



# **Z-Wave Plus Toggle Light Switch Installation Instructions**

### **Product Overview**

- Z-Wave Plus™ enabled device which can be used turn a light switch on or off
- Z-Wave Plus™ enabled device which can be used sense status of a light switch

### **Product Specifications**

- For indoor use only
- Operating frequency: 908.42 MHz
- Operating temperature: 0° 49°C, 32° 120°F (ambient temperature)
- Operating humidity 5-95% non-condensing
- 2 AA batteries
- Battery Life: Approximatly 1 year



### **Network Inclusion**

The Z-Wave Plus Toggle Light Switch must be added to a Z-Wave Plus network prior to use. To include the device in a network both the device and the network controller must be in inclusion mode at the same time. Refer to the instructions provided by the manufacturer of your specific controller for details on initiating the controller's inclusion mode.

- 1) Verify that the Z-Wave Plus controller you are using is compatible with the Z-Wave Plus Toggle Light Switch.
- 2) Locate the light switch desired to be used with the Z-Wave Plus Toggle Light Switch.
- 3) Put your Z-Wave Plus Controller into add (inclusion) mode.
- 4) Press the inclusion / exclusion button on the Z-Wave Plus Toggle Light Switch. (Figure 1)
- 5) The LED on the front of the unit will turn off if successful included into a network.

#### **Network Exclusion**

- 1) Any Z-Wave Plus Device can be removed from any Z-Wave Plus controller. Follow the directions to put your Z-Wave Plus Controller into exclusion mode.
- 2) Press the inclusion / exclusion button on the Z-Wave Plus Toggle Light Switch.

## **Network Inclusion/Exclusion: Key Points to Remember**

- Controller inclusion mode must be activated BEFORE starting sensor inclusion or exclusion mode.
- The device can only be included into one controller network at a time, and must be excluded from one network before inclusion in another
- Exclusion mode on the senor is initiated following the same exact procedure as inclusion.





The Z-Wave Plus Toggle Light Switch is equipped with a red LED. The state of the LED will change based on the state of the device.

LED Blinking - Device not included into a network.

LED On - Device In Learn mode.

LED blink - Device in lower power mode. Remote control disabled.

## **Battery State**

The Z-Wave Plus Toggle Light Switch will alert the user when the batteries become low. While the batteries are low, the user will be unable to change the light state remotely. The Z-Wave Plus toggle Light Switch will continue reporting the state of the switch until the batteries are completely depleted.

## **Factory Default**

The Z-Wave Plus device is automatically factory defaulted when removed from a Z-Wave Plus network. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

inclusion / exclusion button

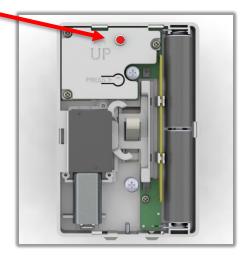


Figure 1

#### Installation

The package contains the following:

- Ecolink Z-Wave Plus Toggle Light Switch
- Screw for the Z-Wave Plus Toggle Light Switch
- 2 AA batteries





STEP ONE Identify Location for Z-Wave Plus Toggle Light Switch:

STEP TWO Remove the switch plate cover on the Light Switch you wish to install the device on.

STEP THREE Remove the current switch plate cover. Save the screws for step four.

STEP FOUR Replace the switch plate cover with the Z-Wave Plus Toggle Light Switch using the screws from step three.



Figure 2

STEP FIVE Follow the Network Inclusiuon steps on page 1.

STEP SIX Place the cover on the Z-Wave Light Switch.





# **Z-Wave Plus Specific Information**

Z-Wave Plus is a wireless mesh network and data protocol that allows devices from many different manufacturers to interoperate. This device implements Z-Wave Plus functionality, Network Wide Inclusion, The following information is intended for software engineers working on Z-Wave Plus controllers and home automation enthusiasts to integrate the Z-Wave Plus device into their system. This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

Device Classes	Generic Device Class	GENERIC_TYPE_BINARY_SWITCH
	Specific Device Class	SPECIFIC_TYPE_POWER_SWITCH_ BINARY
Command Classes	COMMAND_CLASS_ZWAVEPLUS_INFO	v2
	COMMAND_CLASS_VERSION	v2
	COMMAND_CLASS_MANUFACTURER_SPECIFIC	v2
	COMMAND_CLASS_POWERLEVEL	v1
	COMMAND_CLASS_BATTERY	v1
	COMMAND_CLASS_SWITCH_BINARY	v1
	COMMAND_CLASS_ASSOCIATION	v2
	COMMAND_CLASS_ASSOCIATION_GRP_INFO	v1
	COMMAND_CLASS_BASIC	v1
	COMMAND_CLASS_FIRMWARE_UPDATE_MD	v2
Manufacturer ID	0x014A	
Product Type	0x00 06	
Product ID	0x00 02	

# **Z-Wave Plus Command Class Basic**

For backwards compatibility with older Z-Wave Plus Controllers, the Basic Command Class is supported in the following manner. A Basic Set of 0xFF will turn on the light switch. A basic set of 0x00 will turn off the light switch.

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## **Command Class Association**

This Z-Wave Plus Toggle Light switch has two Association groups of 5 nodes.

Group one – Group one is the lifeline group. The Light Switch will send Switch Binary Reports with a value of 0x00 if the light is turned off and 0xFF if the light is turned on to all nodes in group 2.

Group two – The light switch will send basic reports with a value of 0x00 if the light is turned off and 0xFF if the light is turned on to all nodes in group 2.

## **Network Wide Inclusion**

This device also supports Network Wide Inclusion such that the device can be included into the Z-Wave network over the mesh network and not directly near the main controller. This mode is automatically activated after regular inclusion was not successful.

#### **FCC Compliance Statement**

This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a different circuit from the receiver
- Consult the dealer or an experienced radio/TV contractor for help.

Warning: Changes or modifications not expressly approved by Ecolink Intelligent Technology Inc. could void the user's authority to operate the equipment.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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FCC ID: XQC-TLSZWAVE5

IC: 9863B-TLSZWAVE5





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This product covered by one or more claims of patents found at: <a href="http://sipcollc.com/patent-list/">http://sipcollc.com/patent-list/</a>

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