


ZLINK Z-Wave Plug-In On/Off Switch PA-100 Manual

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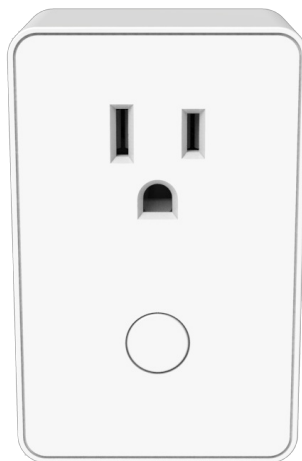
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ZLINK

Z-Wave Plug-In On/Off Switch

SKU: PA-100



Quickstart

This is a
secure
On/Off Power Switch
for
U.S. / 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:
Place your Z-Wave controller in “Inclusion” mode. Then tap the button once to initiation Inclusion.

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

ZLINK PA-100 is a Z-Wave Plus certified device with S2 security and SmartStart features. You can now add this device securely and with ease using QR code on the product with compatible gateways supporting S2 and Smart Start. PA-100 communicates with other Z-Wave certified devices and updates your home into a smart home. PA-100 can be used to turn On or Off lamps or AC operated appliances. Each Z-Wave device also serves as a node to repeat the signal in the network, thus, extending the overall Z-Wave mesh wireless network range. Additional Features: Power 120 VAC, 60Hz, up to 1800 watts Region US: 908.4, 916 MHz Works with incandescent, CFL & LED lights & appliances Plugs into Standard AC outlet LED backlit On/Off button Control lights or appliances via schedule or remotely Second wall AC outlet remains free Works with any gateway supporting Z-Wave

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. Unplug the PA-100 from the AC outlet and also unplug the power plugs of the lighting from the module (if plugged in)2. Press and hold the button on the PA-1003. Plug the PA-100 back into the AC outlet with the button pressedAfter 3 seconds, release the button. If you see the button blink, that means that PA-100 has been reset successfully.Please use this procedure only when the network 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

Place your Z-Wave controller in “Inclusion” mode. Then tap the button once to initiation Inclusion.

Exclusion

Place your Z-Wave controller in “Exclusion” mode. Then tap the button to initiation Exclusion.

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
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1	1	1. Z-Wave Plus Lifeline2. Device Reset Locally Notification
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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 3: Night Light

The LED indicator will be OFF when the connected light is ON and vice versa. When value =0 the LED indicator will be OFF when the the connected light is ON, and the LED will be ON when the connected light is OFF. If value =1 the LED indicator will be ON when the connected light is ON, and the LED indicator will be OFF when the connected light is OFF. If value =2 the LED indicator will always be OFF regardless of the load status
Size: 1 Byte, Default Value: 0

Setting	Description
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0 – 2	When value =0 the LED indicator will be OFF when the the connected light is ON, and the LED will be ON when the connected light is OFF. If value =1 the LED indicator will be ON when the connected light is ON, and the LED indicator will be OFF when the connected light is OFF. If value =2 the LED indicator will always be OFF regardless of the load status
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Technical Data

Hardware Platform	ZM5202
Device Type	On/Off Power Switch
Network Operation	Always On Slave
Firmware Version	HW: 255 FW: 50.03
Z-Wave Version	6.81.00
Certification ID	ZC10-18025998
Z-Wave Product Id	0x0315.0x4447.0x3031
Electric Load Type	FluorescentIncandescentLED
Color	White
Outdoor Use	ok
Switch Type	Push Button Illuminated
Firmware Updatable	Updatable by Consumer by RF
Security V2	S2_UNAUTHENTICATED ,S2_AUTHENTICATED
Frequency	XXfrequency
Maximum transmission power	XXantenna

Supported Command Classes

- Association Grp Info
- Association V2
- Basic
- Configuration V3
- Device Reset Locally
- Firmware Update Md V4
- Manufacturer Specific V2
- Powerlevel
- Scene Activation
- Scene Actuator Conf
- Security 2
- Supervision
- Switch Binary
- Transport Service V2
- Version V3
- Zwaveplus Info V2

Controlled Command Classes

- Supervision

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 announce that it is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.