## INSTALLATION INSTRUCTIONS

# **ZW15RM**

## Wireless Home Automation Control Device **15A Tamper Resistant Duplex Receptacle**



| ◆ SPECIFICALIUNS                           |                               |
|--|-------------------------------|
| Voltage                                    | 120VAC, 60Hz                  |
| Incandescent                               |                               |
| Ballast                                    | 1200VA                        |
| Resistive                                  |                               |
| Motor                                      | 1/2 HP                        |
| Z-Wave Frequency                           | 908.42 MHz                    |
| Operating Temperature                      | 32-104° F                     |
| Range                                      | Up to 132 feet line of sight  |
| between the Wireless Controller and the cl | osest Z-Wave receiver module. |

#### ♦ FEATURES

- Perfect replacement for regular receptacles, 120VAC, 15 Amp
- Wireless Z-Wave technology creates a mesh network for command and control interoperability with other Z-Wave compliant controller and devices
- Manual and Remote ON/OFF control of any connected lighting and other electrical load for Z-Wave controlled outlet
- Tamper-Resistant (TR) Receptacles keep you and your family safe
- Reduce energy consumption and enjoy Wireless Home Automation
- Enhance the value and technology of your condominiums and homes
- Measures energy usage of any connected appliance/device

#### ♦ DESCRIPTION

The ZW15RM TR Duplex Receptacle is a perfect wireless manual and remote on/off control replacement of regular receptacles, controlling table and floor lamps, small appliances, etc. It provides two different type outlets. One outlet with Z-Wave mark has programmable functions such as scenes, association, schedule event, etc. It is fully interoperable with other Z-Wave certified device from other manufacturers and/or other applications. It can report wattage energy usage or kWh energy usage to a Z-Wave gateway. It has a Blue LED on the face cover indicates the status of the controlled outlet and/or act as a night light. The other outlet with Tamper-Resistant feature provides constant power, helps you and your families prevent electrical injuries.

#### ♦ MEASURE THE ENERGY USAGE

The ZW15RM TR Duplex Receptacle enables you to measure the energy usage of your appliance. When added to a Z-Wave network, the ZW15RM reports real time data to your gateway or controller. It can also display actual consumption (in W) and the accumulated power used (in kWh) in the user interface of the gateway/remote. Please use the gateway installation manual for specific instructions on measuring the power.

## WARNINGS AND CAUTIONS

To be installed and/or used in accordance with appropriate electrical codes and regulations. Exercise extreme caution when using Z-Wave devices to control appliances. Operation of the Z-Wave device may be in a different room than the controlled appliance, also an unintentional activation may occur if the wrong button on the remote is pressed. Z-Wave devices may automatically be powered on due to timed event programming.Depending upon the appliance, these unattended or unintentional operation could possibly result in a hazardous condition.

Z-Wave enabled devices should never be used to supply power to, or control the On/Off status of medical and/or life support equipment.

If you are unsure or uncomfortable about performing the installation, please consult a qualified electrician.

#### INSTALLATION

This receptacle may be used in new installations or to replace an existing wall receptacle.

WARNING : TO AVOID FIRE, SHOCK ,OR DEATH ,TURN OFF THE POWER AT THE CIRCUIT BREAKER BEFORE YOU INSTALL THIS RECEPTACLE.



- 1. For retrofit applications, remove wall plate.
- 2. Warning!: Verify power is OFF before continuing.
- 3. Remove the existing receptacle from the box.
- 4. Disconnect the wiring from the existing receptacle.
- 5. Connect the Z-Wave receptacle as shown in the wiring diagram: Black lead to hot wire, white lead to neutral wire, green lead to ground wire.
- 6. Check connections to be sure they are tight and no bare conductors are exposed.
- 7. Insert the ZW15RM receptacle into the outlet box carefully.
- 8. Make sure the ZW15RM receptacle to the box using the supplied screws
- 9. Attach the wall plate.
- 10. Restore power at the circuit breaker and test the system.



### Manual Control

otherwise inoperable.

#### Remote Control

### **Advanced Operation**

### All-ON and All-OFF

- The program button on the ZW15RM duplex receptacle allows the user to: 1. Manually turn ON the Module: press and release the program button. The Blue LED indicator will turn OFF, and the appliance or device plugged into
- Z-Wave controlled outlet will turn ON.(Default)
- 2.Manually turn OFF the Module: press and release the program button. The Blue LED indicator will turn ON, and the appliance or device plugged into Z-Wave controlled outlet will turn OFF.(Default)
- 3. When the controller is in add mode and the blue LED is blinking on the ZW15RM, press and hold the program button of ZW15RM for 3 second, and then the controller will verify the add.
- 4. When the controller is in remove mode, press and hold the program button of ZW15RM for 3 second, and then the controller will remove it from the current Z-Wave network, and the LED will blink on the receptacle, when power on.
- 5.Once program button is pressed and hold for 10 second, the device will send a device reset locally notification to controller. Then clear all of information for the network, and restore factory defaults, and reset the module. Use this procedure only in the event that the network primary controller is missing or

- Z-Wave remotes provide control of an Individual device, Groups of devices and Scenes. Please refer to your remote control's instructions for details on its capabilities and instructions for adding and controlling devices.
- Please Note: After a power failure, the ZW15RM 's Z-Wave controlled receptacle returns to OFF state.
- The following Advanced Operation parameters require that you have an advanced controller. However, basic remotes do not have this capability.

Depending upon your primary controller, the ZW15RM receptacle can be set to respond to ALL-ON and ALL-OFF commands in up to four different ways. Some controllers may not be able to change the response from its default setting. Please refer to your controller's instructions for information on whether or not it supports the configuration function and if so, how to change this setting.

## INSTALLATION INSTRUCTIONS

The four possible responses are:

- It will respond to ALL-ON and the ALL-OFF command (default).
- It will not respond to ALL-ON or ALL-OFF commands.
- It will respond to the ALL-OFF command but will not respond to the ALL-ON command.
- It will respond to the ALL-ON command but will not respond to the ALL-OFF command.

#### Configuration

| Parameter<br>NO. | Size   | Description                                       | Valid Value                                 |           |
|------------------|--------|---|---|-----------|
| 1                | 1 Byte | synchronization of outlet power and LED indicator | 0: Power on, LED off<br>1: Power on, LED on | Default=0 |
|                  |        |   |   |           |
|                  |        |   |   |           |
|                  |        |   |   |           |
|                  |        |   |   |           |
|                  |        |   |   |           |

#### Association

| Grouping ID | Max number of nodes | Description                                      |
|-------------|---------------------|--|
| 1           | 1                   | Lifeline: Send device reset locally notification |
| 2           | 5                   | StatusReport: Send basic report                  |
| 3           | 5                   | PowerReport: Send meter power report             |
|             |                     |  |

#### ♦ WIRELESS RANGE

This device complies with the Z-Wave standard of open-air, line of sight transmission distances of 100 feet. Actual performance in a home depends on the numbers of walls between the remote controller and the destination device, the type of construction and the number of Z-Wave enabled devices installed in the control network.

#### **Z-Wave Network**

Every Z-Wave enabled device acts as a signal repeater and multiple devices result in more possible transmission routes which helps eliminate " RF dead--spots."

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## Things to consider regarding RF range:

- Each wall or obstacle (i.e.:refrigerator, big screen TV, etc.)between the remote or a Z-Wave device and the destination device will reduce the maximum range of 100 feet by approximately 25-30%.
- Brick, tile or concrete walls block more of the RF signal than walls made of wooden studs and plasterboard (drywall).
- Wall mounted Z-Wave devices installed in metal junction boxes will suffer a significant loss of range (approximately 20%) since the metal box blocks a large part of the RF signal.

#### Effects of Home Construction on Wireless Range Between Z-Wave Enabled Devices.

| From the Remote (or repeating Z-Wave module) to destination device: |     |                            |                  |                            |                  |  |  |
|---|-----|----------------------------|------------------|----------------------------|------------------|--|--|
| Type of<br>Construction   |     | Wood Frame with<br>Drywall |                  | Brick, Tile or<br>Concrete |                  |  |  |
|   |     | Plastic<br>J-Boxes*        | Metal<br>J-Boxes | Plastic<br>J-Boxes*        | Metal<br>J-Boxes |  |  |
| Number of<br>Walls or<br>Obstacles                                  | 0** | 100′                       | 80'              | 100'                       | 80'              |  |  |
|   | 1   | 70′                        | 56'              | 60'                        | 48'              |  |  |
|   | 2   | 49'                        | 39'              | 36'                        | 29'              |  |  |
|   | 3   | 34'                        | 27'              | 21'                        | 17'              |  |  |

### **Restoring Factory Defaults**

All network settings and configuration parameters can all be restored to their factory default settings by using your master controller or manual reset control to reset the device.

#### **Over-Current Protection**

Over-current protection is provided by an internal fuse which is not user serviceable. Check your home's circuit breakers before concluding that that the product must be replaced.

#### ◆ FCC COMPLIANCE STATEMENT

The equipment has been tested and found to comply with the limits for a Class B Digital Device, 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 uses, generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

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- help.

## Operation is subject to the following two conditions:

#### ♦ TROUBLESHOOTING

#### Cannot carry out add, remove or association

### The LED indicator does not turn ON

#### ♦ WARRANTY INFORMATION

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for

- This device may not cause interference.

- This device must accept any interference, including interference that may cause undesired operation of the device.

1. Confirm that the receptacle is powered. 2. Check if the wireless distance is too far.

1. Check the wiring connection, especially the neutral wire. 2. Manually with the program button on the receptacle.

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