Aeotec

Aeotec Range Extender 7

SKU: AEOEZW189

Quickstart

This is a **secure Range Extender** for **Europe.** To run this device please connect it to your mains power supply.

1. Open up your Z-Wave gateway/controller/app.
2. Select SmartStart inclusion.
3. Scan the QR code located on the Range Extender 7.
4. Within 10 minutes after powering your Range Extender 7, it will automatically get included into your Z-Wave gateway/controller/hub.

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

The Aeotec Range Extender 7, is a device for amplifying the Z-Wave signal in Z-Wave networks. It allows remote devices to be connected to the central unit without the need for adjustments. The GEN7 technology provides a much wider range than the previous Range Extender 6. SmartStart scans the QR code of the nr device and adds it to your controller.

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.

- Press and hold the Z-Wave Button for 20 seconds to completely factory reset your Range Extender 7.
    - @1 second, LED will turn off.

- @2 seconds, LED will breath its LED
- @5 seconds, LED will flash its LED
- @10 seconds, LED will speed up its flashing.
- @20 seconds, LED will become solid for 2 seconds, then start breathing its LED slowly to indicate it was factory reset.
- You may now release the button.

- If successful, the LED should enter a slow breathing state to indicate it is ready to be paired to a new gateway/controller/hub.

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.

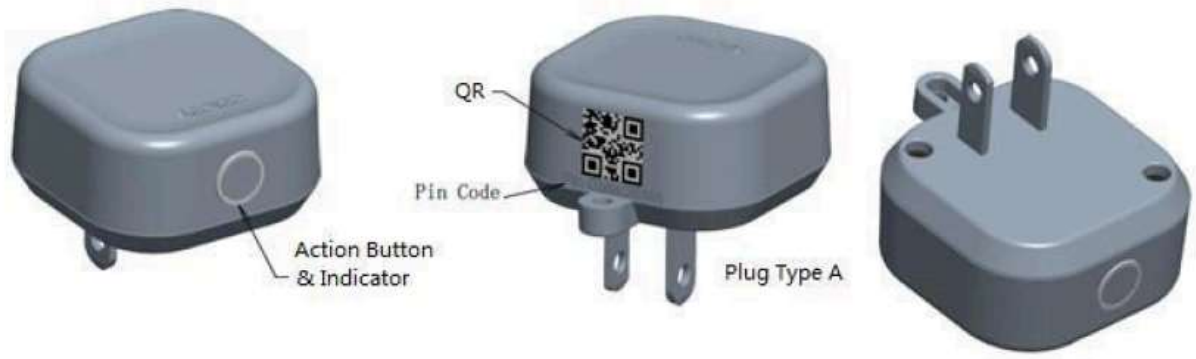
Inclusion

1. Install the device according to the instructions
2. Press the button on Range Extender 7 once.

Exclusion

1. Press the button on Range Extender 7 once.

Product Usage



Control LED of Range Extender 7.

You can turn the LED on or off by using the action button of your Range Extender 7:

- Tap the Action Button 2x times.
- LED should turn on or off each time you do so.

Testing Health Connectivity.

NOTE: This health detection function is only good for determining the direct connection to the gateway (within communication distance to your gateway without any other repeater nodes).

You can determine the health of your Range Extender 7 connectivity to your gateway using its manual button press, hold, and release function which is indicated by the LED.

You gateway/controller/hub must support displaying Z-Wave device health in order for you to see the health of your Range Extender 7 to your Z-Wave gateway.

Follow these steps to test the health of your Range Extender to your Z-Wave gateway/controller/hub:

- Press and hold the Z-Wave Button for 5-10 seconds to test the communication health your Range Extender 7.
  - @1 second, LED will turn off.

- @2 seconds, LED will breath its LED
- @5 seconds, LED will flash its LED
- Release the Action Button to test the health.

  If the LED sped up its flashing, you have held it for too long.

Once the test is finished, the Range Extender 7 will forward a Power Level Report command to your Z-Wave gateway to display the communication quality. Some gateways do not support Power Level Command Class in its interface and may not show.

General LED Status

There are a few LED indications that you will need to pay attention to for the Range Extender 7.

Unpaired from network.
- Slow breathing white LED

While paired to an existing network.
- The LED state is configurable, there are 2 states that you can choose, the LED will remain in a solid state as off or on:
  - LED on
  - LED off

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 Number	Maximum Nodes	Description
1	5	Lifeline

Technical Data

Dimensions	0.0440000x0.0440000x0.0600000 mm
Weight	38.31 gr
Hardware Platform	ZGM130
EAN	1220000016583
IP Class	IP 20
Voltage	230 V
Device Type	Range Extender
Firmware Version	01.01
Z-Wave Version	07.0b
Certification ID	ZC12-19080007
Z-Wave Product Id	0x0371.0x0004.0x00bd
Frequency	Europe - 868,4 Mhz
Maximum transmission power	5 mW

Supported Command Classes

- Basic
- Transport Service
- Association Grp Info
- Device Reset Locally
- Zwaveplus Info
- Supervision
- Manufacturer Specific
- Powerlevel
- Firmware Update Md
- Association
- Version
- Indicator
- Multi Channel Association
- Security 2

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.