## **AN180**

# **Z-Wave On/Off Mini Plug**

#### **WARNING:**



CAUTION



Read operator's manua

#### For safety concerns:

- Do not connect appliances to this remote controlled socket-outlet if the instruction manual of the appliances prohibits to be remote controlled (for example appliances according to EN 60335-2-9 like grills, toasters and similar portable cooking appliances, or portable kitchen appliances, or appliances with heating elements like ovens or heaters, etc).
- 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.
- Do not connect any appliances with potential hazards by moving parts (for example drills, table saws, blender, etc).
- 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.
- Connected equipment should not cause any hazard to the environment, personnel, other equipment and property when left unattended.
- The socket outlet on equipment forbids to insert to other equipment of wall plug (Direct Plug-in) or Power bar.
- The socket outlet only can insert power cord, The direction of power cord is drooping naturally, Power Cord length needs < 2M.</li>
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

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

The On/Off Mini Plug is designed to control the on/off status of appliances load in your house. At 220-240V voltage, this Plug can support up to 1500W resistive.

**Product Overview** 

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



German version



### Adding to Z-Wave<sup>™</sup> 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.	
	Put the Z-Wave Controller into inclusion mode.	
Inclusion	2. Press the link key three times within 1.5 seconds to put the unit into inclusion mode.	
	Put the Z-Wave Controller into exclusion mode.	
Exclusion	2. Press the link key three times within 1.5 seconds to put the unit into exclusion mode.	
Reset (Use this procedure	Press the link key three times within 1.5 seconds to put the unit into exclusion mode.	
only in the event that the network primary	Within 1 second of step 1, press link key again and hold it until LED is off (about 5 seconds).	
controller is missing, or otherwise inoperable.)	Node ID is excluded. The device reverts to factory default state and will be in auto-inclusion mode for 4 minutes.	
* Failed or successful r	results in including/excluding the node ID can be viewed on the	ne Controller.

\* 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.

### **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 Binary 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
- 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	On/Off Power Switch	On/Off Power Switch

#### Version

Protocol Library	3 (Slave_Enhance_232_Library)
Protocol Version	3.95 ( 6.51.02)
Firmware 0 Version	1V0
Hardware Version	2
Firmware 1 Version	1V0

#### Manufacturer

Manufacturer ID	Product Type	Product ID
0x0060	0x0004	0x0007

### **AGI (Association Group Information) Table**

Group	Profile	Command Class & Command (List) N bytes	Group Name(UTF-8)
1	General:NA	Binary Switch Report,	Lifeline
		Notification Report,	
		Device Reset Locally Notification	
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.

#### **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)

#### **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 BINARY V1
- COMMAND CLASS SWITCH ALL V1
- COMMAND CLASS FIRMWARE UPDATE MD V2

### **Additional Command Classes Supported**

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

### **Troubleshooting**

Symptom	Cause of Failure	Recommendation
Device not responding and	The device is not connected to the	Check if connection is correct,
LED not displaying	mains power correctly	or voltage is too high or too low
	Device malfunction	Send the device to be repaired
LED displaying, but cannot	The connected load has its own	Turn the switch of the

control On/Off status of	on/off switch	connected load to On.
connected load		
Can press button to control,	RF interference is occurring.	Wait for a while and retry the
but cannot control by RF	Someone nearby might be emitting	operation
-	RF signal of the same frequency	

### **Specification**

Power Input	220-240V/50Hz
Maximum Load	Resistive load Max.1500W
Transmission Range	30 meters (Indoor; Open space)
Working Temperature	-10℃ - 40℃

<sup>\*</sup>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.

### Caution:

For continued protection against risk of electric, replace only with same type and rating of fuse



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