



**PORTAL USER MANUAL**

**Mobeye<sup>®</sup> Outdoor Detector**

**CMVXI-R**



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## **Attention! Very important**

This user manual contains important guidelines for the installation and usage of the Mobeye® device as described in this manual. Please read these thoroughly before you start using the Mobeye® device.

In case of damage caused by disregarding the guidelines, the warranty becomes void.

The user must regularly check the proper functioning of the device. The manufacturer cannot be held liable for any damage or loss caused by any incorrect use or incorrect functioning of the Mobeye® device.

### **Safety guidelines**

- The permitted ambient temperature during operation may not be exceeded (not lower than -10°C and not higher than 50°C).
- The guidelines for the battery usage must be regarded.
- Do not expose the device to strong vibrations.
- Do not let it fall from height.
- Do not use in an environment where any inflammable gases, vapors or dust are present or could be present.
- Repair of the device may only be carried out by people, trained for Mobeye® repair.
- If the device must be repaired, only original replacement components may be used. The use of different parts may lead to damage of the Mobeye® device.

### **Use in accordance with the regulations**

The purpose of this device in accordance with the regulations is sending messages and making telephone calls after an alarm situation. Other uses are not permitted and may invalidate the warranty.

### **Battery recycling**

CR123 batteries, as used in the Mobeye Outdoor Detector, are classified as non-hazardous waste and can be recycled. Please take empty batteries to a nearest collection point

## 1. GENERAL DESCRIPTION

The Mobeye Outdoor Detector is a battery operated outdoor movement sensor with integrated GSM module and tag reader. It reacts on movements and sends a notification in the event of an alarm.

The Mobeye Outdoor Detector can function 'stand-alone' or in combination with the Mobeye Internet Portal. Once activated in the Mobeye Internet Portal, the factory settings of the Mobeye Outdoor Detector cause following reactions:

- When a movement is detected, the Mobeye Outdoor Detector sends an alarm message to the Mobeye Internet Portal and calls the phone numbers programmed in by the user. The Portal forwards the alarm as text message and/or e-mail.
- When the batteries need to be replaced, the Mobeye Outdoor Detector sends a 'low battery' message to the Mobeye Internet Portal. The portal forwards this to the 'service' contacts.
- The unit is able to send test messages to the portal as communication check (default: every 7 days). If these are not received in time, the portal sends an exception message to the 'service' contacts.

Chapter 3 describes how to influence the standard behaviour.

For use of the stand-alone Mobeye Outdoor Detector -without the Mobeye Internet Portal - please download the stand-alone manual from [www.mobeye.eu/EU/documentation/manuals](http://www.mobeye.eu/EU/documentation/manuals).

## 2. GETTING STARTED

To get started with the Mobeye Outdoor Detector, at least the following steps need to be taken in the following order:

1. Sign up in the Mobeye Internet Portal
2. Activate the SIM card
3. Open the Outdoor Detector
4. Insert the Mobeye SIM card
5. Insert the batteries
6. Enter the program mode
7. Activate the device in the Mobeye Internet Portal
8. Program the settings
9. Close the Outdoor Detector
10. Arming/disarming the system

These steps are further explained in this chapter.

### 2.1 SIGN UP IN THE MOBEYE INTERNET PORTAL

Go to [www.mymobeye.eu](http://www.mymobeye.eu) and sign up for a new account. Follow the instructions on the screen.



You will receive an e-mail to confirm the new account. After confirmation login to the portal.

If you do not receive this e-mail, check your spam box or ask Mobeye ([info@mobeye.eu](mailto:info@mobeye.eu)).

## 2.2 REGISTER THE MOBEYE SIM CARD

To activate the Mobeye SIM card in the Mobeye Internet Portal, choose 'activate new SIM card'.

activate new SIM card

Enter the SIM card number. This is the number written on the plastic SIM card. Only take the last 8 digits.

The screen leads you through several pop-ups where you choose your device type (search for "CMVXI-R" or "Outdoor Detector") and select the type of contract (for instance "CMVXI-R SIM + Portal Monitoring").

At the moment you accept the price and terms, you confirm the subscription and arrange the payment. You will receive an invoice for the mentioned amount.

## 2.3 OPEN THE OUTDOOR DETECTOR

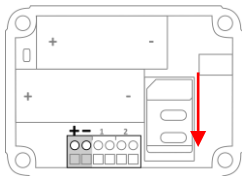
Remove the screw on the bottom (next to the tag reader). Open the cap of the housing by holding the black cap and moving the white cap to the outside. Then remove the two screws in the black inner housing and take the black part out. Make sure the wires do not come loose.

See the Optex manual for a full explanation how to open the detector.

## 2.4 INSERT THE MOBEYE SIM CARD

Open the enclosure by removing the 4 screws and insert the Mobeye SIM card into the module. Push the black cover slightly outward to open the holder and close it afterwards. Make sure the SIM card is inserted before the batteries.

NB: It is possible to replace a SIM card. The settings are stored in the device memory.



## 2.5 INSERT THE BATTERIES

Insert the two batteries (CR123) in the module. Use the +/- indication for the correct placement. If you replace batteries the settings will not be deleted, since they are stored in the device memory.

## 2.6 ENTER THE PROGRAM MODE

To activate the unit in the portal, the GSM module needs to be open and connected to the network.

Directly after inserting the batteries, the Mobeye Outdoor Detector switches to the program mode. First the GSM module establishes network connection. During this time the LED in the tag reader flashes green and red. Within 10-30 seconds the connection is established and the LED starts flashing 1 sec. on/1 sec. off (or stays on continuously in case the unit was registered in the Mobeye Internet Portal).

The Mobeye Outdoor Detector returns to the program mode by holding the tag to the tag reader for 5 seconds (make sure the tag connects to the metal plate and the ring at the same time), until the LED starts flashing red/green. Once it has GSM connection it will be flashing again (or stays on continuously). Alternatively the batteries can be re-inserted, without holding the tag to the reader.

As long as the unit is in program mode, the status green LED is on (or flashing 1 sec. on/1 sec. off if the module has no configuration). During the first 3 minutes, the GSM module remains active, ready to be registered in the Mobeye Internet Portal. After 3 minutes a time-out occurs and the GSM module switches off in order to save the batteries. The unit returns to the low power operational mode.

## 2.7 ACTIVATE THE DEVICE

When the Outdoor Detector is in initial (factory) status and the batteries are inserted (so the LED is flashing), you

**contract**

SIM\_card + portal "Monitoring"    **Activate device**



activate the device in the Mobeye Internet Portal by clicking 'Activate device', which is written behind the registered SIM card. The unit will receive a message from the portal and the data exchange is started. At the first pop-up window you are asked to enter the installation code. Type the factory code '1111'. The next screen will ask for a name and location of your device. These fields can be changed later.

Once the activation is completed, the new device is visible in the device list.

My devices		
Name	Location	Status
Mobeye Alarm Unit	Main street 1, 1000AA, Amsterdam	OK

By clicking the name, the detail page will be opened.

## 2.8 CONFIGURATION AND SYNCHRONISATION

The device settings can be programmed in the Mobeye Internet Portal. In this way you prepare the settings, to be picked up by the device: since the Mobeye device is leading in the communication between the portal and the device, the data synchronisation is done after:

- 1) any message to the portal (e.g. alarm, test, low batteries).
- 2) reinserting batteries.
- 3) bringing the unit into program mode by first keeping the tag to the reader for 5 seconds (until you hear two short beeps). The LED is first blinking green/red and next turns green. Now keep the tag to the reader for another 5 seconds until you hear two short beeps (LED will blink rapidly).
- 4) bringing the unit into program mode (keep tag to reader for 5 seconds, wait until LED is green) and the send an SMS text message with the content CODE SYNC to the telephone number in the Mobeye device (where CODE stands for the programming mode, initially 1111).

## 2.9 HOW TO USE THE MOBEYE INTERNET PORTAL

The device detail screen in the Mobeye Internet Portal shows several blocks:

### **Contacts**

The contacts are the contact persons that will receive alarm and service notifications, per SMS text message and/or e-mail. Service notification may be warnings about missed keep-alive (test) messages and low battery voltage.

In order to add a contact, please first create the contact person in the (blue) tab *Contact*.

Note: the telephone numbers that will be dialed directly from the unit, are configured in the Options.

### **Status**

The status block displays several values, important information about the unit.

The GSM status tells the network strength in the last communication session. If the values is lower than -95dB, please consider another location for the device).

If the 'Synchronised' status is 'No', there are new options to be picked up by the device.

### **Device**

Open the device details to change the name and location of the device. These are copied into each SMS text message and e-mail and meant as identifier.

### **Message texts**

In the message texts are the event texts in the SMS text message and e-mails. These texts can be customized.

### **History**

All historical events and logs are displayed in the history. Click 'show' all. One of the logs are the historical arm and disarm events. These are only visible after a synchronisation run.

## Options

The configuration options (settings) can be changed in the Mobeye Internet Portal. Click 'edit' to change the settings. Type the installation code (factory setting is '1111') to open the pop-up. Please see chapter 3 for the description of each setting.

Options » edit

After saving new settings, they need to be picked-up by the device, i.e. synchronised. Please see 2.8 for more information about the synchronisation.

## 2.10 SWITCHING ON/OFF

After the previous steps, the Mobeye Outdoor Detector is ready for use.

In order to switch on (arm) the Mobeye Outdoor Detector:

- Hold a tag briefly against the tag reader, after which the exit indication starts. The exit time takes 120 seconds; hereinafter the sensor is active. In the first 20 seconds, the red LED in the sensor flashes.

In order to switch off (disarm) the Mobeye Outdoor Detector:

- Hold a tag briefly against the tag reader. Three short beeps are heard. The tag reader blinks green 3 times.

In the disarmed status the Mobeye Outdoor Detector will not send alarm notifications. The functions automatic arming and sending test and a 'low battery' message, are still active.

## 2.11 CONFIRMATION OF THE ALARM MESSAGE

When the system is triggered it will send alarm notifications. First an SMS text message is sent to all programmed alarm numbers, followed by a phone call. When you pick up the phone, you will hear beeps. It is possible to confirm the phone call by answering the phone and pressing any key. The other alarm numbers will not be called afterwards. By not assigning contact persons for SMS and e-mail, the system will only call. This prevents the other numbers being notified by SMS or e-mail.

### **3. POSSIBLE SETTINGS**

The Mobeye Outdoor Detector settings are prepared in the portal, in the "Options" block, and then retrieved by the device during a synchronization session. The factory setting for the security code is '1111'. All settings are saved and stored in the unit, even when the unit is not powered or the batteries have been removed.

#### **3.1 INSTALLATION CODE**

For configuration activities the installation code of the Mobeye Outdoor Detector must be used. The initial (security) code is '1111'. The code can be changed in the options. Note: the code is only visible when changing the settings.

#### **3.2 ALARM PHONE NUMBERS**

The Mobeye Outdoor Detector is able to directly call to up to 5 phone numbers. These may be different numbers than the (unlimited number of) contacts who will receive SMS text messages and/or e-mails. It is not required to enter phone numbers.

#### **3.3 CALL ON/OFF**

Even if the alarm telephone numbers are set in the options, the calling process can be suppressed. By turning off the CALL, the unit will only send the notification via the Mobeye Internet Portal. The default value is set to ON.

#### **3.4 EXIT DELAY TIME**

The exit delay time defines the time between the moment of switching on the module and the first possible movement detection. As factory settings this time is set to 120 seconds.

### **3.5 ENTRY DELAY TIME**

The entry delay is the time between the moment of detection and the moment of sending the first message. When the armed system detects a movement, it first waits for the entry delay period and then it alarms. During the entry delay the GSM module starts to establish a connection to the network. If the system was not disarmed, the alarm messages follow. Note: If the GSM network has low signal strength, the time can be longer as the network connection may not be established within the time of the entry delay. As factory settings this time is set to 15 seconds.

### **3.6 INACTIVE TIME**

The "inactive time" defines the time an input is not active after an activation. During the inactive time, no new alarm message will be sent. The motion detector itself has an inactive time of 2 minutes. This may be extended by a longer inactive time of the Mobeye GSM module. This inactive time can be set between 0 and 60 minutes. As a factory setting this time is set to "0", meaning that the 2 minutes of the Optex alarm are valid.

### **3.7 AUTOMATIC ARMING / DISARMING**

It is possible to automatically arm and disarm the unit, based on an arming and/or disarming time scheme. Two schemes can be entered, which can be assigned to the days in the week (e.g. to have a different weekend scheme).

As default the automatic (dis) arming times are valid for all days. It is possible to assign them to only a few days in the week. In this way it is possible to have two different schemes, which are valid on different days.

As value the weekdays can be entered. Monday is 1, Tuesday is 2, etc. If the scheme is valid for several days, the days can be entered in one command (e.g. 12345 means Monday till Friday).

Example: to arm the system only during weekdays, from 6AM to 7PM, set the Automatic arming time (1) to 06:00, Automatic disarming time (1) to 19:00 and Days 1 to 12345.

### **3.8 TEST MESSAGE**

The Mobeye Outdoor Detector can send regular test messages (*keep alive*) to the Mobeye Internet Portal, to ensure the proper functioning of the unit. The test message will also be sent if the unit is disarmed. The Mobeye Internet Portal expects the test message and checks the timely receipt. The monitoring of the test messages follow the 'management by exception' rule: only if the message was not received, the 'service' contacts will receive a notification.

The timing of the test message can be programmed. Since new settings (options) will be synchronised after the test message, setting a specific time of the test message can help the process of remote programming. Example: if you force a daily test message at 17.30 hrs, you can prepare new settings and be sure they are loaded into the device before the evening.

The interval between the test messages can be set between 0 days (no test message) and 30 days. The default test interval is set to 7 (weekly test message).

### **3.9 SYSTEM RESET**

To reset the Mobeye Outdoor Detector to its factory settings two steps are necessary:

#### **1. To reset the Mobeye Outdoor Detector to its factory settings**

1. Remove the batteries.
2. Press an enrolled tag to the tag reader while reinserting the batteries. Keep it pressed for (about) another 5 seconds. A beep sounds continuously.
3. Release the button immediately after the LED starts to flash. A confirmation tone sounds.

After a successful reset, the status LED on the tag reader will blink green to indicate that the module is not configured. The security code is back to factory settings and the tags are removed from the memory.

#### **2. To delete the Mobeye Outdoor Detector from the Mobeye Internet Portal**

Delete the device from the Mobeye Internet Portal. The SIM card could be then reused for another Mobeye device, or the same device can be connected again.

In the device list, click the name of the device to go to the details screen. Next choose 'Device'. Click 'delete' to delete the device and confirm the option.

The SIM card will be disconnected from the device and visible on the first screen.

After a successful reset, the status LED on the keypad will blink green to indicate that the module is not configured. The security code is back to factory settings as well.

## ENROLMENT OF NEW TAGS

Tags are used for switching on and off and to enter the program mode. The supplied tags are already enrolled and therefore directly usable. If additional tags are provided, they must be enrolled by the user. To enrol a new tag, the Mobeye Outside detector should be in program mode (see 3.1).

Once in program mode, send following SMS command to the unit to reach the enrolment mode:

SMS command to switch to the tag enrolment mode:       **TAG**  
example:   1111 TAG

A short melody confirms the correct command and indicates the tag enrolment mode.

Now hold a new tag to the tag reader at the bottom of the detector. The detector confirms the successful enrolment of the new tag by beeps. The number of beeps represents the tag number (the first tag beeps once, the second tag twice, etc.). If a tag was enrolled before, the beeps will sound to indicate the tag number; it will not re-enrol.

The detector leaves the enrolment mode if no tag was hold against the tag reader for 15 seconds.

In total 25 tags can be enrolled to the CMVXI-R. The same tags will function in combination with other CMVXI-R Outdoor Alarm systems, which makes it possible to operate several devices with one tag.



#### 4. TECHNICAL MESSAGES AND STATUS FEEDBACK

LED pattern	Status	Required action
Blinking green, 1 second on / 1 second off	Module not configured	Configure at least one telephone number.
1 green flash every 3 seconds	Module is switched on, powered by batteries	No action required.
Green LED stays on continuously	Module is switched on, powered by an external source	No action required.
Flashing red/ green every second	Module establishes network connection	Wait until the network connection is established.
2 flashes red, every 3 seconds	No GSM connection	Try the SIM card in any mobile telephone; replace SIM card using other telecom provider; try the module at another location.
3 flashes red, every 3 seconds	No valid SIM card or wrong PIN	Try the SIM card in any mobile telephone; remove PIN code; check credit; replace SIM card.
Blinking 3 times green	Successful programming action	No action required.
Blinking 5 times red	Faulty programming action	Check SMS command.
4 red flashes every 3 seconds	Low batteries	Replace both batteries.
Blinking green rapidly	Exchanging data with Portal	No action required.

## Technical specifications

GSM	: Quad band EGSM, 850/900/1800/1900 MHz
Batteries	: 2* CR123 (lithium)
Battery life in normal mode	: ~ 1 year (at normal use)
Power consumption	: ca. 50 $\mu$ A stand-by / max. ca. 500 mA
Ambient temperature	: -10 °C until +50 °C

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## Declaration of Conformity

Herewith we, Mobeye, declare that the

### **Mobeye CM21 telemetry module**

And the derived products

**CM2000, CM2100, CM2200, CM2300, CM2300-FS, CM2410, CM2500, CM2600,  
CML2015, CML2025, CML2055, CML2255, CML2275, CML2285, CMVXI-R**

are in compliance with the essential requirements of the following European standards / EU Directives:

**Directive 73/23/EEC** (low voltage directive)

**Directive IEC/EN 50130** (Electromagnetic compatibility)

**Directive 2014/53/EU (RED)**

The conformity with the essential requirements set out in Art.3 of the 2014/53/EU has been demonstrated against the following harmonized standards:

EN 60950-1: 2006 + A11 : 2009 + A1: 2010 + A12: 2011 + A2: 2013  
EN 62311 :2008  
EN 301 489-1 V2.1.1, Draft EN 301 489-52 V1.1.0  
EN 301 511 V12.5.1

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