

# mBox

## with bed/chair sensor

### User Guide

English



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**READ FIRST: SAFETY INFORMATION**



Always read and follow the safety information accompanied by this symbol.

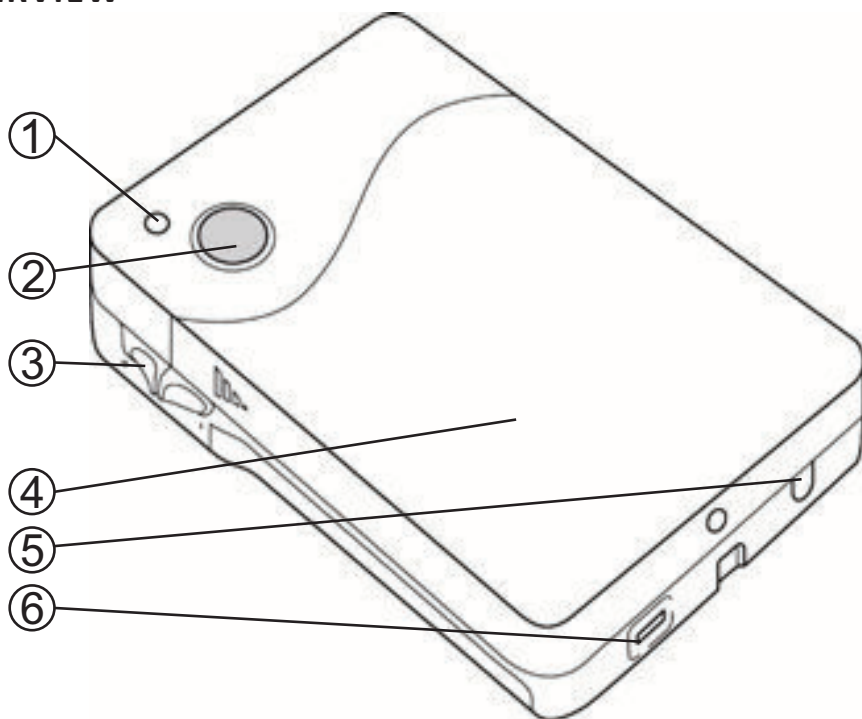
** CAUTION**

Only use recommended battery type as stated under specifications. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries shall be done in an environmental friendly way. See environmental information.

**PACKING CONTENTS**

- mBox 869MHz including mounted batteries.
- Chair or bed sensor (mat or stick version)
- Mounting plate

## OVERVIEW



1. Indicator lamp
2. Reset button
3. On/off switch

4. Sliding cover
5. Plastic cable cover
6. Micro-USB

### Indicator lamp

#### **Green short light**

Confirmation of alarm is indicated with a short green light.

#### **Constantly green light**

The unit is powered by external power.

#### **Green flashing light (every 6th second)**

The unit is powered by internal batteries.

#### **Red light**

During startup its lit red.

During radio message transmission it's lit red.

#### **Red flashing light (every 6th second)**

The unit is powered by internal batteries, low voltage level.  
Battery replacement is necessary.

#### **Red flashing light (every ½ second)**

Invalid status. Turn the function selector to a valid position.

#### **Orange fast flashing light**

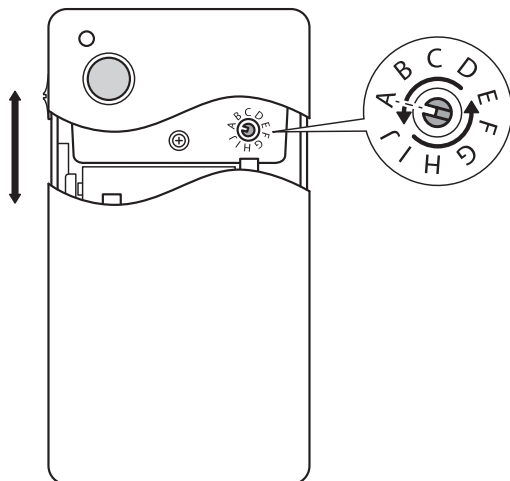
Change of position on the function selector gives 1 flashing light.

## Basic functions

By opening the sliding cover to the first position access are given to the function selector with 10 optional setups.

Choose position, **A-J**, depending for how the unit shall be used. Use a suitable screwdriver for setting the knob in correct position.

See the following for the preprogrammed positions used for mBox together with a chair or bed sensor. Positions **A** and **D-J** are used for other applications and are not described in this document.



### **B – Bed/chair alarm 10 seconds**

When mBox are set to position **B**, the unit is, in combination with a bed/chair sensor\*, working as bed/chair alarm.

A short push on the reset button gives following functions in position **B**.

- The alarm monitoring is initiated if pressure is applied on the sensor for more than 30 seconds. An alarm is sent if the person is missing (loss of pressure) for more than 10seconds. Loss of pressure for less than 10 seconds will not send an alarm.

### **C – Bed/chair alarm 15 minutes**

When mBox are set to position **C**, the unit is working the same as in position **B**, but allowing 15 minutes absence (loss of pressure) before an alarm is sent.

## INSTALLATION

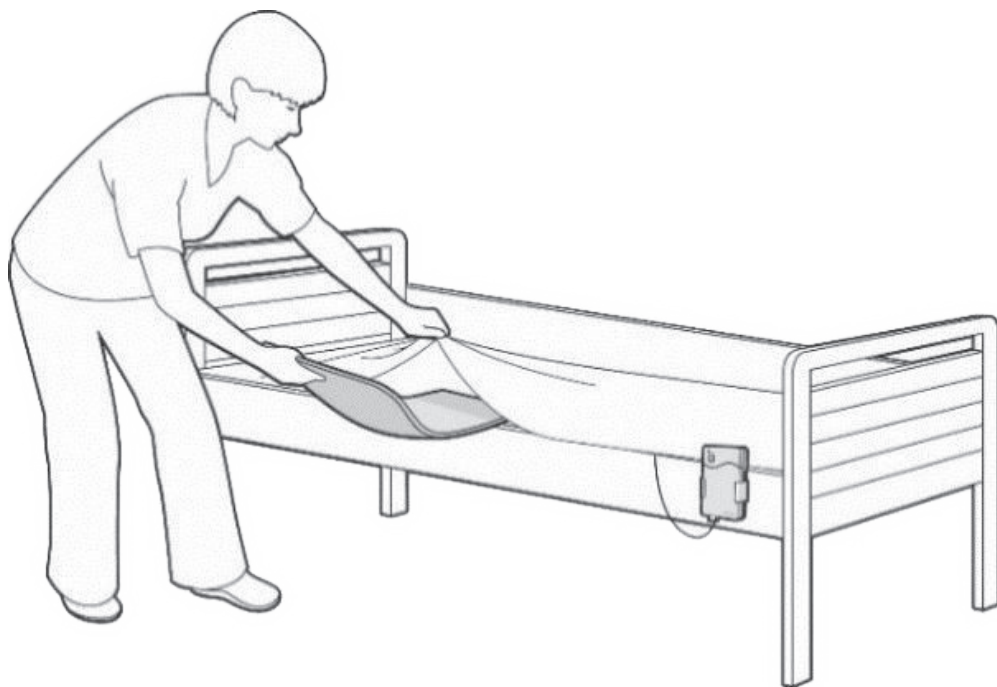
### Bed/chair alarm placement

There are two different types of sensors for both bed and chair:

#### Mat version:

Suitable for normal type beds/chairs used in the home.

- Place the bed sensor between the bed mattress and mattress protector and beneath the bed sheet in height of the shoulder blade.
- Place the chair sensor on the seat cushion or possibly beneath the cushion.



**Stick version:**

Suitable for bed/chair with a solid hard surface or a frame structure like a hospital bed or air mattress. The stick version sensor should never be placed on top of the mattress or chair cushion. It's designed to go under the mattress or cushion. The sensor has two sensing levels, button side downwards for high sensitivity or with flat rib side downwards for less sensitivity.

The sensor can be used in different ways depending on the base of the bed or chair.

- **Hard flat base:**

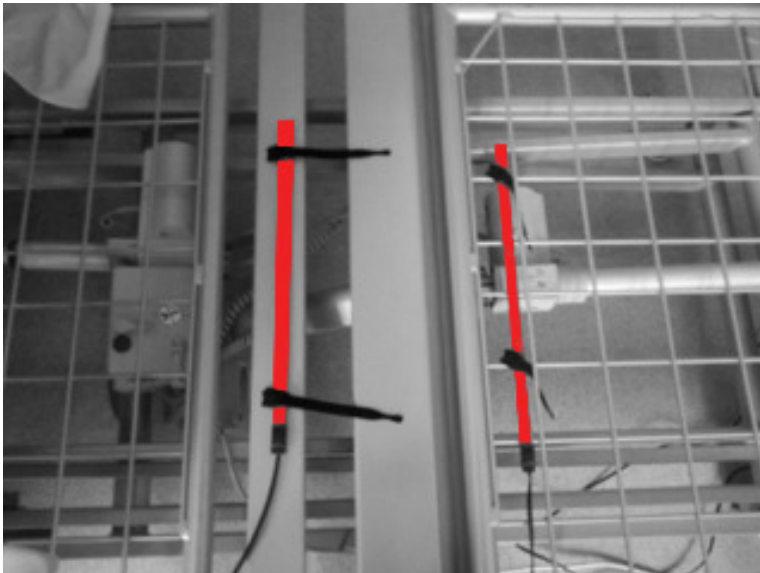
Place the bed sensor with the button side downwards to give high sensitivity or with flat rib side downwards if less sensitivity is required. The sensitivity level required will depend on the person being detected and the mattress or cushion weight.

Fix the sensor with the provided Velcro sticky pads.

- **Open frame base:**

This base would consist of an open wire frame mesh on a solid outer frame. The sensor should be laid with the rib side downwards to give high sensitivity or with button side downwards if less sensitivity is required. The sensitivity level required will depend on the person being detected and the mattress or cushion weight.

Fix the Velcro straps to each end of the sensor while it is positioned on the frame. Do not over tighten the straps as it may cause the sensor to always feel pressure, even if the bed/chair is empty. When positioning the sensor on the frame try to make sure the ends of the sensor are sited on the mesh frame and not hanging in the middle of the mesh frame opening.

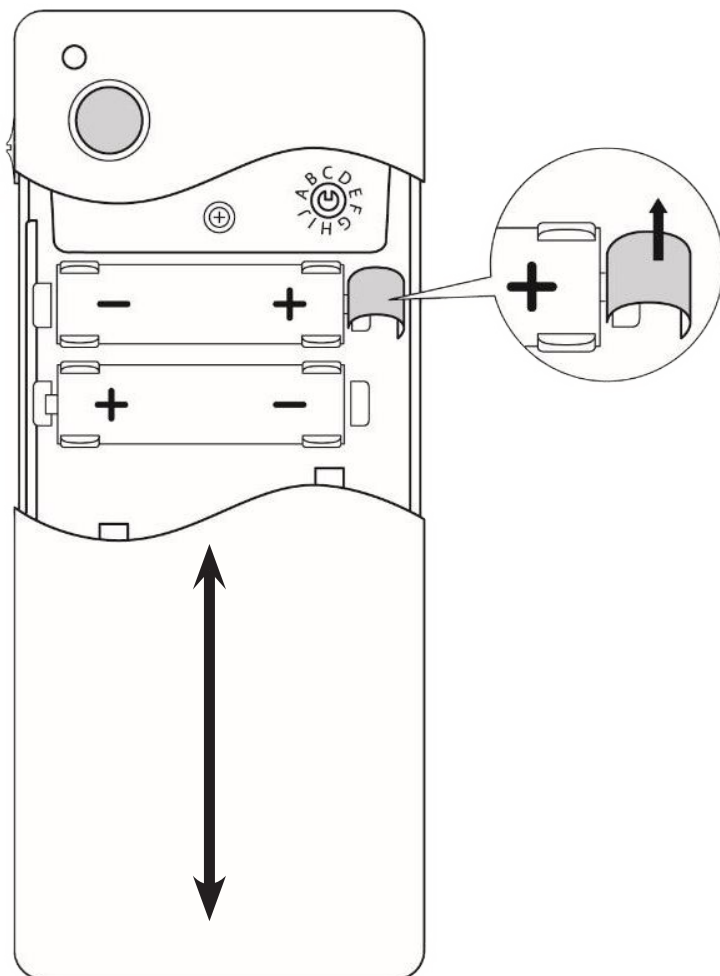


## mBox preparation

Open the sliding cover of the mBox and install 2 x AA batteries with good quality or if batteries are pre-installed, remove the protective strip from the batteries.

Fix the mBox with the provided screws or with the accessories:

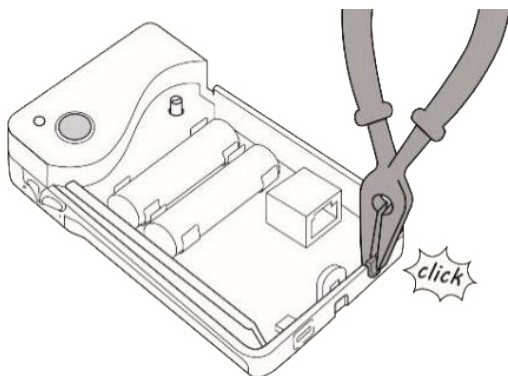
- Velcro tape, art.nr: 300 125  
(Replacement for mounting screws)
- Holder, art.nr: 300 014



## Connection

The mBox needs to be connected with the carephone to be able to send the alarms to the Alarm Receiving Center. The mBox also

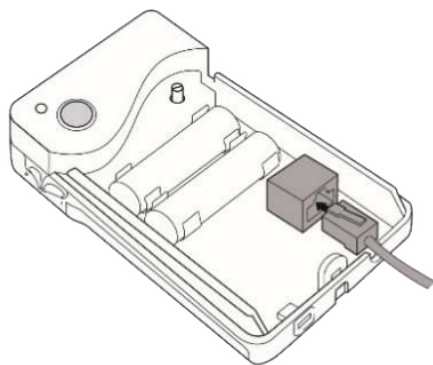
1. Open the sliding cover completely and remove the plastic cable cover in the bottom of the unit.
2. Connect the bed/chair sensor to the electrical connector on the mBox and feed out the cable thru the bottom part of the unit



3. Set the mBox function selector in position B.

Even if you want to use position C with 15 minutes of absence before the alarm is sent it's more time efficient to use position B to avoid the long wait. When everything is ready, tested and working, change to position C for 15 minutes absence.

4. Close the sliding cover.
5. Slide the on/off switch to position I on the mBox.
6. Sit or lie on the sensor for more than 30 seconds to activate the alarm function.
7. **On the carephone;** while sitting/lying on the sensor, press green button for about 4 seconds until a beep sounds.
8. Step of/release the pressure of the sensor. After about 10 seconds a confirmation beep is heard on the carephone. If no beep is heard, adjust the sensor so that it can detect the pressure and also the loss of pressure.
9. **On the carephone;** press the alarm button to assign the new device. A new confirmation beep is heard.



The units is now connected, make a test alarm for verifying the function.

For more information on pairing the carephone with the radio transceiver, refer to the manual of the carephone.

## Check the functionality

Always check the function after installation and programming. Test alarms shall be done regularly and in a way that secures the whole alarm chain from sensor to alarm receiver.

## MAINTENANCE

### Cleaning

The devices should be cleaned using a slightly damp cloth. Solvents should not be used when cleaning.

### Replace the batteries

Battery should be replaced after battery alarm or within 2 years, please refer to the service manual or contact your supplier.

## TECHNICAL DATA

### mBox

<b>Product</b>	mBox Radio Transmitter
<b>Article number:</b>	300154
<b>Dimensions:</b>	110 x 70 x 25 mm (LxWxH)
<b>Power supply:</b>	2 x 1.5 V LR06 (AA) alkaline batteries
<b>Length of battery life:</b>	Up to 2 years
<b>Inputs:</b>	2 x opening/closing function
<b>Output:</b>	2 x solid state relay output, max. 1A/30VDC
<b>Radio frequency:</b>	869.2125 MHz
<b>Radio-frequency power:</b>	max. 10 mW (10 dBm)
<b>Radio receiver class:</b>	1*
<b>Number of radio transmitters:</b>	10

### Sensors

<b>Products</b>	<b>Chair mat</b>	<b>Bed mat</b>	<b>Chair stick</b>	<b>Bed stick</b>
<b>Article number:</b>	300 025	300 029 (300 030 bed mat cover)	300 151	300 150
<b>Dimensions (LxW):</b>	380 x 180 mm	760 x 250 mm	400 x 70 x mm	1000 x 70 mm
<b>Minimum activation weight:</b>	27 kg	27 kg	TBC	TBC
<b>Connector</b>	RJ45	RJ45	RJ45	RJ45

## PRODUCT INFORMATION

This product is a part of a social alarm system intended to initiate a call in case of emergency or if assistance is needed. It is intended for indoor use in a home environment.

## SAFETY INSTRUCTIONS

- User's should pay particular attention to the potential for interference from other systems operating in the same or adjacent bands.
- Protect the unit from moisture.
- The compartment covers may be opened only by authorized persons in accordance with the instructions in the service manual.
- Battery replacement may be performed only by authorized persons in accordance with the instructions in service manual. Only use recommended battery type as stated in the service manual.  
**CAUTION!** – Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- Only use recommended power supply as stated in the service manual.
- Wired installation must be performed only by authorized persons in accordance with the instructions in the service manual.

## DECLARATION OF CONFORMITY

### EU declaration of conformity

Hereby, Careium declares that the radio equipment type is in compliance with Directives: 2014/53/EU and 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: [www.careium.com/dofc](http://www.careium.com/dofc)

### UK Declaration of Conformity

Hereby, Careium declares that the radio equipment is in compliance with the relevant UK legislation. The full text of the UK declaration of conformity is available at the following internet address: [www.careium.com/dofc](http://www.careium.com/dofc)

## CORRECT DISPOSAL OF THIS PRODUCT

(Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or manual indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal. This product is RoHS compliant.

## CORRECT DISPOSAL OF BATTERIES IN THIS PRODUCT

(Applicable in countries with separate collection systems)

The marking on the battery, manual or packaging indicates that the battery in this product should not be disposed of with other household waste. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.



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English

Manual\_mBox\_869-bed-chair\_sensor\_en\_A5\_v20

