

Release 2.0 Added Features include:

The “Associate” command with “Group Support” - When ZRP100 turns on or off, can cause other receivers “Associated” to turn on or off. Can also control other Groups in the same manner.

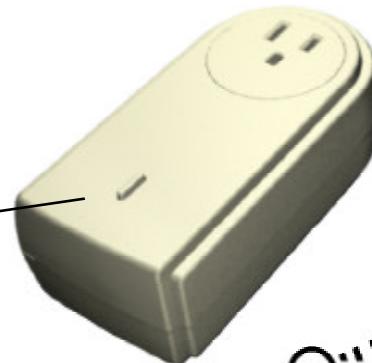
Config Command

Configure aspects of operation differently from the factory settings if desired.

Protection Command - Can disable ALL ON independently from or ALL OFF command

Button functions

1. Adds module under the command of Wireless Controller.
2. Local ON and OFF (push and release).



ZRP100 PLUG-IN APPLIANCE MODULE

The ZRP100 plug-in Appliance Module is a component of the HomePro lighting control system. Plug the Appliance Module into a wall outlet and plug a load into the Appliance Module. Remote ON/OFF control of the connected load is possible with the ZTH100 RF Wireless Controller (sold separately).

This plug-in Appliance Module is designed to work with other Z-Wave enabled devices. Z-Wave devices of other types can be added to the system.

As part of a Z-Wave network, the ZRP100 will act as a wireless repeater to insure that commands intended for another device in the network are received. This is useful when the device would otherwise be out of the radio range of the wireless controller.

INSTALLATION

Plug this Appliance Module into the wall outlet near the load to be controlled, and plug the load into the Appliance Module. See the ZTH100 Wireless Controller operating instructions to add this module under the command of the Wireless Controller. Make sure the load to be controlled is 15 amps (1800 watts) or less.

BASIC OPERATION

Button (Local Control)

The button on the ZRP100 allows the user to

Turn on or off the load attached.

Include or exclude the module from the Z-Wave system

Control other Z-Wave enabled devices.

Also, when a controller prompts you to “Send Node ID” or to “Press Button on Unit”, quickly tap the button once to satisfy those instructions. Also, quickly tapping the button 4 times will give you the same result without changing the state of the load attached or transmitting to other Z-Wave devices.

Tapping button toggles the load attached

Pressing and holding button does not effect the load attached but will allow dimming and brightening of Z-Wave dimmers if associated (see next page for details).

Remote Control

The ZRP100 will respond to BASIC and BINARY commands that are part of the Z-Wave system. Refer to your controller's instructions as to whether your controller can transmit those commands.

See the information in the section titled **Version** for a complete list of commands the ZRP100 will support.

INTEROPERABILITY WITH Z-WAVE™ DEVICES

A Z-Wave™ network can integrate devices of various classes, and these devices can be made by different manufacturers. The ZRP100 can be incorporated into existing Z-Wave™ networks.

The top or bottom of the paddle switch on the face of the ZRP100 can be used to carry out inclusion, association, or exclusion.

ADVANCED OPERATION

Protection

The ZRP100 supports the Protection Command.

The ZRP100 can be set to 1 of 3 **Protection** modes by a wireless controller. Refer to your controller for information on how to set the various modes of **Protection**. Some controllers may only be able to set certain settings of Protection.

There are 3 modes of **Protection** and they are the following:

1. No Protection
2. Child Protection
3. Local Button totally disabled

When **Protection** is set to “*No Protection*” mode, the ZRP100 works normally.

When **Protection** is set to “*Child Protection*” mode, you will have to press the button 3 times rapidly to control the attached load. The ZRP100 operates normally when controlled by a wireless controller.

When **Protection** is set to “*Button totally disabled*” mode, the button will not work. You will only be able to turn the load on and off with a wireless controller. The button can still be used to access the Z-Wave network.

All On/All Off

The ZRP100 supports the ALL ON/ ALL OFF commands.

The ZRP100 can be set to respond to ALL ON and ALL OFF commands 4 different ways.

Refer to your controller for information on how to set the ZRP100 to operate in the manner you desire. Some controllers may be only able to set certain settings of ALL ON/ALL OFF response.

The 4 different ways the ZRP100 can be setup to respond to ALL ON and ALL OFF commands are:

1. ZRP100 will not respond to ALL ON or the ALL OFF command.
2. ZRP100 will respond to ALL OFF command but will not respond to ALL ON command.
3. ZRP100 will respond to ALL ON command but will not respond to ALL OFF command.
4. ZRP100 will respond to ALL ON and the ALL OFF command

Association

The ZRP100 supports the Association command.

The ZRP100 can be set to control other Z-Wave devices. You can turn on and off, and even dim other Z-Wave devices once they are “**associated**” into 1 of 4 groups within the ZRP100.

Each group is turned on or off (or dimmed) by tapping or holding the buttons a differing amount of times.

If you **associate** a Z-Wave device into Group 1, you can turn that device on and off by tapping the button once. The load attached to the ZRP100 will also turn on or off. You can brighten or dim devices by holding down the button.

If you **associate** a Z-Wave device into Group 2, you can turn that device on and off by tapping the button twice. You can brighten or dim devices by tapping the button once and then holding the button down. The load attached to the ZRP100 is not affected.

If you **associate** a Z-Wave device into Group 3, you can turn that device on and off by tapping the button three times. You can brighten or dim devices by tapping the button twice and then holding the button down. The load attached to the ZRP100 is not affected.

Only **associate** transmitters or controllers into Group 4. Group 4 should be used only to update a transmitter or controller on the status of the ZDW120 which might have been controlled from another device.

You can **associate** up to **5** Z-Wave devices into each of these groups.

For instructions on how to “**associate**” a Z-Wave device into one of these groups, refer to your wireless controller instructions. (If you are using the ZTH100 controller, refer to the Setup Menu, Association section).

A note about dimming, if you combine Z-Wave enabled dimmers and other types of Z-Wave devices in a group, place a Z-Wave enabled dimmer into the empty group 1st to ensure that the dimming operates correctly.

Routing Support

The ZRP100 is a routing slave

The Z-Wave devices that are “**associated**” into Group 2 or Group 3 can be commanded from the ZRP100 via repeater nodes. In other words, the command can be routed through nodes that are in between the Z-Wave device you are trying to control and the ZRP100.

This routing via repeater nodes only needs to occur when the Z-Wave device you are trying to control and the ZRP100 are not within direct range of each other. You will be able to determine this is the case, if, after “**associating**” a Z-Wave device into a group you cannot control it with the ZRP100.

For Group 2 and Group 3, if you cannot control the Z-Wave device directly from the ZRP100, you must tell the ZRP100 what other Z-Wave devices are in between it and the Z-Wave device you are trying to control. You must use a controller to do this so refer to your controller’s instructions on how to tell the ZRP100 this information. This is sometimes called “Assigning Routes”. Caution: you do not want to do this unnecessarily because the ZRP100 is limited to communicating to **5** Z-Wave devices via repeater nodes. So first, be sure to determine you cannot control the device directly from the ZRP100 because you can communicate up to **20** Z-Wave devices (**5** in each group) from the ZRP100 *without* the use of repeater nodes.

Z-Wave devices that you **associate** into Group 1 **cannot** be commanded through repeater nodes.

Z-Wave devices that you **associate** into Group 2 **can** be commanded through repeater nodes.

Z-Wave devices that you **associate** into Group 3 **can** be commanded through repeater nodes.

Z-Wave devices that you **associate** into Group 4 **cannot** be commanded through repeater nodes.

There can be up to 4 nodes between the ZRP100 and the Z-Wave device you are trying to command.

Configuration

The ZRP100 supports the Configuration command.

The ZRP100 can be configured to operate slightly differently than factory settings. Using the Configuration command you can configure the following:

Set Ignore Start Level Bit When Transmitting Dim Command

Suspend Group 4

Using a ZTH100 to send Configuration commands you can change the following: (Refer to the Setup Menu, Configuration section)

Set Ignore Start Level Bit When Transmitting Dim Commands

- **Parameter No: 1**
- **Length: 1 Byte**
- **Valid Values = 0 or 1 (default 0)**

The ZRP100 can send Dim commands to Z-Wave enabled dimmers. The Dim command has a start level embedded in it. A dimmer receiving this command will start dimming from that start level. However, the command also has a “bit” that indicates whether the dimmer should ignore the start level. If the bit is set to 1, the dimmer will ignore the start level and instead start dimming from its current level. To set this bit, configure this parameter to the value of 1.

Suspend Group 4

- **Parameter No: 2**
- **Length: 1 Byte**
- **Valid Values = 0 or 1 (default 0)**

You may wish to disable transmitting commands to Z-Wave devices that are in Group 4 without “disassociating” those devices from the group. Setting parameter 2 to the value of 1 will stop the ZRP100 from transmitting to

devices that are “associated” into Group 4.

Each Configuration Parameter can be set to its default setting by setting the default bit in the Configuration Set command. See your controller’s instructions on how to do this (and if it supports it).

All Configuration commands will be reset to their default state when the ZRP100 is reset from the Z-Wave system.

Powerlevel

The ZRP100 supports the Powerlevel command.

The Powerlevel command allows controllers to set and get the RF transmit power level of a node and test specific links between nodes with specific RF transmit power. Refer to your controller’s instructions, if it supports this command, for more information. This command is typically used by professional installers.

Version

The ZRP100 can return version information about itself and the commands it supports. Refer to your controller’s instructions on how to get this information from the ZRP100. The following is the version information for the ZRP100.

COMMAND_CLASS_SWITCH_BINARY	Version 1
COMMAND_CLASS_SWITCH_ALL	Version 1
COMMAND_CLASS_PROTECTION	Version 1
COMMAND_CLASS_ASSOCIATION	Version 1
COMMAND_CLASS_POWERLEVEL	Version 1
COMMAND_CLASS_CONFIGURATION	Version 1
COMMAND_CLASS_VERSION	Version 1
COMMAND_CLASS_MANUFACTURER_SPECIFIC	Version 1
COMMAND_CLASS_MARK	Version 1
COMMAND_CLASS_SWITCH_BINARY	Version 1
COMMAND_CLASS_SWITCH_MULTILEVEL	Version 1

Z-Wave Library Type	ZW_LIB_SLAVE_ROUTING
Z-Wave Protocol Version	1
Z-Wave Protocol Sub Version	39
Application Version	2
Application Sub Version	0

Manufacturer Specific

The ZRP100 supports the Manufacturer Specific command.

The ZRP100 can return Manufacturer Specific information about itself. Refer to your controller’s instructions on how to get this information from the ZRP100. The following is the manufacturer specific information for the ZRP100.

Manufacturer ID 1	0x00
Manufacturer ID 2	0x01
Product Type ID 1	'R' or 0x52
Product Type ID 2	'P' or 0x50
Product ID 1	'0' or 0x30
Product ID 2	'0' or 0x30

SUC Support

There must be a Static Update Controller in your Z-Wave system for this feature to work. The Static Controller can act as a gateway in the system, since other nodes always know its position (not moved after addition to the network). The “always listening” advantage of the Static Controller is that other nodes can transmit information frames to it whenever needed.

You can assign an “SUC Route” to the ZRP100. Refer to your controller’s instructions on how to do this (if it supports it). Assigning an SUC Route to the ZRP100 allows it to request an update of the Z-Wave devices that are between it and the Z-Wave device to which it was trying to transmit. The ZRP100 will only request an update when a transmission fails.

WARRANTY

For warranty and general product information visit our web site at www.act-solutions.com

ABOUT ZRP100 CERTIFICATIONS

FCC NOTICE

Note: This 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 generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions 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:

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

IC NOTICE

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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.

About ZRP100's Certification

The ZRP100 has been thoroughly tested by the ETL SEMCO division of Intertek, a nationally recognized testing laboratory. This product was found to be in compliance with safety standards ANSI/UL STD 244A and CAN/CSA C22.2 No. 177-92.

In addition to compliance with product safety standards, the ZRP100 is also certified to comply with applicable FCC and IC rules and regulations governing RF and EMI emissions.



Power	120 VAC, 60 Hz
Signal (Frequency)	908.42 MHz
Load	Resistive: 15 amps (1800 watts) maximum, 120 VAC Motor: 1/2 H.P. maximum, 120 VAC Incandescent: 600W maximum, 120 VAC
Range	Up to 100 feet line of sight between the Wireless Controller and /or the closest HomePro plug-In Lamp Module or Appliance Module