USER MANUAL

Mobeye® Outdoor Detector

CMVXI-R

SW version 5.n

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 the case of damage caused by disregarding the guidelines and the instructions for use, no liability is accepted and the warranty becomes void. The user must regularly check the proper functioning of the Mobeye® device. The manufacturer cannot be held liable for (direct and indirect) damage as a result of incorrect operation or incorrect functioning of the device, software, internet or telecom connection. The manufacturer is in no way liable for the loss of personal passwords or codes.

Safety guidelines

- The permitted ambient temperature during operation may not be exceeded (not lower than -10 °C and not higher than 50 °C).
- The device is intended for use in dry and clean places.
- Protect the device from moisture, heat and water splashing. Not intended for external use.
- 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

When disposing of this product, separate the product and the CR123 batteries from other waste streams to ensure that it can be recycled in an environmentally sound manner. For more information on collection and proper disposal, please contact your local government office or the retailer where you purchased this product.

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1. GENERAL DESCRIPTION

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

In order to activate the device, a few steps are to be followed.

First of all you'll have to choose a SIM card to place in the device. You can use the Mobeye SIM card or your own SIM card. The Mobeye SIM card provides access to the Mobeye Internet Portal. In this management environment the device is given additional functions such as online programming, status and history display, more options for forwarding messages and it will monitor test messages (keep alive). In addition, the Mobeye SIM is a cost-effective M2M roaming SIM card that can use multiple providers per country worldwide and offers more security than a provider-bound SIM card.
When using your own SIM card the most important alarm functions such as calling and/or texting after an alarm will also work.

Where the installation steps differ for both modes of use, this is indicated below. The use of the Mobeye Internet Portal with Mobeye SIM card is also referred to as Mobeye SIM/Portal.

2. STANDARD BEHAVIOUR

2.1 THE OUTDOOR DETECTOR WITH MOBEYE SIM AND INTERNET PORTAL

The Mobeye Outdoor Detector, equipped with a Mobeye SIM card and registered on the Mobeye Internet Portal, has following behaviour as factory settings:

- 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 to the ‘alarm contacts’.
- 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 will 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 5 describes how to influence the standard behaviour.

As described, the Mobeye Outdoor Detector will, in addition to calling in the event of an alarm, send various messages to the Mobeye Internet Portal. This is done via data traffic where possible. As a fallback, the alarm messages are sent to the portal via SMS. Both methods of communication are included in the flat fee of the SIM card. Messages can be forwarded from the portal to contacts such as SMS and / or free e-mail. If the SMS credits run out, the account holder automatically receives a message to upgrade them online.

2.2 MOBEYE OUTDOOR DETECTOR WITH OWN SIM CARD

The Mobeye Outdoor Detector, equipped with your own SIM card, has the following standard behaviour as factory settings:

- When a movement is detected, the Mobeye Outdoor Detector sends an alarm SMS text message and calls the phone numbers programmed in by the user.
- When the batteries need to be replaced, the Mobeye Outdoor Detector sends a ‘low battery’ SMS text message to the first telephone number (administrator).

Chapter 5 describes how to influence the standard behaviour.

3. GETTING STARTED

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

1. Open the Mobeye Outdoor Detector
2. Insert the SIM card
3. Insert the batteries
4. Programming when using the Mobeye SIM/Portal
   a. Sign up in the Mobeye Internet Portal
   b. Activate the SIM card
   c. Enter the program mode
   d. Activate the device in the Mobeye Internet Portal
   e. Program the options and synchronise
5. Programming when using your own SIM card
   a. Enter the program mode
   b. Program the settings

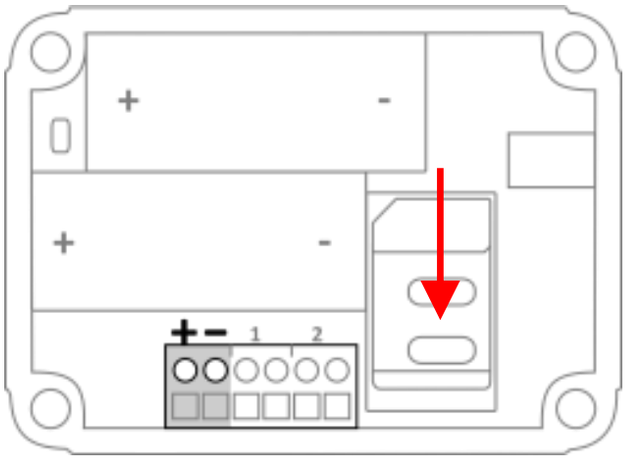
Steps 1 to 3 are described in sections 3.2 up to 3.3.
Step 4 is described in chapter 4. Step 5 can be found in chapter 6.

3.1 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 manual supplied with the Optex detector for a full explanation how to open the detector.

3.2 INSERT THE SIM CARD

Insert the SIM card into the module. Push the black cover slightly outward to open the holder and close it afterwards.



When using the Mobeye SIM card:
The supplied SIM card has a PIN code protection, which means that it can only be used in the Mobeye device.
Note: do not place it in another device.

When using your own SIM card:
Before installing the SIM card should have PIN code "0000", or PIN code removed. (A PIN code can be changed or removed by putting the SIM card in to any mobile phone and entering the 'security' menu.)

NB: Make sure the SIM card is inserted before the batteries. If you replace a SIM card, first remove the batteries. The settings are stored in the device memory. The SIM card shall have the “normal” size and be suitable for 2G. It is advised to use an M2M SIM card.

3.3 INSERT THE BATTERIES

Insert the two batteries (CR123) in the module. Use the +/- indication for the correct placement. If you replace the batteries the settings will not be deleted, since they are stored in the device memory.
When using the extra battery pack: connect the white connector to the connector that is plugged into the +/-. Place the battery pack below the circuit board in the housing. It will be clamped in the enclosure as soon as the housing is closed.

The housing can be closed already after this step or after programming.

4. PROGRAMMING WHEN USING THE MOBEYE SIM AND PORTAL

4.1 SIGN UP IN THE MOBEYE INTERNET PORTAL

Go to www.mymobeye.com
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 on the portal.

If you do not receive this e-mail, please check your spam box or ask Mobeye (info@mobeye.com).

4.2 REGISTER THE MOBEYE SIM CARD

To activate the Mobeye SIM card in the Mobeye Internet Portal, choose ‘activate SIM card’ on the ‘Add Device´ screen.

Fill in the SIM card number. This is the number written on the plastic SIM card below the barcode. You can take the entire number or only the last 8 digits.

The screen leads you through several pop-ups. If asked, choose the device type (search for “CMVXI-R”) and select the type of contract (“CMVXI-R SIM + Portal Monitoring”).

At the moment you accept the price and terms, you confirm the subscription. You will receive an invoice for the mentioned amount.
Before activating the device in the Mobeye Internet Portal, first prepare the unit. See next paragraphs to learn how to do this.

4.3 ENTER THE PROGRAM MODE

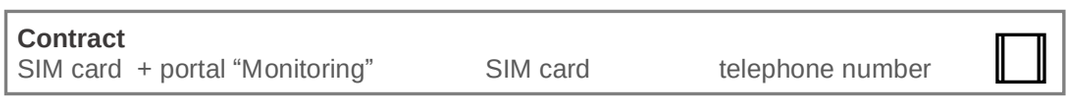
To activate the unit in the portal, the GSM module needs to be open and connected to the network.
The Mobeye Outdoor Detector switches to the program mode after placing the batteries. First the GSM module establishes network connection. During this time the outdoor LED in the tag reader flashes green and red. Within 10-30 seconds the connection is established. The LED starts blinking fast followed by flashing 1 sec. on/1 sec. off (or stays on continuously in case the unit has been configured yet).

It also goes to the program mode by keeping the tag to the tag reader for 5 seconds, until the outside LED starts flashing red/green. Once it has GSM connection it will be flashing again (or stays on continuously).

During the first 3 minutes the GSM module remains active, ready to be activated in the portal. After 3 minutes a time-out occurs and the GSM module switches off in order to save the batteries.

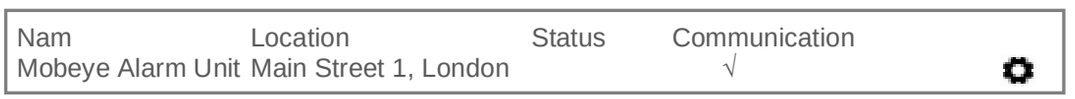
4.4 ACTIVATE THE DEVICE IN THE PORTAL

If the LED in the tag reader flashes once per second, you activate the device in the Mobeye Internet Portal by clicking ‘Activate device’, which is written behind the registered SIM card.



On the pop-up screen, enter the security code "1111" (factory code). The unit will receive a message from the portal and the data exchange is started. The next screen asks for a name and location for your device. These fields can be changed later.

Once the activation is completed, the new device is visible on the dashboard.



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

4.5 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. the regular test message, alarm, low batteries).
2) reinserting batteries.
3) Keeping the tag to the tag reader for 5 seconds until a second beep sounds.

The LED will first blink red-green until it connects to the network. Once the device exchanges data with the portal, the LED quickly flashes green.

4.6 BASICS OF THE MOBEYE INTERNET PORTAL

Dashboard

With multiple devices, the dashboard shows all devices, with the (alarm) messages in the last 24 hours, (missed) test messages and low battery status.
Select a device to go to the details of a specific device.

Status & History

The status block shows values that provide information about the status of the unit.
If the "Synchronized" status is set to "No", there are new settings or alarm numbers that still need to be transferred to the device.
The GSM status shows the network strength at the last communication session. If the value is lower than -95dB, consider another location for the device.
Click on the position icon to see the geographical location during the last report. Note: this is an indication based on "cell-id".

The history displays all historical events. The arm and disarm operations are also visible after each test message. Click on "all events" to see the overview.

Device Settings

The device settings can be changed via the Mobeye Internet Portal. To do this, click on the "edit" icon and type in the security code (factory setting is "1111"). See chapter 5 for the description per setting.

After saving the new settings, they must be retrieved by the device (synchronized). See 4.5 for more information about synchronizing.

The device data contain the name and location of the device and can be changed here. These texts are mentioned in every text message and e-mail message to indicate the device. A free text is available as an internal comment field. This is not included in reports.

Alarm dispatch
In the block "Contacts for text and e-mail messages" you link the contact persons who receive alarm and service messages via text message and / or e-mail. Service messages can be warnings about missed test messages and low battery voltage.
To add a contact person, first create it as a contact. This can be done via the + or in the main menu under the blue Contacts tab.
in the block “Alarm calls from device” the (max. 5) alarm numbers that are called directly from the unit are set. After saving, the alarm numbers must be retrieved by the device, i.e. synchronized. See 4.5 for more information about synchronizing.

Tips:
- Always insert a contact to receive service messages by e-mail.
- Allow text messages only after the test phase in order to save the SMS credits.

Message texts
The message texts are the event texts which are, in addition to the name and location, included in the SMS text messages and e-mails. These texts can be customized.

4.7 CLOSE THE MOBEYE OUTDOOR DETECTOR

Close the enclosure of the Outdoor Detector in reverse order (see 3.1).

4.8 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. A short beeps are heard to inducate a correct disarming. After a few (max. 15) seconds three beeps sound which indicates that the system has fully completed the disarming process.

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

4.9 CONFIRMATION OF THE ALARM MESSAGE

When the system is triggered it will send alarm notifications. First a message is sent to the portal (and forwarded from there), followed by a phone call. When you pick up the phone, you will hear beeps. It is possible to acknowledge the phone call by answering the phone and pressing any key. The other alarm numbers will not be called afterwards. This works for most telephones.

4.10 SYSTEM RESET

To reset a Mobeye Outdoor Detector two steps are necessary, in following sequence:

1. Delete the Mobeye Outdoor Detector from the Mobeye Internet Portal
2. Reset the Mobeye Outdoor Detector

1. To delete the Mobeye Outdoor Detector from the Mobeye Internet Portal
Go to "Device Settings" and click on the delete icon in the "Device" block. Then confirm your choice.

2. To reset the Mobeye Outdoor Detector to its factory settings

1. Remove the batteries and, if relevant, disconnect the battery pack.
2. Keep (an enrolled) tag against the outside button while reinserting the batteries. Keep it pressed for (about) another 5 seconds.
3. Release the tag immediately after the LED starts to flash.
4. If relevant, connect the battery pack.

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

The SIM card is now disconnected and is visible on the "Add device" screen. The SIM card can be used again in another (or the same) Mobeye device in combination with the portal.

5. POSSIBLE SETTINGS

The Mobeye Outdoor Detector has many setting options that influence the behaviour of the module. If connected on the Mobeye Internet Portal, the settings are prepared in the portal (see chapter 4). If your own SIM card is used, programming is done via SMS commands (see chapter 5).

5.1 ALARM PHONE NUMBERS

In the event of an alarm, the Mobeye Outdoor Detector can call 5 telephone numbers (TEL1… TEL5). It is possible to confirm a call by picking up the telephone and pressing any key. The following numbers will not be called.
When using your own SIM card, it is mandatory to set at least one number (on TEL1). The TEL1 ... TEL5 are then used for telephone calls and / or text messages from the unit.
This is not mandatory when using the Mobeye Internet Portal. If no telephone numbers have been entered, the notifications will only be sent to the portal and forwarded by SMS and / or e-mail from there.
Note: the (unlimited number of) contacts who receive SMS / e-mail may be different from the numbers programmed on TEL1 ... TEL5.

5.2 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 textual messages. The default value is set to "ON".

5.3 SMS ON/OFF

This setting is only relevant when using your own SIM card: the Mobeye Outdoor Detector alerts after an alarm on the inputs with a call and an SMS. It is possible to turn off the SMS (OFF). As a factory setting, the SMS is set to "ON".

5.4 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.

5.5 ENTRY DELAY TIME

The entry delay time defines the time from the detection of a movement until an alarm is initiated. If the Mobeye Outdoor Detector is switched off within the entry delay time, the message will not be sent.
After the entry delay time the network connection needs to be set up, which makes the receipt time slightly longer. As default, the entry delay time is set to 15 seconds.

5.6 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.

5.7 AUTOMATIC ARMING / DISARMING

The Mobeye Outdoor Detector only works if the unit is armed, which is done via the on/off button. 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 TIMEARM1 to 06:00, TIMEDISARM1 to 19:00 and DAYS1 to 12345.

(Only) when using your own SIM card, the DATE and TIME must also be set manually. The portal synchronizes this automatically.

5.8 TEST MESSAGE

When using the Mobeye Internet Portal: 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 follows 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).

When using your own SIM card: The Mobeye Outdoor Detector can send regular test SMS messages (*keep alive*) to the first phone number (TEL1), to ensure the proper functioning of the unit. The test message function is only active if the unit is armed. The timing of the test message is determined by the time of programming. The test time can also be programmed. 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 "0" (no test message).

6. 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 ready-to-use. 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 chapter 7).
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: **CODE TAG**
example: 1111 TAG
mind the space between the installation code and 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.

7. PROGRAMMING WHEN USING OWN SIM CARD

Using your own SIM card programming proceeds via SMS commands. The GSM module requires network connection during programming. If the Mobeye Outdoor Detector runs entirely on batteries, it must first be put into programming mode.

7.1 PROGRAM MODE

The program mode can be achieved by holding the tag to the tag reader for 5 seconds, until a second beep sounds. The LED in the tag reader starts flashing red and green. Alternatively, the program mode can be accessed by (re) inserting the batteries.

First the GSM module establishes network connection. During this time the LED in the tag reader flashes green/red. Normally this takes 10-30 seconds. Next it will shortly flash very fast. Once the connection is established the status LED starts flashing 1 sec. on/1 sec. off (or stays on continuously in case the first telephone number has been configured).

In program mode, the device is ready to receive SMS commands. If no correct command is received for 3 minutes, the GSM module switches off in order to save the batteries. The unit returns to the low power operational mode.

The program mode is interrupted by keeping the tag against the tag reader for one second.

7.2 PROGRAM AT LEAST ONE TELEPHONE NUMBER

The Mobeye Outdoor Detector is able to send messages up to 5 telephone numbers. The first telephone number (TEL1) belongs to the administrator. Technical messages (such as *battery low*) are sent to the administrator only. Without the administrator's phone number, the Mobeye Outdoor Detector cannot function.
When the Outdoor Detector is in initial (factory) status and the batteries are inserted (so the LED is flashing), the administrator's number is programmed by calling the telephone number of the Mobeye Outdoor Detector using the administrator's phone.

The unit will recognize this number and store it as administrator (TEL1). The administrator will receive a confirmation SMS text message including the security code. This code is needed to program the other settings in the unit.

NB: For this way of programming the number recognition in the administrator's phone must be 'on'. To program or change the administrator's number by SMS command, please refer to the next section.

7.3 PROGRAMMING THE SETTINGS BY SMS

When using your own SIM card, all settings are programmed in by SMS text messages:

1. Make sure the Outdoor Detector is in program mode (please refer to 7.1).
2. Send an SMS text message with the (security) code and the command.
3. The green LED blinks 3 times to indicate the successful configuration. In case of an incorrect command, the red LED flashes 5 times.

SMS messages have the following content: **CODE COMMAND:OPTION**
Example: **1111 TEL1:+44772345678**

- CODE stands for the security code, factory setting is 1111.
- Do not forget the space character between (security) code and command.
- The commands are case insensitive.
- Several commands may be combined in one SMS message (with a maximum of 160 characters) by placing a # between the commands.

CODE COMMAND:OPTION#COMMAND:OPTION#COMMAND:OPTION

- All settings are saved and remain saved, even if the batteries are removed.

In chapter 5 the options are explained. In chapter 8.1 all possible SMS commands are listed.

8. LIST OF SMS COMMANDS FOR PROGRAMMING WITH OWN SIM

8.1 LIST OF SMS COMMANDS

When using your own SIM card, the settings are programmed via SMS commands. See chapter 6 for the programming method and chapter 5 for an explanation per setting. The commands are case insensitive.

Setting	SMS Command	Options	Default value
Change security code	INSTCODE:	0000…9999	1111
Set telephone number for alarm messages	TEL1: … TEL5:		Empty
Delete telephone number	DEL1 … DEL5		
Identification text	NAME:	20 characters	Mobeye
Call on/off	CALL:	ON, OFF	ON
SMS on/off	SMS:	ON, OFF	ON
Exit delay	DELAYEXIT:	0…999 (sec)	120
Entry delay	DELAYENTRY:	0…999 (sec)	15
Inactive time	INACTIVEIN1:	0…60 (min)	0
Alarm text	TEXT1:	20 characters	Intruder alarm
Actual time	TIME:	hhmm	Empty
Actual date	DATE:	yyyymmdd	Empty
Arming time	TIMEARM1:	hhmm	Empty
Disarming time	TIMEDISARM1:	hhmm	Empty
2nd arming time	TIMEARM2:	hhmm	Empty
2nd disarming time	TIMEDISARM2:	hhmm	Empty
Assigning times 1	DAYS1:	1234567	Empty
Assigning times 2	DAYS2:	1234567	Empty
Interval ‘test SMS’	TEST:	0…30 (days)	0
Time test message	TESTTIME:	hhmm	

Example: Set phone no. 1: 1111 TEL1:0712345678 (space after the code 1111).

8.2 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. A short beeps are heard to indicate a correct disarming. After a few (max. 15) seconds three beeps sound which indicates that the system has fully completed the disarming process.

In disarmed status the Mobeye Outdoor Detector will not send alarm notifications.
The functions automatic arming and sending low battery messages, remain active.

8.3 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 acknowledge the phone call by answering the phone and pressing any key. The other alarm numbers will not be called afterwards. This works for most telephones.
By switching off the SMS function the system will only call. This prevents the other numbers being notified by SMS.

8.4 SYSTEM RESET

To reset the Mobeye Outdoor Detector to its factory settings:

1. Remove the batteries and, if relevant, disconnect the battery pack.
2. Keep (an enrolled) tag against the outside button while reinserting the batteries. Keep it pressed for (about) another 5 seconds.
3. Release the tag immediately after the LED starts to flash.
4. If relevant, connect the battery pack.

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

8.5 SMS REPORTS WHEN USING OWN SIM CARD

Several lists and status reports can be retrieved by sending an SMS text message to the Mobeye Outdoor Detector, from any telephone number. Before sending the request, make sure the unit is in the program mode (please refer to 7.1).
Upon sending the command, the Mobeye Outdoor Detector returns an SMS text message to the originator of the request. The commands are case insensitive.

STATUS REQUEST

The status can be requested by sending following SMS text message. The status includes the armed/disarmed status, status of the inputs, power and batteries.

SMS command status request:	**STATUS?**
example:	1111 STATUS?

LIST OF SETTINGS

The settings can be requested by sending following SMS text message:

SMS command list basic settings:	**SET?**
SMS command list of texts:	**TEXT?**
example:	1111 SET?

LIST OF PHONE NUMBERS

The list of telephone numbers can be requested by sending following SMS text message:

SMS command list of phone numbers:	**CALL?**
example:	1111 CALL?

GSM SIGNAL STRENGTH

The signal strength of the used mobile network can be requested. If the network is weak, it is advised to use a SIM card of another network provider or an external GSM antenna (a Mobeye accessory). The GSM signal strength can be requested by sending following SMS text message:

SMS command request GSM signal:	**NETWORK?**
example:	1111 NETWORK?

8.6 TECHNICAL MESSAGES

In the event of technical issues the administrator receives an SMS message. Possible technical messages are:

Message	Reason
No external power supply, batteries OK	Battery power is sufficient.
Low batteries, no external power supply	Batteries need to be replaced.
(delayed message)	If (delayed message) is added to the SMS text messages, the message couldn’t be sent earlier, due to a SIM card failure or GSM network failure.
Batteries too low. Module shutting down.	The module has shut down due to low voltage. Replace the batteries.
Module restarted. Power supply [status]. Batteries [status].	The module has been able to restart after a shutdown.

When receiving one of the above mentioned technical messages, please take appropriate action as soon as possible. During the battery replacement, the SIM card does not have to be removed.

9. 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.
Quickly flashing green	Module exchanges data with portal	No action required

Technical specifications

GSM	:	Quad band EGSM, 850/900/1800/1900 MHz
Batteries	:	internal: 2* CR123 (lithium) recommended: Varta, Panasonic and Energizer (please do not use Duracell or Philips) battery pack: Mobeye AC-BP3
Battery life in normal mode	:	~ 8 months (only internal batteries)
	:	~ 2,5 year (internal batteries + battery pack)
Power consumption low power	:	ca. 150 µA stand-by / max. ca. 500 mA
Dimensions	:	71 x 105 x 186 mm
Ambient temperature	:	-10 °C until +50 °C

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CE

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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