.2.1</i></p>  <p><i>Fig. 2.2.2</i></p>  <p><i>Fig 2.2.3</i></p>	<p>Mount the LCD cushions 1 and 2 according to the fig 2.2.1</p> <p>Mount the LCD contact at the PCB with your fingers. Fig 2.2</p> <p>The LCD shall be turned to the other side of the PCB after the contact has been mounted Fig 2.2.1</p>	



#	Figure	Instruction	Note
3	 <i>Fig.2.3</i>  <i>Fig 2.4</i>	<p>Put the PCB in the frame. Start at the upper end and gently press it down until it is in proper position.</p> <p>Lift the LCD up and press gently as Fig 2.4 shows to make sure the Jog dial connector is in contact with the PCB</p>	<p>Be careful not to damage the antenna connector in the upper right corner.</p>
4	 <i>Fig 2.5</i>	<p>Lift up the LCD and mount the shielding can over the PCB with the two (1,4 x 4) screws at the arrows Torque set to 7 Ncm +/- 2.</p> <p>Put the LCD back over the PCB.</p>	<p>Be careful with the flex film between the LCD and PCB.</p>
5	 <i>Fig. 2.6</i>  <i>Fig 2.7</i>	<p>Take the front and place it over the frame. Start at the upper end as the Fig 2.6 shows.</p> <p>Press along the sides until it fits properly.</p>	



#	Figure	Instruction	Note
6	 <i>Fig. 2.8</i>  <i>Fig 2.9</i>	Turn the phone around and mount the four (1,7 x 14,5) screws. Torque set to 24 Ncm +/-2. Mount the rubber plugs over the upper screws and antenna connector	
7	 <i>Fig. 2.10</i>	Mount the Flip with the two (nylock M1,4) screws at the arrows Torque set to 7 Ncm +/-2	
8	 <i>Fig. 2.11</i>	Mount the flip bezel.	Press it down until it "Clicks"
9	 <i>Fig 2.12</i>	Put the stylus in place	
10	 <i>Fig 2.13</i>	Mount the battery and battery cover	



3 Replacement of Mechanical Parts Front





3.1 Loudspeaker, Holder Receiver, Cushion Receiver

Tools



- Blunt Pair of Tweezers

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*.

#	Figure	Instruction	Note
1	 <i>Fig. 3.1.1</i>	Remove the holder with a blunt pair of tweezers	
2	 <i>Fig. 3.1.2</i>	Remove the loudspeaker with the pair of tweezers	
3	 <i>Fig 3.1.3</i>	Remove the cushion.	The cushion is not to be reused if once taken away.
4	 <i>Fig 3.1.4</i>	Mount the cushion, make sure it is correct oriented see Fig 3.1.4	



#	Figure	Instruction	Note
5	 <i>Fig 3.1.5</i>	Mount the loudspeaker, make sure it is correct oriented see Fig 3.5	Do not touch or pollute the contact surfaces
	 <i>Fig 3.1.6</i>	Mount the holder as the Fig 3.6 shows.	

- Mount the phone as described in 2 Reassembly Front / Frame.



3.2 Bezel replacement

Tools


Stylus

Instruction

- Disassemble the phone as described in 1 Disassembly Front / Frame,

#	Figure	Instruction	Note
1	 <i>Fig. 3.3.1</i>  <i>Fig 3.3.2</i>	<p>Remove the bezel by carefully lifting the lower part of the cover until the hooks come loose.</p> <p>If it is hard to loose you can use the stylus in the notch on the bezel</p>	<p>Be careful not to damage the frame if you use the opening tool</p> <p>Be careful not to damage the stylus and bezel</p>



#	Figure	Instruction	Note
2	 <i>Fig. 3.3.2</i>	Mount the bezel. Press until it “clicks “.	

- Mount the phone as described in *2 Reassembly Front / Frame*

3.3 Front

Tools

- Blunt pair of tweezers
- Screwdriver

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*.
- Remove all components in the front and reassemble them in a new front according to 3 Replacements of Mechanical Parts Front
- Mount the phone as described in *2 Reassembly Front / Frame*.



4 Replacement of Mechanical Parts Frame


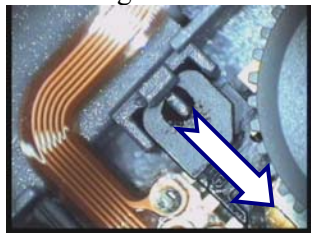
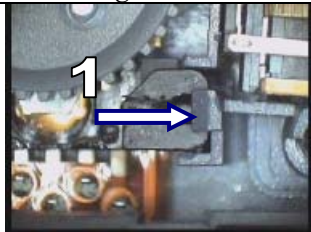
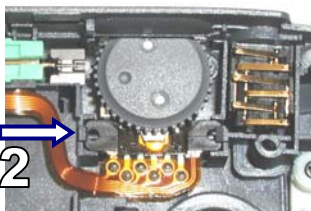
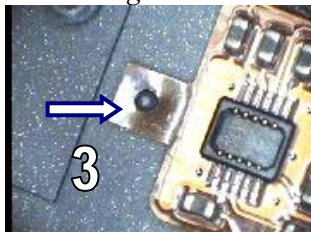
4.1 Jog dial

Tools

- Blunt pair of tweezers
- Dentist hook

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*

#	Figure	Instruction	Note
1	 <p>fig 4.1.1 a</p>  <p>Fig. 4.1.1 b</p>	Remove the jog dial by putting a dentist hook into the hole in the circle, (fig 4.1.1.a) and pull in the arrow direction, (fig 4.1.1b). Pull until the latch is released. Then lift the jog dial up from the frame cavity.	
2	 <p>Fig. 4.1.2</p>  <p>Fig. 4.1.3</p>  <p>Fig 4.1.4</p>	<p>First place a new jog dial under the upper hook (1).</p> <p>Then lock it under the lower hook (2).</p> <p>Fasten the flex film on the guiding pin on the frame (3).</p> <p>Mount the camera grommet as in 4.10</p>	It is important that the flex film is fastened on the guiding pin. It will secure the connection to the board when mounting the PCB.

- Mount the phone as described in *2 Reassembly Front / Frame*, step 1-8.



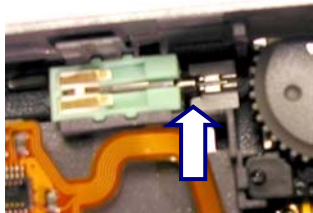
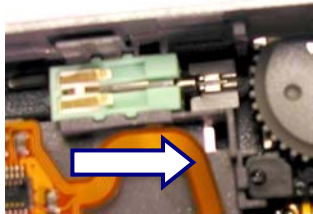
4.2 Vibrator

Tools

- Blunt pair of tweezers

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*, step 1-9.

#	Figure	Instruction	Note
1	 <i>Fig. 4.2.1</i>	Remove the vibrator with a tweezer by lifting the right side at the arrow first.	
2	 <i>Fig. 4.2.2</i>	Carefully press a new vibrator in its place with the connector springs up in the cavity. The vibrator is in the proper position when the ribs fit in the notches and the flywheel is in the arrow direction.	Be careful not to damage the connector springs

- Mount the phone as described in *2 Reassembly Front / Frame*.



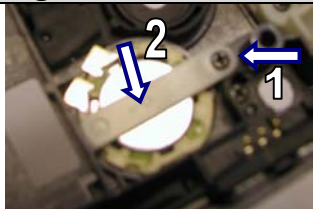


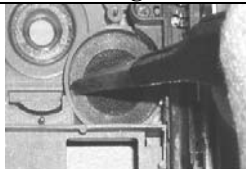

4.3 Backspeaker, Holder- and cushion-loudspeaker.

Tools

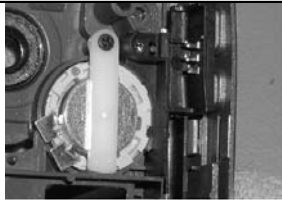
- Blunt pair of tweezers
- Screw driver

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*.

#	Figure	Instruction	Note
1	 <i>Fig.4.3.1</i>	Remove the screw (1) then remove the holder (2)	
2	 <i>Fig. 4.3.2</i>	Remove the back speaker with a pair of tweezers.	
3	 <i>Fig 4.3.3</i>	Remove the cushion.	The cushion is not to be reused when once removed.
4	 <i>Fig 4.3.4</i>	Mount the new cushion	
5	 <i>Fig 4.3.5</i>	Mount the loudspeaker	Note the direction of the contacts. Do not touch the contact surfaces.



#	Figure	Instruction	Note
6	 <i>Fig. 4.3.6</i>	Mount the holder Screw torque 7 Ncm +/-2	Note the position of the holder

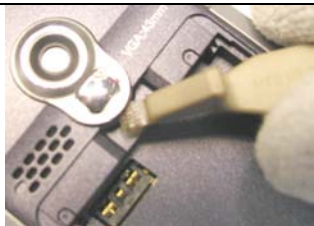

- Mount the phone as described in *2 Reassembly Front / Frame*, step 1-8.

4.4 Panel Camera assembly

Tools

- Opening Tool NTZ 112 302/2
- Blunt pair of tweezers

Instruction

#	Figure	Instruction	Note
1		Remove the battery cover and battery according to disassembly 1.1	
2	 <i>Fig 4.4.1</i>	The Panel camera assembly is mounted with an adhesive. Remove it with your fingers or use the opening tool NTZ 112 302/2.	Adhesive residues can be removed with alcohol.
3	 <i>Fig 4.4.8</i>	Mount the Panel camera assembly onto the lower cabinet. Mount the battery and battery cover.	Make sure the adhesive is clean and fresh before mounting.






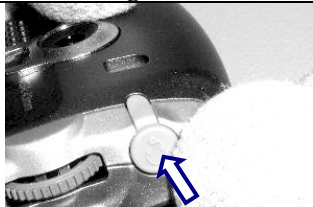
4.5 Phone jack and cap jack

Tools

- Blunt pair of tweezers

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*, step 1-9.

#	Figure	Instruction	Note
1	 <i>Fig. 4.5.1</i>	Loosen the cap jack with your fingers.	
2	 <i>Fig 4.5.2</i>	Remove the phone jack If the cap jack has to be changed. Do it after removing the Phone jack.	
3	 <i>Fig 4.5.3</i>	If necessary mount a new cap jack before the phone jack. Mount a new phone jack, press it down and outwards	Be careful not to damage the contact springs.
4	 <i>Fig. 4.5.4</i>	Put the cap jack in its place.	

- Mount the phone as described in *2 Reassembly Front/Frame*.



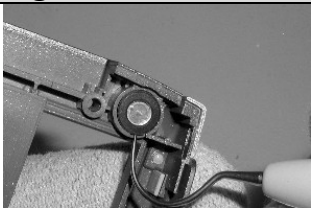
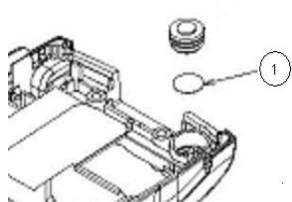
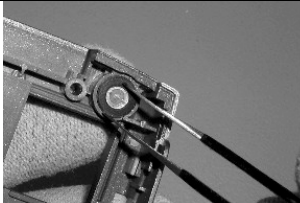
4.6 Microphone

Tools

- Blunt pair of tweezers
- Dentist hook

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*.

#	Figure	Instruction	Note
1	 <i>Fig. 4.6.1</i>	Remove the microphone with a dentist hook.	Be careful not to damage the frame with the dentist hook.
	 <i>Fig 4.6.2</i>	Remove the mic net (1) with a dentist hook Mount a new mic net (1) with a pair of tweezers	Be careful not to damage the frame with the dentist hook.
2	 <i>Fig. 4.6.3</i>	Take a new microphone and press it into the frame. Press on the rubber edge and not in the middle. Use a pair of tweezers.	Note which side is upwards. See Picture.



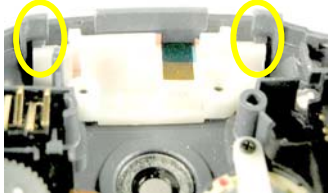
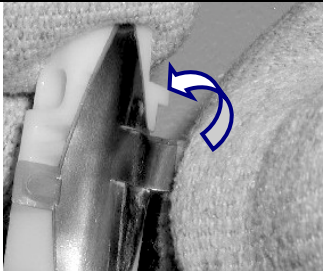
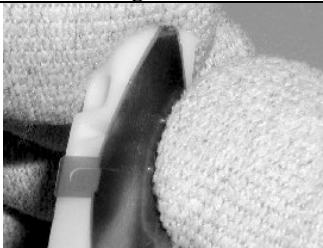
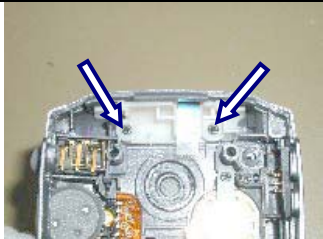
- Mount the phone as described in *2 Reassembly Front / Frame*.



4.7 Antenna

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*

#	Figure	Instruction	Note
1	 <i>Fig 4.7.1</i>  <i>Fig 4.7.2</i>	Remove the two screws that hold the antenna -support. Loose the hooks (see note) and pick up the antenna-support with a pair of tweezers.	Screws are not to be reused. Note the hooks in the circles that holds the antenna support 
2	 <i>Fig. 4.7.2</i>	Remove the antenna from the antenna support	.
3	 <i>Fig. 4.7.3</i>	Mount a new antenna on the antenna-support see fig 4.7.3	
	 <i>Fig 4.7.4</i>	Place the CP-support back in the frame cavity and fasten it with two new screws. Torque 7 Ncm +/-2.	.


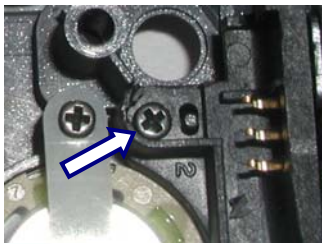
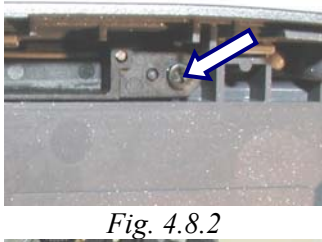
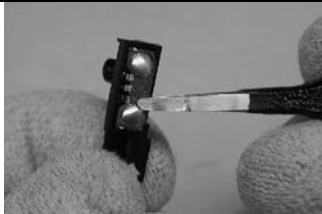
Mount the phone as described in *2 Reassembly Front / Frame*

4.8 Stylus holder, spring and side switch

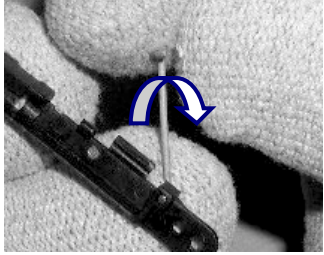
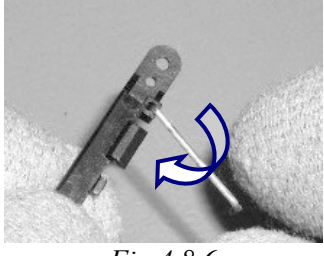

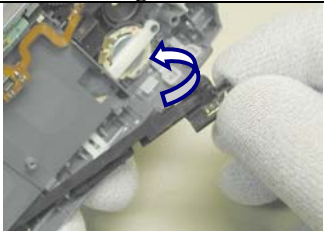

Tools

- Screwdriver
- Opening tool NTZ 112 302/2

Instruction

#	Figure	Instruction	Note
1	 <p><i>Fig 4.8.1</i></p>	<p>Remove the stylus in the arrow direction.</p> <p>Disassemble the phone as described in 1 Disassembly Front/Frame</p>	
2	 <p><i>Fig. 4.8.2</i></p>  <p><i>Fig 4.8.3</i></p>	<p>Remove the two screws at the arrows in the two pictures.</p> <p>Pick up the stylus holder with your fingers. You may need to gently bend the frame outwards a little.</p>	<p>Screws are not to be reused.</p>
3	 <p><i>Fig. 4.8.4</i></p>	<p>Remove the side switch with a pair of tweezers it is fasten by an adhesive.</p>	



#	Figure	Instruction	Note
4	 <i>Fig 4.8.5</i>	Remove the spring with your fingers. Bend it gently down and pull aside.	You may use some force but be gentle not to break the stylus holder. The stylus holder will easily break when disassembly.
5	 <i>Fig 4.8.6</i>	Mount the spring by first place it in the hole and then move it aside to its proper place	Make a test with the stylus to check if the spring is tight enough, before mounting the stylus holder back in the cavity
6	 <i>Fig 4.8.7</i>	Mount the side switch. Take a new adhesive and put it on the switch Place the switch in the stylus holder with a pair of tweezers.	Be careful not to damage the contact springs.
7	 <i>Fig 4.8.8</i>	Place the stylus holder into the frame cavity and fasten it with two new screws. Torque 7 Ncm +/- 2	
8	 <i>Fig 4.8.9</i>	Put the stylus back in place.	Before reassembly check the stylus spring force. The stylus shall not easily fall out.

- Mount the phone as described in 2 Reassembly Front / Frame



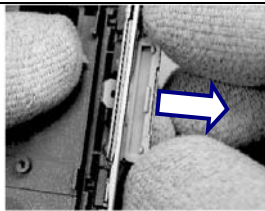
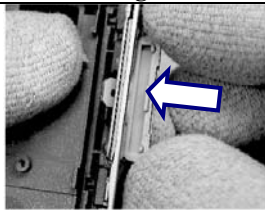
4.9 MS cap

Tools

- Screwdriver

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*

#	Figure	Instruction	Note
1		Remove the stylus holder as in 4.8.	
2	 <i>Fig 4.9.1</i>	Take the MS-cap away with your fingers	
3	 <i>Fig 4.9.2</i>	Mount a new MS- cap with your fingers.	
		Mount the stylus holder as in 4.8	

- Mount the phone as described in *2 Reassembly Front / Frame*


4.10 Camera grommet

Tools

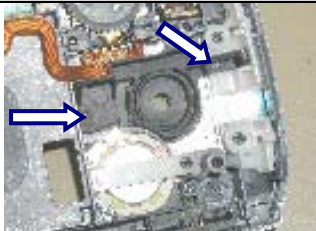
- Blunt pair of tweezers

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*

#	Figure	Instruction	Note
1	 <i>Fig 4.10.1</i>	Remove the camera grommet with a blunt pair of tweezers	



#	Figure	Instruction	Note
2	 <i>Fig.4.10.2</i>	Mount the camera grommet in the frame cavity on the guiding pins. At the arrows.	

- Mount the phone as described in *2 Reassembly Front / Frame*

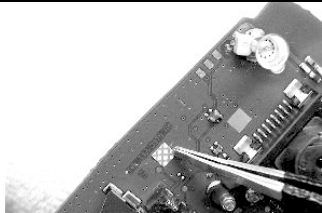
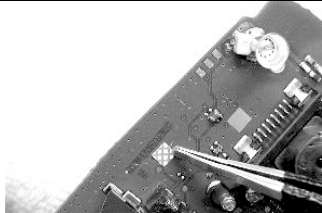
4.11 Water Label

Tools

- Pair of tweezers

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*

#	Figure	Instruction	Note
1	 <i>Fig 4.11.1</i>	Gently remove the water label with a pair of tweezers	Be careful not to damage the PCB. Check carefully and decide if the phone really is to be repaired when being water damaged before doing this operation.
2	 <i>Fig 4.11.2</i>	Mount a new water label.	

- Mount the phone as described in *2 Reassembly Front / Frame*



4.12 Frame

Tools

- Blunt pair of tweezers
- Screwdriver



Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*.
- Remove all components in the frame and reassemble them in a new frame according to 4.1-4.10. It is not possible to reassemble the antenna, take a new one.
- Mount the phone as described in *2 Reassembly Front / Frame*.

5 Replacement of Other Mechanical Parts

5.1 Battery cover

Instruction

#	Figure	Instruction	Note
1	 <i>Fig. 5.1.1</i>	Remove the battery cover by pressing on the triangle mark on the battery cover and move the battery cover in the arrow direction.	
2	 <i>Fig. 5.1.2</i>	Mount the battery cover	



5.2 Bezel front replacement, Flip assembly

Tools

- Screwdriver
- Opening tool NTZ 112 302/2

Instruction

- Remove the Front bezel and flip assembly as in disassembly 1.3 - -1.5
- Mount a new flip assembly as in reassembly 2.7 - - 2.8

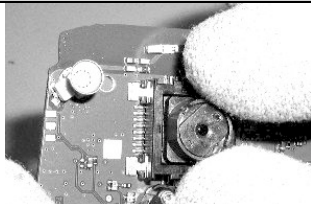
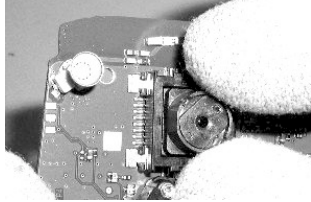
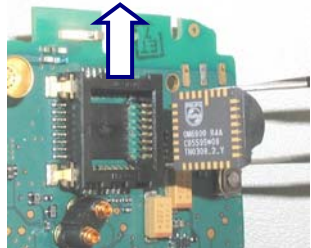

5.3 Camera module

Tools

- Blunt pair of tweezers

Instruction

- Disassemble the phone as described in 1 *Disassembly Front / Frame*

#	Figure	Instruction	Note
1	 <i>Fig. 5.3.1</i>	Remove the camera module from the PCB holder with your fingers. Some force can be necessary to use to loosen the camera.	Be careful not to damage the PCB or camera when using force..
2	 <i>Fig 5.3.2</i>  <i>Fig 5.3.3</i>	Mount the camera module with your fingers. Note the orientation of it. <i>Fig 5.3.3</i> The long contact surface shall be pointing upwards in the arrow direction.	The camera orientation is important! Note the long contact surface at the arrow. 

- Mount the phone as described in 2 *Reassembly Front / Frame*




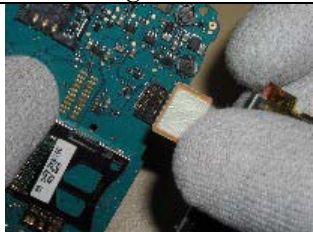
5.4 LCD

Tools

Pair of tweezers

Instruction

- Disassemble the phone as described in *1 Disassembly Front / Frame*

#	Figure	Instruction	Note
1	 <i>Fig. 5.4.1</i>	Remove the LCD – contact to the PCB with a pair of tweezers after lifting the card out of the frame cavity	
2	 <i>Fig. 5.4.2</i>	Mount the LCD-contact to the PCB with your fingers.	

- Mount the phone as described in *2 Reassembly Front / Frame*

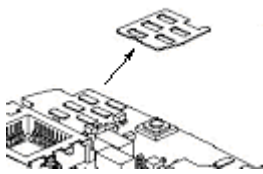
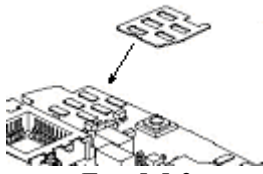
5.5 Isolation Tape

Tools

Pair of tweezers

Instruction

Disassemble the phone as described in *1 Disassembly Front / Fram*

#	Figure	Instruction	Note
1	 <i>Fig. 5.5.1</i>	Remove the isolation tape from the PCB Use a Pair of tweezers	Be careful not to scratch or damage the PCB
2	 <i>Fig. 5.5.2</i>	Mount the isolation Tape on the PCB	

- Mount the phone as described in *2 Reassembly Front / Frame*



6 Label

Tools

- Hot air flow solder station
- Tweezer
- Zebra printer and computer

Instruction

This instruction should be used when you are intending to exchange an old label or mount a new one.

1. Read the old label and/or write the information into the Labelmake program.
2. Heat up the label with a hot air flow solder station.
3. Carefully remove the label, make sure that all residues are gone. Do not scratch the frame.
NOTE! Only one label is allowed on the frame.
4. Check that the right label format (see Part List) is loaded in the zebra printer.
5. Write a new label by using the program Labelmake. Check that the printing is ok.
6. Take the new label and carefully place it onto the frame in the exact position according to Fig 6.1.



Fig. 6.1

The label is not printed in the picture because this instruction is generic and the printing can differ on different markets.

7 Revision History

Rev.	Date	Changes / Comments
A	2003-10-14	First release