Soneco MC3

USER MANUAL

SONECO Oy Tuotekuja 5 FIN-90410 Oulu Finland Tel. +358 10 77 88 300 Fax. +385 8 311 4486 e-mail: info@soneco.fi www.soneco.fi

> © Soneco Oy July 2013

This guide applies to Soneco MC3 at the time of publication i.e. July 2013.

Support for the product can be found in <u>www.soneco.fi</u>, e-mail <u>support@soneco.fi</u> via phone +358 10 8877 300.

This document, any part of it or Soneco documents referred herein shall not be forwarded, copied, altered or re-produced in any form nor distributed on any medium without a directly expressed permission from Soneco Oy. Soneco grants a permission to copy this manual for the sole purpose of using the Soneco equipment with which this document has been delivered.

The correctness and validity of this document has been verified with using appropriate methods and care. However, Soneco does not warrant the correctness and completeness of document.

Soneco Oy assumes no liability for any damage, direct or indirect, that may occur directly or indirectly to persons, equipment, material, business or financial matters and that result from following, ignoring, abusing this guide or in other ways using the product.

Soneco reserves the right to alter this document without further notice.

All rights reserved © Soneco Oy (Ltd.), 2013

Warranty

Soneco warrants the materials and manufacturing of the product allow full operation for 12 months and 6 months for the battery. The warranty begins when the buyer physically receives the product. In consumer trade Soneco is liable for the warranty defined by EU regulation.

The authorized seller of Soneco products will either repair or replace the defective device that fall under warranty. Warranty does not apply to wear due to use or accessories. The warranty does not apply if the device has been in wrong or inappropriate use, opened, altered, connected to other equipment, used with other charger than Soneco P4300. The warranty does not apply to any effect of water, moisture or other foreign subjects or the telecommunications network.

The application of warranty may require a valid purchasing receipt to be presented. Claim has to be made within 2 months from the date that a defect has been found or should have been found.

Soneco Oy assumes no liability for claims that do not relate to equipment warranty.

Opening the equipment case requires an authorization by Soneco.

Warranty	2
Purpose ot MC3	5
To start with	5
Preparing for the use	5
Quick procedure for using MC3 for the first time	6
1. Charging of the battery	7
2. Warning message due to low battery	7
3. Start-up	7
4. The programming mode	8
5. The purpose and setting of the telephone numbers	8
6. Setting the message	9
7. Basic settings	10
8. Options	10
8.1. Options for power ON and OFF	10
8.2. Options for voice calls	10
8.3. Security and general settings	11
9. Standby mode	12
10. Sending of the message	13
11. Special features during alarm mode	13
12. Shutting the device off	13
13. Request for battery charge status	13
14. Voice call features in normal ready state	14
15. Voice call features in alarm mode	14
15. Emergency call 112	14
17. The life-lime, capacity and maintenance of the battery	15
18. The use in challenging environments	15
19. Data security, privacy, reliability and prevention of abuse	10 16
20. Offictognized fault situations	10
Important to obsorve	10 20
Technical enecifications:	20
Declaration of conformity:	20
Declaration of conformity	

Purpose ot MC3

Soneco MC3 is a small radio device for messaging and voice calls. With a single press of its only button, MC3 sends a text message to one, two or three stored telephone numbers.

MC3 operates in all 900 and 1800 MHz mobile communication networks with which the provider of SIM-card in MC3 has access or a roaming agreement.

To start with

The product package includes the following:

- Soneco MC3 transceiver and strap
- Charging adapter 4300 P
- User's guide

Preparing for the use

Before switching the device on, one must insert a valid network operator's SIM card (Subscriber Identity Module) in to MC3 and charge the battery.

Fig. Inserting the SIM card:



Push the yellow dot with a pin in order to eject the SIM card holder



Insert a SIM to the holder and push the holder in to MC3 until it locks.

Note! When ejecting or inserting the SIM, the power should be switched OFF.

Quick procedure for using MC3 for the first time

- 1. Switch ON the power by pressing the button (for over 5 seconds) until the yellow light starts to blink. Release the button.
- 2. If the device has not been programmed before, it enters to the programming mode automatically and the YELLOW and the GREEN lights start blinking alternately. If the device has already been programmed, the programming mode can be triggered by pressing the button after the YELLOW light stops blinking and the GREEN light is on for 5 seconds.
- 3. Program the telephone numbers and if necessary, optional settings and user specific message with sending programming text messages to the device.
- 4. In order to exit the programming mode, press the button shortly and release it. In order to check the programmed data, pressing the button for longer than 5 seconds will cause the settings to be sent as a text message (SMS) to the first stored number if given.
- 5. Wait until the device switches the power OFF. The power is OFF when all the lights flash once. You can re-start the device.
- 6. When the device has entered the standby mode, the GREEN light flashes in 2 seconds interval.
- 7. In order to switch the power OFF, press the button (for over 5 seconds) until all lights turn on. Then release the button. CC3 switches OFF. If switch-off by the user is blocked, see Chapter 12.
- 8. Please remember to charge the battery as instructed.

1. Charging of the battery

Insert the DC cable's plug (3,5 mm) to the connector on the side of the device. The progress of charging is displayed by the brightness of the YELLOW light. If the battery is depleted, pre-charging takes place. The stages of pre-charging are shown with YELLOW flashes. During charging, a continuous bright YELLOW indicates an empty battery and strong charging. A dim YELLOW indicates a relatively full battery and late stages of charging. When the battery is full, the device gives an audible signal and switches the YELLOW light off.

The charging of an empty battery to full takes approximately two hours. Charging of the battery can be made in any operating mode but there are no charging indications during start-up or programming mode.

Over-charging of the battery is prevented. The charger can be continuously connected.

In continuous use the battery charging is recommended after 3 days in use.

If the device has switched off due to low battery, it is recommended to first charge the battery at least a few minutes before switching it on again.

2. Warning message due to low battery

If the battery charge falls below 20%, the device gives five YELLOW flashes and audible signal. This will be repeated once in every minute until the charger is connected. After 15 minutes of battery warnings the device sends a "BATTERY 20%" message.

If the "BATTERY 20%" message has been sent, the device sends "CHARGING" message when the charger is connected to the device.

These messages will be sent by default to the first stored number. This option can be deactivated or the messages directed to a different number (see Options).

Upon a detected depletion of the battery the device gives five short tones, blinks RED and YELLOW lights and shuts down.

3. Start-up

In order to switch the device ON, press the button for 5 seconds. Release the button as soon as the YELLOW starts blinking. Wait until the GREEN light starts to blink. The device is now ready for use and registered in to the mobile network.

If the necessary telephone numbers have not been programmed before, the device enters automatically to the programming mode.

If you wish to change the existing settings start up the device as explained above, but press the button shortly during the start-up while the GREEN light is on for 5 seconds. The device enters the programming mode.

4. The programming mode

The settings for the CC3 are programmed with text messages in the programming mode. This mode is indicated by alternating blinks of GREEN and YELLOW lights.

There are a few different ways to get the device to the programming mode. Which of these are to be used depends on the settings of the device. The available possibilities are explained below in chapters 4A - 4C.

4A. DEVICE WITH DEFAULT SETTINGS

Wait during start-up until the GREEN light is on for 5 seconds. Press the button once during this period. The device enters the programming mode.

4B. A DEVICE WITH POWER-OFF PREVENTION

A device with inhibited power-OFF can be commanded to the programming mode with a PRG-command from a number stored in the device (see 4C) or by switching it OFF via LIMITED mode and then restarting the device. If the device is in standby mode, it enters the LIMITED mode after removing the SIM as in Fig. 1. Remove the SIM and wait until the device indicates a SIM-error. Return the SIM to the device. Wait during the start-up until the GREEN light goes on for 5 seconds. Press the button once during this period. The device enters the programming mode. Note: If you miss the time window during the automatic re-start you can also switch the device OFF in LIMTED mode and start it normally.

4C DEVICE WITH INHIBITED MANUAL ENTRY TO PROGRAMMING MODE Programming mode is possible only if the device receives a command <<<PRG>>> as a text message from a number that is stored in the device.

EXECUTION OF A PROGRAMMING COMMAND

If a programming command is accepted and executed, the device gives an audible signal and the YELLOW light blinks once notably longer. The programming mode continues.

If a programming command is rejected, the device gives three audible signals and the RED light blinks. The programming mode continues. A rejected command is not executed in full, i.e. part of it may have been executed.

VERIFICATION AND TERMINATION OF PROGRAMMING

Pressing the button longer than 5 seconds causes the device to send the stored settings as a text message to the first number if it is given.

Programming mode is terminated with a short press of the button. The device shuts off.

5. The purpose and setting of the telephone numbers

<u>Numbe1, Number2 and Number3</u>: MC3 can send after a single press of the button a message to one, two or three numbers.

<u>X-number and U-number</u>: MC3 has optionally 4^{th} or X-number and 5^{th} of U-numbers. The X (e<u>X</u>tra) number is for messaging or calls in a way that is not possible for numbers 1 to 3. In MC3, the X number is for voice calls. The 5^{th} or U

number (<u>U</u>nlocking number) is only for the management purpose. The U number can call or control the device but it can not be an alarm call or message number.

Telephone numbers are set in programming mode with sending them as text message. The message has to contain between command brackets "<<<" and ">>>" the numbers separated by semicolon and without spaces as below:

<<<number1;number2...>>>.

E.g.valid commands are are "<<<+358414319221>>>" or

"<<<+358414319220;+358414319221;+358414319221>>>".

If the X-number or 4th number is in use, it has to be given before numbers 1 to 3.

<<<Xnumber4;number1;...>>> , <<< Xnumber4;number1;number2>>> or<<< Xnumber4;number1;number2;numero3>>>

If the U-number is used, it shall be given after X-number and before numbers 1-3:

<<<Unumber4;number1;...>>> or <<<Xnumber5; Unumber4;number1;...>>>

Any number command replaces all previously stored numbers. A command <<<EN>>> erases all numbers (**E**rase **N**umbers). If <<<EN>>> is rejected, the command is <<<CLRN>>>.

6. Setting the message

Unless the alarm message has been set by the user, the message is "SOS ALARM".

The message is set in programming mode with a message to the device. The message has to contain between command brackets "<<<" and ">>>" a command ">> a command a command ">>>" a command ">>

<<<sms:Own_message>>>

E.g.<<<sms:Contact reception>>>

7. Basic settings

The basic settings define how the sends the messages when the button is pushed and how it reacts to phone calls. The basic settings have been set according to customers' wishes by Soneco during the manufacturing. These basic settings can be altered with the programming command

<<<MC3x>>>

The character x with value 0 or 1 defines whether the device is able to make a call to the 4^{th} number (x=1) or not (x=0). E.g. a command "<<<MC30>>>" defines MC3 without a possibility to make a call to the 4^{th} number.

8. Options

The device offers several options. The options are set or altered in programming mode with commands indicating the option with a capital letter followed by "1" to activate the option or "0" to deactivate it. All default values are "0".

The device has the following options:

8.1. Options for power ON and OFF

P1/P0 Disable power-OFF by the user. The device does not switch off from standby mode with a 5 seconds press. Presses up to 9 seconds are interpreted as short presses.

F1/F0 Forced power-ON. The device turns itself ON automatically if the battery voltage is high enough or becomes high enough during the charging.

Wxxxxx Selection of the battery warning message recipients. All x-values have to be given as "1" or "0". With a value "1" battery warning is sent to corresponding number and with value "0" it is not sent. The first x value is for the first number, the second x for the second number etc. The 4th x is the X-number and the 5th x is the U-number (See chapter 5). All five x-values have to be given regardless of the amount of telephone numbers set to the device. No warning will be sent with the command **W00000**. The default setting is to send the battery warning to the 1st number, corresponding to command **W10000**. Battery warnings will be sent only if corresponding numbers are given. E.g. **W00100** causes the message to be sent to the 3rd number if given.

S1/S0 Skip entry to programming mode: The 5 second time window during the start-up for user to enter the programming mode is skipped. Programming mode is possible only via a SMS command "<<<**PRG>>>**" form a number stored in the device. See also Chapter 17.

8.2. Options for voice calls

T1/T0 Reject incoming calls. In the standby mode all incoming calls are rejected unless coming from a number stored in the device.

C1/C0 Automatic answering of incoming calls. The device opens an acceptable call after three rings.

B1/B0 Button sensitivity. Presses shorter than one second will be ignored.

E1/E0 Call to the emergency number 112. Command E1 allows a 112 call in standby mode. If the button has been pressed for longer than 10 seconds, 112 call processing will start. The setting E0 (default) prevents 112 calls in the standby mode. In the LIMITED mode the emergency 112 calls are always possible.

V1/V2/V3/V4 Setting for earpiece audio volume. V1 is suitable for silent environment when holding the phone on the ear. V2 is louder and suitable for environments with background noise. V3 allows some speaker-phone function in silent environment. V4 is the maximum setting with which the phone should not be pressed directly to the ear.

Gx (x = 1 - 7) Sensitivity of the microphone. The setting G7 (default) is the most sensitive and causes the full audio level to the receiver also from a weak voice and / or from a noticeable distance (say 1 m) from the device. With a setting G1-G2 full audio volume will be reached only when speaking directly to the microphone from a short distance or nearly in contact with the microphone. The G-setting does not affect the audio level of the voice call but only the conditions where the full level is reached. With G7, distortion may occur when speaking loud directly to the microphone.

Ix (x = 0 - 7) Ringing tone volume. The setting I0 means a silent call and I7 (default) the largest ringing volume. The ringing tone comes from the loud-speaker of the phone that is used also as the earpiece.

Dxxxxx Dialing indications. The five (5) x-values define tone elements during call processing. For each tone, 1 = ON, 0 = OFF. x1 is the button tone from the buzzer upon initiation of the call. x2 is the dialing tone from the device which continues until the ringing tone from the network starts. This tone is generated by SONECO device itself and comes from the earpiece. x3 is the stepping tone of calling machine. It is buzzer beep which is heard each time the calling machine starts to call the next number. x4 is the ringing tone from the network as audio signal to earpiece . x5 is a buzzer beep when the called party picks up, i.e. goes to off-hook and the audio line to called party is open. For text messages, only x1 is relevant. The default setting for MC3 is that all tones 1 to 4 are ON. In elder devices this setting is fixed.

"<<<D00001>>>" causes MC3 to give buzzer signal only after the called party has responded to the call and audio line is open. All other indication tones are OFF.

8.3. Security and general settings

N0/N1/N2 Controls for the calling line indication. With N0 the device sends its own number as defined by the network. With N1 the device instructs the network not to send the calling line number and. With N2 the device asks the network to send the calling line number.

PIN:12345678 Sets PIN-checking and value for the SIM. If the PIN has been set, the device responds to the first PIN query with the given PIN code. The SIM card

has to be set for PIN with using e.g. a normal mobile phone. If the PIN code is wrong or the SIM card has experienced earlier PIN errors, a SIM error will be indicated. It is possible to continue using the device with a SIM without PIN checking. Re-programming the PIN is possible but there is no need to erase it.

Rxxxxyyy: Voice call settings in alarm mode. Values x_1 - x_5 apply to MC3 and y_1 - y_3 apply to CC3. In alarm mode, MC3 can make a call to X-number or receive calls as instructed by x values. $x_1x_2 = 10$ instructs the device to automatically call the X-number (i.e. the 4th number), and use OK as alarm state response. $x_1x_2 = 11$ makes the device to call the X-number if the button is pressed in alarm mode, and $x_1x_2=01$ causes an "OK" message to be send upon pressing the button in alarm mode, and $x_1x_2 = 00$ causes also "OK" message as alarm mode button response. $X_3 = 1$ accepts incoming calls from only stored numbers, $x_4 = 1$ makes the calls silent and x_5 activates automatic answer. All x and y values have to be given, e.g. <<<R00111000>>>.

SPIN:Ab1& Security code for management commands in standby mode. If the code is set, access from the Service number requires each time a correct SPIN. SPIN comprises of four (4) characters which can be upper or lower case letters, numbers or other characters of basic ASCII. The associated commands are the inquiries for battery status, log data and network parameters and the command to programming mode.

SPIN: Deactivation of SPIN, i.e. with the command "<<<SPIN:>>>". Note that management commands are possible from stored telephone numbers and Soneco's own nonpublic telephone number. Note also that the management commands and the use require additionally, the telephone number of the device to be known.

The options can be programmed one by one (e.g. **<<<P1>>>**) or combined in to a single command e.g., to the following example command

<<<\$1F1P1W01100>>>

which sets the device to skip the manual entry to programming mode, forced power-ON, prevents power-OFF in ready state and directs battery messages to numbers 2 and 3. Commands containing character data i.e. commands PIN, DIMSG, SPIN and SMS, have to be send all individually,

9. Standby mode

The device enters the standby mode after start-up if the phone numbers are available. The standby mode is indicated by GREEN blink every 2 seconds. The device is ready for making sending messages and making calls upon the pressing of the button.

If the network connection is lost more than very temporarily, the device gives an audible signal and starts to blink RED. If the network connection can be restored, the GREEN blinks return as an indication of the standby mode. The reasons for network losses should be clarified with the network operator and, if available, with the alarm service.

10. Sending of the message

A short press of the button in ready state triggers the message to be sent. The message will be sent all numbers 1 3- that are set. The GREEN is on during the transmission of the messages. When the messages have been sent, the device returns to ready state and resumes GREEN blinking.

If the transmission of the messages is delayed, the YELLOW blinks rapidly and the continuous GREEN returns as soon as the sending can be continued until the messages have been sent. If the transmission of the messages fails, the device gives three audible signals and RED blinks. If the reason for failed transmission is lost network connection, the device enters LIMITED state.

The possible failure in sending a message or the loss of network connection may result from the GSM network or conditions of use. If the device has entered LIMITED mode, wait until ready state reruns and re-send the message.

A failure in sending a message in ready state should be very rare. A failure should not occur without a reason, such as over-load in network, operation in the boundary areas of network coverage, or weak radio signal inside a massive building, or a defective device.

11. Special features during alarm mode

Alarm mode can be triggered within 15 minutes from the sending of alarm messages. The alarm mode begins if one recipient of the messages sends a reply message with any or no contents. The alarm mode is valid for 15 minutes and is indicated by accelerated GREEN blinks.

In alarm mode the function may differ from ready mode as defined by R-settings. Upon the termination of alarm mode the GREEN blinks return to normal.

The use of alarm mode functions may require appropriate training of the users.

12. Shutting the device off

When allowed, the user can switch off the device with pressing the button for over 5 seconds, until alls lights switch on, and releasing it before 10 seconds. The device gives an audible signal and shuts down the lights one by one. Shut-off is completed when all lights flash once.

If shutting the power-off has been inhibited, the device can be shut off via LIMITED mode. Remove the SIM as seen in Fig. 1 and wait until the device tries a new start-up, indicates a SIM error and enters the LIMITED mode wit continuously blinking RED. Press the button as above, i.e. for 5 seconds. The device shuts off.

13. Request for battery charge status

The device reports the battery status in standby mode as a reply to the message <<<**battery>>>**. The message has to be sent from a number that is stored in the device. The device responds to the same number with a message containing estimated remaining battery capacity in %, battery voltage in mV and the information about whether a charger is connected and a call ongoing.

14. Voice call features in normal ready state

The MC3 device can be set either to reject all incoming calls or receive calls normally like any GSM phone. Incoming calls are indicated with an alternating flashing of all lights and melodic tone. Responding and terminating a call is done with a short press of the button.

Incoming call can be immediately terminated with two subsequent presses.

Prior to a call in ready state or alarm mode, the audio volume in earpiece can be adjusted with a V-command, the sensitivity of microphone adjusted with G-command and level of ringing tone with I-command with the exception that a silent call in alarm mode remains silent, <<<V2G6I5>>>. These setting are valid for the next call.

In most models earpiece volume can be controlled (G-command) during the call.

15. Voice call features in alarm mode

In the alarm mode, MC3 can be set to make an automatic call, a call by pressing the button, to enable or to reject incoming calls and to make them silent or automatically answered.

In alarm mode calls are possible only with the stored numbers. The settings given alarm mode have the priority over the settings for ready more.

15. Emergency call 112

The MC3 device can be set to allow emergency 112 calls in standby mode.

If emergency calls in standby mode are not in use, the device will shut off after pressing the button for 5 seconds or if shutting-off is not allowed, the device sends an alarm.

If emergency calls are enabled, pressing the button continuously for 10 seconds causes that all lights go on at 5 seconds and an audible signal at 10 seconds. Releasing the button at this point would shut the device off if allowed, or send the alarm message if shut-off is blocked. With continuing the pressing beyond this point the device gives two short audible signals and flashes all lights three times. Continuing to press also beyond this point will trigger an emergency call. This is indicated by the RED light. Accordingly, releasing the button at this stage will return the device to standby mode.

A triggered emergency call can be terminated with pressing the button again.

In the LIMITED mode a long press beyond 10 seconds will always trigger the emergency call as above.

A simplified, easy to remember emergency call instruction: press the button until the RED light is continuously on. Pressing the button after this or releasing it has no effect. Pressing the button again will terminate the emergency call.

17. The life-time, capacity and maintenance of the battery

The re-chargeable Lithium battery of the device has a typical life time of 400 charge/discharge cycles, or 2 - 5 years in use. Along with the use, the stand-by time with one charge decreases. On the same, the likelihood increases for the device shutting down due to low battery capacity or at low temperatures.

The battery capacity is relatively insensitive to the depth of charging cycles, i.e. the battery can be charged frequently and only partly discharged or less frequently in a more discharged state.

The device monitors also the accumulated charge flow from the battery to the device and compares that to estimated battery charge. The software in the device can make a better estimate of the battery capacity if the battery is allowed to discharge down to 20% level at least a few times.

It is recommended to change the battery in ca. 3 year intervals or when the standby time with a fully charged battery falls below 3 days.

Changing the battery has to be done by an authorized service.

18. The use in challenging environments

The capacity and the current capability of Lithium batteries degrade strongly at low temperatures (e.g. below 0 °C). In outdoor use it is recommended to carry the device so that it remains at body temperature, e.g. in a warm pocket. If the device has shut itself down at low temperature, it may still operate properly, at least for some time, at higher temperature. Body temperature is ideal.

In real GSM-networks the connection may be lost from time to time or calls or messages can fail. In such circumstances messaging and calls may still be possible when going out from inside the buildings, avoiding any shadowing of the earpiece end of the phone (e.g. by the hand) or with rising to a higher elevation within the building or in the landscape.

Charging the battery is possible only at temperatures between 0 and 45 °C.

19. Data security, privacy, reliability and prevention of abuse.

The user of the device, the service provider and other numbers stored in the device have certain powers to use the device and the telecommunications account (i.e. credit) that rely on the device and its SIM remaining in the intended hands and use. Exceptional situations are to be considered.

The device does neither store nor forward information about calls or messages. The device stores and may forward information about network events that affect the quality of service upon a request by text message from stored numbers, It is not possible to re-program the device and put it in to use as re-programmed without interaction by the user.

An authorized user (i.e. the stored phone numbers) may request the device to send network data which allows detecting the location of the device within a radio cell, i.e. normally within or less than a few kilometers. The device stores the events of network losses, switching the device on or off and device's internal errors. In the service this data can be read with date and time stamps. The real time clock of the device becomes synchronized with the network time at every programming message. The clock will be reset to certain old date if the battery protection circuitry switches the voltage supply off due to deep depletion.

If an entry to the programming mode by the user has been prevented and the users have lost the information for sending and acceptable PRG-command, the GSM phone number of Soneco's service can command the device in to programming mode and read the technical information. This number can not control the calls or the messages nor can it be used as a calling number. Upon request, this feature can be erased at the delivery.

The device has been designed so that it could not be disturbed or made nonfunctional through the network and can not be accessed without authorization.

The abuse of the device or the telecommunications account can be prevented by PIN and with setting appropriate service and/or service limitations.

20. Unrecognized fault situations

The device has been designed to operate in all known situations and to recover from fault situation and indicate such to the user. In order to trace the fault situations, the device maintains an event register (log book) about events relevant to service.

In the case of unrecognized errors, the device remains in error situation and shuts itself down or goes to sudden shutdown. The cause for such may be

- wrong or faulty charging device
- wrongly set PIN code or prior effort with a wrong PIN

- SIM card contact error e.g. due to falling of the device, it being hit or poor insertion of the SIM-card .

- empty battery or total loss of battery capacity
- entry of water, humidity or foreign objects inside the equipment case
- otherwise broken and non-functional device.
- uncontrolled removal of SIM or shut-down of equipment

Unrecognized errors should be very rare. The reason should always be cleared even if the device may return later to normal operation.

Annex A: Tone and light indications of MC3

A1. When the device is OFF (OFF mode)

In the OFF mode there is no indication. Upon pressing the button, the device gives and audible signal and the YELLOW light is on.

If there is no indication from the button, the battery is depleted and to be charged.

A2. OFF mode with connected charger

The connection of the charger causes a tone and the YELLOW light with the brightness according to the voltage. The beginning of charging will be indicated with three tones and bright YELLOW flashes. After this, the progress of the charging will be shown with YELLOW light:

In the case of deep discharge, connecting the charges causes no tone. The stages of pre-charging will be indicated as follows:

- YELLOW flash once on 4 seconds: Pre-charging makes progress..
- YELLOW two flashes in 4 seconds: Slow charging started. .
- YELLOW three flashes in 4 seconds: Slow Charging nearly completed.
- YELLOW ON/OFF in 2 seconds: Fast charging being started.
- YELLOW on and bright: Fast charging, nearly empty battery, strong charging
- YELLOW dimmed = nearly full battery
- No light: Batery full.

Two audible tones and YELLOW flashes. Charging completed and battery full. Continuous RED when the charger connected or during charging: Over voltage of the charger or battery. Faulty or wrong charger, or a faulty battery

A3. During start-up

Upon pressing the button over 5 seconds the YELLOW starts to blink. Releasing now the button initiates the start-up of the device. YELLOW continues to blink in ca. 1 second intervals.

Three tones and RED flashes in an early stage of start-up indicate a SIM error, missing SIM, PIN-error or missing PIN. The start-up continues. After new SIM/PIN-error indications the device enters the LIMITED mode.

RED starts to blink frequently: LIMITED mode.

It is not possible to interrupt the start-up.

During start-up there is no indication about charging. After the start-up the status of charging will be indicated again.

A4. In ready state

At the beginning of ready state GREEN is on for 5 seconds if the entering the programming mode by pressing the button is allowed.

GREEN blinks every 2 seconds: Ready state OK.

RED blinks: Network connection lost for the time being, recovery efforts ongoing.

RED Blinks and tones: SIM error. The device will be switched off and re-started.

GREEN, YELLOW and RED blink alternating with a melodic ringing tone. Incoming call. Note that the call may be set as silent.

Tones and YELLOW blinks in ca. one minute interval: Battery charge low.

GREEN, YELLOW and RED go on after pressing the button for 5 seconds. The device will shut off if the button is released. A shut off takes place also if the pressing is continued and emergency call disabled.

GREEN, YELLOW and RED start blinking simultaneously three times with a tone after ca. 10 seconds of pressing the key. Warning for emergency call 112. Releasing the button will terminate the emergency call processing, a continued press wil trigger the emergency call.

GREEN continuously on: Message is being sent or voice call ongoing.

RED continuously on: emergency call ongoing.

A5. When sending the message

Pressing the button in ready state triggers the message but no indication. After releasing the button the device will indicate the resulting function.

GREEN continuously on: Transmission of the message ongoing. The button is disabled. After transmission the device returns to ready state.

YELLOW blinking: Delay in the transmission of the message.

Three RED flashes with a tone after continuous GREEN or blinking YELLOW. Transmission of the message failed. The device returns to ready state.

A6. In MC3 alarm mode

GREEN blinking frequently: Alram mode actice. In earlier models this indication is stopped by the user's next action.

GREEN, YELLOW and RED blink alternating with or without a melodic ringing tone. Incoming call.

GREEN continuously on: Voice call ongoing or message being transmitted.

RED continuously on. Emrgency call 112 ongoing.

A7. Ready state when connected to the charger

The device indicates both charging and ready state.

A8. In LIMTED mode

The RED blinks continuously in 0,5 second interval. The device in LIMTED mode for following reasons: No SIM, SIM error, PIN-error, no network coverage. The only possible actions are the shut-off and an emergency call.

If network coverage returns, the device enters ready mode.

In the absence of SIM or network coverage, the emergency call will tried with the best available network. During an emergency call a shut-off due to low battery is blocked. The call remains on as long there is any charge in the battery.

Important to observe

♥	Keep the device switched off in hospitals and near health care equipment, such as pacemakers and hearing aids. The device may interfere with the operation of such equipment. If you have a pacemaker, do not carry the device around your neck.
X	Keep the device switched off when travelling in an airplane. Make sure the device is not switched on accidentally.
3	Switch the device off at gas stations, fuel or chemical storages and blasting areas. The device may interfere with the operation of technical equipment.
19696 1	The device may cause interference near TVs, radios and computers.

Technical specifications:

Phone network: dual band GSM 900/1800 MHz Antenna: integrated Weight: 58 g without the carrying strap Dimensions: 64 x 41 x 23 mm Battery: Li-Ion 600 mAh Standby time: > 72 hours Speaking time: > 0ne hour Charging time: > 0ne hour Charging time: < 2 hours to 100 % Operating temperature: -10 ... + 55 C (when charging, 0 ... + 45 C) SIM card: 3,0 V SAR: < 0,5 W/Kg Operating voltage: 3.7 V

(€0523

Declaration of conformity:

The product complies with the requirements of the European Council directive 1999/5/EY.