



## Smart control button



Model	Logical devices
GMB-HAS-SW1-B02	1 x Light sensor and switch
GMB-HAS-SW2-B02	2 x Light sensor and switch
GMB-HAS-SW3-B02	3 x Light sensor and switch
GMB-HAS-SW4-B02	4 x Light sensor and switch

## User Guide

version 2.0

## Technical specification

<b>Network</b>	<b>ZigBee 3.0</b>
<b>Frequency</b>	<b>2.4 GHz</b>
<b>Coverage</b>	<b>100m (open area)</b>
<b>Network extender</b>	<b>No</b>
<b>Operating temperature</b>	<b>-10°C ~ +85°C</b>
<b>Operating humidity</b>	<b>≤95%RH</b>
<b>Dimensions</b>	<b>d – 40 mm, h - 13 mm</b>
<b>Weight</b>	<b>≤ 15 g</b>
<b>Material</b>	<b>ABS</b>
<b>Power supply</b>	<b>DC 3.0V</b>
<b>Battery type</b>	<b>1xCR2032</b>
<b>Battery lifetime</b>	<b>~ 4 years</b>
<b>PIN code</b>	<b>Included in the package</b>
<b>PUK code</b>	<b>Included in the package</b>

## Description

The device is a button for remote control of ZigBee devices with "On/Off" functionality. When the button is pressed 1 to 4 times, depending on the model, the corresponding logical device sends a "Toggle" command to all bound devices. Button logic devices can be bound to a total of up to 20 different ZigBee devices.

## Functionality (Clusters)

- (input 0x0000) Basic
- (input 0x0001) Power configuration – battery status. Alarm for battery below 15%.
- (input 0x0003) Identify – The device is "sleeping" (has a long period of inactivity, allowing it to conserve its battery for a long period of time). When performing an "Identify" command, the device must be in the active state ("awake"). To ensure that the command will be executed successfully, "wake up" the device by pressing the button.
- (output 0x0006) Control "On/Off" - Sends a "Toggle" command to all bound devices.

## Control

Sequentially press the button from 1 to a maximum of 4 times, but not more than the number of logical devices. The number of presses refers to a corresponding logical device, which will send a single "Toggle" command to all devices configured for control (bound) of this logical device.

If the device is connected to a ZigBee network, use the capabilities of the corresponding system to monitor and control the device remotely.

## Indicators

The device has two light indicators:

**Green** – for configuration and management status indication:

- FAST blinking (4 times/second) – when executing a command.
- SLOW blinking (once/second) – when entering a command or returning the result of a command.

**Red** – to indicate invalid command during configuration and management. In case of error, the red LED will blink accordingly:

- 1 – wrong command.
- 2 – the device is not part of a ZigBee network. The command could not be executed.
- 3 – the device is locked. The configuration command could not be executed.
- 4 – the device is part of a ZigBee network. The command could not be executed.
- 5 – wrong PIN/PUK code. The command will not be executed.

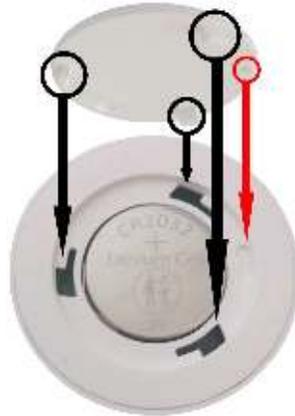
**\* If the battery voltage is not enough to power the device, but it is not yet fully discharged, when the button is pressed, the red LED will flash 6 times very quickly.**

## Preparation and installation

The device is battery powered. Make sure the battery is inserted correctly and remove the insulating tape if there is one.

To replace the battery, use a coin to unscrew the back cover by turning it counterclockwise. The battery should be placed with the positive side up, towards the back

cover. Put the back cover back, making sure the stopper fits into the slot provided for it and turn it clockwise.



For fixing, use the double sided sticky pad included in the package.

## Initial power on

On power up, the device will check if it has a configured ZigBee network and:

- a. If there is a ZigBee network configured, the device will start periodically trying to join it until it successfully joins. If you want to terminate this process, you need to execute the "Leave network" command. This command will reset the device to its factory default settings.
- b. If there is no ZigBee network configured and the device is unlocked, it will make 4 consecutive attempts to join an ZigBee network, within up to 1 minute. If the device does not join a ZigBee network, it can be configured later.

**\* If there is no ZigBee network configured and the device is locked, it will not automatically try to join a ZigBee network at power up. To allow such a device to join a network, unlock it.**

## Configuration

To configure the device press and hold the button for 5 seconds. The green LED indicator will start blinking SLOWLY. Wait until the green LED indicator blinks the CORRESPONDING NUMBER of times (NUMBER OF BLINKS) for the desired command and release the button. Possible error indications:

- If a wrong or invalid command is entered, the red LED will blink 1 time SLOWLY.
- If the device is not part of a ZigBee network and you execute a command related to a ZigBee network, the red LED indicator will blink 2 times SLOWLY, indicating that the command cannot be executed.
- If the device is locked, the red LED will blink 3 times SLOWLY, indicating a locked state, and the command will not be executed.
- If the device is part of a ZigBee network and you execute a command to join a network, the red LED indicator will blink 4 times SLOWLY, indicating that the command cannot be executed.
- When wrong PIN/PUK code is entered, the red LED indicator will blink 5 times SLOWLY.

**\* When the device is in configuration mode, no other commands can be executed, but it can be controlled.**

## Commands

Command	Number of blinks on hold	Description
Network status	4	Information about the presence of a configured ZigBee network.
Binding	5	Binding with another ZigBee device. Duration: until 60 seconds have elapsed or the command ends.
Join network	7	Joining an existing ZigBee network. The device makes 4 consecutive attempts.
Leave network	8	When leaving a network, the device goes to its factory default settings.
Lock/Unlock	10	Deny/Allow configuration changes.
Change PIN code	11	Configures a new PIN code

**\* All configuration commands are energy consuming. Frequent use will drain the battery quickly.**

## Network status

1. Submit network status command by pressing the button and wait for 4 blinks.
2. The green LED indicator will start blinking SLOWLY:
  - 2 times if the device is not part of a Zigbee network.
  - 4 times if the device is connected to a ZigBee network.

## Binding

1. Submit a binding command by pressing the button and wait for 5 blinks.
2. Select the logical device to be configured by holding the button down and waiting for the appropriate number of flashes (1 for the first logical device, 2 for the second, etc.).
3. The green LED indicator will start blinking FAST for 1 minute or until the command is completed.
4. Follow the binding instructions of the device you want to control with the button. It must be part of the same ZigBee network.

**Alternatively:** When both devices you want to bind are part of a Houseper system, binding can be done via the Houseper app.

**\* To execute this command, the device must be part of a ZigBee network.**

## Join network

1. Make sure that the ZigBee network you want to join the device to is open. If you are using a Houseper system, press the "Add device" button in the Houseper app.
2. Submit join network command by pressing the button and wait for 7 blinks.
3. The green LED indicator will start blinking FAST and the device will make 4 consecutive attempts to join an open ZigBee network, within up to 1 minute.

**Alternatively:** If the device is not connected to a ZigBee network, make sure the device is not locked and remove the battery for about 30 seconds. After the battery is installed, the device will automatically start searching for a ZigBee network to join.

**\* To execute this command, the device must NOT be part of a ZigBee network.**

## Leave network

1. Submit leave network command by pressing the button and wait for 8 blinks.
2. The command will return the device to its factory default settings and the device will reboot.

**Alternatively:** If the device is a part of a Houseper system, you can execute this command through the app.

**\* To execute this command, the device must be part of a ZigBee network. When leaving a ZigBee network, the PIN code does not return to its original value, but the last one entered is saved.**

## Lock/Unlock

1. Submit Lock/Unlock command by pressing the button and wait for 10 blinks.

### A. Lock

2. If the device is unlocked, it will lock. The green LED indicator will blink 3 times SLOWLY, indicating that the device is now locked and no reconfiguration commands can be executed.

### B. Unlock

2. If the device is locked (**and not blocked**), the green LED indicator will remain off, waiting for a PIN/PUK code to be entered.
3. Enter the 4 digits of the PIN/PUK code sequentially by pressing the button and holding until the green LED indicator blinks the number of times corresponding to the entered digit. If no digit is entered within 10 seconds, PIN/PUK code entry will be terminated and the device will remain locked.
4. After entering the 4 digits of the PIN/PUK code, the device will blink:
  - a. 10 times SLOW in green if the code entered is correct and the device is unlocked.
  - b. 3 times SLOW in red if the code entered is wrong and the device remains locked.

**\* If you enter the wrong PIN/PUK code 3 times in a row, the device will be locked for 1 hour. During this time, it cannot be unlocked even after rebooting. This 1 hour is measured only when power is on.**

### C. Blocked device

2. If the device is **blocked**, the red LED indicator will blink 3 times SLOWLY, indicating a locked and blocked device.

## Change PIN code

1. Submit change PIN code command by pressing the button and wait for 11 blinks.
2. The green LED indicator will remain off, waiting for a new PIN code to be entered.
3. Enter the 4 digits of the new PIN code 2 times consecutively (For example: If the new PIN code is 1234, you must enter 12341234) by holding the button until the device blinks green, as many times as the corresponding digit. If no digit is entered within 10 seconds, the command will be terminated.

**\* The new PIN code can only contain numbers from 1 to 9.**

4. After entering the 8 digits of the new four-digit PIN code, the device will blink:
  - a. 11 times SLOW in green if the entered PIN is accepted.
  - b. 5 times SLOW in red if the entered PIN is wrong:
    - The first 4 digits do not match the second 4 digits.
    - A digit greater than 9 has been entered.
    - No digit has been entered for 10 seconds.