Wireless Z-Wave Control ZRP-100NA Z-Wave Repeater
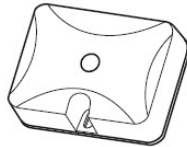
USER MANUAL

Introduction:

Thank you for choosing the ZRP-100 Z-Wave Repeater product! The ZRP-100 is a Z-Wave repeater with best RF performance to replicate Z-Wave signals in a network. The repeater re-transmits an input radio frequency (RF) signal by routing the signal around obstacles and radio dead spots to ensure that the signal is received at its intended destination.
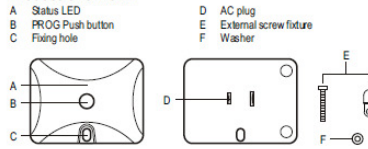
Glossary

Device / Light / Node	Devices, lights and nodes are all terms to describe an individual Z-Wave device. These terms are all interchangeable when setting up your Z-Wave network.
Z-Wave Network	A collection of Z-Wave devices are controlled by primary and secondary controllers operating on the same system. A Z-Wave network has its own unique ID code so that controllers not in the network cannot control the system.
Inclusion	Add a Z-Wave device to the network.
Exclusion	Delete a Z-Wave device from the network.
Network Wide Inclusion (NWI)	Network Wide Inclusion (NWI) enables both end-user friendly, Plug and Play like Z-Wave network installation as well as professional installation scenario where the inclusion process in terms of time will be reduced significantly. NWI is a feature supported by a new frame type named Explorer which enables the Z-Wave protocol to implement Adaptive Source Routing.

Key Features:

- Supports Network Wide Inclusion (NWI) and Explore Frames
- Reliable and best RF performance to repeat Z-Wave signals
- Ultra-low power consumption
- Complex, thin and small size form factor
- Does not block lower outlet when plugged into upper outlet of a duplex wall receptacle and vice versa
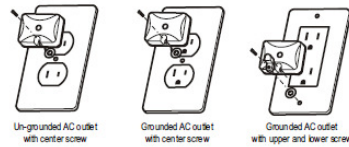- External fixture for different wall receptacle mounting

Product Overview:

A	Status LED	D	AC plug
B	PROG Push button	E	External screw fixture
C	Fixing hole	F	Washer

Installation Location
WARNING:
To avoid fire, shock, or death; turn off power at the circuit breaker or fuse and test that the power is off before dismounting or mounting the unit with the screw!
In case that the user needs to mount the unit with a screw, please refer to below figures and select the desired configuration. It is recommended that a qualified electrician perform this installation.

Un-grounded AC outlet with center screw | Grounded AC outlet with center screw | Grounded AC outlet with upper and lower screw

Note:
When plug the ZRP-100 into the AC receptacles, there will be an air gap between ZRP-100 and wall plate. User can use additional 1 or 2 washers to fill up this air gap and to stabilize the installation.

ZRP-100 will not block lower outlet when plugged into upper outlet of a duplex wall receptacle and vice versa. Possible configurations are illustrated below.

	Un-grounded AC outlet with center screw	Grounded AC outlet with center screw	Grounded AC outlet with upper and lower screw
Installed at upper AC outlet			
Installed at lower AC outlet			

Z-Wave setup and operations

Z-Wave inclusion and exclusion
Include or exclude the ZRP-100 from the existing Z-Wave home control network with your primary controller.
- Refer to your primary controller instructions to process the inclusion / exclusion setup procedure.
- When prompted by your primary controller, triple click the PROG button within 1 second. (The unit will enter classical inclusion/exclusion first, then jump to NWI, and after 5 seconds, it will finally exit NWI mode automatically if there is no inclusion/exclusion request.)
- The primary controller should indicate that the action was successful. If the controller indicates the action was unsuccessful, please repeat the procedure.
NOTE:
Basic Command Class will not map to another command class in ZRP-100.

LED Indication Status

Operations	LED Indication Status
Device not currently paired into a Z-Wave network	LED will continuously flash two times per second.
Learning / NWI mode: Triple click on PROG button	If the device already existing in the network, LED will flash slowly for 2 seconds, and then return to previous ON or OFF stage. If the device does not exist in the network, LED will keep flash slowly and waiting for Network Wide Inclusion (NWI). (The device will exit NWI mode automatically after 5 seconds)
Receive command / Send command or data	LED will flash 2 times, and then return to previous ON or OFF stage.
Configure command error	LED will rapidly flash 6 times, and then return to previous ON or OFF stage.

Restoring Factory Defaults
All Configuration Parameter values and Association information will be restored to factory default settings and excluded from the network.

Step	Setup Key	LED Indication Status
1	Press and keep holding the PROG button for nt less than 10 seconds.	- LED state will toggle for first 5 seconds of being pressed. - LED state will toggle again after the remaining 5 seconds.
2	Release the PROG button then triple click the PROG button within 2 seconds of step 1.	- LED will stay in previous ON or OFF stage.

Wireless Information
Wireless range:
This device has an open-air line-of-sight transmission distance of 30m, which is compliant with the Z-Wave standards. Performance can vary depending on the type of obstacles, such as walls and furniture, between the Z-Wave devices. Every Z-Wave device set up in your network will act as a signal repeater, allowing them to talk to each other and to find alternate routes in the case of reception dead spots caused by these obstacles.

Radio Frequency Limitations:
1. Each wall or object (i.e.: refrigerator, bookshelf, large TV, etc) can reduce the maximum range by up to 20-30%. Plasterboard and wooden walls will have less effect on the signal than concrete, brick, or tile.
2. Wall mounted Z-Wave devices will also suffer a loss of range if they are housed in metal junction boxes, which could reduce the range by up to 20-30%.

Maintenance

1. Do not expose your unit to dust, strong sunlight, humidity, high temperatures or mechanical shocks.
2. Do not use corrosive or abrasive cleansers on your unit.
3. Keep the unit dust free by wiping it with a soft, dry cloth.
4. Do not disassemble your unit; it contains no user-serviceable parts.

Technical Specifications

Model no.	BW8140US (ZRP-100NA)
RF frequency	908.42MHz
Input voltage / frequency	120Vac / 60Hz
Input power and current	0.5W / 12mA @ 120Vac
RF operating distance	up to 30m (line of sight between the Wireless Controller and the closest Z-Wave receiver module at open area.)
Dimension (L x W x T)	64 x 48 x 23mm
Weight	50g
Storage Temperature	-10~60°C
Operation Temperature	0~40°C
Relative Humidity	5~95%
Environment	Indoor use only

Note: Specifications subject to change without notice due to continuing product improvement

Certifications

UL Listed:
This power unit is intended to be correctly orientated in a vertical or floor mount position.

FCC Information
FCC ID : 2ADPENNC014
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

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.

Notice: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

IC information

IC : 12524A-NNC014
This device complies with Industry Canada licence-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.

Warnings

- Do not modify the unit in any way.
- Risk of fire.
- Risk of electrical shock.
- Risk of burns.
- This unit never got qualified certificate to supply power for medical instrument or any life support equipment.
- Do not dispose of electrical appliances and unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.
- There are no user serviceable parts in this unit.

Warranty

ONE-YEAR LIMITED WARRANTY: Remotec warrants this product to be free from defects in materials and workmanship under normal use and service for a period of one year from the original date of purchase from the distributor or dealer.

REMOTEC shall not be liable for:
- Damages caused by defective devices for indirect, incidental, special, consequential or punitive damages, including, inter alia, loss of profits, savings, data, loss of benefits, claims by third parties and any property damage or personal injuries arising from or related to the use of the device.
- Service trips to provide instruction on product use.
- Shipping costs for replacement products.

This warranty is limited to the repair or replacement of this product only, if the purchase date cannot be substantiated, the warranty period will begin on the date of manufacture as indicated on this product. All warranty claims must be made to Remotec appointed distributors or dealers during the applicable warranty period. This warranty gives you specific legal right and you may also have other rights which vary in each country. Please contact Customer Service at:

Remotec Technology Limited
E-mail: rtlsales@remotec.com.hk
http://www.remotec.com.hk

Printed in China

F820-8140-0000