

mob.iq <sup>geteasy\_</sup> ( RG3<sup>+</sup> )



**User manual of mob.iq [ RG3<sup>+</sup> ]  
controller.**

[www.mob-iq.eu](http://www.mob-iq.eu)

## 1. DESCRIPTION

The **mob.iq [ RG3+ ]** (remote controller) enables remote control of electronic accessories compatible with the **mob.iq ( Z-Wave )** system. The **mob.iq [ RG3+ ]** controller can operate up to 4 devices separately and up to 20 devices in 4 groups. The **mob.iq [ RG3+ ]** controller is equipped with a two-way Z-Wave radio communication module. For communication, the Z-Wave module exploits radio wave frequency of 868,42 MHz.

In order to operate accessories from manufacturers other than Mobilus Motor, that also use Z-Wave system, simply follow add/remove instructions described in this paper.

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

## 2. PACKAGE CONTENTS

The packaging contains the following items:

- remote controller **mob.iq [ RG3+ ]**,
- 1 battery CR2450 3 V in remote,
- user manual.

## 3. TECHNICAL PARAMETERS

- communication technology: Z-Wave
- up to 4 groups
- up to 5 devices in the group
- range: up to 50 m outdoors / up to 40 m indoors ( depending on building materials )
- 868,42 MHz
- 1 CR2450 3 V
- dimensions: 75 x 45 x 14 mm / weight: 30 g

## 4. POWER

The device is powered by a single CR2450 battery. To replace the battery, open the cover of the remote control.

1. Between the lower and the upper part of the housing slide flat, rigid tool in the position shown in Fig. 4a.
2. Then, slowly and firmly spread apart the two housing parts - Fig. 4b.
3. In the lower part of the housing is a battery holder CR2450 3 V - Fig. 4c.  
Replace the old battery with a new one, pay attention to the polarity.
4. Close the remote control.

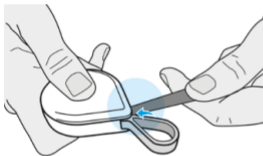


Fig. 4a

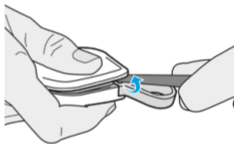


Fig. 4b

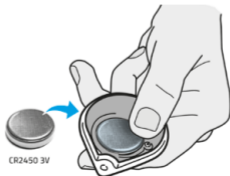
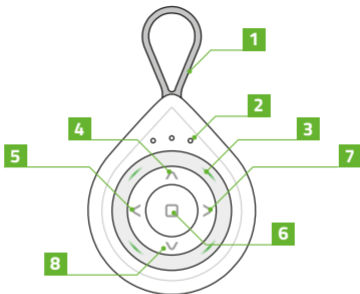


Fig. 4c

## 5. DESCRIPTION OF THE REMOTE CONTROLLER

In Fig. 1, there is presented a general view of the **mob.iq [ RG3<sup>+</sup> ]** remote controller with description of available buttons and signaling.



1. Tag.
2. Active channel or programming option signaling (green).
3. Radio communication signaling (green or red).
4. Operating button **UP**.
5. Channel or programming option navigation button (**LEFT**).
6. Operating button **STOP** or operation confirmation.
7. Channel or programming option navigation button (**RIGHT**).
8. Operating button **DOWN**.

**SUC** - Static Update Controller

**SIS** - SUC ID Server

**CSC** - Central Static Controller

**NIF** - Node Information Frame - information about all capabilities of device sending it, NIF is required when adding or excluding devices to/from network

**PRIMARY CONTROLLER** - controller in network which has all capabilities to maintain this network - include/exclude devices, perform controller shift, enter learn mode and control devices

**SECONDARY CONTROLLER** - controller added to another network in which PRIMARY CONTROLLER is not SIS - it has capabilities to control devices and enter learn mode only

**INCLUSION CONTROLLER** - controller added to another network in which PRIMARY CONTROLLER is SIS - it has all capabilities of PRIMARY CONTROLLER except performing controller shift

**CONTROLLER SHIFT** - ability of PRIMARY CONTROLLER to swap its roles with CSC - it means that after CONTROLLER SHIFT, controller starting this operation will become INCLUSION CONTROLLER or SECONDARY CONTROLLER and CSC will become PRIMARY CONTROLLER

**CONTROLLER REPLICATION** - ability of PRIMARY CONTROLLER and INCLUSION CONTROLLER to add another controller into a network and send data about its included nodes and group to the new controller

**ASSOCIATION GROUPS** - association groups make controlling devices possible - when adding device to network, you cannot operate it, because controller does not know what do you want to do when you press the button, for example UP button - when association is made, controller knows that pressing UP button means "send command to associated device"

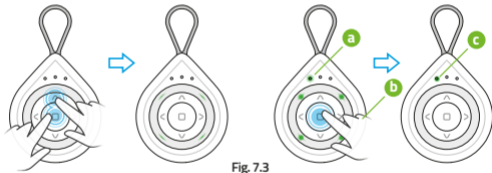
## 7. QUICK START (ONLY PRIMARY/INCLUSION CONTROLLER)

In order to operate the electrical accessories using **mob.iq [RG3+]** controller, the devices working in the mob.iq system must be added to the **mob.iq [RG3+]** remote. Quick start operation performs inclusion of device into the network and assigns it into all association groups assigned to current channel. Please proceed as follows.

1. Using navigation keys select the channel on which the Z-Wave device is to be added.



2. Simultaneously press and hold **STOP** and **UP** button until the LEDs light green (Fig. 7.2).



3. Left channel LED flashes green (when the middle LED flashes green, it means that controller is **SECONDARY CONTROLLER**) (Fig. 7.3a).
4. Confirm the choice with **STOP** button (Fig. 7.3b).
5. Left channel LED turns on solid and the green LEDs are off (Fig. 7.3c).

6. Press the programming button on the device working in the mob.iq system ( for example blind ) - device should send NIF (Fig. 7.6).



Fig. 7.6

7. A successfully completed operation will be signaled by controller through single blink of green LEDs, if the operation is not successfully completed, the controller will signal it through a triple blink of red LEDs (Fig. 7.6).

Quick start operation has a built-in timeout which will abort inclusion mode if controller does not receive NIF in 60 seconds after inclusion mode started

## 8. ADDING DEVICE TO THE Z-WAVE NETWORK ( ONLY PRIMARY / INCLUSION CONTROLLER )

The difference between quick start mode and inclusion mode is that inclusion mode does not create association between device and control buttons. Summarizing - inclusion mode only adds device to the Z-Wave network but does not let controller to operate it until association is made. In order to add device to the Z-Wave network, proceed as follows.

1. Simultaneously press and hold **STOP** and **UP** button until the LEDs light green (Fig. 7.2).
2. Left channel LED flashes green (when the middle LED flashes green, it means that controller is **SECONDARY CONTROLLER**) (Fig. 7.3).
3. Using right navigation key, select the right channel LED (Fig. 7.1).

4. Confirm the choice with STOP button (Fig. 7.3b).
5. Right channel LED turns on solid and the green LEDs are off.
6. Press the programming button on the device working in the mob.iq system (for example blind) - device should send NIF (Fig. 7.6).
7. A successfully completed operation will be signaled by controller through single blink of green LEDs, if the operation is not successfully completed, the controller will signal it through a triple blink of red LEDs (Fig. 7.6).

Include operation has a built-in timeout which will abort inclusion mode if controller does not receive NIF in 60 seconds after inclusion mode started.

## 9. ASSOCIATING DEVICE WITH A CONTROLLER OPERATING BUTTONS

When device was added in include mode described in article 8 or controller is a SECONDARY CONTROLLER in network which already has devices included then in order to operate the electrical accessories, those need to be assigned to control channels by association. To add devices to control channels proceed as follows.

1. Using navigation keys select the channel on which the Z-Wave device is to be assigned (Fig. 7.1).

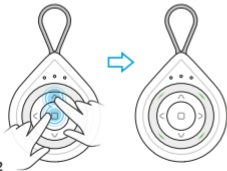


Fig. 9.2

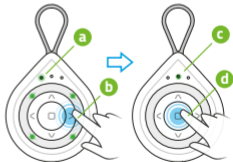


Fig. 9.3

2. Simultaneously press and hold STOP and UP button until the LEDs light green (Fig. 9.2).
3. Left channel LED flashes green ( when the middle LED flashes green, it means that controller is SECONDARY CONTROLLER ) (Fig. 9.3a).

- Using right navigation key (Fig. 9.3b), select the middle channel LED (Fig. 9.3c).
- Confirm the choice with STOP button (Fig. 9.3d).
- Middle channel LED turns on solid and the green LEDs are off.



Fig. 9.7

- Press the programming button on the device working in the mob.iq system (for example blind) - device should send NIF (Fig. 9.7).
- A successfully completed operation will be signaled by controller through single blink of green LEDs, if the operation is not successfully completed, the controller will signal it through a triple blink of red LEDs (Fig. 9.7).

Associate operation has a built-in timeout which will abort association mode if controller does not receive NIF in 60 seconds after association mode started.

## 10. DATA EXCHANGE - LISTENING MODE

In Z-Wave network it is possible to remotely exchange data with another controller in network. To call this function, proceed as follows:

- Simultaneously press and hold STOP and UP button until the LEDs light green (Fig. 10.1).
- Left channel LED flashes green (when the middle LED flashes green, it means that controller is SECONDARY CONTROLLER) (Fig. 10.2a).
- Using right navigation key (Fig. 10.2b), select all channel LEDs (Fig. 10.2c).
- Confirm the choice with STOP button (Fig. 10.2d).

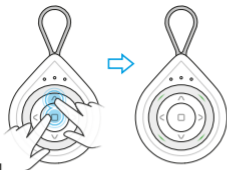


Fig. 10.1

Fig. 10.2

5. All channel LEDs turn on solid and the green LEDs are alternating in clockwise direction (Fig. 10.6).
6. Controller is in data exchange mode - mode is turned on for 60 seconds and the function is renewed after each data exchange request but it is possible to quit this mode by pressing STOP once. (Fig. 10.6).

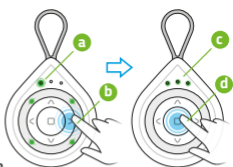


Fig. 10.6

## 11. CONTROLLER SHIFT

It is possible to send all controller capabilities to another controller (typically CSC) without losing all network information. Controller shift sends all data from PRIMARY CONTROLLER to other controller and after that, PRIMARY CONTROLLER becomes SECONDARY CONTROLLER or INCLUSION CONTROLLER and newly added controller is PRIMARY CONTROLLER. In order to perform controller shift operation put controller to be added to network into learn mode and then call include mode on **mob.iq [RG3\*]** controller (refer to article 8).

## 12. LEARN MODE

In one Z-Wave network can be only one PRIMARY CONTROLLER. If the customer wants to have another controller in the same network, it must be added to it by calling learn mode. After this, controller will become SECONDARY or INCLUSION CONTROLLER. In order to call learn mode proceed as follows.

1. Call include mode on controller to which **mob.iq [RG3\*]** controller is to be added.

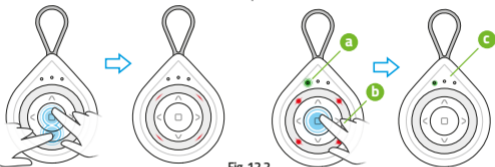


Fig. 12.1

Fig. 12.2

2. Simultaneously press and hold STOP and DOWN button until the LEDs light red.
3. Left channel LED flashes green ( Fig. 12.2a).
4. Confirm the choice with STOP button ( Fig. 12.2b).
5. Left channel LED turns on solid and the red LEDs are off ( Fig. 12.2c).

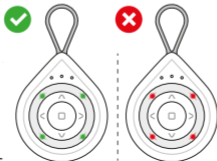


Fig. 12.6

6. A successfully completed operation will be signaled by controller through single blink of green LEDs, if the operation is not successfully completed, the controller will signal it through a triple blink of red LEDs (Fig. 12.6).

Learn mode has a built-in timeout which will abort learn mode if controller does not receive any information in 5 seconds after learn mode started.

If the controller to which **mob.iq [RG3\*]** controller was added supports controller replication, then **mob.iq [RG3\*]** controller will transfer all information about added devices and groups to the other controller (then associating devices will not be necessary).

### 13. REMOVE DEVICE FROM CONTROLLER OPERATING BUTTONS

If you want the device that already exists in the Z-Wave network it was no longer controlled by operating buttons, simply remove it from particular controller channel. To do this, proceed as follows:



Fig. 13.1

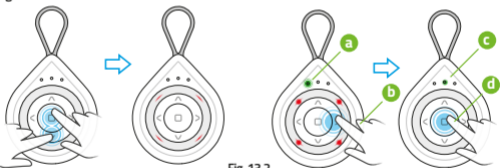


Fig. 13.1

Fig. 13.2

1. Using navigation keys select the channel on which the Z-Wave device is assigned ( Fig. 13.1).
2. Simultaneously press and hold STOP and DOWN button until the LEDs light red. ( Fig. 13.2).
3. Left channel LED flashes green ( Fig. 13.2a).
4. Using right navigation key ( Fig. 13.2b), select the middle channel LED ( Fig. 13.2c).
5. Confirm the choice with STOP button ( Fig. 13.2d).

- Middle channel LED turns on solid and the red LEDs are off.
- Press the programming button on the device working in the mob.iq system (for example blind) - device should send NIF (Fig. 8.7).
- A successfully completed operation will be signaled by controller through single blink of green LEDs, if the operation is not successfully completed, the controller will signal it through a triple blink of red LEDs.

Association remove operation has a built-in timeout which will abort association remove mode if controller does not receive NIF in 60 seconds after association remove mode started.

#### 14. REMOVE DEVICE FROM THE Z-WAVE NETWORK

If you want to remove the device from the Z-Wave network (it can be any Z-Wave network) perform the exclude function. In order to remove the device from network, proceed as follows:

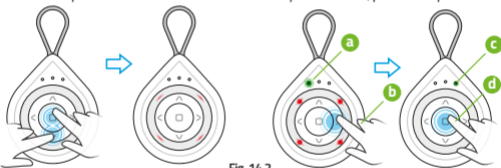


Fig. 14.1

Fig. 14.2

- Simultaneously press and hold STOP and DOWN button until the LEDs light red. (Fig. 14.1).
- Left channel LED flashes green (Fig. 14.2a).
- Using right navigation key (Fig. 14.2b), select the right channel LED (Fig. 14.2c).
- Confirm the choice with STOP button (Fig. 14.2d).
- Right channel LED turns on solid and the red LEDs are off.
- Press the programming button on the device working in the mob.iq system (for example blind) - device should send NIF (Fig. 9.7).

7. A successfully completed operation will be signaled by controller through single blink of green LEDs, if the operation is not successfully completed, the controller will signal it through a triple blink of red LEDs (Fig. 8.7).

Exclude operation has a built-in timeout which will abort exclusion mode if controller does not receive NIF in 60 seconds after exclusion mode started.

## 15. RESTORING FACTORY SETTINGS

**Please use this procedure only when the network primary controller is missing or otherwise inoperable.**

Restoring controller to factory settings removes from its memory all data about Z-Wave network, which means it will forget all added devices and return to PRIMARY CONTROLLER state. To reset controller to factory settings, proceed as follows:

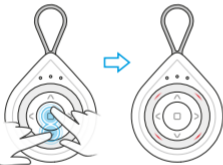


Fig. 15.1

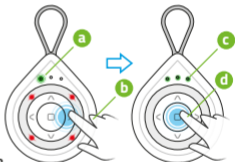


Fig. 15.2

1. Simultaneously press and hold STOP and DOWN button until the LEDs light red. (Fig. 15.1).
2. Left channel LED flashes green (Fig. 15.2a).
3. Using right navigation key (Fig. 15.2b), select all channel LED (Fig. 15.2c).
4. Confirm the choice with STOP button (Fig. 15.2d).
5. All channel LEDs turn on solid and the red LEDs are off.
6. A successfully completed operation will be signaled by controller through single blink of green LEDs (Fig. 9.7).

## 16. COMMAND CLASSES LISTED IN NIF

The **mob.iq [RG3\*]** supports command classes listed below.:

- **COMMAND\_CLASS\_ZWAVEPLUS\_INFO** (version 2)
- **COMMAND\_CLASS\_BATTERY** (version 1)
- **COMMAND\_CLASS\_ASSOCIATION** (version 2)
- **COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO** (version 2)
- **COMMAND\_CLASS\_VERSION** (version 2)
- **COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC** (version 2)
- **COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY** (version 1)
- **COMMAND\_CLASS\_POWERLEVEL** (version 1)
- **COMMAND\_CLASS\_CONTROLLER\_REPLICATION** (version 1)
- **COMMAND\_CLASS\_WAKE\_UP** (version 2)

## 17. SUPPORTED ASSOCIATION GROUPS

- **Group 1 - Lifeline** - max 1 device, supports **DEVICE\_RESET\_LOCALLY\_NOTIFICATION** and **BATTERY\_REPORT**
- **Group 2 - Control1B** - max 5 devices, supports **BASIC\_SET** on channel 1
- **Group 3 - Control1M** - max 5 devices, supports **SWITCH\_MULTILEVEL\_START\_LEVEL\_CHANGE** on channel 1
- **Group 4 - Control1S** - max 5 devices, supports **SWITCH\_MULTILEVEL\_STOP\_LEVEL\_CHANGE** on channel 1
- **Group 5 - Control2B** - max 5 devices, supports **BASIC\_SET** on channel 2
- **Group 6 - Control2M** - max 5 devices, supports **SWITCH\_MULTILEVEL\_START\_LEVEL\_CHANGE** on channel 2
- **Group 7 - Control2S** - max 5 devices, supports **SWITCH\_MULTILEVEL\_STOP\_LEVEL\_CHANGE** on channel 2
- **Group 8 - Control3B** - max 5 devices, supports **BASIC\_SET** on channel 3
- **Group 9 - Control3M** - max 5 devices, supports **SWITCH\_MULTILEVEL\_START\_LEVEL\_CHANGE** on channel 3

- Group 10 - Control3S - max 5 devices, supports SWITCH\_MULTILEVEL\_STOP\_LEVEL\_CHANGE on channel 3
- Group 11 - Control4B - max 5 devices, supports BASIC\_SET on channel 4
- Group 12 - Control4M - max 5 devices, supports SWITCH\_MULTILEVEL\_START\_LEVEL\_CHANGE on channel 4
- Group 13 - Control4S - max 5 devices, supports SWITCH\_MULTILEVEL\_STOP\_LEVEL\_CHANGE on channel 4

In order to control both BASIC and SWITCH\_MULTILEVEL Command Classes, **mob.iq [ RG3+ ]** controller adds devices to all association groups connected with particular channel. For example, when you associate device into channel 1, controller makes association between device and group 2, 3 and 4.

## 18. BASIC SET COMMAND

When **mob.iq [ RG3+ ]** controller receives BASIC SET command it is ignored by the controller.







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