



PORTAL USER MANUAL

Mobeye CM-Guard TwinLog

CML2055

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 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 SMS text messages, making telephone calls and sending (log) files. Other uses are not permitted and may invalidate the warranty.

Battery recycling

CR123 batteries, as used in the Mobeye CML2055, are classified as non-hazardous waste and can be recycled. Please take empty batteries to a nearest collection point.

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1. GENERAL DESCRIPTION

The Mobeye CML2055 is a GSM module used to monitor the inputs and send alerts in the event of an alarm situation. The unit can run battery-powered. When powered externally, the power supply will be monitored too.

The Mobeye CML2055 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 CML2055 cause following reactions:

- As defaults the inputs are set to 'analogue'. Once the threshold values for the input(s) are set and one of these values are reached, the Mobeye CML2055 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 including the measured value(s) to the 'alarm' contacts.
- When an external power supply is used and a power failure occurs, the Mobeye CML2055 sends a 'power failure' message via Mobeye Internet Portal. When the power is restored, the Mobeye CML2055 sends a 'power restored' message via the portal.
- When the batteries need to be replaced, the Mobeye CML2055 sends a 'low battery' message via the Mobeye Internet Portal.
- When the input(s) remain in the alarm status and/or the power failure remains, the Mobeye CML2055 repeats sending the portal message every 4 hours.
- Logging of the temperature values. As default the temperature values are measured and logged every 60 minutes and sent to the portal every 12 hours. The log frequency and synchronisation interval can be adjusted.
- 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 5 describes how to influence the standard behaviour.

For use of the stand-alone Mobeye CML2055 -without the Mobeye Internet Portal - download the stand-alone manual from www.mobeye.eu/EU/documentation/manuals.

2. GETTING STARTED

To get started with the Mobeye CML2055, 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. Insert the Mobeye SIM card
4. Connect sensors or devices to the inputs
5. Insert the batteries
6. Connect the unit to the external power supply (option)
7. Enter the program mode
8. Activate the device in the Mobeye Internet Portal
9. Program the settings incl. a value for the analogue inputs
10. Arming/disarming the system

These steps are further explained in this chapter. After these steps the module will be operational.

2.1 SIGN UP IN THE MOBEYE INTERNET PORTAL

Go to 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).

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 of the last two lines (incl. number after space, do not type the space).

The screen leads you through several pop-ups where you choose your device type (search for "CML2055") and select the type of contract (for instance "CML22055 SIM card + portal "monitoring+logging").

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).

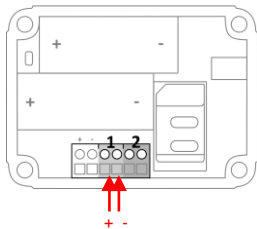
2.3 INSERT THE MOBEYE SIM CARD

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.

2.4 CONNECT A SENSOR OR DEVICE TO THE INPUT

It is possible to connect an analogue sensor such as a battery to both of the inputs. The max. voltage to be measured can be 48 Volt.

Insert the 2 wires of an external sensor through the hole of the enclosure to the inside part and next in the two connectors of input 1 (press on the green pins for connecting the wires). Connect the wires of the '+' side of the battery to the '+' of input 1, the '-' side of the battery to the '-'.



When using a second input, connect this to input 2.

Take care: if the wires are connected incorrectly, the unit may be damaged!

If one of the set values is reached, the Mobeye CML2055 sends a message via Mobeye Internet Portal and calls the alarm telephone numbers. The alarm message contains the input number and measured value.

The inputs can also be set as Normally Closed or Normally Open, for sensors with floating contacts. Please refer to the next chapters for more information about this and other settings such as delay times.

2.5 INSERT THE BATTERIES

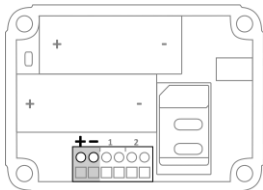
Insert the two batteries (CR123) in the module. Use the +/- indication for the correct placement.

2.6 CONNECT EXTERNAL POWER SUPPLY (OPTION)

The unit does not need external power. As battery-operated unit, the CML2055 runs completely independently, still monitoring the inputs. However, once connected to an external power supply, the power supply will be monitored as well. With external power the GSM module itself will remain open all the time, which makes it possible to program the unit remotely and ask for status reports.

Connect the external power adapter (or any other regulated 12VDC power supply) to the power input of the connector (press on the green pins to connect the wires):

- V+ (black lead with white stripe) to "+"
- Ground (black lead) to "-"



2.7 ENTER THE PROGRAM MODE

In order to activate the device in the portal, the unit needs to be in program mode, i.e. the GSM module is open and connected to the network. Using external power, the unit is always in program mode.

Directly after inserting the batteries, the Mobeye CML2055 switches to the program mode. First the GSM module establishes network connection. During this time the LED flashes green and red. Within 10-30 seconds the connection is established and the status LED starts flashing 1 sec. on/1 sec. off (or stays on continuously in case the first telephone number has been configured).

The Mobeye CML2055 returns to the program mode by pressing the on/off button for 5 seconds, until the LED starts flashing red/green. Once it has GSM connection it will be flashing again (or stays on continuously).

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 activated in the 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.

2.8 ACTIVATE THE DEVICE

When the Mobeye CML2055 is in initial (factory) status and the batteries are inserted (so the LED is flashing), you activate the device in the Mobeye Internet Portal by clicking 'Activate device', which is written behind the registered SIM card.

contract

SIM_card + portal "Monitor&Log" Activate device

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.

2.9 CONFIGURATION AND SYNCHRONISATION

The device settings can be programmed in the Mobeye Internet Portal, including the (max. and min.) temperature limits. 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, logging, test, low batteries)
- 2) reconnecting power and reinserting batteries
- 3) receiving an SMS command to change a setting (not described in this manual).

An alternative, but less preferred method of programming is to send SMS commands to the telephone number in the Mobeye device. This method is explained in the Mobeye CML2055 stand-alone manual. This manual can be downloaded from www.mobeye.eu/EU/documentation/manuals.

2.10 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.

Click on 'values' to see a list of the logged analogue values with the time stamps.

Choose 'download' to download the values to your own file format. Click on 'Graph' to display the values in graph. You can scroll through the time, by clicking the arrows.

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.

Options » edit

Please see chapter 5 for the description of each setting.

After saving the new settings, they need to be picked-up by the device, i.e. synchronised. Please see 2.9 for more information about the synchronisation.

2.11 SWITCHING ON/OFF

After the previous steps, the Mobeye CML2055 is ready for use and switched on automatically. It can be switched on and off by the user-defined time schemes or the button on top. By default this button is 'locked', to prevent that the unit can be switched

off by mistake. This can be changed by choosing the value “OFF” for the setting “BUTTONLOCK” (see 5.15). After unlocking the button, the system can be switched on and off pressing it for one second.

When the unit is switched off, the green LED is off. When the unit is on, the green LED blinks once every 3 seconds (battery-powered) or stays ‘on’ continuously (in case of an external power supply).

In the disarmed status the Mobeye CML2055 will not send alarm notifications. The functions automatic arming and sending test and ‘low battery’ messages, are still active.

2.12 CONFIRMATION OF THE ALARM MESSAGE

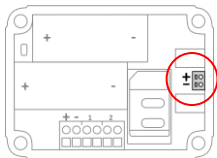
When the system is triggered it will send alarm notifications. First a message is sent to the Mobeye Internet Portal, which will be forwarded to the alarm contacts. Next the device will directly call the alarm telephone numbers. When you pick up the phone, you will hear beeps. It is possible to confirm the phone call by answering the phone and pressing any key. The other alarm numbers will not be called afterwards.

3. USE OF THE OUTPUT

3.1 CONNECT A DEVICE TO THE OUTPUT

The Mobeye CML2055 has an open collector output, which switches after receiving a correct SMS. The output can switch permanently, or just switch for a pulse time after which the output automatically switches back (see 5.13).

The maximum load of the output is 200mA. To switch devices, a relay can be placed behind the output with an input voltage of 12VDC. The required switching voltage of the relay depends on the device connected. NOTE: The output does not work if the CML2055 is battery-operated.



4. CONTROL THE OUTPUT VIA SMS COMMAND

If CML2055 has external power, the GSM module is always open, able to receive an SMS command to switch the output.

To switch the output, send following SMS command to the unit:

CODE O1ON

example: 1111 O1ON

To switch off the output, send following SMS command to the unit:

CODE O1OFF

example: 1111 O1OFF

Be aware of the space after 1111.

The output has a pulse time of 0 second in the factory defaults. This means that if the output is switched with CODE O1ON, it just switches back after sending the command CODE O1OFF. If it is desired that the output automatically switches back after a given time again, check 5.13.

5. POSSIBLE SETTINGS

The Mobeye CML2055 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.

5.1 INSTALLATION CODE

For configuration activities the installation code of the Mobeye CML2055 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.

5.2 ALARM PHONE NUMBERS

The Mobeye CML2055 is able to directly call 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.

5.3 THRESHOLD VALUES FOR ANALOGUE INPUTS

If the input(s) are used as analogue inputs which values need to be monitored, the upper and lower limit need to be programmed. For each input values between 0 and 48 can be entered with one decimal (e.g. 10 or 10,2).

5.4 UNIT OF MEASURE FOR ANALOGUE INPUTS

If the input(s) are used as analogue inputs which values need to be monitored, the unit of measure for these values may be user-defined. The unit of measure is just a text which is sent in the SMS text message. The default unit of measure is 'volt'.

5.5 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 Mobeys Internet Portal. The default value is set to ON.

5.6 INPUT TYPE

The input type defines the character of the inputs IN1 and IN2. This can be Analogue (AN), Normally Open (NO) or Normally Closed (NC). If an input is set to AN, min. and max. alarm values need to be entered. If it is NO, the alarm will be triggered as soon as the terminals of the input are closed. If the input is set to NC, the alarm is triggered when the connection between the input terminals is broken. The default input type is set to AN.

5.7 EXIT DELAY TIME

The exit delay time defines the time between the moment of switching on the module – while the input is active – and the moment the module starts sending the first alarm message. Example: the module has been installed in a cabinet where a door magnet contact is connected to the input. The exit delay time is the time between switching on the module and closing the cabinet's door. Only after this time has exceeded, alarm messages will be sent. The time can be set between 0 and 999 seconds. As default, the exit delay time is set to 0 second.

5.8 ALARM DELAY TIME

The input delay time defines the time that the input is triggered before an alarm is initiated. If the input returns to the non-alarm status within the delay time, no alarm is sent. The time can be set between 0 and 999 seconds. As default, the input delay time is set to 1 second.

5.9 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. Only when the input returned to the non-alarm status, gets activated again and remains active, an alarm will be sent yet

after the inactive time. If the time is set to "0" (minutes), the input will be active again immediately after returning to the non-alarm status. The time can be set between 0 and 60 minutes. As default, the inactive time is set to "0".

5.10 ALARM REPEAT TIME

In order to emphasize the urgency of the alarm messages, all alarms can be repeated. As long as the input has not returned to the inactive status, the SMS alarm will be repeated after the 'alarm repeat time'. The time can be set between 0 and 24 hours. As default the alarm repeat time is set to 4 hours.

5.11 POWER FAILURE DELAY TIME

If the Mobeye CML2055 is powered externally and the power fails it can notify the contact person(s). The power failure delay time defines the time between the initial power failure and the alarm notification. If the power is restored within the delay time, no alarm is sent. The time can be set between 0 and 999 minutes and is only accepted if the POWERMESSAGE is set to 'ALARM'. As default, the delay time is set to 0.

5.12 POWER FAILURE MESSAGE

If the Mobeye CML2055 is powered externally and the power fails it can notify the contact person(s). The power failure delay time defines the time between the initial power failure and the alarm notification. If the power is restored within the delay time, no alarm is sent. The time can be set between 0 and 999 minutes and is only accepted if the POWERMESSAGE is set to 'ALARM'. As default, the delay time is set to 0.

5.13 PULSE TIME OUTPUT

The pulse time or switch time of the output is adjustable between 1 and 9999 seconds. The pulse time indicates how long the output remains switched after a telephone number sends CODE O1ON (e.g. 1111 O1ON), before it automatically switches back again. If the pulse time is set to 0 seconds, the output will not automatically switch back. It may be switched back by SMS command CODE O1OFF. By default, the pulse time is set to "0" second.

5.14 AUTOMATIC ARMING / DISARMING

The Mobeye CML2055 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.

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

5.15 BUTTONLOCK

It can be useful to lock the on/off button to prevent the unit from being switched off unintentionally. As default the buttonlock is unlocked (so, the button is enabled). To disable the button, the buttonlock needs to be switched to on.

5.16 LOW POWER MODE

If Mobeye CML2055 works battery powered, the GSM module is switched off and just switches on to send messages. If the unit has external power, the GSM module is always open, according to the factory settings. However, it is possible to have the GSM module in low power to minimize power consumption, even when external power is used. To achieve this, the LOWPOWER should be set to ON. Also in the low power mode, the presence of the external power source will continue to be monitored.

5.17 TEST MESSAGE

The Mobeye CML2055 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). Log interval

The logging interval is the interval in which the measured values are logged (with a timestamp). The data are stored in the system until the next data transfer. The logging interval can be set between 0 and 999 minutes. The default log interval is set at 60 (minutes).

5.18 TRANSFER INTERVAL

When transferring data, the recorded values are sent to the Portal. The transmission interval can be set between 1 and 999 hours. The standard transmission interval is set to 12 (hours).

5.19 SYSTEM RESET

To reset a Mobeye CML2055 two steps are necessary:

1. Reset the Mobeye CML2055
2. Delete the Mobeye CML2055 from the Mobeye Internet Portal

1. To reset the Mobeye CML2055 to its factory settings

1. Remove the batteries (and external power supply).
2. Press the outside button while reinserting the batteries. Keep it pressed for (about) another 5 seconds.
3. Release the button immediately after the LED starts to flash.
4. If relevant, connect the external power supply.

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.

2. To delete the Mobeye CML2055 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.

6. STATUS FEEDBACK

The outside LED gives information of the status.

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 at another location.
3 flashes red, every 3 seconds	No valid SIM card or wrong PIN	SIM card failure.
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	: 2* CR123 (lithium)
Battery life in normal mode	: >1 year (battery/operated) >2 years (external power supply)
Ext. power connection	: 12 VDC (+/- 2 VDC) / min. 500 mA (optional)
Power consumption low power	: ca. 50 μ A stand-by / max. ca. 500 mA
Power consumption 12V	: ca. 50 mA stand-by / max. ca. 500 mA
Dimensions	: 80 x 60 x 40 mm
Ambient temperature	: -10 °C until +50 °C

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This user manual meets the technical requirements at the moment of printing. Changes in technology and equipment are reserved.

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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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