

Connected Lighting User Guide

With Lighting Gateway and Remote Control

Introduction

The GreenWave Reality Smart Home Platform helps create a smart, energy-efficient home by monitoring and controlling your appliances, electronics, and lighting. You can conserve energy with minimal impact to your lifestyle by using our products to easily manage your devices.



Simply connect the Gateway or Lighting Gateway to your home network, plug your devices into our PowerNodes, connect your network light bulbs, and then monitor and control the your power usage through a smart device application.

Connected Lighting Overview

The Connected Lighting kit includes a wireless smart lighting system that helps make the lighting in your home more energy efficient and easier to manage wirelessly. The lighting solution consists of high-quality, connected LED bulbs from our partners, a hand-held remote controller, and an optional Lighting Gateway that allows for complete remote lighting control.

- The Energy Star connected LED or CFL light bulbs typically consume about 80% less energy than an equivalent incandescent or halogen bulbs.
- The Lighting Remote can control four groups of bulbs and can turn lights on and off or dim them with the touch of a finger. The remote can be used with or without the Lighting Gateway.
- The Lighting Gateway is the hub that connects the smart bulbs to your home network and manages powerful Smart Controls and remote access to ensure your scheduled events get activated reliably.
- For added convenience and safety, the solution is light switch friendly, meaning that existing wall switches will still turn the light on or off in all circumstances.



Smart Device Requirements

To use a smart device, smart phone, tablet or tv to manage your Connected Lighting, your smart device must meet the following minimum requirements. If not, you can still use your lighting kit with the remote control.

- For Android devices:
 - Android operating system 2.2 and above

- Screen resolution of 320 x 240 and above
- For Apple devices:
 - iOS operating system 4.2.1 and above

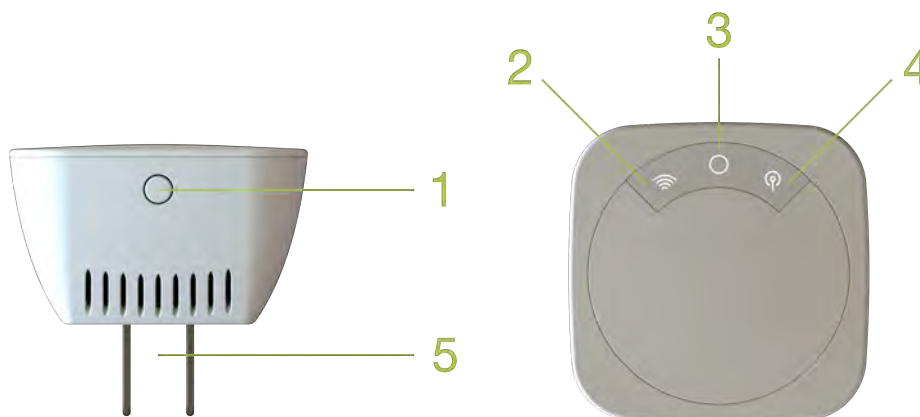
Home Network Requirements

For the smart device application to manage your lighting locally within your home, your home network must use a wireless router to which your smart device is connected.

There are no requirements for the type of wireless router, as long as your smart device and Lighting Gateway are able to connect to it. For more information on connecting your smart device to your home network, refer to your smart device's documentation.

Components

Lighting Gateway



- 1. WPS Button:** Connect to home Wifi using WPS
- 2. Network Icon:** indicates your Lighting Gateway is connected to the Wi-Fi network
- 3. Power Icon:** indicates your Lighting Gateway is powered on.
- 4. Bulb Icon:** indicates your light bulbs are connected to your Lighting Gateway.
- 5. AC Power Plug:** plugs into a standard socket and connects your Connected Lighting to your Home Network.

Activity Indicators

Your Lighting Gateway has power, network, and bulb indicators that show current status:



Power indicator—off (no color): Lighting Gateway is powered off.



Power indicator—white: Lighting Gateway is powered on.



Power indicator — white fading: Lighting Gateway is starting Wi-Fi connection.



Network indicator—off (no color): The Gateway is connected to your home network.



Network indicator—red: The Gateway is not connected to your home network. Check that the Ethernet cable is plugged into the Gateway and your network router or modem. Refer to the *Installation and Setup* chapter for more more information.



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



Network indicator—flashing white: The Wi-Fi connection is not configured.



Network indicator—solid white for 5 seconds: Lighting Gateway has successfully connected to your Wi-Fi network.

Network indicator—solid red for 5 seconds: Lighting Gateway failed to connect to your Wi-Fi network. If no network is found for two consecutive minutes, the process times out.

Network indicator—red: Lighting Gateway is not connected to the Internet. If your network indicator is also red, then the problem may be with the Gateway's connection to your network router or modem (refer to the network indicator information above). Otherwise, check that your network router or modem has an active Internet connection.

Bulb indicator—off (no color): Light bulbs are connected to your home network.

Bulb indicator—flashing white: Light bulbs are searching a connection to your home network.

Indicators —flashing white in sync: Lighting Gateway software is updating. The indicators flash white in order during the commissioning mode to connect with network light bulbs. The commissioning process continues until all light bulbs and devices searching for the network have been found. If no devices are found for two consecutive minutes, the commissioning process will time out.

Indicators —flashing white for 5 seconds in sync: The lighting kit was successfully reset to the factory settings.

Remote Control



1. **1-4 button:** selects all lighting groups to turn on, turn off, dim, or brighten.
2. **Group number button:** selects the specific lighting group to turn on, turn off, dim, or brighten as well as programs the lights in the corresponding group. An indicator light above each number indicates the group number currently being used.

3. **On/Off button:** turns on or off the lights in the selected lighting groups. Lights turn on to the previous dimming level.
4. **Dimmer control:** dims or brightens the lights in the selected lighting groups.
5. **Primary status indicator:** lights or flashes during different activities with the remote control.
6. **Battery compartment:** holds 2 AA batteries to power the remote control.
7. **Program button:** initiate programming of lighting groups and other remote control programming functions. The button is located inside battery compartment.

Remote Control Indicators

The remote control has four group number indicator lights and one primary status indicator.

Process	Indication and Description
Initial Remote Control Setup	<p>Primary indicator flashes steadily:</p> <p>During the process of installing batteries for the first time, the remote control is determining the best signal for your lighting system.</p>
Working with One Lighting Group	<p>Group number indicator turns on, and primary indicator remains off:</p> <p>The corresponding lighting group is selected, and its last state was off.</p> <p>Group number indicator and primary indicator turn on:</p> <p>The corresponding lighting group is selected, and its last state was on or dimmed. .</p>
Working with All Lighting Groups	<p>All group number indicators turn on, and primary indicator remains off: All lighting groups are selected, and their last state was off.</p> <p>All group number indicators and primary indicator turn on: All lighting groups have been selected, and their last state was on or were dimmed.</p>

Installation and Setup

Before you install your Connected Lighting, make sure that your home network router is operating and connected to the internet.

Installation Tips

Review the safety information. Be sure to review the information contained in the *Safety Information* chapter.

Keep radio signals clear. Your Lighting Gateway and network lighting have antennas built-in for radio communication with Internet services and other devices on your energy management system. Just as you might experience reception problems on your mobile phone inside a building, your Lighting Gateway can have trouble communicating with the network lighting 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 Lighting Gateway at least 5 feet (1.5 meters) above floor level to promote reception.

Several factors could affect radio signal strength between a network light bulb and the Lighting Gateway:

- If the Lighting Gateway is too close to a wireless router, the radio signals from the router could interfere with the signals the Gateway is processing from the network light bulb. However, the network light bulb itself does not typically have problems when used close to wireless routers.
- If the Lighting Gateway is behind a metal object, the radio signals could be blocked.
- If a network light bulb is placed a significant distance or through several walls from the Lighting Gateway or other network light bulb, the radio signals could lose strength.
- If the non-visible construction of a wall contains such things as large metal panels or wire mesh, the walls could block the radio signal between the network lighting and Lighting Gateway. This may apply to an entire wall or only specific areas of a wall.

Install Lighting Kit

You will walk through the following steps to install your lighting kit:

- Step 1: Reset Existing Network Light Bulbs Option
- Step 2: Install the Lighting Gateway
- Step 3: Download and Install the Smart Device Application
- Step 4: Set up Lighting Gateway
- Step 5: Set up Account
- Step 6: Install Light Bulb on Network

- Step 7: Set up Light Bulbs in Application
- Step 8: Set up Remote Control Option

Step 1: Reset Existing Network Light Bulbs Option

If you are resetting existing network light bulbs to work with your new lighting kit, you must follow the following steps. If not, you can skip this step.

Use your original remote control that was supplied with your existing light bulbs. If the original remote is not available, refer to the Remote Control chapter for additional details.

Perform these steps:

1. Make sure power to the fixtures containing the light bulbs you want to reset is turned **ON**.
2. Remove the battery cover from the back of the original remote control. This allows access to the **Program** button.
3. On the remote control, press and hold the **Program** button while completing the following steps.
 - a. Press and release the **On/Off** button.
 - b. Press and release the **1-4** button.
 - c. Press and release the **On/Off** button again.
4. Release the **Program** button.

All group number indicator lights and primary indicator light flash slowly for 30 seconds.

When the light bulbs are removed, they brighten and dim at which time you can add them to your new network.

Step 2: Install the Lighting Gateway

Since the Lighting Gateway connects to your home network router, make sure you have space near your router where you can plug in the Lighting Gateway.

Perform the following steps:

5. Make sure your router is already connected to your home network.
6. Power the Lighting Gateway by plugging it into an electrical wall outlet or power strip.



7. Verify that the Lighting Gateway is connected by checking the power indicator light is white.

Step 3: Download and Install the Smart Device Application

The smart device application installs like other applications you may already have.

To download the app:

8. At the application download site for your device, search for **TCP Lighting**. Download and install the app.



9. Make sure your smart device is connected to and in range of your wireless router, and then start the application on your smart device.

When the application starts, it automatically searches for your Lighting Gateway through your wireless router and automatically connects to the associated lighting network.

Note: For future connections, if your smart device does not find a local Lighting Gateway, it will try to access your Lighting Gateway remotely using the mobile data connection.

Step 4: Set up Lighting Gateway

The Lighting Gateway automatically scans and connects to your Wi-Fi network. You just need to confirm the connection.

Perform the following steps:

10. Tap the **Settings** menu for the smart device application. The **Account Information** page opens.
11. In the **Username** field, enter your email address, then tap **OK**.
12. Enter your password, then tap **OK**. A message opens when your account is created successfully.
13. In the **URL** field, verify the URL,
14. Slide the Gateway Discovery field to **ON**. The Smart Device application automatically discovers your Lighting Gateway.
15. Follow the instructions on your smart device to complete the setup.

16. If the Lighting Gateway is not found, scan for Wi-Fi networks on your smart device, as you normally would.

In the list of networks that display, select the Lighting Gateway.

Enter the password to connect.

Step 5: Set up Account

You must first set up an online account to access your lighting kit remotely. You must remain connected locally to your lighting network when you create your account.

To set up your account:

17. Tap the **Settings** menu at the bottom of the page. The **Settings** page opens.
 18. Tap **Setup Remote Access**. The Account Setup page opens.
 19. In the **Username** field, enter your email address, then tap **OK**.
 20. Enter your password, then tap **OK**. A message opens when your account is created successfully.
 21. Tap **OK** to close the message. If an error should occur, a message opens to guide you through correcting the issue.
- When your account is created, we automatically send you an email to confirm your new account and email address.
22. Follow the instructions in the confirmation email for your account to be activated.

Step 6: Install Light Bulbs on Network

The light bulbs in your lighting kit already come pre-connected to the Lighting Gateway; however, you must still install the light bulbs. This allows the Lighting Gateway to locate them on the network.

Before installing the light bulbs, determine the appropriate locations in your home for installing them.

Perform the following steps:

23. Turn power **OFF** to the light fixtures where you are installing the network light bulbs.
24. Remove any existing standard light bulbs from the light fixtures.
25. Install each network light bulb into the light fixtures as you would any standard light bulb.
26. Turn power on to the light fixtures.

If you are installing only light bulbs that came with your kit, you can skip this step. However, if you are also installing light bulbs that did not come with your kit, then you must connect them to your Lighting Gateway:

- When you turn power on, the light bulbs brighten and dim while attempting to connect wirelessly to your Lighting Gateway.
- When the light bulbs connected to your Lighting Gateway, they turn on to full brightness.

- The Lighting Gateway automatically stops the search process in two minutes after finding the most recent light bulb.
27. If a light fixture has a dimmer control (not recommended), set the dimmer level to full brightness.
 28. Leave the light fixture switches **ON** so that power is available to the light bulbs.

Step 7: Set up Light Bulbs in Application

With your light bulbs, Lighting Gateway, and application installed, you can use your smart device to set up the lights on your network:

29. Open the application on your smart device. The application automatically finds the light bulbs connected to the Lighting Gateway and prompts you to set them up:



30. Tap **Yes**. Your smart device then walks you through setting up each new light bulb.
Look for the light bulb that is dimming and fading. This is the light bulb you are currently configuring on your smart device.
31. Follow the setup wizard through specifying a name light, assigning a room for the light, and selecting an icon or taking a picture of the light to help identify the light.
32. Repeat these steps for each flashing light bulb.

Note: If you skip setting up light bulbs during installation, the light bulbs are automatically grouped under the black room color. You can update the light bulb settings any time using the information in the *Smart Device Application* chapter.

Step 8: Prepare the Remote Control Optional

If you will be using the remote control with your lighting network, then you must first prepare it for use. For additional information on using the remote control, refer to the *Remote Control* chapter.

Perform these steps:

33. Remove the battery compartment cover from the back of the remote control.
34. Insert two AA alkaline batteries (included).

The first time you insert batteries, the primary indicator light flashes while the remote control determines the best signal for your lighting system. The indicator light remains on for approximately five seconds. When the indicator light turns off, your remote control is ready.

Congratulations! You have now installed and configured your Connected Lighting system. Now you can schedule and manage your lighting system using Smart Controls and remote control.

Smart Device Application

The smart device application makes working with your Connected Lighting easy by allowing you to use your smartphone, tablet, iPod touch, or TV to set up, manage, and control your lights. You can configure lights into rooms and lighting groups, turn lights on and off, set up Smart Controls to automatically control lights, and much more.

Network Connection

When you start the smart device application, it automatically searches for your Lighting Gateway through your wireless router and connects to the lighting network.

If your smart device does not find a local Lighting Gateway, it tries to access your Lighting Gateway remotely. For your smart device to connect remotely, you must have an online account and your Lighting Gateway must be connected to the Internet through your router.

Note: This connection process applies to any local network and Lighting Gateway in range of your smart device. For example, if you are at a friend's home and they have a similar lighting kit set up, your smart device application will connect to their lighting Gateway if you are connected to their local network through their wireless router (which means your friend would have given you access to log in to their home network). To access your own network remotely, you would have to log out of the application and then log in again using your online account information.

Lights and Fixtures

You can control your lighting network from your smart device by accessing the **Lights and Fixtures** page. This page shows all of your light bulbs and fixtures available on your lighting network, sorted by rooms and room colors.

Room and room color

Swipe screen left or right to navigate rooms.

Room on/off

Tap corresponding button to turn on or off all lights in the room.

My Lights menu

Tap to access this page.

**Light bulb dimmer**

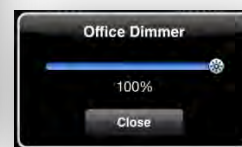
Drag left to dim or drag right to brighten light bulb.

Light bulb/fixture control

Tap to turn light bulb/fixture on or off. Light turns on to the most recent dimmer setting. Swipe screen up and down to access all light bulbs/fixtures if the room contains more than can fit on one page.

Room dimmer

Tap to open dimmer control to dim or brighten all lights in room.



Smart Controls

Smart Controls allow you to set up user-defined schedules and other controls for automatically turning your lighting on or off. For example, you can set up a Smart Control schedule that automatically turns on selected lights at sunset and then turns them back off at midnight. Smart Controls can control one or more light bulbs, light fixtures, or entire rooms.

Keep in mind that activating a Smart Control is a different action than turning on lights. A Smart Control could be set up to turn lights on, turn lights off, or a combination of both.

You can activate, create, and edit Smart Controls on the **Smart Control** page. This page includes default Smart Controls as well as your own custom Smart Controls.

Smart Control list

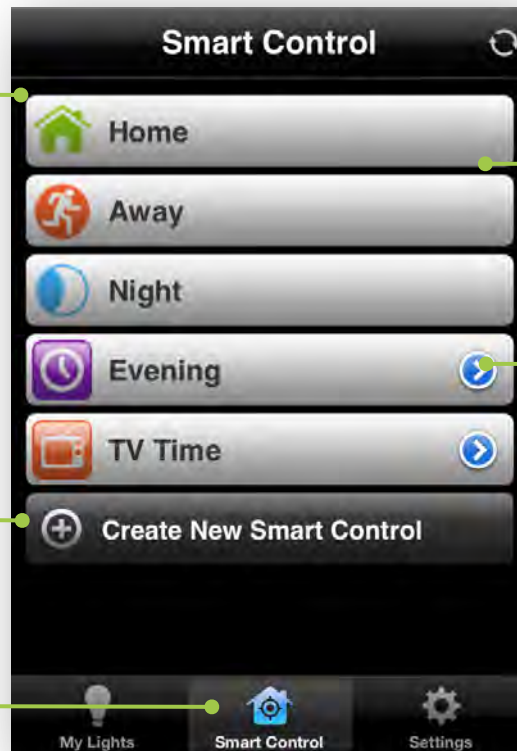
Tap to activate the corresponding Smart Control.

Create Smart Control

Tap to start wizard to create your own custom Smart Control.

Smart Control menu

Tap to access this page.

**Default Smart Controls**

Home, **Away**, and **Night** are default Smart Controls that come preconfigured.

Custom Smart Controls

Swipe the arrow to edit the settings of a custom Smart Control or to access the delete feature to remove the custom Smart Control.

Default Smart Controls

The **Smart Control** page includes a set of default Smart Controls that come preconfigured within the application:

- **Home** - typically used when people return home after being away.

This Smart Control turns on any light, along with their most recent dimmer level, that was previously on when the **Away** Smart Control was activated. For example, when everyone left the house.

- **Away** - typically used when everyone leaves the house. For example, when going to school or work for the day.

This Smart Control saves the current state of the lights on your network (whether they are on or off and what dimmer level they might be at) and then turns off all lights. Saving the current state of your lights to make it easier for you when you return home and activate the **Home** Smart Control.

- **Night** - typically used when everyone goes to bed for the night.

This Smart Control turns off all lights on your network. Unlike the **Away** Smart Control, the **Night** Smart Control does not remember the state of your lights before turning them off.

Custom Smart Controls

In addition to the default Smart Controls, you can create your own custom Smart Controls. There are two types of custom Smart Controls:

- **Schedule** - allows you to automatically turn on and off lights based on the day and time. For example, you could use this Smart Control to have selected lights automatically turn on at sunset and turn off at midnight.
- **Lighting scene** - allows you to set up combinations of lights to turn on and off. For example, you could use this Smart Control to activate the Smart Control to turn on lights in some rooms while turning off lights in other rooms.

To create a custom Smart Control:

35. Tap the **Smart Control** menu at the bottom of the page. The **Smart Control** page opens.
 36. Tap **Create New Smart Control**. A setup wizard guides you through setting up your Smart Control.
 37. On the first page of the wizard, tap **Choose Name** to type a name for your new Smart Control, and tap **Choose Icon** to select an icon to associate with it. To continue, tap **Next**.
 38. In the **Rooms & Devices** page, tap to select the rooms, lights, and/or fixtures you want to turn on or off with this Smart Control, and then tap **Next**.
 39. Select the on/off and dimming level for your rooms and devices by tapping the light icon and dragging the slider control to set dimmer level when light turns on.
- To continue, tap **Save**. The Make Schedule pop-up displays.
40. To create a lighting Schedule Smart Control, tap **Yes**.
 41. Select the time and days of the week when you this Smart Control occurs.

The options for setting this time are:

- **Sunrise/Sunset** activates the Smart Control at sunrise or sunset, depending on which you select. By using this option the actual activation time will automatically change as the time of sunrise and sunset changes throughout the year.
 - **Set Time** activates the Smart Control at the exact time of day you specify.
42. To select the days the Smart Control runs, tap the specific days in the **Days of the week** section. After the days and times are set, tap **Save**.

The Smart Control is activated.

Settings

The **Settings** page allows you to edit lights, create fixtures, manage rooms, and add new light bulbs. You can also set up your online account for remote access to your lighting network or to log out of the application.



Managing Rooms

Creating a New Room

You can create rooms to represent the physical rooms in your home and group their corresponding lights.

To create a room:

43. Tap the **Settings** menu at the bottom of the page. The **Settings** page opens.
44. Tap **Manage Rooms**. The **Manage Rooms** page opens.
45. Tap **Create New Room**.
46. On the **Create New Room** page:
 - Tap **Enter Room Name** to type a name for your new room.
 - Tap **Edit Color** to select a color to represent the room.
 - Under **Lights**, select the lights and fixtures located in the room you are creating, or tap **Add More Lights** if you added new light bulbs that have not yet been assigned to a room.
47. When you finished setting the room properties, tap **Save**.

Editing a Room

To edit a room, including the lights and fixtures assigned to the room:

48. Tap the **Settings** menu at the bottom of the page. The **Settings** page opens.
49. Tap **Manage Rooms**. The **Manage Rooms** page opens.
50. Tap the room you want to edit. The room page opens.
51. Tap any item, such as room name or color, and make your changes.
52. To remove a light or fixture from the room, click that light's or fixture's removal icon:



Removal icon

Tap to remove the light or fixture from room.

53. To add a light or fixture to the room, tap **Add More Lights**.
54. When you are finished with your edits, tap **Save**.

About the Black Room Color

When new light bulbs are added to your network, they initially are assigned by default to the black room color as an unknown room. Typically, during the setup wizard for a new light bulb, you assign a specific room and room color for the new bulb.

However, if you skip the setup wizard process, the light bulb remains grouped under the black room color. You can move a light bulb to a different room and room color at any time.

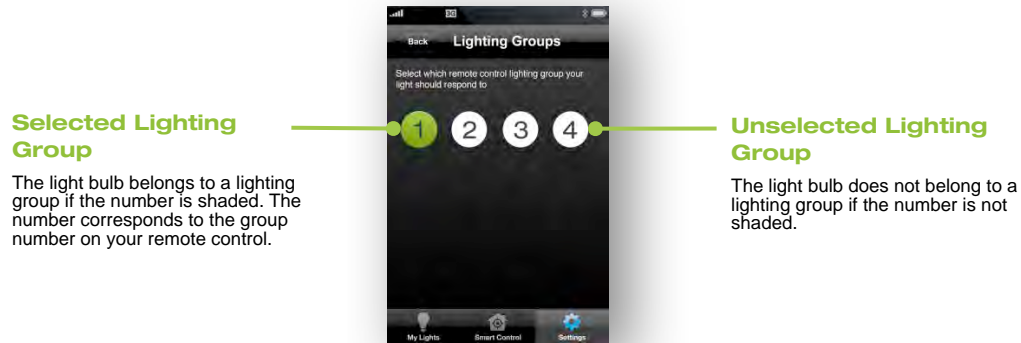
Managing Lighting Groups

You can organize your light bulbs into lighting groups so that you can control groups of them together through your remote control.

To add or remove a light bulb from a lighting group:

1. Tap the **Settings** menu at the bottom of the page. The **Settings** page opens.
2. Tap **Your Lights & Fixtures**.
3. Tap the light bulb you want to add or remove from a lighting group. The **Light** page opens and the selected light begins to dim and brighten to help you physically identify it.
4. Tap **Choose Lighting Group**.

5. When the **Lighting Groups** page opens, tap the lighting group numbers to add or remove the light bulb from those lighting groups. The light bulb belongs to a lighting group when the number is shaded. This number corresponds to the group number on your remote control. You can add the light bulb to as many as all four lighting groups.



Managing Lights and Fixtures

Adding Light Bulbs to Your Network

If you add a new light bulb to your network, you must connect to and set up that light bulb. For additional information, refer to the user guide that was included with your device.

Creating a Fixture

You can set up any grouping of light bulbs to operate as one multi-socket light fixture. Typically you would use this feature to set up an actual multi-socket light fixture.

However, you could also use it in cases where you have multiple lights that you want to behave as a multi-socket light fixture. For example, you might have two separate desk lamps that you want to control together. You could create a fixture that includes both of them and control them together as if they were part of one light fixture. Then you could perform tasks on that fixture, such as turn it on or off, dim or brighten the lights, or create a Smart Control that controls it.

To create a fixture:

55. Tap the **Settings** menu at the bottom of the page. The **Settings** page opens.
56. Tap **Your Lights & Fixtures**.
57. Tap **Create New Fixture**.
58. On the **Fixture** page:
 - a. Tap **Choose Name** to type a name for your new fixture.
 - b. Tap **Choose Room** to select or create the room where your fixture will be located.
 - c. Tap **Do you have a remote?** to configure your remote to control the lights.

- d. Tap **Select Additional Bulb** to add each of the light bulbs you want to include in the fixture.

59. When you finished setting the fixture properties, tap **Save**.

Editing a Light or Fixture

Before starting this procedure, make sure the light or fixture you are editing is powered on.

To edit a light or fixture on your network:

60. Tap the **Settings** menu, then tap **Your Lights & Fixtures**.

61. On the **Lights & Fixtures** page, tap the light or fixture you want to edit.

The **Light/Fixture** page opens. The selected light or fixture begins to dim and brighten to help you physically identify it.

62. Tap any of the items, such as name, room, or remote, that you want to edit and make your changes.

63. When you are finished with your edits, tap **Save**.

Removing a Light or Fixture from Your Network

Before starting this procedure, make sure the light or fixture you are removing is powered on.

To remove a light or fixture from your network:

64. Tap the **Settings** menu, then tap **Your Lights & Fixtures**.

65. On the **Lights & Fixtures** page, tap the light or fixture you want to remove.

The **Light/Fixture** page opens. The selected light or fixture begins to dim and brighten to help you physically identify it.

66. Tap the **Delete** button.

67. When prompted, confirm that you want to delete the light or fixture.

Removing a Light Bulb Manually

If your smart device is not available, you can remove a light bulb from the network by turning power to the light fixture off and on three times consecutively to reset the light bulb.

During this process, leave the power off for at least two seconds and then on for one to two seconds. After the third cycle, leave the power on. When the light bulb has been removed from the network, it brightens and dims continually.

Remote Access

You can access your lighting network remotely using your online account. When you start the application, it automatically tries to find a Lighting Gateway on any network to which you may be connected.

If the application does not find a Lighting Gateway, it opens a login page for you to enter your user name or email address and password. Once logged in, you can manage your lighting network the same way as if you were connected locally.

If your application does find a Lighting Gateway, it connects to the lighting network attached to that Lighting Gateway. For example, if you are at a friend's home and they have a similar lighting kit set up, your application will connect to their lighting Gateway if your friend gave you access to log in to their home network. You would connect to their local network through their wireless router.

To access your own network remotely, you would have to log off of the application and then log in again using your online account information.

To do so:

68. When you start the application, tap the **Settings** menu at the bottom of the page.
69. On the **Settings** page, tap **Log Out**. The application logs you off of the current network and opens the login page for you to log in to your own account.
70. On the login page enter your user name or email address and password, and then tap **Login**.
71. Manage your lighting network as if you were connected locally.

Forgotten Password

If you forget your password, you can reset it:

72. Access the login page.
73. Tap **Login** without entering your user information. When your login attempt fails, the **Reset Password** page opens.
74. Type the email address associated with your account. This is the same as your user name. Tap **OK**. A confirmation email is sent to your email address.
75. When you receive the confirmation email, click the link to approve the password reset and specify a new password.

Remote Control

You can use the remote control to control your lighting. This chapter provides general concepts about your remote control, steps for setting up your remote control for use, and steps for general remote control operation.

Note: Some tasks in this chapter require pressing the **Program** button, which is located inside the battery compartment on the back of the remote control. Be sure to press this button only as directed in the instructions. Pressing it an additional time during remote control programming mode immediately cancels the current operation.

General Remote Control Concepts

While you will probably use your smart device to control your lighting most of the time, there may be times when it is more convenient to use your remote control. During these times, you should understand a few concepts that are specific to your remote control:

- Lighting groups
- Remote control range

Lighting Groups

When organizing your network light bulbs, you can set them up into lighting groups and use your remote to turn on and off light bulbs in selected lighting groups. All light bulbs in the same group turn on and off together and brighten or dim to the same level. Your remote control has controls for four lighting groups.

For example, you might have a lighting group that includes light bulbs on the same floor. Or a group that includes hallway and entryway lights, making it easy to turn on or off with your remote as you arrive or leave home.

Note: You can set up a lighting group using your smart device; however, you can only control lighting groups, such as turn light bulbs on or off, through your remote control.

The following limitations apply when working with network light bulbs and lighting groups:

- If you use your remote control to set up your lighting groups, then a light bulb can belong to only 1 lighting group. If you use your smart device to set up your light bulbs, then a light bulb can belong to 4 lighting groups.
- Your remote control can control up to 4 different lighting groups. If you add additional remote controls to your network, each of them can control 4 additional lighting groups.
- Each lighting group can contain up to 40 light bulbs.

Remote Control Range

When using your remote control, you must be within range of your lighting network to control your lighting. However, this does not mean that it has to be within range of all network light bulbs. Since the light bulbs

are interconnected across the network, they can pass commands to each other as long as they are within network range of each other.

Remote Control Setup

When you select a group on the remote control, the group remains the active group on the remote control. To take action on that same group again, you do not have to press the group button again.

Connecting a New or Pre-existing Remote Control

The remote control in your lighting kit is already connected to your Lighting Gateway by default.

If you are adding a new remote control to your network or if you are upgrading your lighting network from a remote control kit and would like to use the old remote control with your new network, refer to the user guide that was included with your device for further information.

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.

Disposing of Your Used Product

This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical / electronic product in domestic household waste.

WEEE Product Category. With reference to the equipment types in the WEEE Directive Annex 1, this product is classed as category 3 “IT and Telecommunications Equipment.”

DO NOT DISPOSE IN DOMESTIC HOUSEHOLD WASTE. To return unwanted products, contact your local GreenWave Reality reseller.



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 to 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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Product Specifications

For additional information on supported bulbs and peripherals, please access our GreenWave Reality home page at www.greenwavereality.com or connectedbytcp.com



Federal Communication Commission Interference Statement

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.

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Industry Canada Notice to Users

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.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.



Declaration(s) of Conformity

These CE Marked GreenWave Reality products incorporating Radio and Telecoms Terminal Equipment functionality are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

A copy of the original CE Declaration of Conformity is on file and available upon request for all CE Marked GreenWave Reality products. Please visit www.greenwavereality.com to obtain a copy of the Declaration.

The use of such device might not be harmonized throughout EU and EFTA Member States. The Final Integrator of the product shall check that the use of such devices for power node is allowed for placing on the market in any particular Member State.