



## MH2000

### Quick Start **USER MANUAL**

Version 1.04

Release date: 2010 07 02

## WELCOME!

Thank you for purchasing our device! We hope it will satisfy your expectations and you will enjoy its particular features. Please, find several minutes to read this document before beginning to work with MH2000.

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Other products and company names mentioned in this Manual may be trademarks or names of products of such companies.

In case you have problems with the use of the product beyond your possibilities to solve it, please address them to the Technical Assistance Center (TAC) by e-Mail [support@teltonika.lt](mailto:support@teltonika.lt) or contact your local seller. We would be pleased to be of any assistance to you.

Teltonika recommends to read User Manual carefully. Teltonika does not take any responsibility for problems that occur due to an unproprate usage of a device, incorrect configuration or usage of software that was issued by a third party. Teltonika reserves a right to modify the functionality of the device without any prior notice.

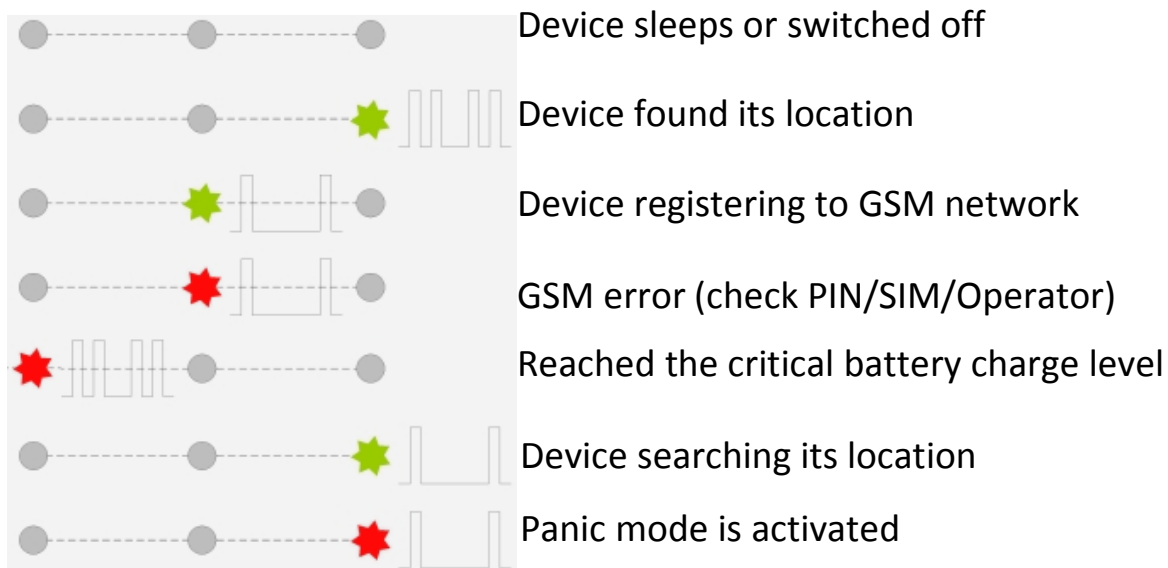
## 1 STANDARD PACKAGE CONTENT

- 1 x MH2000 Handheld Tracker
- 1 x Mini screwdriver
- 1 x Battery
- 1 x Neck strap
- 1 x Quick start User Manual
- 1 x 230V Charger

**NOTE:** The manufacturer's set does not include any SIM card which is necessary to connect to the GSM network. SIM card can be acquired from your local supplier of GSM services.

If an unsuitable SIM card has been inserted or the device fails to detect it, the device will reload automatically and tries to start the connection anew (if SIM card is not inserted the device will reloads three times). If the reconnection fails, the device will show it by its indicator. If the card has been inserted later, the device must be switched off and switched on again.

## 2 LED INDICATION



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### 3 DEVICE PREPARATION

#### INSERTING SIM CARD

Open the back cover and find the SIM card holder. Pay attention how the SIM card should be placed into the device. It is shown by the symbol on the device.



Inserting  
SIM  
card  
position

**NOTE:** If the red GSM LED is blinking check if the SIM card is placed correctly, or the PIN code is removed.

#### BATTERY CHARGING

The device battery can be charged using BL-5C battery charger only. Put the battery into the charger and plug it into the wall outlet. When the charge process starts and finishes it will be indicated by LED located on the charger.

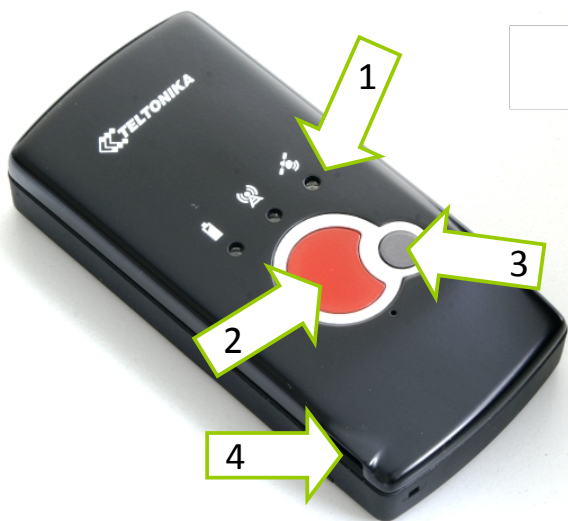
After the battery is fully charged insert it into the device and turn the device on. The batteries always are provided half charged. Charge the battery before you start to use the device.

#### CONNECTING TO PC

The device can be connected to a PC only using a special cable. This cable has a special integrated chip which allows communication between the device and PC.

**NOTE:** Connecting the cable which is not provided by company Teltonika you will fall in the risk to damage the device.

## 4 GETTING TO KNOW THE DEVICE



- 1 – LED indicators
- 2 – Panic Button
- 3 – Turn ON/OFF Button
- 4 – Micro USB

### LED INDICATORS

LED indicators indicate the status that the device is in at the time.

### PANIC BUTTON

Press the button and hold it pressed until all LEDs lights up, then release the button and device will activates the panic mode.

### TURN ON/OFF BUTTON

To **turn on** the device press the button shortly and release it. To **turn off** the device press and hold button pressed until all LEDs Lights up then release it.

### CONNECTOR

(Additional accessory is needed)

This connector can be used for a device firmware update and debug log translation to PC only.

### BATTERY CHARGING

(Additional accessory is needed)

Battery can be charged using the special external BL-5C battery charger. Take out the battery from the device fit it into the charger and plug the charger to the outlet (230V).

## 5 DEVICE CONFIGURATION THROUGH THE SMS

SMS TEXT	THE MEANING
CFG_AD_CELL+GPS	<b>AD – Alarm Data</b> -This message will configures the device to collect all available data in the memory while in panic mode.
CFG_AD_CELL	<b>AD – Alarm Data</b> – Collect data with GSM base station information only.
CFG_AD_GPS	<b>AD – Alarm Data</b> - Collect data with GPS coordinates only.
CFG_ADT_<time in sec.> <i>i.e. CFG_ADT_180</i>	<b>AD – Alarm Duration Time</b> – Set up the time how long the device will work in panic mode when it is activated.
CFG_ADP_<phone number> <i>i.e. CFG_ADP_+37066612345</i>	<b>ADP- Alarm Destination Number</b> – set up the phone number to which the device should send information when panic mode is activated.
CFG_ADSP_<time in sec.> <i>i.e. CFG_ADSP_60</i>	<b>ADSP – Alarm Data Sending Period</b> – set up how often the device should send SMS messages to the set number. Minimal available period is 30sec.
CFG_CLP_<mode> <i>i.e. CFG_CLP_24</i> <i>i.e. CFG_CLP_1</i> <i>i.e. CFG_CLP_0</i>	<b>CLP – Coordinates Logging Period</b> – set up in what mode device will work, this mode determined how often device will collect its position in the memory. Modes: 24coordinates/day and 1 coordinate/day or to switch off logging at all.
CFG_PLD_CELL+GPS	<b>PLD – Periodical Logging Data</b> – This message will configure all available data in the memory while in normal mode
CFG_PLD_CELL	<b>PLD – Periodical Logging Data</b> - Collect data with GSM base station information only.
CFG_PLD_GPS	<b>PLD – Periodical Logging Data</b> - Collect data

	with GPS coordinates only.
CFG_DTZ_<Time zone> <i>i.e. CFG_DTZ_+3</i>	<b>DTZ – Device Time Zone</b> – set up the time zone if you want to get your current location time in SMS.
CFG_CBN_<Battery level %>_<Phone number> <i>i.e.</i> <i>CFG_CBN_30_+37066612345</i>	<b>CBN – Charge Battery Notification</b> – Set up the level of the battery when device should send notification to set number about battery level.
CFG_24H_SEND_<mode> <i>i.e. CFG_24H_SEND_0</i> <i>i.e. CFG_24H_SEND_1</i>	<b>24H_SEND – Device coordinates sending mode</b> – select if device will send periodical coordinates after collecting 24 coordinates automatically (1) or not (0).

## 6 REQUESTS

SMS text is not case sensitive, capital and small letters works as well.

SMS TEXT	THE MEANING
FIX?	Return the location where the device is at the moment.
INF?	Return all available information about device current status.
LOG? <sup>1</sup>	Collect all 24 data packets from the memory and send them to the requested number.
CFG?	Return all available configuration parameters of the device
DEFAULT	Restores all parameters to factory

<sup>1</sup> Device will send data in PDU format. To understand this format additional software is needed.

	default.
ALARM_OFF	Turns off the panic mode if it is activated.
WIM?	Creates and return the link of position to the google map.

Device will inform about successfully changed parameter in all configuration SMS messages if the SMS message you have sent will be correct. Otherwise it will ignore your request.

## 7 FACTORY DEFAULTS

PARAMETER	VALUE AND DESCRIPTION
Time:	Set time (if there was no fix, default time is 2007.01.01 00:00:00)
Device_name:	Given name to the device. Default is MH2000
ADT:	Alarm duration time. Time how long the device works in alarm mode (shown in seconds) Default: 300sec. Minimal available duration time is 30sec.
AD:	Alarm data: Data type, which is sent to set number in panic mode (02 - GSM base station information only, 03 - GPS coordinates only, 04 - all available data). Default is 04.
ADP:	Alarm destination number. Number, to which data will be sent in panic mode. Default is empty.
ADSP:	Alarm data sending period. How often data will be sent to the set number.



	Shown in seconds. Default is 60.
PLD:	The same as in AD parameter
CLP:	Coordinates logging period. How often the device will save its position in the memory. Shown in seconds. Default is 3600 sec.
24H_SEND :	Default value is not (0).
DTZ:	Device time zone. Set time zone of the device. Default is 0.0
CBN:	Charge battery notification. Battery level, when reached sends notification to set number. Shown level is in %. Default 5, (no number)

## 8 BATTERY LIFE TIME

MODE	LIFE TIME
24coordinates/day	150 h <sup>2</sup>
1coordinate/day	400 h <sup>2</sup>
Sleep	450 h <sup>2</sup>

<sup>2</sup> Declared battery life time is approximate and may change depending on GSM signal level, GPS signal availability and operating temperature.

## 9 RECOMMENDATIONS

Recommended operating temperature	0 up to 50°C
Storage temperature	-20 up to 60 °C

## 10 MAINTENANCE AND REPAIR

This device is a high-quality design product; therefore, it should be handled carefully. The following advice will assist you in meeting the guarantee requirements.

Do not let the device get wet. In the precipitation, humidity and all sorts of liquids there may be minerals which may be a cause of corrosion of the electricity chains. If your device got wet, take out the battery and let the device get fully dry; afterwards, insert the battery again.

Do not use or keep the device in dusty and dirty places. Its moving and electronic parts may be damaged.

Do not keep the device in high temperatures. High temperature may reduce the life time of the electronic parts or damage the batteries and deform or melt some plastic parts.

Do not keep the device in cold environment. If the device warms up to the room temperature, humidity may start condensing which may cause the failure of electricity circuit boards.

Do not try opening the device except as specified in this Quick start User Manual.

Do not throw, knock or shake the device. By handling it in this way you can break internal circuit boards and small moving parts.

Do not clean the device with strong chemicals, solutions or cleansing agents.

Do not paint the device. The paint may block the moving parts and prevent them from operating well.

By using supplements which are not approved you may also infringe the legislation in the field of the use of radio equipment.

The charger must be used indoors only.

All these recommendations are equally important for your device, battery, charger and any other supplement. If any of the devices is not functioning properly, bring it for examination to the nearest authorized repair center.

