Test Instruction, Mechanical

Applicable for K700i/K700c

Contents

1 Abstract

This document describes the test procedure for the Mechanical repair package.

2 Test Procedure

To verify all components within the Mechanical repair package, all tests must be performed.

3 Test flow

If the unit is passing these steps of testing without any failures,
it is OK to return it to the customer.

If there are any failures, the phone must be repaired according to the Troubleshooting Guide
or sent to a higher repair level.

3.1 Software Update

Update to latest signalling software and run the service activities software from EMMA II.

3.1.1 Verify Software Version

To verify if the phone needs new software, you have to check the Software Version in the phone. Current Software Versions are checked through the following steps:

1. Start the phone.
2. Press the following navigation-key and keyboard sequence: ⇨ ✳ ⇦ ⇦ ✳ ⇦ ✳
3. Select Service info.
4. Select Software info.
5. Check the software file revisions on the display.
6. Press OK to return to the Service info menu.

3.1.2 Update Software Version

Update the software in the phone by doing the following steps:

1. Make assure that the phone's battery is fully charged or use a Dummy battery and a power supply. Connect correct flash cable and interface according to the Installation instruction.
2. Connect to the Emma II server, choose application "GSM" and follow the instructions.

3.2 Service Tests

NOTE! It is not necessary to have a SIM card inserted.

Start the phone.

The Service Tests menu is entered using the following navigation-key and key sequence: ⇨✶⇦⇦✶⇦✶ and select "Service tests".

3.2.1 Main Display Test

To verify the display:

1. Select "Main Display" from the "Service Tests" menu.

2. The display toggles between four different test patterns.
   Make sure that there are no dots missing and that the colours and contrast is OK.

3. Press the "ↄ" key to go back to the service tests menu.

3.2.2 Camera Test

To verify the camera functionality:

1. Select "Camera" from the "Service Tests" menu.

2. The camera function will now starts and are visible in the display. Make sure that the contrast and light is OK.

3. Press the "ↄ" key to go back to the service tests menu.

3.2.3 LED/Illumination Test

To verify that the backlight and the Top LED are OK:

1. Select "LED/illumination" from the "Service Tests" menu.

2. Check that the backlight on the LCD and the keyboard are toggling between on and off.

3. Check also that the red led in the On/Off key is toggling between on and off.

4. Press the "Ok" key to go back to the service tests menu.

3.2.4 Flash LED Test

To verify that the camera light is working:

1. Select "Flash LED" from the "Service Tests" menu.

2. Check that the camera light, placed back of the phone, is flashing.

3. Press the "OK" key to go back to the service tests menu.

3.2.5 Keyboard Test

To verify that the keyboard, the navigation-key and the volume key are OK:

1. Select "Keyboard" from the "Service Tests".

2. Press all keys on the keypad, the camera key and the volume keys on the left side and the "Web" key on the right side**.** If they are Ok ,a text feedback is displayed showing the information which key was pressed. All keys should be tested. On/Off key is included in the test.

3. If you stop pressing keys the phone will return to the service test menu after 3 seconds.

3.2.6 Vibrator Test

To verify the vibrator function:

1. Select "Vibrator" from the "Service Tests" menu.

2. Press any key and the vibrator will vibrate 3 times.

3. Press the "Ok" key to go back to the service tests menu.

3.2.7 Earphone Test

To verify the Earphone function:

1. Select "Earphone" from the "Service Tests" menu.

2. Adjust the volume with the joystick and make sure that the Earphone (frontside) is working properly.

3. Press the "Ok" key to go back to the service tests menu.

3.2.8 Speaker Test

To verify the Speaker function:

1. Select "Speaker" from the "Service Tests" menu.

2. Adjust the volume with the joystick and make sure that the Speaker (backside) is working properly.

3. Press the "Ok" key to go back to the service tests menu.

3.2.9 Microphone Test

This test is intended to test the microphone. Therefore, the earphone should be tested before this test is entered.

1. Select "Microphone" from the "Service Tests" menu.

2. The phone will start to record and after that the sound is played in the speaker. Make sure that the record sounds have a load and clear sound.

3. After playing the recording the phone will return to the service tests menu.

3.2.10 Real Time Clock Test

This test will check if the built in real time clock works.

1. Select "Real time clock" from the "Service Tests" menu.
   After approximately 5 seconds you will get information whether the clock is ok or not.

2. After displaying the result the phone will return to the service tests menu.

3.2.11 FM Radio Test

This test will check if the inbuilt FM radio is working.
Hands free equipment is used in this test.

1. Select "FM radio" from the "Service Tests" menu.

2. Connect the hands free equipment to the system connector and tune in a well-known FM-Radio channel. Verify that it's possible to switch between different radio channels and that the sound is clear.

3.3 Manual Tests

3.3.1 "On The Air Call" to the mobile

To verify the function of the speaker, microphone, polyphonic ring signal, volumes button and GSM radio:

1. Insert an operator SIM card and start the phone.

2. Set up a call from another phone to the mobile phone.

3. Answer the phone call.

4. Check that the polyphonic ring signal is working and that the backlight switches on OK.

5. Also check that the quality of the sound both in the mobile phone and the other phone are OK.

6. Press the volume key up and down and check that the volume in the phone is altered.

7. End the call.

8. Check that the ending procedure is OK and that the speech time is displayed.

3.3.2 Infrared Test

To verify that the Infrared communication is working:

1. Insert a SIM card, connect a battery and start the unit.

2. Activate the function by entering Connectivity/Infrared port and select "10 minutes".

3. Set up an infrared link between an IR device and the phone. The IR-module is placed on top of the phone next to the ON / OFF button. If a link can be established, the module is considered working.

3.3.3 Bluetooth Test

To verify that the Bluetooth communication is working:

1. Insert a SIM card, connect a battery and start the unit.

2. Activate the Bluetooth function by entering Connectivity/Bluetooth and turn it on.

3. Set up a link between the phone and another Bluetooth compatible device. If a connection can be established the Bluetooth module is considered working.

3.3.4 System Connector Test

Hands free equipment and a charger are used in this test, to check the functionality of the System Connector.

1. Insert a SIM card, connect a battery and start the unit.

2. Connect the Hands free equipment to the system connector and set up a call and listen if you can speak/hear in the hands free set.

3. Connect the charger to the system connector and see if the phone starts to charge and if the charging is indicated in the display.

4 Revision History

Rev.	Date	Changes / Comments
A	2004-05-27	Initial release
B	2004-06-17	Corrected wrong revision in footer