



Z-Wave AN301 Plug-in ON/OFF Module User Manual

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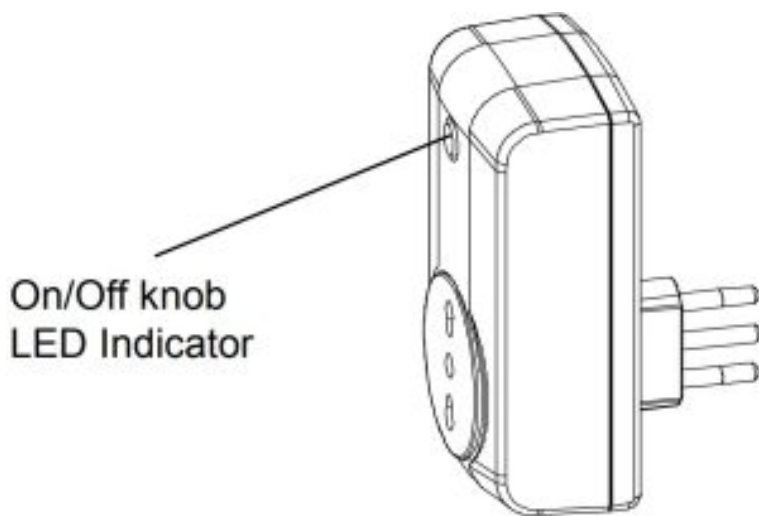


This AN301 plug-in ON/OFF Module is a transceiver which is a Z-Wave™ enabled device and is fully compatible with any Z-Wave™ enabled network. Z-Wave™ enabled devices displaying the Z-Wave™ logo can also be used with it regardless of the manufacturer, and ours can also be used in other manufacturer's Z-Wave™ enabled networks. Remote On/Off control of the connected load is possible with other manufacturer's Wireless Controller. Each module is designed to act as a repeater. Repeaters will re-transmit the RF signal to ensure that the signal is received by its intended destination by routing the signal around obstacles and radio dead spots.

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Product Overview



Adding to Z-Wave™ Network

The unit supports SmartStart function, where inclusion is initiated automatically on power-on, and repeated at dynamic intervals for as long as the device is not included into a Z-Wave network. Z-Wave SmartStart is based on the embedded SDK 6.8x and requires related gateway software components.

If the gateway does not support SmartStart function, this device can be added to the Z-Wave network using manual inclusion, or by scanning the DSK QR code or entering a 5-digit Device Specific Key (DSK) when requested by the gateway.

Installation

1. Plug this On/Off Module into a wall outlet near the load to be controlled.
2. Plug the load into the Module. Make sure the load to be controlled cannot exceed 2990/2200 watts.
3. Press the button or switch on the load to the ON position.
4. To manually turn ON the Module, press and release the On/Off button. The LED will turn ON, and the load plugged into the Module will also turn ON.
5. To manually turn OFF the Module, simply press and release the On/Off button. The LED will turn OFF and the load plugged into the Module will also turn OFF.

Programming

Z-Wave Group Support

The unit supports two association groups with 1 node support for Grouping 1 and 5 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.
- When performing Reset the unit will send Device Reset Locally Notification to the node of Group1.
- 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	6.07 (SDK 6.81.06)
Firmware 0 Version	1V0

Manufacturer

Manufacturer ID	Product Type	Product ID
0x0060	0x0004	0x000F

AGI (Association Group Information) Table

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

Basic commands

Command	Description
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.(Value=0XFF (ON), 0x00 (OFF))

Notification

Event	Type	Event	Event Parameters Length
Power applied for first time	0x08	0x01	0x00

Configuration

The configurable values are as following:

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_MULTI CHANNEL ASSOCIATION V2
- COMMAND_CLASS_TRANSPORT SERVICE V2
- COMMAND_CLASS_POWERLEVEL_V1
- COMMAND_CLASS_SECURITY
- COMMAND_CLASS_SECURITY 2
- COMMAND_CLASS_SUPERVISION
- COMMAND_CLASS_NOTIFICATION_V8
- COMMAND_CLASS_CONFIGURATION_V1
- COMMAND_CLASS_SWITCH_BINARY_V1
- COMMAND_CLASS_FIRMWARE_UPDATE_MD_V4

Additional Command Classes Supported

- Power Level: For test purpose during product installation.
- Binary Switch: Refer to Basic.
- Firmware Update: For OTA function.

Troubleshooting

The table below lists the several steps involved when adding or removing the detector from the Z-Wave network.

Action/Status	Description	LED indication
No node ID	The Z-Wave 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	Put the Z-Wave Controller into inclusion mode.	
	Press the link key three times within 1.5 seconds to put the unit into inclusion mode.	
Exclusion	Put the Z-Wave Controller into exclusion mode.	
	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.)	Press the link key three times within 1.5 seconds to put the unit into exclusion mode.	
	Within 1 second of step 1, press link key again and hold until LED is off (about 5 seconds).	
	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 ID can be viewed on the Z-Wave Controller.		

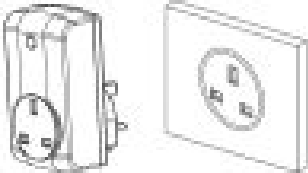
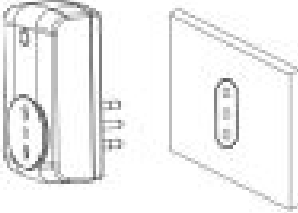
Note: If you are connecting this unit to a Z-Wave Controller that utilizes the S2 security protocol, you may be asked to enter a 5 digit Device Specific Key (DSK) that is unique to each unit by your controller. This can be found in one of two places:

- on the QR code label on the back of the unit
- on the insert card inside the packaging

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	Wait for a while and retry the operation

Socket Type

Refer to the outline for each socket suited for each country as follows:

AN301-3	U.K	AN301-7	Chile
			

Specification

Operating Voltage	230V/50Hz
Maximum Load	2990W for UK, 2200W for Chile
Range	70 m line of sight
Frequency Range	868.42 MHz(UK)/921.42MHz(Chile)


Specifications are subject to change and improvement without notice.



Warning

- Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.
- Contact your local government for information regarding the collection systems available.
- If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.
- When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

Documents / Resources

	Z-Wave AN301 Plug-in ON/OFF Module [pdf] User Manual Z-Wave, AN301, Plug-in, ON-OFF, Module, BH002, RF, ON, OFF, Controller
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