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Introduction

The GreenWave Reality platform helps create a smart, energy-efficient home through the monitoring and controlling of your powered appliances and electronics. You can conserve energy with minimal impact to your lifestyle by using our products to easily manage your powered devices. Simply connect our Gateway to your home network, plug your devices into our PowerNodes, and then monitor and control the devices' power usage through a Web browser or smartphone.



Gateway Overview

The GreenWave Reality Gateway provides the network connection for GreenWave Reality PowerNodes (our smart outlet adapters that connect your appliances and electronics to electrical outlets). This connection enables the Gateway to securely connect the devices you have powered through PowerNodes to your home network, allowing you to monitor and control your devices' power usage remotely through a Web browser or smartphone.

The Gateway automatically connects to your PowerNodes, collecting information on energy consumption by each connected device. Once the PowerNodes are connected to the Gateway, you can control the energy consumption of each connected device automatically using GreenWave Reality Smart Controls. These user-defined Smart Controls allow you to turn devices on or off remotely through a Web browser or smartphone or to set a schedule for automatically turning your devices on or off at pre-defined times.





1. **Sync button:** Button that syncs devices and shows current activity and status of synced devices.
2. **WAN (Internet connection) error indicator:** Indicator shows whether or not the Gateway is connected to the Internet.
3. **LAN (home network) error indicator:** Indicator that shows whether or not the Gateway is connected to your network.
4. **Power indicator:** Indicator that shows whether or not the Gateway is powered.
5. **Network socket (RJ45):** Ethernet port to connect the Gateway to your network.
6. **USB socket (on some models):** Socket that provides for a USB connection to your network router.
7. **Power adapter socket:** Socket to plug in the Gateway power adaptor.

Indicators

Your Gateway has sync and network indicators that display the following patterns and colors to show its current status:



Power Indicator—off (no color): Gateway is off.



Power Indicator—Steady white: Gateway is on.



Sync button—rotating green double bars: Gateway is in association mode to connect with PowerNodes.



Sync button—rotating green single bar: Gateway is in deassociation mode to disconnect from PowerNodes.



Network indicator—off (no color): Gateway is connected to the network.



Network indicator—red: Gateway is not connected to the network. Check that the Gateway is connected to your network router.



Web indicator—off (no color): Gateway is connected to the Web.



Web indicator—red: Gateway is not connected to the Web. Check that your network router has an active Internet connection.

Installation

Before you install your Gateway, make sure that your home network is operating and connected to the Internet.

There are four basic steps to install your Gateway:

1. Connect the Gateway to your network router.
2. Power the Gateway.
3. Verify that the Gateway is connected.
4. You are ready to install GreenWave Reality PowerNodes.

1. Connect the Gateway to Your Network Router

Connect the Gateway to any available port in your home network router using the included Ethernet cable.



2. Power the Gateway

Power the Gateway by plugging it into an electrical outlet using the included power adaptor. The Gateway illuminates while it is attempting to connect to the Internet.



3. Verify that the Gateway is Connected

Your Gateway is Connected when the sync button turns green.

4. Ready to Install Your PowerNodes

The GreenWave Reality PowerNode is a smart outlet adapter that connects your appliances and electronics to electrical outlets and your GreenWave Reality home network. This connection allows you to monitor and control your devices' power usage remotely through a Web browser or smartphone.

Your PowerNode has a corner wheel with colored numbers to represent the room or device that the PowerNode is powering. Set the PowerNode to the colored number you want to use to identify the room or device (this is referred to as the “room color”). For example, you can set the room color to blue. Then, when you access your account through the Web or smartphone, the corresponding room is identified by the same blue color as your PowerNode.



You can set PowerNodes in different rooms to different colors to make those rooms easy to identify when managing the power sources on the Web or smartphone.

To activate your PowerNode, follow the instructions that came with the PowerNode to plug in your appliance or electronic device and connect it to your network.

Installation Tips

Review the safety information. Be sure to review the information contained in the “Safety Information” chapter for important safety information you should follow.

Keep radio signals clear. Your Gateway and PowerNodes have antennas built-in for radio communication with Internet services and other devices on your network. Just as you might experience reception problems on your mobile phone inside a building, your Gateway can have trouble communicating with PowerNodes if their radio signals are blocked by obstacles such as large metal panels or walls containing wire mesh. When placing these devices in your home, imagine invisible lines connecting between them. Try to keep these lines clear from obstruction as much as possible. Also place your Gateway at least 3-5 feet (1-1.5 meters) above floor level to promote reception.

Common Z-Wave Tasks

The Gateway combines various wireless technologies, such as Z-Wave and ZigBee, into a standard IP-based mesh home network.

Network Inclusion Process

The process for adding a PowerNode to your home network is called “inclusion.” It must only be performed once, and you must have the Gateway plugged in and working first. You can start the inclusion process by pressing and holding the Gateway network button for two seconds so the rotating “inclusion mode” pattern appears on the Gateway activity Indicator. When this is completed, the Gateway is ready to perform the inclusion of the PowerNode. To complete the process you must perform the following steps:

1. Plug the PowerNode into a wall outlet.
2. Locate the network button on the PowerNode. It is a small round button on the side of the device, marked with the sync symbol.

3. Press and hold the network button for one second until the PowerNode activity indicator begins to display a clockwise-rotating pattern, which shows that the PowerNode is attempting inclusion.
4. After a few seconds, the rotating pattern should stop, and a rapidly flashing pattern should appear to indicate successful inclusion. The PowerNode is now part of your GreenWave Reality home network, and you can connect an appliance and electronic device (refer to the instructions that came with your PowerNode to plug in your appliance or electronic device).

If the rotating pattern has stopped, but the rapidly flashing pattern did not appear, then the PowerNode inclusion process has failed, and you must start over.

Network Exclusion Process

Note: If your PowerNode is new and has never been used before, then you should not need to perform the exclusion process.

A PowerNode that has been previously used with a different Z-Wave network must have its association (homeID) with the other network removed before you can connect it to your GreenWave Reality home network. This process is called “exclusion” and requires two steps: one that must be performed with the Gateway and then one that is performed with the PowerNode.

You can start the exclusion process through your Gateway user interface or by pressing and holding the Gateway network button for five seconds until the “exclusion mode” pattern appears on the Gateway activity indicator. When this is completed, the Gateway is ready to perform the exclusion of the PowerNode.

To complete the process you must perform the following steps:

1. Unplug the PowerNode from the wall socket.
2. Locate the network button on the PowerNode. It is a small round button on the side of the device, marked with the sync symbol.
3. Press and hold the network button while plugging the PowerNode into a wall socket. Keep the button pressed for five seconds until the activity indicator begins to flash rapidly, indicating that the exclusion process has completed. Your PowerNode is now free of its former association, and you can perform an inclusion process to include it in your GreenWave Reality home network (refer to the “Network Inclusion Process” section above).

If the network indicator and power button symbol flash together slowly for five seconds, then the exclusion process failed, and you must start over.

Safety Information

Indoor Use Only - Your Gateway should be used only in dry, indoor locations. Do not use your Gateway in high-humidity locations such as greenhouses, saunas, washrooms, or patios. Do not use your Gateway in locations where it can get wet such as near aquariums or running water.

Do Not Disassemble - Your Gateway has no user-serviceable parts inside. In case of persisting malfunction, please contact Customer Service to arrange for repair at a certified service location. Do not attempt to disassemble the Gateway for any reason.

Arrange for Service if Needed - Should you encounter any problems with your Gateway, turn the device off by unplugging it from the electrical outlet. Contact Customer Service to arrange for repair at a certified service location under the following conditions:

1. When the power cable or plug is damaged or frayed
2. If the product has been exposed to rain or water
3. If the product casing has been damaged

About GreenWave Reality

GreenWave Reality is a global innovator in the emerging Home Energy Management market. GreenWave Reality provides an affordable, easy-to-use, standards-based platform that allows utilities enhance their relationship with consumers and better balance energy on the grid while consumers can conserve energy with a minimal impact to their lifestyle by easily monitoring and controlling their appliances and adding intelligent LED lighting. GreenWave Reality is led by a diverse team of proven leaders with global experience.

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Model Number

GW110-C

GW112-C

Environmental Conditions

Operating Temperature: 0°C ~ +40°C

Storage Temperature: -20°C ~ +60°C

Operating Humidity: 20% ~ 85% RH

Storage Humidity: 5% ~ 95% RH

Size and Weight

120 x 60 x 33 mm

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