

IS-ZW-RC-1 Remote Control Installation Sheet

Description

Z-Wave technology is designed to automate lighting/home control and provides easy remote operation of all your Z-Wave enabled devices. The GE Z-Wave family includes a variety of devices to control lighting in your home.

The remote control (model IS-ZW-RC-1) allows you to control up to 18 individual Z-Wave devices with one easy-to-use, compact unit. You can also set up and control up to 18 groups of lights as well as 18 scenes for task or mood lighting. Groups can include up to 232 Z-Wave devices and each scene can include up to 32 Z-Wave devices. Lights can be included in multiple groups. Scenes can include lights from different groups. Your Z-Wave home control network can include up to 232 Z-Wave enabled devices.

Additional features include:

- An easy to use LCD menu system
- Event programming
- Control of a Z-Wave enabled thermostat for your HVAC system

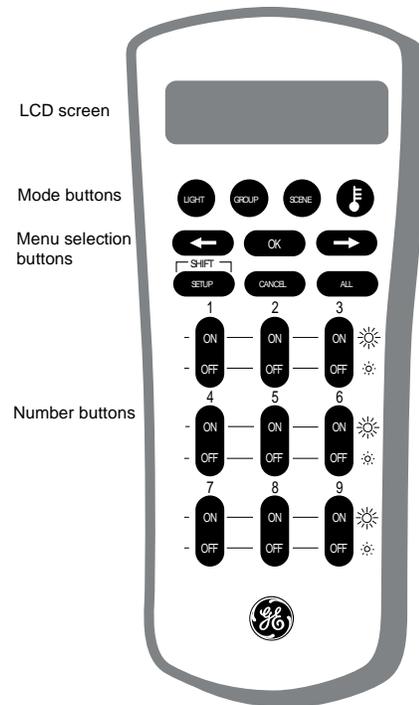
This remote is based on the Z-Wave Controller Library and the Remote Controller Generic Device Class. It controls devices that support the following Z-Wave Command Classes:

- Basic Command Class
- Binary Switch Command Class
- Configuration Command Class
- Controller Replication Command Class
- Manufacturer Specific Command Class
- Multilevel Switch Version 1 Command Class
- Thermostat Command Class
- Version Command Class

Note: When using the Basic Command Class to control devices, the remote will either transmit a value of 0 or 255, depending on the button pressed.

Node is the technical term used to describe a Z-Wave device in a home control network. Please note that the terms "Node", "Device", and "Light" all refer to an individual Z-wave enabled device and are interchangeable within the context of these instructions.

Figure 1: Remote control



The unit provides the following:

LCD screen. Easy to use menu structure.

Mode buttons:

LIGHT button. Use to program and/or control individual lights.

GROUP button. Use to program and/or turn multiple lights on or off with one button.

SCENE button. Use to program and/or control multiple lights at preset brightness levels. The same light may be included in multiple scenes.

Thermostat icon button. Use to check and adjust system and temperature settings on a Z-Wave enabled thermostat.

Menu selection buttons. Use arrow buttons to scroll between menu items. Press OK to select the displayed menu item.



SETUP/SHIFT button. Press and hold to enter setup mode. You can then add lights to, or delete lights from your control network. You can create or modify groups and scenes. Press and release to shift number buttons from 1 through 9 to 10 through 18.

CANCEL button. Press and release to cancel the current programming operation.

ALL button. Use to turn on or off all Z-Wave lighting at the same time. Press ALL and then any number button.

Number buttons. Use to control up to 18 individual lights, 18 groups, and 18 scenes. Press and release to turn on or off. Press and hold to adjust brightness. Press the button for numbers 1 to 9; press SHIFT, then the button for numbers 10 to 18.

If this remote is used as the primary controller, you must use it to create your control network. You can use multiple remote controls with your Z-Wave lighting control network, however; only one remote will act as the primary controller. The primary controller must be used to add or delete devices (lights/nodes) from your network. All other controllers are considered secondary and can be used to create groups and/or scenes and control your lighting, however, secondary controllers cannot add or delete devices from your network.

Note: This product can be operated in one Z-Wave network with Z-Wave certified devices.

For best results, please read and perform all the remaining instructions before using the remote.

Installation

Batteries

Three AAA alkaline batteries (not included) are required:

- Use only fresh batteries of the required size and recommended type.
- Do not mix old and new batteries or different types of batteries.
- If you do not plan to use the remote for an extended period, remove the batteries. They can leak chemicals that can destroy electronic parts.
- Dispose of old batteries promptly and properly. Do not burn or bury them.
- Replace fully discharged batteries immediately.

To install batteries:

1. Open the battery compartment cover (located on the back of the remote).
2. Note the + and – polarity symbols inside the battery compartment.
3. Insert the batteries; making sure their polarity matches the symbols in the compartment.
4. Replace the cover.

WARNING: Due to risk of fire, electrical shock and burns, 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 operations could possibly result in a hazardous condition. For these reasons, we recommend the following installation guidelines.

Installation guidelines

- Assign Z-Wave controlled appliances to device numbers 10 to 18 on the remote. The likelihood of unintentionally turning on the appliance will be reduced significantly because the Shift button will need to be pressed before pressing device numbers 10 to 18.
- Z-Wave devices controlling appliances should be removed from the “All” control setting. See “All-on and all-off control” on page 6.
- Do not include Z-Wave devices in groups or scenes if they control appliances.
- Do not use Z-Wave devices to control electric heaters or any other appliances that may present a hazardous condition due to unattended, unintentional, or automatic power on control.
- Double check programming for accuracy.

Caution: Not for use with medical or life support equipment. 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.

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 number 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. Every Z-Wave enabled device acts as a signal repeater and multiple devices result in more possible transmission routes, which help eliminate “RF dead spots”.

RF range guidelines

- Each wall or obstacle (such as a refrigerator or big screen TV) between the remote or a Z-Wave device and the destination device will reduce the maximum range by approximately 25 to 30 percent.
- 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 percent) since the metal box blocks a large part of the RF signal.
- Z-Wave home control networks are designed to work properly alongside 802.11 wireless computer networks, Bluetooth and other 2.4GHz or 5.8GHz devices. Some baby

cams, wireless video devices and older cordless phones using the 900MHz frequency range may cause interference and limit Z-Wave functionality. Many 900 MHz products have a switch to select channel "A" or "B". You may find that one of these channels will cause less interference than the other channel.

Network management

Your remote control and every Z-Wave device you have added with the primary controller are linked together in a wireless network. Each device in your network has a unique address assigned to it and cannot be activated by your neighbor's Z-Wave controller.

Add a node, group, or scene can also be referred to as include a node, group, or scene. Remove a node, group, or scene can also be referred to as exclude a node, group, or scene.

If the screen displays **FAILURE** during the setup or programming process, you have pressed an invalid key or the desired action has not been successfully completed. Make sure the remote is within two feet of the device and try again.

Adding a device

In order to control lights, they must be Z-Wave enabled and you must first add them to your home network. There are two ways to do this.

- Add lights to your remote so that they can be controlled individually using the number keys (maximum of 18). Adding a device to your remote also adds it to your network. If the device number you are trying to add is already associated with another device, the previous information is lost.
- Add devices to your home network without assigning them to a specific number key. These devices can only be controlled through the Group, Scene, or All commands.

To add a device without assigning it to a specific number key:

1. Press and hold **SETUP** until the screen shows **LIGHT SETUP**.
2. Press **OK**.
The screen displays **ADD**.
3. Press **OK**.
The screen displays **TO NETWORK**.
4. Press **OK**.
The screen displays **SETUP WAITING**.
5. Press the button on the device so that it communicates with the remote.
The screen displays **SUCCESS** to indicate that the Node/Light has been successfully added.

You can now add the device to groups and/or scenes.

To add a device and assign it to a specific number key:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Press **OK**.

The screen displays **ADD**.

3. Press **OK**.
The screen displays **TO NETWORK**.
4. Scroll until the screen displays **TO A KEY**, and then press **OK**.
5. Press a digit (1 to 9) for the device location you wish to add. Press **SETUP (SHIFT)** and the digit (1 to 9) if you are adding devices 10 through 18.
6. Press **OK**.
The screen displays **SETUP WAITING**.
7. Press the button on the device so that it communicates with the remote.
The screen displays **SUCCESS** to indicate that the Node/Light has been successfully added to the number key and your network.

Controlling individual lights

You can control a light to turn it on or off, or change its brightness level. The operation of a specific device varies by product. Refer to the manual for that device to learn its specific operation.

1. Press and release the **LIGHT** key to put the remote into individual light control mode. The remote will stay in this mode until the Group, Scene, or All mode is activated.
2. Select the lights you want to control. Press and release **SHIFT** to control lights 10 to 18.

To turn a light on or off:

- To turn a light on, press and release the **ON** key for less than one second. The screen displays the selected light and **ON**.
- To turn a light off, press and release the **OFF** key for less than one second. The screen displays the selected light and **OFF**.

To set a light's brightness level:

- To make a light brighter, press and hold the **ON** key for more than one second. The screen displays the selected light and **BRIGHT**. The light will continue to grow brighter until the key is released.
- To make a light dimmer, press and hold the **OFF** key for more than one seconds. The screen displays the selected light and **DIM**. The light will continue to grow dimmer until the key is released.

To remove a device from your remote:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Press **OK**.
3. Scroll until the screen displays **REMOVE**, and then press **OK**.
The screen displays **SEL DIGIT**.
4. Press a digit (1 to 9) for the device location you wish to remove. Press **SHIFT** and the digit (1 to 9) if you are removing devices 10 through 18.
5. Press **OK**.

The screen displays **SUCCESS**.

This only removes individual number key control. The device is still part of your home control network and can be controlled through the **GROUP**, **SCENE**, and **ALL** controls.

To delete a device from your network:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Press **OK**, and then press the right arrow key two times.

The screen displays **DELETE**.

3. Press **OK**.
4. Press the button on the device so that it communicates with the remote.

The screen displays **SUCCESS**.

This completely removes the device from your home control network and resets the device to its factory default settings.

Groups

Multiple Z-Wave devices can be turned on or off with a single command when they are placed in a group. One example would be grouping your porch light, exterior garage lights, and patio lights together so that they can all be turned on if you hear a strange sound in the middle of the night.

You can set up a maximum of 18 groups. A group can contain up to 232 devices.

To create or add a device to a group:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **GRP SETUP**, and then press **OK**.

The screen displays **ADD**.

3. Press **OK**.
4. Press the digit (1 to 9) for the group to which you wish to add the device. Press **SHIFT** and the digit (1 to 9) if you are adding a device to groups 10 through 18.

The screen displays **SEL DIGIT**.

5. Press **OK**.
6. Press the button on the device so that it communicates with the remote.

The screen displays **SUCCESS**.

To control a group:

1. Press **GROUP** to put the remote into Group control mode.
The screen displays **GROUP**. The remote will stay in this mode until the Light, Scene, or All mode is activated.

2. Press the digit key for the group you wish to control (1 to 9). Press **SHIFT** and the digit (1 to 9) if you are controlling groups 10 through 18.

The screen displays the selected group.

3. To turn a group on, press and release the **ON** key for less than one second. The screen displays the selected group and **ON**.

To turn a group off, press and release the **OFF** key for less than one second. The screen displays the selected group and **OFF**.

To remove a device from a group:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **GRP SETUP**, and then press **OK**.
3. Press the right arrow key once.
The screen displays **REMOVE**.
4. Press **OK**.
The screen displays **SEL DIGIT**.
5. Press a digit (1 to 9) for the group from which you want to remove the device. Press **SHIFT** and the digit (1 to 9) if you are removing a device from groups 10 through 18.
6. Press **OK**.
The screen displays **SETUP WAITING**.
7. Press the button on the device you wish to remove.
The screen displays **SUCCESS**.

This only removes the device from a specific group. The device is still part of your home control network and the group still exists (if it included more than one device).

To delete a group:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **GRP SETUP**, and then press **OK**.
3. Press the right arrow key two times.
The screen displays **DELETE**.
4. Press **OK**.
The screen displays **SEL DIGIT**.
5. Press a digit (1 to 9) for the group you wish to delete. Press **SHIFT** and the digit (1 to 9) if you are deleting groups 10 through 18.
6. Press **OK**.
The screen displays **SUCCESS**.

This only deletes the specific group. All of the devices are still part of your home control network.

Scenes

A scene lets you establish preset brightness levels for multiple Z-Wave controlled lights and then control them with one command. This is ideal for mood or task lighting. Scene 1 could be the family room lights set to dim for watching TV. Scene 2 could have the same lights set to a different brightness level for other activities like reading or entertaining.

You can set up a maximum of 19 scenes, containing up to 32 devices per scene. Scenes can include lights from different groups.

To add a device to a scene:

1. Press and hold SETUP until the screen displays LIGHT SETUP.
2. Scroll until the screen displays SCN SETUP, and then press OK.
The screen displays ADD.
3. Press OK.
The screen displays SEL DIGIT.
4. Press a digit (1 to 9) for the scene to which you wish to add the device. Press SHIFT and the digit (1 to 9) if you are adding devices to scenes 10 through 18.
5. Press OK.
The screen displays SETUP WAITING.
6. Press the button on the device that you are adding, and adjust the brightness level on the device within 30 seconds (refer to the manual for the device).
The screen displays SUCCESS.

To control a scene:

1. Press SCENE to put the remote in Scene mode.
The remote will stay in this mode until the Light, Group, or All mode is activated.
2. Press the digit key for the scene you wish to control (1 to 9). Press SHIFT and the digit (1 to 9) if you are controlling scenes 10 through 18.
The screen displays SCENE and the digit selected.

To remove a device from a scene:

1. Press and hold SETUP until the screen displays LIGHT SETUP.
2. Scroll until the screen displays SCN SETUP, and then press OK.
3. Scroll until the screen displays REMOVE.
4. Press OK.
The screen displays SEL DIGIT.
5. Press a digit (1 to 9) for the scene from which you want to remove the device. Press SHIFT and the digit (1 to 9) if you are removing a device from scenes 10 through 18.
6. Press OK.

The screen displays SETUP WAITING.

7. Press the button on the device you wish to remove.

The screen displays SUCCESS.

This only removes the device from a specific scene. The device is still part of your home control network and the scene still exists (if there were more than one device in it).

To delete a scene:

1. Press and hold SETUP until the screen displays LIGHT SETUP.
2. Scroll until the screen displays SCN SETUP, and then press OK.
3. Press the right arrow key two times.
The screen displays DELETE.
4. Press OK.
The screen displays SEL DIGIT.
5. Press a digit (1 to 9) for the scene you wish to delete. Press SHIFT and the digit (1 to 9) if you are deleting scenes 10 through 18.
The screen displays the selected scene.
6. Press OK.
The screen displays SUCCESS.

This only deletes the specific scene. All of the devices are still part of your home control network.

Labels

Individual lights, groups, or scenes can all be labeled to help identify their function or location in your home. The process is the same for all three.

To create labels:

1. Press and hold SETUP until the screen displays LIGHT SETUP. Scroll to GROUP or SCENE if changing those labels.
2. Press OK
The screen displays ADD.
3. Scroll until the screen displays LABEL, and then press OK.
The screen displays SEL DIGIT.
4. Press a digit (1 to 9) for the light, group, or scene you wish to rename. Press SHIFT and the digit (1 to 9) if you are renaming 10 through 18.
The screen displays the selected light, group, or scene.
5. Use the 1 On/Off key to scroll through the alphabet/numbers until you reach the appropriate letter or number.
6. Use the right arrow key to move to the next letter and repeat step 5.
7. Continue this process until your new label is complete.
8. Press OK.

The screen displays **SUCCESS**.

All-on and all-off control

The factory default setting for Z-Wave lighting control devices is to be included in all-on and all-off control.

To turn all devices on or off:

1. Press ALL once.
The screen displays **ALL**.
2. Press either ON or OFF (you can press any ON or OFF button).
The screen displays **ALL ON** or **ALL OFF**, depending on the key you pressed.

To add devices to All control mode:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **ALL SETUP**, and then press **OK**.
The screen displays **EX ON/OFF**.
3. Scroll until the screen displays **INC ON/OFF**, and then press **OK**.
The screen displays **SETUP WAITING**.
4. Press the button on the device that you wish to add to All control mode.
The screen displays **SUCCESS**.

To delete devices from All control mode:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **ALL SETUP**, and then press **OK**.
The screen displays **EX ON/OFF**.
3. Press **OK**.
The screen displays **SETUP WAITING**.
4. Press the button on the device that you wish to remove from All control mode.
The screen displays **SUCCESS**.

Time and date setup

You will need to reprogram the date and time when the batteries are replaced.

To set the time:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **DATE/TIME**, and then press **OK**.
The screen displays **TIME**.

3. Press **OK**.
The screen displays **TIME 12 hr**.
Press **ON** or **OFF** with the 1 key to adjust the hour.
Press **ON** or **OFF** with the 2 key to adjust the minutes.
Press **ON** or **OFF** with the 3 key to toggle between **AM** and **PM**.
4. Once you have set up the correct time, press **OK**.
The screen displays **SUCCESS**.

To set the date:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **DATE/TIME**, and then press **OK**.
The screen displays **TIME**.
3. Scroll until the screen displays **DATE**, and then press **OK**.
The screen displays the default date.
Press **ON** or **OFF** with the 1 key to adjust the month.
Press **ON** or **OFF** with the 2 key to adjust the day.
Press **ON** or **OFF** with the 3 key to toggle between years.
4. Once you have set up the correct date, press **OK**.
The screen displays **SUCCESS**.

To set the current day:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **DATE/TIME**, and then press **OK**.
The screen displays **TIME**.
3. Press the right arrow twice.
The screen displays **DAY**.
4. Scroll until the current day is displayed, and then press **OK**.

Note: The DTS and Time Zone settings are reserved for future use.

Events

An event is something you want to happen at a specific time and day. This could be everyday, a specific day of the week, Monday through Friday, Saturday and Sunday only, or a one-time occurrence. Events can be set up to control an individual device, a group, or a scene.

The remote allows you to program up to 15 automated events. You must set the time and date before programming an event.

To add an event:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **EVENTS**, and then press **OK**.

The screen displays **ADD**.

3. Press **OK**.

The screen displays **EVERY DAY**.

Use either arrow key to change this option to **MON-FRI**, **SAT-SUN**, **ONE TIME**, or a specific day of the week.

4. Once you have chosen the event profile, press **OK**.

The screen displays **SEL DIGIT**.

5. Press any digit and the screen displays the event number.

6. Press **OK** and the screen displays **ENABLED**.

7. Press **OK** and the screen displays **EVENT TYPE**.

8. Scroll between the **Light**, **Scene**, or **Group** options (pressing digits 1 to 9 will adjust the **Light** number accordingly).

9. After you select the event type, press **OK**.

The screen displays **ON TIME**.

Press **ON** or **OFF** with the 1 key to adjust the hour.

Press **ON** or **OFF** with the 2 key to adjust the minutes.

Press **ON** or **OFF** with the 3 key to toggle between **AM** and **PM**.

10. Press **OK** once you have programmed the **ON TIME**.

The screen displays **OFF TIME**.

Press **ON** or **OFF** with the 1 key to adjust the hour.

Press **ON** or **OFF** with the 2 key to adjust the minutes.

Press **ON** or **OFF** with the 3 key to toggle between **AM** and **PM**.

11. Once you have programmed the off time, press **OK**.

The screen displays **SUCCESS**.

Random events

The event feature allows you to program automated events, such as turning your lights on or off at a predetermined time and day. By choosing the **Random** option, the event will start at +/- 15 minutes of the scheduled time.

To activate this function, after step 6 above, use either arrow key to scroll until the screen displays **RANDOM**. Press **OK** and the screen displays **EVENT TYPE**. Continue the programming as shown in step 8 above.

Disabling an event

Once an event has been programmed, you can disable it by following steps 1 to 6 above and then scrolling to **DISABLED** and pressing **OK**.

To delete an event:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **EVENT**, and then press **OK**.
The screen displays **ADD**.
3. Scroll until the screen displays **DELETE**, and then press **OK**.
The screen displays **SEL DIGIT**.

4. Press the digit for the event you want to delete.

5. Press **OK**.

The screen displays **SUCCESS**.

To enable all programmed events:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **EVENTS**, and then press **OK**.
3. Scroll until the screen displays **ALL**, and then press **OK**.
The screen displays **ALL ON**.
4. Press **OK**.
The screen displays **SUCCESS**.

To disable all programmed events:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **EVENTS**, and then press **OK**.
3. Scroll until the screen displays **ALL**, and then press **OK**.
The screen displays **ALL ON**.
4. Press either arrow key and the screen displays **ALL OFF**.
5. Press **OK**.
The screen displays **SUCCESS**.

Thermostats

The remote allows you to program and control a Z-Wave enabled thermostat.

To add a thermostat to the remote control:

1. Press and hold **SETUP** until the screen displays **LIGHT SETUP**.
2. Scroll until the screen displays **THERMOSTAT**, and then press **OK**.
The screen displays **ADD**.
3. Press **OK**.
The screen displays **SETUP WAITING**.
4. Press the button on the thermostat's Z-Wave interface.
The screen displays **SUCCESS**.

Controlling a thermostat

The features and functions that can be controlled vary by thermostat and you will need to refer to the documentation provided with the thermostat to determine the capabilities of your thermostat. If supported by the thermostat, the remote allows you to check room temperature, adjust HVAC system modes (**Heat**, **Cool**, **Fan**, and **AUTO**) and adjust temperature settings (setpoint). Please note that your HVAC system may have to be set to **Heat** or **Cool** mode in order to remotely check and/or adjust the room temperature.

To delete a thermostat from the remote control:

1. Press and hold SETUP until the screen displays LIGHT SETUP.
The screen displays ADD.
2. Scroll until the screen displays THERMOSTAT, and then press OK.
The screen displays ADD.
3. Scroll until the screen displays DELETE, and then press OK.
The screen displays SETUP WAITING.
4. Press the button on the thermostat's Z-Wave interface.
The screen displays SUCCESS.

Advanced configuration

Some Z-Wave devices provide advanced capabilities available only with a remote control. Refer to the documentation provided with the Z-Wave device for available options and specific parameter and byte values.

To change advanced configuration settings:

1. Press and hold SETUP until the screen displays LIGHT SETUP.
The screen displays PARAM 0.
2. Scroll until the screen displays ADV CONFIG, and then press OK.
The screen displays PARAM 0.
3. Scroll until the screen displays the proper parameter number (1 to 255), and then press OK.
The screen displays NUM BYTES .
4. Scroll until the screen displays the proper number of bytes (1, 2, or 4), and then press OK.
5. Press the button on the device.
The screen displays SUCCESS.

Recovering network information

The recovery function is used to rebuild the routing table within the remote control. This table identifies which Z-Wave devices can communicate with other Z-Wave devices on the network and helps ensure that commands are transmitted and repeated through the most efficient route to your destination device.

To have your remote control recover network information:

1. Press and hold SETUP until the screen displays LIGHT SETUP.
The screen displays NETWORK.
2. Scroll until the screen displays NETWORK, and then press OK.
The screen displays RESET.
3. Scroll until the screen displays RECOVERY, and then press OK.
When the screen displays COMPLETE, you have successfully recovered network information.

Interoperability with Z-Wave devices

A Z-Wave network can integrate devices of various classes. Although every Z-wave certified product is designed to work with all other Z-Wave certified products, the remote control includes the appropriate device classifications in order to control non-lighting Z-Wave devices.

Specifications

Operating voltage	4.5 V
Battery type	AAA heavy duty or Alkaline 2.9 V min., 4.5 V nom., 4.95 V max.
Low battery indication	2.4 V min., 2.8 V max.
Standby current	120 uA max.
Operating current	19 mA min., 27 mA nom., 50 mA max.
Range	Up to 100 feet line of sight between the wireless controller and the closest Z-Wave receiver module
Operating temperature	32 to 122°F (0 to 50°C)
Storage temperature	-20 to 140°F (-20 to 60°C)
For indoor use only	

FCC

This device complies with Part 15 of the FCC Rules. 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.

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 should:

- Reorient or relocate the TV or radio antenna.
- Increase the separation between the device and receiver.

Any changes or modification to the equipment without express consent will void the user's right to operate this equipment.

FCC ID: MG345601

IC: 6924A-45601

Model: 45601

Contact information

For contact information see our Web site: www.gesecurity.com.