## AD147 — Z-Wave Dimmer Plug

### WARNING:

⚠️ CAUTION        📖 Read operator's manual

For safety concerns:
- Do not connect any appliances other than luminary products.
- Do not connect any appliances to this remote controlled socket-outlet which are radiating heat and may cause ignition or burning of surrounding materials (for example radiation heaters, portable heaters, portable floodlights, desk lamps, etc).
- Take into consideration that connected appliances might be moved by pets, cleaning staff or other persons who are not aware of the remote control functions.
- The connection/installation of this product should be in a suitable area with the remote controlled socket-outlet easily readable and accessible for disconnection actions.

The mini Dimmer Plug is a Z-Wave™ enabled device which is fully compatible with any Z-Wave™ enabled network. Z-Wave™ enabled devices displaying the Z-Wave™ logo can also be used with it regardless of the manufacturer, and ours can also be used in other manufacturer's Z-Wave™ enabled networks. Inclusion of this unit on other manufacturer's Wireless Controller menu allows remote operation of the unit and the connected load.

The mini Dimmer Plug is designed to control the on/off status of lighting and appliance load in your house. The unit also provides dimmer function which is only applicable to light bulbs. At 220-240V voltage, this Dimmer Plug can support connected load of 6W - 250W.

### Product Overview

French version

On/Off Button & Link Key (with LED light)
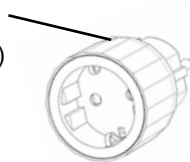
German version



### Adding to Z-Wave™ Network

On the unit you can find a link key which is used to carry out the function of inclusion, exclusion, and reset. When power is applied for the first time, the LED will flash on and off alternately and repeatedly, implying that it has not been assigned a node ID and cannot work with other Z-Wave devices yet.   This unit supports the Auto Inclusion function when power is applied and no node ID is stored in the memory.

### Auto Inclusion

The module may automatically execute the function of inclusion when...
1. The power is applied for the first time and no node ID has been stored in the module.
2. The execution of reset is successful where the stored node ID is cleared.

**Note:** The duration for Auto Inclusion is about 4 minutes. Unlike the "inclusion" procedure shown in the table below, the execution of Auto Inclusion is automatic without the necessity of pressing the link key.

| Action/Status | Description | LED indication |
|---|---|---|
| No node ID | The Controller does not allocate a node ID to the unit. | 2-second on, 2-second off |
| Auto Inclusion | The power is applied for the first time and no node ID has been stored in the module, or after executing reset. | |
| Inclusion | 1. Put the Z-Wave Controller into inclusion mode. | |
| | 2. Press the link key three times within 1.5 seconds to put the unit into inclusion mode. | |
| Exclusion | 1. Put the Z-Wave Controller into exclusion mode. | |
| | 2. Press the link key three times within 1.5 seconds to put the unit into exclusion mode. | |
| Reset (This procedure should only be used when the network primary controller is inoperable.) | 1. Press the link key three times within 1.5 seconds to put the unit into exclusion mode. | |
| | 2. Within 1 second of step 1, press link key again and hold it until LED is off (about 5 seconds). | |
| | 3. Node ID is excluded.   The device reverts to factory default state and will be in auto-inclusion mode for 4 minutes. | |
| ※ Failed or successful results in including/excluding the node ID can be viewed on the Controller. | | |

### Operation

Under normal operation mode, press the on/off button on the unit to control the on/off status of the connected load.   When power is on, the LED indicator will turn on for 5 seconds and then turn off (or slow flash if no node ID is stored).   The unit can also be controlled by receiving command signals from the Z-Wave Controller.

The unit is able to remember the status of the relay when power is cut off (such as power black-out).   When power is supplied again, the unit will resume the last status of the relay (on or off) automatically.   The last brightness of light will also be restored if a dimmable lighting fixture is connected.

**Note:** Pressing and holding the button can adjust the brightness of the dimmable lighting fixture connected to the plug.

### Programming

#### Z-Wave Group Support

The unit supports two association groups with 1 node support for Grouping 1 and 4 nodes support for Grouping 2.   This has the effect that when the unit is operating, all devices associated with the unit will receive the relevant reports.

- When the unit is powered for the first time, the unit will send a Notification Report to the node of Group 1.
- When setting the unit or changing the unit's status, the unit will send a Multilevel Switch Report to the node of Group 1.
- Device Reset: When performing Reset the unit will send Device Reset Locally Notification to the node of Group1.
- The minimum interval time between two reports sent from this unit to the node of Group 1 is 3 seconds. Refer to **Configuration** parameter 2 for more information.
- When the button on the unit or the wall switch is pressed, the unit will send a Basic Set command to the nodes of Group 2.   When the unit is OFF, Basic Set Value = 0x00.   When the unit is ON, Basic Set Value = 0xFF.

**Z-Wave Plus Info**

| Role Type | Node Type | Installer Icon | User Icon |
|---|---|---|---|
| Slave Always On | Z-Wave Plus node | Light Dimmer Switch | Light Dimmer Switch |

**Version**

| Protocol Library | 3 (Slave_Enhance_232_Library) |
|---|---|
| Protocol Version | 3.95 ( 6.51.02) |
| Firmware 0 Version | 1V1 |
| Hardware Version | 2 |
| Firmware 1 Version | 0V6 |

**Manufacturer**

| Manufacturer ID | Product Type | Product ID |
|---|---|---|
| 0x0060 | 0x0003 | 0x0003 |

**AGI (Association Group Information) Table**

| Group | Profile | Command Class & Command (List) N bytes | Group Name(UTF-8) |
|---|---|---|---|
| 1 | General:NA | Multilevel Switch Report, Notification Report, Device Reset Locally Notification | Lifeline |
| 2 | Control:Key1 | Basic Set | On/Off control (Button1) |

**Basic**

- Basic Get: Inquire about the status of the device.
- Basic Report: Report the status of the device.
- Basic Set: Set the status of the device.

| Basic Set Value | Description |
|---|---|
| 0x00 | Device OFF |
| 0x01 ~ 0x63 | Device ON, output Level as the specified Value. |
| 0xFF | Device ON, output Level as the last memorized Level. |

**Notification**

The device will send notifications (Notification Type =0x08, Event = 0x01) upon being powered on.

**Configuration**

The configurable values are as following:

Basic Set Command value:

| Parameter Number | Size | Range | Default |
|---|---|---|---|
| 1 | 2 | 0~99 , 255(0xFF) | 255 (0xFF) |

The delaying time to report to Group 1:

| Parameter Number | Size | Range | Default |
|---|---|---|---|
| 2 | 1 | 3 - 25 (seconds) | 3 |

Remember the last status:

| Parameter Number | Size | Range | Default |
|---|---|---|---|
| 3 | 1 | 1/0 | 1: remember (0: do not remember) |

Output mode setting: Dimming, On/Off

| Parameter Number | Size | Range | Default |
|---|---|---|---|
| 4 | 1 | 1/0 | 0: Dimming (1: On/Off) |
| **Note**: When set to 1, the operation mode is not changed; only the light would be turned on with 100% brightness immediately. | | | |

**Command Classes**

The module supports Command Classes including…

- COMMAND_CLASS_ZWAVEPLUS_INFO_V2
- COMMAND_CLASS_VERSION_V2
- COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
- COMMAND_CLASS_DEVICE_RESET_LOCALLY_V1
- COMMAND_CLASS_ASSOCIATION_V2
- COMMAND_CLASS_ASSOCIATION_GRP_INFO_V1
- COMMAND_CLASS_POWERLEVEL_V1
- COMMAND_CLASS_BASIC_V1
- COMMAND_CLASS_NOTIFICATION_V4
- COMMAND_CLASS_CONFIGURATION_V1
- COMMAND_CLASS_SWITCH_MULTILEVEL
- COMMAND_CLASS_SWITCH_ALL_V1
- COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2

**Additional Command Classes Supported**

- Power Level: For test purpose during product installation.
- Multilevel Switch: Refer to Basic.
- Switch All: The device turns on when receiving "Switch All On", and turns off upon receiving "Switch All Off".
- Firmware Update: For OTA function.

**Troubleshooting**

| Symptom | Cause of Failure | Recommendation |
|---|---|---|
| Device not responding and LED not displaying | The device is not connected to the mains power correctly | Check if connection is correct, or voltage is too high or too low |
| | Device malfunction | Send the device to be repaired |
| LED displaying, but cannot control On/Off status of connected load | The connected load has its own on/off switch | Turn the switch of the connected load to On. |
| Can press button to control, but cannot control by RF | RF interference is occurring. Someone nearby might be emitting RF signal of the same frequency | Wait for a while and retry the operation |

**Specification**

| Power Input | 220-240V/50Hz |
|---|---|
| Supported Load | 6W - 250W |

| Transmission Range | 30 meters (Indoor; Open space) |
|---|---|
| Working Temperature | -10°C - 40°C |

*Specifications are subject to change without notice*

## Warning:

Do not dispose of electrical appliances as unsorted municipal waste. Please use separate collection facilities instead.

Contact your local government for information regarding the available collection systems.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get in to the food chain, damaging your health and well-being.

When replacing old appliances, the retailer is legally obligated to take back your old appliances for disposal free of charge.