



GE

In-Wall Smart Toggle Dimmer

SKU: 14295/ZW3004



Quickstart

This is a **Light Dimmer** for **USA/Canada/Mexico**. To run this device please connect it to your mains power supply. To add this device to your network execute the following action:

1. Follow the instructions for your Z-Wave certified controller to include a device to the Z-Wave network. 2. Once the controller is ready to include your device, press and release the top or bottom of the wireless smart dimmer (rocker) to include it in the network.

Attention: This manual is automatically generated from [Z-Wave Alliance](#) Product data and may be incomplete. Please refer to the [Manufacturers Manual](#) for more information.

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. (For more information about frequency regulations please refer to [the frequency coverage overview at Sigma Designs Website](#)).

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

Transform any home into a smart home with the GE Z-Wave In-Wall Smart Toggle Dimmer. The dimmer enables wireless control of on/off and dim functions of hard-wired dimmable LED/CFL and incandescent lighting. The dimmer replaces your current light switch, uses your existing wiring, and provides Z-Wave wireless and in-wall control of overhead lighting. Use the dimmer feature to customize the lighting output and create the perfect ambiance for any room. Providing ultimate flexibility, the In-Wall Smart Dimmer allows you to operate the switch by itself or easily integrate the switch three-way or four-way wiring configurations by adding the GE Add-On Switch. Single Pole wiring configuration controls the light from one location. Three-way wiring configuration controls the light from two separate locations. Four-way wiring configuration controls the light from three separate locations. The GE Add-On Switch is required for three-way or four-way installations. Take control of your home lighting with GE Z-Wave Wireless Lighting Controls!

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.

1. Quickly press ON (up) button (3) times then immediately press the OFF (down) button (3) times. Note: This should only be used in the even your network's primary controller is missing or otherwise inoperable.

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. Follow the instructions for your Z-Wave certified controller to include a device to the Z-Wave network. 2. Once the controller is ready to include your device, press and release the top or bottom of the wireless smart dimmer (rocker) to include it in the network.

Exclusion

1. Follow the instructions for your Z-Wave certified controller to exclude a device from the Z-Wave network. 2. Once the controller is ready to Exclude your device, press and release the top or bottom of the wireless smart dimmer (rocker) to exclude it from the network.

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	Z-Wave Plus Lifeline, Multilevel Switch Report
2	5	Supports Basic Set and is controlled with the local load
3	5	Supports Basic Set and is controlled by double pressing the On or Off button

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 200 it 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 10: Dim Rate Adjustments

Dim Rate Adjustments

Size: 2 Byte, Default Value: 3

Setting	Description
1 - 255	Timing of steps

Parameter 11: Dim Rate Adjustments

Dim Rate Adjustments

Size: 1 Byte, Default Value: 1

Setting	Description
1 - 99	Number of steps or levels

Parameter 12: Dim Rate Adjustments

Dim Rate Adjustments

Size: 2 Byte, Default Value: 3

Setting	Description
1 - 255	Timing of steps or levels

Parameter 4: Invert Switch

Invert Switch

Size: 1 Byte, Default Value: 0

Setting	Description
0	Default
1	Invert

Parameter 7: Dim Rate Adjustments

Dim Rate Adjustments

Size: 1 Byte, Default Value: 1

Setting	Description
1 - 99	Number of steps or levels

Parameter 8: Dim Rate Adjustments

Dim Rate Adjustments

Size: 2 Byte, Default Value: 3

Setting	Description
1 - 255	Timing of steps or levels

Parameter 9: Dim Rate Adjustments

Dim Rate Adjustments

Size: 1 Byte, Default Value: 1

Setting	Description
1 - 99	Number of steps or levels

Technical Data

Hardware Platform	ZM5202
Device Type	Light Dimmer Switch
Network Operation	Always On Slave
Firmware Version	HW: 255 FW: 5.21
Z-Wave Version	6.51.08
Certification ID	ZC10-16105295
Z-Wave Product Id	0x0063.0x4944.0x3130
Firmware Updatable	
Neutral Wire Required	ok

Supported Command Classes

- Switch All
- Association Grp Info
- Association V2
- Basic
- Crc 16 Encap
- Device Reset Locally
- Firmware Update Md V2
- Manufacturer Specific V2
- Powerlevel
- Scene Activation
- Scene Actuator Conf
- Switch Multilevel V2
- Version V2
- Zwaveplus Info V2

Controlled Command Classes

- Basic

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.