FIBARO KeyFob FGKF-601 Manual

Contents

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FIBARO

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KeyFob

SKU: FGKF-601

Quickstart

This is a
secure
Wall Controller
for
South Korea.

Please make sure the internal battery is fully charged.

To add this device to your network execute the following action:
1)Place the KeyFob within the direct range of your Z-Wave controller.2)Set the main Z-Wave controller in (security/non-security) add mode (see the controllers manual).3)Press any button three times.4)Wait for the adding process to end.5)Successful adding will be confirmed by the Z-Wave controllers message and green LED colour.

Please refer to the
Manufacturers Manual for more information.

Important safety information

Please read this manual carefully. Failure to follow the recommendations in this manual may be dangerous or may violate the law.
The manufacturer, importer, distributor and seller shall not be liable for any loss or damage resulting from failure to comply with the instructions in this manual or any other material.
Use this equipment only for its intended purpose. Follow the disposal instructions.

Do not dispose of electronic equipment or batteries in a fire or near open heat sources.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section.

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.

Product Description

FIBARO KeyFob is a Z-Wave Plus compatible, battery-powered, compact remote control.Six buttons allow you to control other devices through the Z-Wave network and run various scenes defined in FIBARO System.Configure actions for one, two, three clicks and holding the button to suit all your needs.Built-in locking system will ensure that unauthorized person will not take control of your home.

Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state.** Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

Reset to factory default

This device also allows to be reset without any involvement of a Z-Wave controller. This procedure should only be used when the primary controller is inoperable.

Reset procedure allows to restore the device back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted. There are two ways of resetting the device:Resetting using the menu1)Press O andsimultaneously.2)Pressor X until LED glows yellow.3)Press + to confirm.Resetting on start-up1)Remove the battery.2)Hold O and + while inserting the battery.Successful resetting will be confirmed by smoothly brightening and dimming of the yellow LED colour.Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

Inclusion

1)Place the KeyFob within the direct range of your Z-Wave controller.2)Set the main Z-Wave controller in (security/non-security) add mode (see the controllers manual).3)Press any button three times.4)Wait for the adding process to end.5)Successful adding will be confirmed by the Z-Wave controllers message and green LED colour.

Exclusion

1)Place the KeyFob within the direct range of your Z-Wave controller.2)Set the main Z-Wave controller in remove mode (see the controllers manual).3)Press O andsimultaneously.4)Pressor X until LED glows green.5)Press + to confirm.6)Wait for the removing process to end.7)Successful removing will be confirmed by the Z-Wave controllers message.

Communication to a Sleeping device (Wakeup)

This device is battery operated and turned into deep sleep state most of the time to save battery life time. Communication with the device is limited. In order to communicate with the device, a static controller **C** is needed in the network. This controller will maintain a mailbox for the battery operated devices and store commands that can not be received during deep sleep state. Without such a controller, communication may become impossible and/or the battery life time is significantly decreased.

This device will wakeup regularly and announce the wakeup state by sending out a so called Wakeup Notification. The controller can then empty the mailbox. Therefore, the device needs to be configured with the desired wakeup interval and the node ID of the controller. If the device was included by a static controller this controller will usually perform all necessary configurations. The wakeup interval is a tradeoff between maximal battery life time and the desired responses of the device. To wakeup the device please perform the following action:

The Keyfob needs to be woken up to receive information about the new configuration from the Z-Wave controller, like parameters and associations. To wake up the device press O and + simultaneously or use 1st menu position:1)Press O andsimultaneously.2)Pressor X until LED glows white.3)Press + to confirm.

Quick trouble shooting

Here are a few hints for network installation if things dont work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Dont poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Association – one device controls an other device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed, sensor triggers, …). In case the event happens all devices stored in the respective association group will receive the same wireless command wireless command, typically a ‘Basic Set’ Command.

Association Groups:

Group NumberMaximum NodesDescription

1	1	Lifeline reports the device status and allows for assigning single device only (main controller by default).
2	5	Square – On/Off is assigned to clicking thebutton and is used to turn on/off associated devices.
3	5	Square – Multilevel is assigned to clicking and holding thebutton and is used to turn on/off and change le vel ofassociated devices.
4	5	Circle – On/Off is assigned to clicking thebutton and is used to turn on/off associated devices.
5	5	Circle – Multilevel is assigned to clicking and holding thebutton and is used to turn on/off and change lev el of associated devices.
6	5	Cross – On/Off is assigned to clicking the x button and is used to turn on/off associated devices.
7	5	Cross – Multilevel is assigned to clicking and holding the x button and is used to turn on/off and change l evel of associated devices.
8	5	Triangle – On/Off is assigned to clicking thebutton and is used to turn on/off associated devices.
9	5	Triangle – Multilevel is assigned to clicking and holding thebutton and is used to turn on/off and change l evel of associated devices.
10	5	Minus – On/Off is assigned to clicking the – button and is used to turn on/off associated devices.
11	5	Minus – Multilevel is assigned to clicking and holding the – button and is used to turn on/off and change l evel of associated devices.
12	5	Plus – On/Off is assigned to clicking the + button and is used to turn on/off associated devices.
13	5	Plus – Multilevel is assigned to clicking and holding the + button and is used to turn on/off and change le vel of associated devices.

Configuration Parameters

Z-Wave products are supposed to work out of the box after inclusion, however certain configuration can adapt the function better to user needs or unlock further enhanced features.

IMPORTANT: Controllers may only allow configuring signed values. In order to set values in the range 128 … 255 the value sent in the application shall be the desired value minus 256. For example: To set a parameter to 200â€ˆit may be needed to set a value of 200 minus 256 = minus 56. In case of a two byte value the same logic applies: Values greater than 32768 may needed to be given as negative values too.

Parameter 1: Lock Mode activation

This parameter allows to activate Lock Mode and set up unlocking sequence. Device will lock after time set in parameter 2 or after pressing and holding selected button. See u0022Lock Modeu0022 on page 9 of the manual for more information.0 – Lock Mode disabled9-28086 – unlocking sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	Lock Mode disabled
9 – 28086	unlocking sequence

Parameter 10: Single button associations – operating mode

This parameter allows to choose operating mode for single button associations. 0- single press switches state to opposite1- single press switches state to opposite, double press sets to maximum level2 – single press turns on, double press turns off
Size: 1 Byte, Default Value: 0

SettingDescription

0	single press switches state to opposite
1	single press switches state to opposite, double press sets to maximum level
2	single press turns on, double press turns off

Parameter 11: Value sent toassociation group

This parameter allows to set value sent to devices in association group. It will result in turning multilevel devices on with set or last level. Value is irrelevant for simple on/off devices.1-99 – forcing level of associated devices255 – setting associated devices to the last remembered state or turning them on
Size: 2 Byte, Default Value: 255

SettingDescription

1 – 99	orcing level of associated devices
255	setting associated devices to the last remembered state or turning them on

Parameter 12: Value sent toassociation group

This parameter allows to set value sent to devices in association group. It will result in turning multilevel devices on with set or last level. Value is irrelevant for simple on/off devices.1-99 – forcing level of associated devices255 – setting associated devices to the last remembered state or turning them on

Size: 2 Byte, Default Value: 255

SettingDescription

1 – 99	forcing level of associated devices
255	setting associated devices to the last remembered state or turning them on

Parameter 13: Value sent to xassociation group

This parameter allows to set value sent to devices in association group. It will result in turning multilevel devices on with set or last level. Value is irrelevant for simple on/off devices.1-99 – forcing level of associated devices255 – setting associated devices to the last remembered state or turning them on
Size: 2 Byte, Default Value: 255

SettingDescription

1 – 99	forcing level of associated devices
255	setting associated devices to the last remembered state or turning them on

Parameter 14: Value sent toassociation group

This parameter allows to set value sent to devices in association group. It will result in turning multilevel devices on with set or last level. Value is irrelevant for simple on/off devices.1-99 – forcing level of associated devices255 – setting associated devices to the last remembered state or turning them on
Size: 2 Byte, Default Value: 255

SettingDescription

1 – 99	forcing level of associated devices
255	setting associated devices to the last remembered state or turning them on

Parameter 15: Value sent to- association group

This parameter allows to set value sent to devices in association group. It will result in turning multilevel devices on with set or last level. Value is irrelevant for simple on/off devices.1-99 – forcing level of associated devices255 – setting associated devices to the last remembered state or turning them on
Size: 2 Byte, Default Value: 255

SettingDescription

1 – 99	forcing level of associated devices
255	setting associated devices to the last remembered state or turning them on

Parameter 16: Value sent to + association group

This parameter allows to set value sent to devices in association group. It will result in turning multilevel devices on with set or last level. Value is irrelevant for simple on/off devices.1-99 – forcing level of associated devices255 – setting associated devices to the last remembered state or turning them on
Size: 2 Byte, Default Value: 255

SettingDescription

1 – 99	forcing level of associated devices
255	setting associated devices to the last remembered state or turning them on

Parameter 17: Paired buttons association for and

This parameter allows to activate paired buttons association mode forandbuttons. Paired buttons are dependent and association are sent only togroups.turns devices on and increases value,turns them off and decreases value.0 – paired buttons association inactive1- paired buttons association active
Size: 1 Byte, Default Value: 0

SettingDescription

0	paired buttons association inactive
1	paired buttons association active

Parameter 18: Paired buttons association for x and

This parameter allows to activate paired buttons association mode for x and buttons. Paired buttons are dependent and association are sent only to x groups. turns devices on and increases value, x turns them off and decreases value.0 – paired buttons association inactive1- paired buttons association active
Size: 1 Byte, Default Value: 0

SettingDescription

0	paired buttons association inactive
1	paired buttons association active

Parameter 19: Paired buttons association for – and +

This parameter allows to activate paired buttons association mode for – and + buttons. Paired buttons are dependent and association are sent only to – groups. +turns devices on and increases value, – turns them off and decreases value. 0- paired buttons association inactive1 – paired buttons association active
Size: 1 Byte, Default Value: 0

SettingDescription

0	paired buttons association inactive
1	paired buttons association active

Parameter 2: Lock Mode – time to lock and locking button

This parameter allows to set time that must elapse from the last press of the button to lock the device and locking button. Setting locking button will deactivate associations and scenes for pressing and holding the selected button. This parameter is irrelevant if parameter 1 is set to 0 (Lock Mode disable).See u0022Lock Modeu0022 on page 9 of the manual for more information.0 – Lock Mode disabled5-1791- calculated value
Size: 2 Byte, Default Value: 60

SettingDescription

0	Lock Mode disabled
5 – 1791	calculated value

Parameter 21: Scene activation for button

This parameter determines which actions result in sending assigned scene IDs and attributes to the controller.1 – Key Pressed 1 time2 – Key Pressed 2 times4 – Key Pressed 3 times8 – Key Held Down & ReleasedNOTEParameter 21 values may be combined, e.g. 1+2=3 means that pressing button once or twice will result in sending assigned scene ID.
Size: 1 Byte, Default Value: 9

SettingDescription

1	Key Pressed 1 time
2	Key Pressed 2 times
4	Key Pressed 3 times
8	Key Held Down & Released

Parameter 22: Scene activation forbutton

This parameter determines which actions result in sending assigned scene IDs and attributes to the controller.1 – Key Pressed 1 time2 – Key Pressed 2 times4 – Key Pressed 3 times8 – Key Held Down & ReleasedNOTEParameter 22 values may be combined, e.g. 1+2=3 means that pressing button once or twice will result in sending assigned scene ID.
Size: 1 Byte, Default Value: 9

SettingDescription

1	Key Pressed 1 time
2	Key Pressed 2 times
4	Key Pressed 3 times
8	Key Held Down & Released

Parameter 23: Scene activation for xbutton

This parameter determines which actions result in sending assigned scene IDs and attributes to the controller.1 – Key Pressed 1 time2 – Key Pressed 2 times4 – Key Pressed 3 times8 – Key Held Down & ReleasedNOTEParameter 23 values may be combined, e.g. 1+2=3 means that pressing button once or twice will result in sending assigned scene ID.
Size: 1 Byte, Default Value: 9

SettingDescription

1	Key Pressed 1 time
2	Key Pressed 2 times
4	Key Pressed 3 times
8	Key Held Down & Released

Parameter 24: Scene activation forbutton

This parameter determines which actions result in sending assigned scene IDs and attributes to the controller.1 – Key Pressed 1 time2 – Key Pressed 2 times4 – Key Pressed 3 times8 – Key Held Down & ReleasedNOTEParameter 24 values may be combined, e.g. 1+2=3 means that pressing button once or twice will result in sending assigned scene ID.

Size: 1 Byte, Default Value: 9

SettingDescription

1	Key Pressed 1 time
2	Key Pressed 2 times
4	Key Pressed 3 times
8	Key Held Down & Released

Parameter 25: Scene activation for -button

This parameter determines which actions result in sending assigned scene IDs and attributes to the controller.1 – Key Pressed 1 time2 – Key Pressed 2 times4 – Key Pressed 3 times8 – Key Held Down & ReleasedNOTEParameter25 values may be combined, e.g. 1+2=3 means that pressing button once or twice will result in sending assigned scene ID.
Size: 1 Byte, Default Value: 9

SettingDescription

1	Key Pressed 1 time
2	Key Pressed 2 times
4	Key Pressed 3 times
8	Key Held Down & Released

Parameter 26: Scene activation for + button

This parameter determines which actions result in sending assigned scene IDs and attributes to the controller.1 – Key Pressed 1 time2 – Key Pressed 2 times4 – Key Pressed 3 times8 – Key Held Down & ReleasedNOTEParameter 26 values may be combined, e.g. 1+2=3 means that pressing button once or twice will result in sending assigned scene ID.
Size: 1 Byte, Default Value: 9

SettingDescription

1	Key Pressed 1 time
2	Key Pressed 2 times
4	Key Pressed 3 times
8	Key Held Down & Released

Parameter 29: Associations in Z-Wave network security mode

Parameter defines how commands are sent in specified association groups: as secure or non-secure. Parameter is active only in Z-Wave network security mode. It does not apply to 1st Lifeline association group.1 – 2nd group sent as secure2 – 3rd group sent as secure4 – 4th group sent as secure8 – 5th group sent as secure16 – 6th group sent as secure32 – 7th group sent as secure64 – 8th group sent as secure128 – 9th group sent as secure256 – 10th group sent as secure512 – 11th group sent as secure1024 – 12th group sent as secure2048 – 13th group sent as secureNOTEParameter 29 values may be combined, e.g. 1+2=3 means that 2nd & 3rd group are sent as secure.
Size: 2 Byte, Default Value: 4095

SettingDescription

1	2nd group sent as secure
2	rd group sent as secure
4	4th group sent as secure
8	5th group sent as secure
16	6th group sent as secure
32	7th group sent as secure
64	8th group sent as secure
128	9th group sent as secure
256	10th group sent as secure
512	11th group sent as secure
1024	12th group sent as secure
2048	13th group sent as secure

Parameter 3: First scene sequence

This parameter allows to set up sequence that activates scene with ID 7. See u0022Sequencesu0022 on page 10 of the manual for more information.0 – 1st sequence disabled9-28086 – value of sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	1st sequence disabled
9 – 28086	value of sequence

Parameter 4: Second scene sequence

This parameter allows to set up sequence that activates scene with ID 8. See u0022Sequencesu0022 on page 10 of the manual for more information.0 – 1st sequence disabled9-28086 – value of sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	2nd sequence disabled
9 – 28086	value of sequence

Parameter 5: Third scene sequence

This parameter allows to set up sequence that activates scene with ID 9. See u0022Sequencesu0022 on page 10 of the manual for more information.0 – 3rd sequence disabled9-28086 – value of sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	3rd sequence disabled
9 – 28086	value of sequence

Parameter 6: Fourth scene sequence

This parameter allows to set up sequence that activates scene with ID 10. See u0022Sequencesu0022 on page 10 of the manual for more information.0 – 4th sequence disabled9-28086 – value of sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	4th sequence disabled
9 – 28086	value of sequence

Parameter 7: Fifth scene sequence

This parameter allows to set up sequence that activates scene with ID 11. See u0022Sequencesu0022 on page 10 of the manual for more information.0- 5th sequence disabled9-28086 – value of sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	5th sequence disabled
9 – 28086	value of sequence

Parameter 8: Sixth scene sequence

This parameter allows to set up sequence that activates scene with ID 12. See u0022Sequencesu0022 on page 10 of the manual for more information0- 6th sequence disabled9-28086 – value of sequence
Size: 2 Byte, Default Value: 0

SettingDescription

0	6th sequence disabled
9 – 28086	value of sequence

Parameter 9: Sequences – timeout

This parameter allows to set time that must elapse from the last press of the button to check if the sequence is valid.5-30 (0.5-3s, 0.1s step) – time to lock
Size: 1 Byte, Default Value: 10

SettingDescription

5 – 30	time to lock

Technical Data

Hardware Platform	ZM5101
Device Type	Wall Controller
Network Operation	Portable Slave
Firmware Version	HW: 1 FW: 3.02
Z-Wave Version	6.51.09
Certification ID	ZC10-19076609
Z-Wave Product Id	0x010F.0x1001.0xB000
Z-Wave Scene Type	Central Scene
Color	White
Firmware Updatable	Updatable by Consumer by RF
Frequency	XXfrequency
Maximum transmission power	XXantenna

Supported Command Classes

- Application Status
- Association Grp Info
- Association V2
- Battery
- Central Scene V3
- Configuration
- Crc 16 Encap
- Device Reset Locally
- Firmware Update Md V3
- Manufacturer Specific V2
- Multi Channel Association V3
- Powerlevel
- Protection V2
- Security
- Version V2
- Wake Up V2
- Zwaveplus Info V2

Controlled Command Classes

- Basic
- Switch Multilevel V3

Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network.
  Controllers are typically Gateways,Remote Controls or battery operated wall controllers.

- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **Wakeup Notification** — is a special wireless message issued by a Z-Wave device to announces that is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.