Eelectron SpA Push button Eelecta PB41AxxZWE Manual

Contents

Eelectron SpA

Push button Eelecta

SKU: PB41AxxZWE

Quickstart

This is a

On/Off Power Switch
for
CEPT (Europe).

To run this device please connect it to your mains power supply.

To add this device to your network execute the following action:
The device supports both the mechanism Network Wide Inclusion (which offers the possibility of inclusion in a network even though the device is not directly related to the controller) and the Normal Inclusion.If the device is in factory default configuration, the single click of one of the buttons, starts the Network Wide Inclusion process that lasts for a time between 15 and 30 seconds.

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

Eelecta Homepad is a 4 channels pushbutton with 1 integrated 10A 250V relay. Equipped with 5 Led for buttons

feedback and relay status. The device can control electrical loads or dimmerable actuators. The module is controlled either through the Z-Wave network or a simple switch. Designed to replace your conventional switch and control the connected load. The device works with 3-wires system, so neutral is required.

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.

To restore the device to the original factory configuration one of the following methods can be adopted:1. Remove the device from the Z-Wave network using the controller;2. Disconnect the device from the main power supply and reconnect it pressing consecutively six times one of its buttons within 1 minute from the device start. Please use this procedure only when the network primary controller is missing or otherwise inoperable.INFO: Upon removal, if the device (node) is included in a network it notifies to other devices its removal (Device Reset Locally Notification).If the device receives a notification of removal from part of another device in the network, the associations of the latter will be removed.

Safety Warning for Mains Powered Devices

ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

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

The device supports both the mechanism Network Wide Inclusion (which offers the possibility of inclusion in a network even though the device is not directly related to the controller) and the Normal Inclusion.If the device is in factory default configuration, the single click of one of the buttons, starts the Network Wide Inclusion process that lasts for a time between 15 and 30 seconds.

Exclusion

Only a controller has the ability to remove a device from the Z-Wave network where is included.PB41AxxZWE is compatible with all certified Z-Wave controllers.The exclusion procedure must be initiated by the controller and ended on the device that can be removed with the triple consecutive pressing of one of the buttons on the device.

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	8	Z-Wave Plus Lifeline; Switch Binary Report or Device Reset Locally Notification are sent to the nodes in this association group.
2	8	On/Off control; Switch Binary/Push Button Set.
3	8	Dimming Control; Dimmer Set.

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: Local load control

Defines which button is related to the control ofthe local load.
Size: 1 Byte, Default Value: 1

SettingDescription

0	None of the buttons controls the local load
1 – 0	Relay controlled by button 1
2 – 0	Relay controlled by button 2
3 – 0	Relay controlled by button 3
4 – 0	Relay controlled by button 4

Parameter 2: Control of devices linked with groups 2,3,4,5,6,7,8,9

Defines in which cases the control of the linked devices will beactivated with a u0022clicku0022 of a configured button. In order to control devices linked to a group these devices have to belong to this group.
Size: 1 Byte, Default Value: 3

SettingDescription

1 – 0	The possible associations will ignored and associated devices will be not controlled
2 – 0	The associated devices will always be controlled by a click of one of the four buttons
3 – 0	The associated devices will be controlled only from those buttons that arent associated to the local load

Parameter 3: Defines to which button is associated the All On/Off function

This parameter allows you to control devices associated with the button in a predefined way and not depending on their current state or command sent previously.
Size: 1 Byte, Default Value: 0

SettingDescription

0	Button 1 – on/off standard control
1 – 0	Button 1 – always on
2 – 0	Button 1 – always off
4 – 0	Button 2 – always on
8 – 0	Button 2 – always on
16 – 0	Button 3 – always on
32 – 0	Button 3 – always on
64 – 0	Button 4 – always on
-128 – 0	Button 4 – always on

Parameter 5: LED Feedback

Defines which events trigger LED feedback.The value to be entered for this parameter its calculated as the sum of the values associated with the individual entities indicated intable.
Size: 1 Byte, Default Value: 3

SettingDescription

1 – 0	LED reporting state of the Relay
2 – 0	Feedback on press button
4 – 0	Feedback on notification received from Remote devices

Parameter 60: Status at Power on

Status after device restart.
Size: 1 Byte, Default Value: 4

SettingDescription

1 – 0	Local Relay close
2 – 0	Local Relay open
4 – 0	Keep status before power down

Parameter 61: Configuration Reset

Define which parameters will be set to FactoryDefaults.
Size: 1 Byte, Default Value: 4

SettingDescription

1 – 0	All and only the associations are reset
2 – 0	The associations are preserved while all other parameters of configuration will be reset to Factory defaults, except this one that remains unchanged
3 – 0	Device will be restarted
4 – 0	No action is carried out

Parameter 62: Switch or dimmer option

This parameter define the behaviour of the button between switch and dimmer functions.
Size: 1 Byte, Default Value: 0

SettingDescription

0	Button 1 – Switch
1 – 0	Button 1 – Push button
2 – 0	Button 1 – Dimmer
4 – 0	Button 2 – Push button
8 – 0	Button 2 – Dimmer
16 – 0	Button 3 – Push button
32 – 0	Button 3 – Dimmer
64 – 0	Button 4 – Push button
-128 – 0	Button 4 – Dimmer

Parameter 63: Light intensity at switch on

This parameter set the Light intensity at switch on.This behaviour is only appliable to dimmer.
Size: 1 Byte, Default Value: 0

SettingDescription

0	Button 1 – maximum brightness
1 – 0	Button 1 – fixed value 60%
2 – 0	Button 1 – previous value
4 – 0	Button 2 – fixed value 60%
8 – 0	Button 2 – previous value
16 – 0	Button 3 – fixed value 60%
32 – 0	Button 3 – previous value
64 – 0	Button 4 – fixed value 60%
-128 – 0	Button 4 – previous value

Parameter 64: Increase or decrease brightness

This parameter allows you to set the ramp time during dimming.
Size: 1 Byte, Default Value: 0

SettingDescription

0	Button 1 – Seconds
1 – 0	Button 1 – 5 Seconds
2 – 0	Button 1 – 10 Seconds
4 – 0	Button 2 – 5 Seconds
8 – 0	Button 2 – 10 Seconds
16 – 0	Button 3 – 5 Seconds
32 – 0	Button 3 – 10 Seconds
64 – 0	Button 4 – 5 Seconds
-128 – 0	Button 4 – 10 Seconds

Technical Data

Hardware Platform	ZM5202
Device Type	On/Off Power Switch
Network Operation	Always On Slave
Firmware Version	HW: 1 FW: 1.07
Z-Wave Version	6.51.10
Certification ID	ZC10-17055608
Z-Wave Product Id	0x031F.0x0001.0x1030
Neutral Wire Required	ok
Electric Load Type	
Firmware Updatable	
Switch Type	
Frequency	XXfrequency
Maximum transmission power	XXantenna

Supported Command Classes

- Association Grp Info
- Association V2
- Basic
- Configuration
- Device Reset Locally
- Firmware Update Md V2
- Manufacturer Specific
- Multi Channel Association V3
- Powerlevel
- Switch Binary

- Version V2
- Zwaveplus Info V2

Controlled Command Classes

- Device Reset Locally
- Switch Binary
- Switch Multilevel

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.