

**ALLIANCE**  
OUTDOOR LIGHTING

# BT HOW-TO GUIDE

**Complete Setup Instructions**

Learn how to install, operate and troubleshoot a bt system.



## Contents

### Part 1: How To Install a bt System

- 2-3 bt Family of Fixtures
- 4-5 The bt-RE
- 6-9 bt Laws and Tips

### Part 2: How To Setup a bt System

- 10 The bt App
- 11 Basic Operations
- 12-16 Secured Networks
- 17 Custom Preset Colors
- 18 Naming Fixtures
- 19 Changing Fixture Icons
- 20-23 Creating Groups
- 24-25 Upgrading Firmware

### Part 3: Troubleshooting a bt System

- 26-27 Laws Review
- 27 bt Reset



Scan this QR Code for our complete setup guide video

Scan QR Codes on other pages to watch the video related to that page.



• Adjustable White Temperature

• Dim

• Group

• Change RGB Colors

• Custom Scenes

**BL200-bt**  
The Original bt

**bt-RE**

The bt-RE range extender will get all your bt fixtures talking.

## Install an Entire Job with bt Products



**ALSTEM18-bt**  
**ALSTEM12-bt**  
Light up an area with this bt stem. Hat sold separately.



**PL100-bt**  
Stem and hat combo path light. Fully adjustable for maximum versatility.



**PL300-bt**  
Contemporary path light.



**BL400-bt**  
Extra powerful bullet light for larger structures.



**WL400-bt**  
Extra powerful well light.



**FL200-bt**  
Extra powerful flood light with a 120° beam spread.



**FL50-bt**  
Powerful and compact flood light. Use as an accent light or wall wash.



**GL-bt**  
Ground light available with six different tops. Uplight columns, flagpoles, paths and posts.



**GL300-bt**  
Ground light available with seven different tops. Uplight columns, flagpoles, paths and posts.



**UL100-bt**  
Underwater light that adds color to small water features. Includes external antenna.



**DL200-bt**  
The perfect down light for columns and patio covers.



**HL100-bt**  
Hanging light with 18" chain and an easy to extend shroud.



**HL200-bt**  
Hanging light with 18" chain and a twinkle cut shroud.



**SL25-bt/SL35-bt**  
Step lights available in 6" and 9.5" widths.



**SL50-bt/SL60-bt**  
Small ledge light for wall caps, fences and seat walls. Install under the cap (SL50-bt) or as a surface mount (SL60-bt).

## First Things First, the bt-RE is REQUIRED.

Visit our online video library to learn more about the bt family of products.  
[www.allianceoutdoorlighting.com/bt-support](http://www.allianceoutdoorlighting.com/bt-support)

5

If you read anything in this book, read this.

# THE BT-RE IS REQUIRED AND THERE IS NO SUCH THING AS TOO MANY BT-RE'S!

**The bt-RE range extender is the most important device of a bt system.** Without the bt-RE, you will have trouble setting up and using a bt system. With 70x more signal strength than a bt fixture, the bt-RE increases signal strength and communication between bt fixtures. The 1w bt-RE includes a 10' wire lead that can be wired in just like the bt fixtures, a 5db external antenna and a Bluetooth® module that is housed by solid brass. No matter how many or few fixtures you have installed, the **bt-RE is a must.**

**The bt-RE must have a line of sight to the bt fixtures and their antennas,** do not try to hide the bt-RE behind rocks, walls, large trees or any other structures or that will cancel out all of the benefits of the bt-RE. The bt-RE can mount to risers, round mounting bases or down light brackets to get them higher off the ground where they have a better line of sight to the bt fixtures.

There is a small led indicator on the bt-RE, a red light indicates that the bt-RE is in the default "Alliance" network and a green light indicates that the bt-RE is in a secured network. **The bt-RE must be in the same network as the other fixtures in order to communicate with them.** If you have multiple secured networks setup you will need bt-RE's for each network. When trying to figure out how many bt-RE's to install, start with 1, prepare to have an extra bt-RE per every 8 fixtures and always have spares in case you need more, **there is no limit to how many can be on a project** (remember, they only consume 1 watt of power.)

If you are a contractor installing a bt system, make sure you install bt-RE's or expect to be called back to the job. If you are a homeowner, make sure your contractor installs bt-RE's before they leave the job. We promise you, the bt-RE will make your system work better.

### What is the bt-RE?

- A Bluetooth Range Extender that increases communication between bt fixtures.
- An installer and end user's best friend
- Absolutely necessary

### How many bt-RE's do I need?

- Start with 1, plan for more
- As many as it takes to get all your fixtures talking
- Spares in your truck just in case you need more

### Where should the bt-RE be installed?

- In line of sight of the bt fixtures
- **NOT** hidden behind rocks, trees, corners of the house or any other structures
- Higher is better, on risers, in trees, on a roof, or higher elevated grounds
- Try different locations before permanently installing

### Do I REALLY need a bt-RE?

- Yes, absolutely.



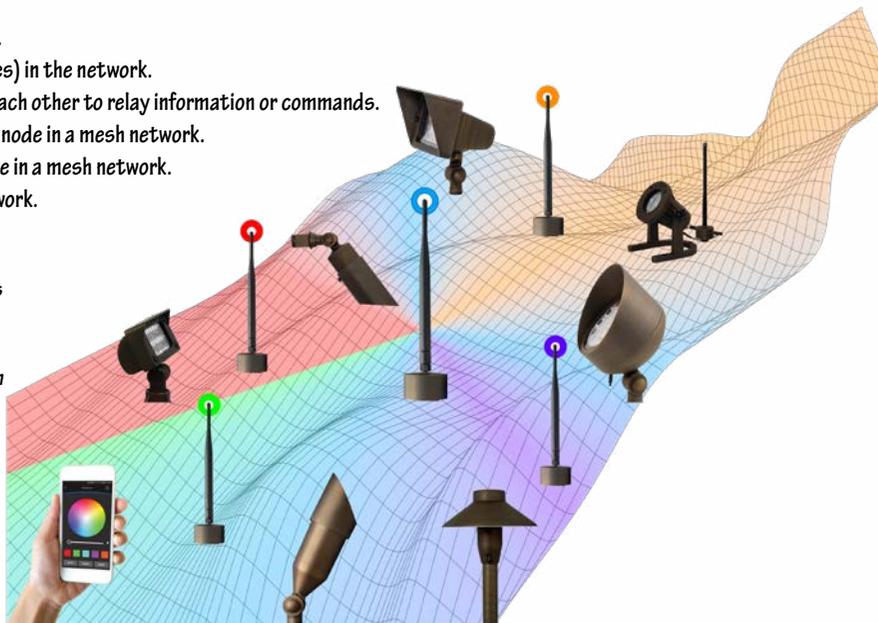
## Law 1. Install a bt-RE on every bt job

- No matter how many bt fixtures are on the job, a bt-RE will always increase communication.
- Be sure to put it in the same network as the fixtures they should connect to.
- Start with 1 bt-RE, prepare to have extras if they are needed (1 for every 8 fixtures)

### The bt System and Bluetooth Mesh

- Bluetooth Mesh is a many-to-many connection system.
- The mesh network strengthens with more devices (nodes) in the network.
- bt Fixtures are Bluetooth Mesh nodes and can talk to each other to relay information or commands.
- Smartphones are not Bluetooth Mesh but can talk to a node in a mesh network.
- Smartphones will communicate with the strongest node in a mesh network.
- The bt-RE will always be the strongest node in a bt network.

In this illustration the phone is sending commands to a bt-RE and the bt-RE's are relaying the commands to the other nodes (fixtures) in the mesh network. Note that the orange range extender is installed at higher elevation and has wider coverage while the green range extender is installed at lower elevation and has less coverage.



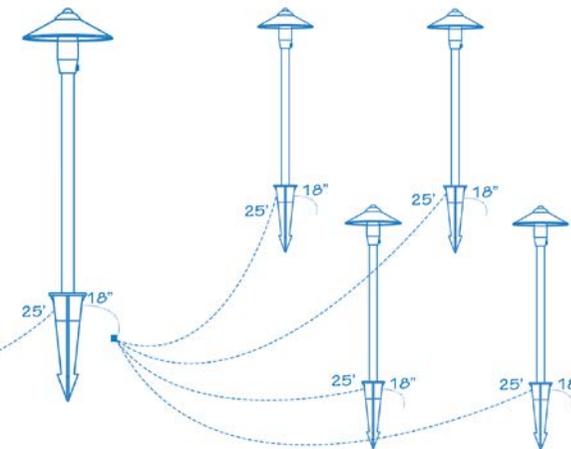
## Law 2. bt Fixtures need 10-14 volts

- Group multiple 25' wire leads with an 18" lead to reduce voltage drop
- Do not daisy chain more than **8 fixtures** on a run
- bt Fixtures can light up at very low voltage, but they will not communicate under 10 volts.

A great way to keep consistent voltage to your fixtures is to use the double wire lead as a hub system.

### Hub Method

Create a hub with one of the 18" wire leads and connect surrounding 25' wire leads to the same connection point. Recommended for wiring bt fixtures.

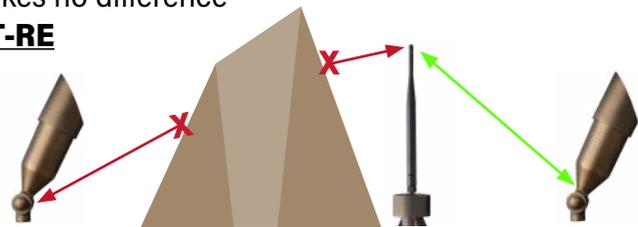


## Law 3. Don't overload the transfc

- 30 bt fixtures on a 300 watt transformer, 15 bt fixtures on a 150 watt transformer
- bt fixtures vary between 4 and 11 watts depending on color and intensity settings

## Pro Tip 1: Find the Best Location for the bt-RE

- The higher the better, use a riser to get it off the ground.
- Again, higher elevations get better signal, the bt-RE fits on an RMB or DL-Bracket.
- Try the bt-RE in different locations before permanently installing
- Wire one next to a fixture that is having difficulty communicating
- Proximity to the transformer makes no difference
- **DO NOT TRY TO HIDE THE BT-RE**



## Pro Tip 2: Check the Voltage

- Use a voltmeter to confirm 10-14 volts
- Use a transformer with multiple taps, use higher voltage taps if more voltage is needed.

## Pro Tip 3: Do a Color Test

- Check that the system works properly with all colors at full brightness.
- Different fixtures have a highest wattage consumer, for example the BL200-bt consumes the most wattage with colors such as purple, teal and pink while the BL400-bt consumes the most wattage when set to 2700K.

## Pro Tip 4: Create Secured Networks

- Block access from unwanted users.
- Separates twins and assigns proper icons to different fixtures and range extenders
- Use the end user's phone to create the network
- Take a screenshot of the QR code and send it to the end user if they are not available during the initial setup or make sure they have the proper name of the secured network (case sensitive.)
- Consider setting up multiple secured networks for different sections of the property

## Pro Tip 5: Use the color feature to troubleshoot

- When unsure if you have control of a fixture within a network, select All Devices>Control>and pick any color, any fixture that did not change color is either not communicating or hasn't been added to the network. Stand by that fixture and use the process on page 15 to make sure it goes into the network, which will be confirmed when it blinks off and on.

## Pro Tip 6: Managing "Twins"

- "Twins" are fixtures that share the same id's, they would be controlled by the same icon
- Most twins should be separated when a secured network is created
- If twins occur in the secured network, remove both fixtures from the network (pg 15) and then add both fixtures back to the network one at a time (remove power from one of the fixtures during the add device process)

## Getting Started: Download the bt app

- Available in the Apple App Store and Android Google Play Store
- Search "Alliance bt" and download the app with the blue icon
- Or, scan the QR codes below to go directly to the download page



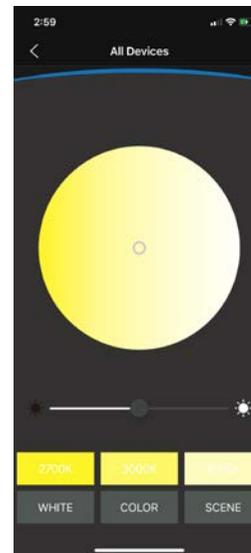
Download from Apple Devices



Download from Android Devices

## Basic Functions of the bt App

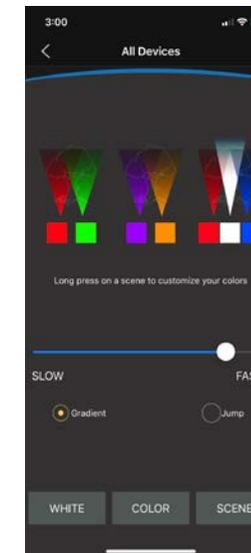
PLEASE NOTE: A fixture that is turned off with the icon on the main page will come back on when the transformer comes on. However, a fixture that is dimmed all the way down will remain dimmed when the transformer comes back on. If dimmed to "off" the fixture will remain off.



Color temperature can be adjusted with preset buttons. A color wheel can also be used for more precise adjustments. Dimming is adjusted with the slider.



RGB colors can be selected with preset buttons for red, green, blue, purple, and amber. Customized default colors can be created by clicking and holding down on a default color. A RGB wheel can also be used to select additional colors. Dimming is adjusted with the slider.



Preset scenes can be selected for season and holidays. Custom scenes can be created by clicking and holding on a scene. Color cycle times can be adjusted with the slider.

# Secured Networks



## IMPORTANT TO KNOW

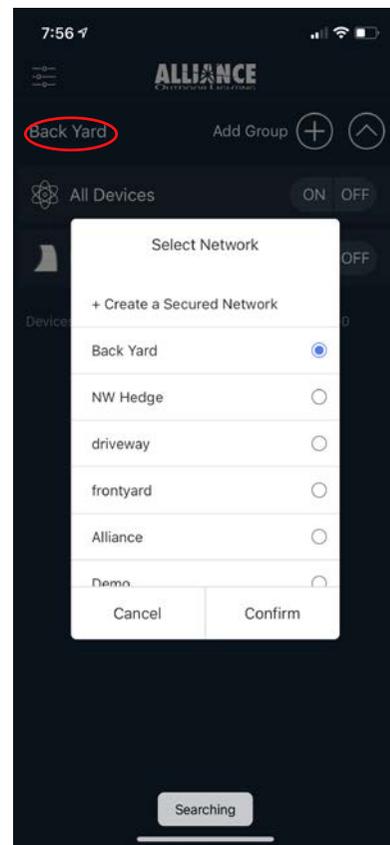
- A secured network ensures that only those with permission can access the bt lighting system.
- A secured network increases signal strength
- Once a fixture has been added to a secured network, that fixture is now locked into that secured network and will not be able to be controlled from the default home/Alliance network.
- If a secured network is deleted while a fixture is still attached to that network, the user will not be able to access that fixture from the default home network.
- It is very important to remove all fixtures from a secured network before deleting a secured network.

### Network Selector

When the app starts up the first screen that pops up is the network selector.

This will show you a list of networks that have already been created as well as the default home (Alliance) and a Demo mode.

To access this selector from the dashboard, click on the network name towards the top left corner.



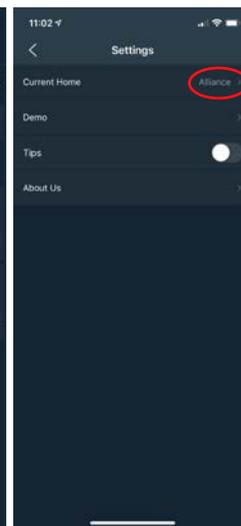
Scan the QR code on page 12 to watch the video on creating a secured network.

### Creating a Secured Network

PLEASE NOTE: If you plan to create a secured network, and you also plan to name your fixtures and create groups, you should create the secured network first. When you put fixtures into a secured network, they will lose any naming or grouping that was created prior to being placed into the secured network.



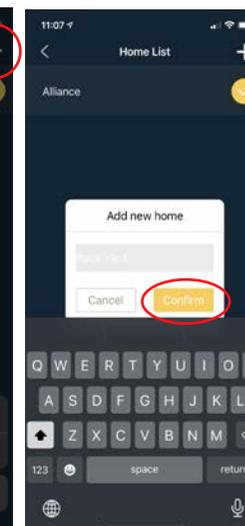
Step 1: Click on the settings button in the top left corner of the dashboard. (Shown circled in red)



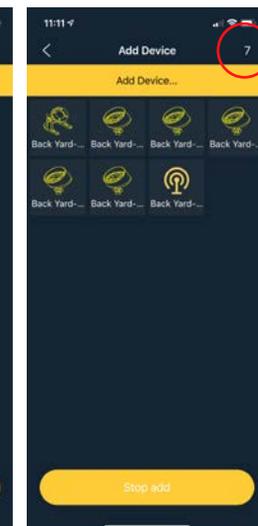
Step 2: Click on the name of the current home. This will bring up your list of available networks.



Step 3: Click on the "+" sign and then select "Add new home" to create a new network. Record the network name that has been created for future reference. Click the "Confirm" button to complete naming the network. The network name is limited to 10 characters. DO NOT USE AUTOFILL when naming!



Step 4: Click on the "Add Device" button and walk around to the bt devices being added to the network. The number in the top right corner will update as the fixtures are added, indicating how many fixtures have been added.

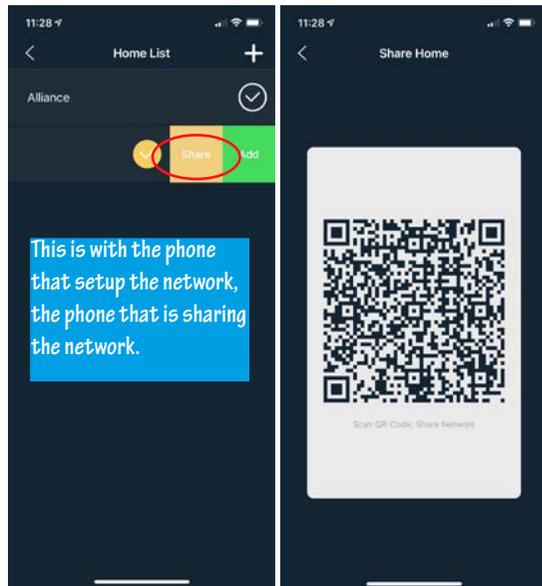


# Secured Networks

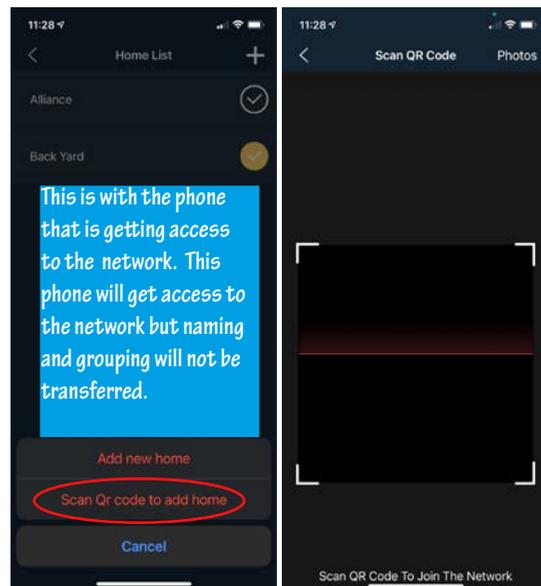


## Sharing a Secured Network

PLEASE NOTE: Sharing a secured network with another user allows them to access and control the fixtures, however, it does not transfer any naming or grouping.



Step 1: With the device that originally set up the secured network, click and drag left on your the network you want to share until you see a green box and a yellow box. Click on the yellow "Share" box to bring up the QR code.

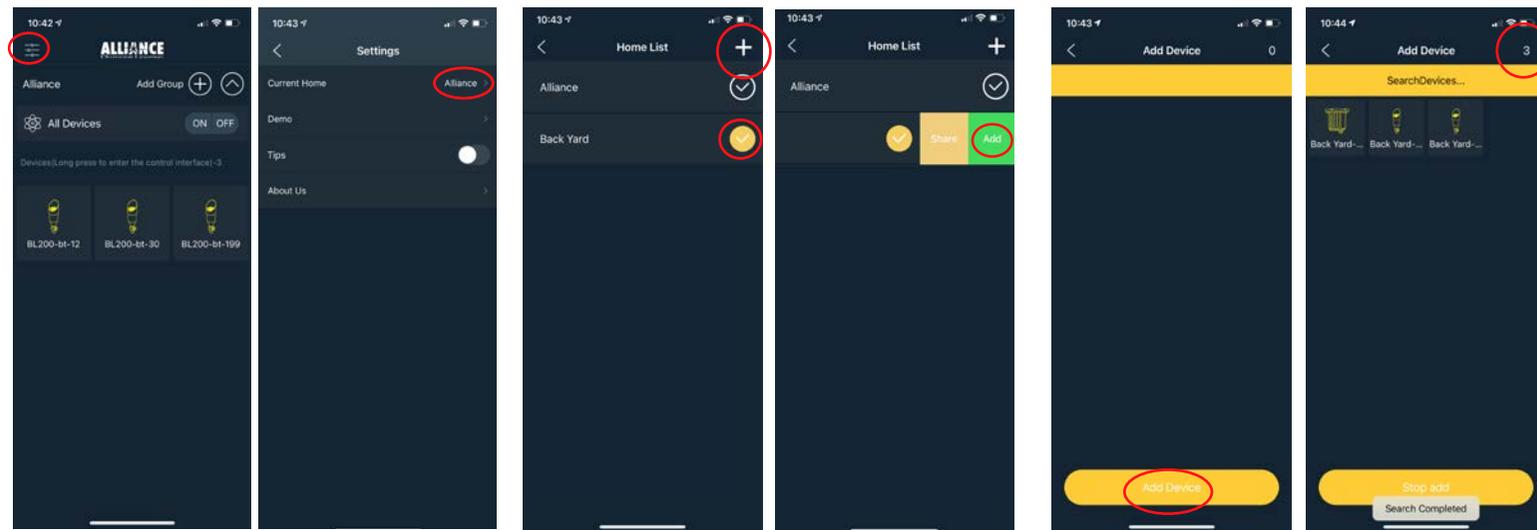


Step 2: Using the device that you want to share the secured network with, click on the "+" sign and then select "Scan QR code add home" to scan the QR code from the original device. Once the QR code is scanned, the secured network is shared.

Scan the QR code on page 14 to watch the video on sharing a secured network.

## Adding a new device to an existing Secured Network

PLEASE NOTE: When adding fixtures to an existing system, the new fixture will be in the default "Alliance" network. The new fixture must be added to an existing secured network in order to communicate with fixtures in the secured network.



Step 1: Click on the settings button in the top left corner of the dashboard. (Shown circled in red)

Step 2: Click on the name of the current home. This will bring up your list of available networks.

Step 3: Confirm that the existing network's check mark is highlighted in yellow. With your finger hold on the network name and drag left halfway across the screen until you see a green "Add" button. Click on the "Add" button.

Step 4: Click on the "Add Device" button and walk to the new bt devices being added to the network. The number in the top right corner will update as the fixtures are added, indicating how many fixtures have been added.

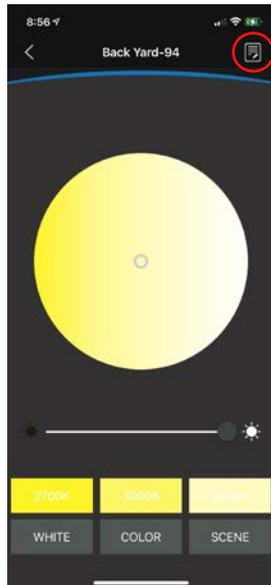


## Removing a device from a Secured Network

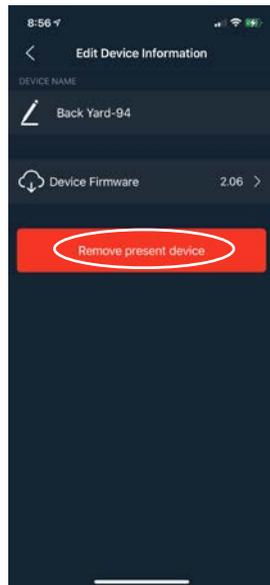
PLEASE NOTE: Removing a device from a secured network is the only way to make it accessible to the default home again. Deleting a secured network without removing the devices that are attached to it first will cause the devices to be inaccessible.



Step 1: Long press on the icon of the lamp you want to remove to bring up the control panel.



Step 2: Click on the page icon in the upper right corner to bring up the edit device panel.



Step 3: Click on the red "Remove present device" button to remove the device from the network.

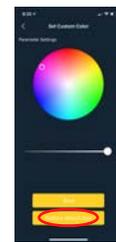
### Custom CCT Presets



### Custom RGB Presets



### Custom Scene Presets



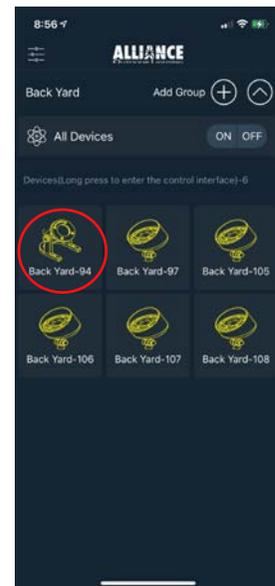
To revert back to the default presets for CCT and RGB colors, long press on the color block, then click on "Restore default data."

Step 1: From the control panel, long press the color block you would like to customize.

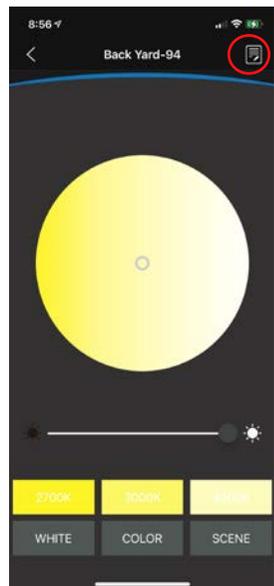
Step 2: From the color wheel, choose the color you would like to make the new preset. The fixture will change to the selected color. Click the "Save" button to set the new preset.

The new color is now the preset option.

# How to Name Fixtures



Step 1: From the home screen, long press on the icon of the lamp you want to rename to bring up the control panel.



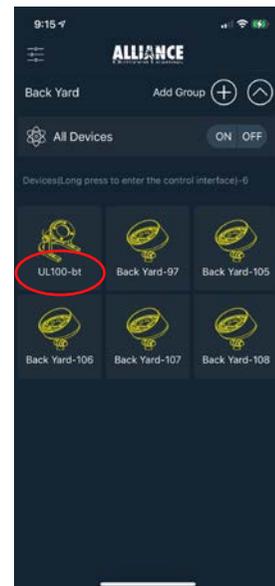
Step 2: Click on the page icon in the upper right corner to bring up the edit device panel.



Step 3: Click on the current device name to bring up the input device name window.



Step 4: Use the keyboard to name the fixture and then click the yellow "Confirm" box.

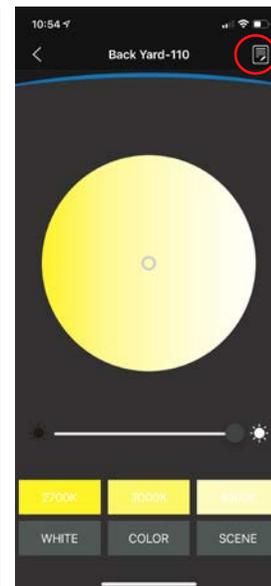


The fixture is now renamed in the dashboard.

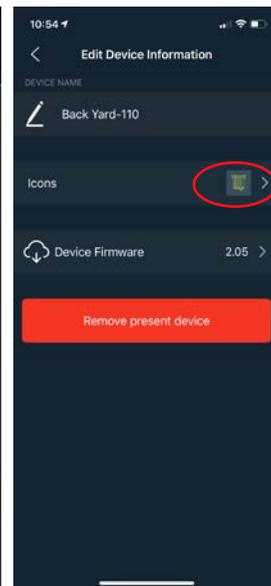
# How To Change a Fixture Icon



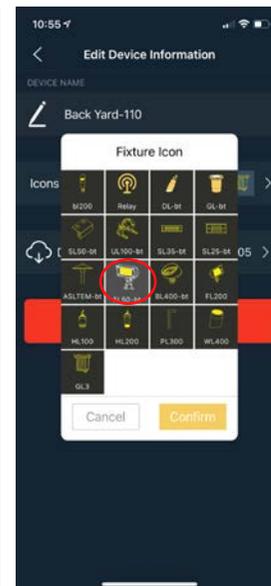
Step 1: From the home screen, long press on the icon you want to change to bring up the control panel.



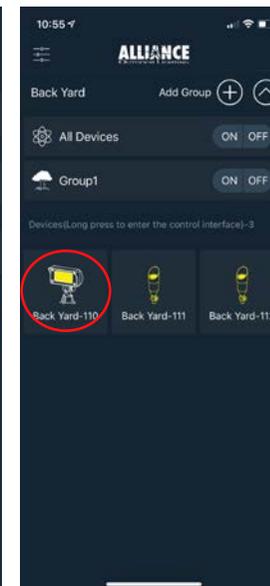
Step 2: Click on the page icon in the upper right corner to bring up the edit device panel.



Step 3: Click on the icons section to bring up the fixture icon selector window.



Step 4: Select the desired icon and click the "confirm" button.



The icon is now changed in the dashboard.

# How To Create a Group



Scan the QR code on page 21 to watch the video on creating a group.



**Step 1:** From the home screen, click on the “+” sign next to “Add Group.” To see all your groups, click on the icon in the upper right corner.



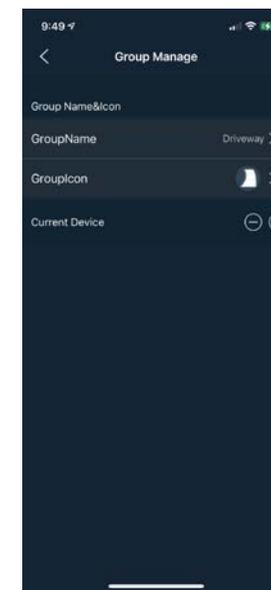
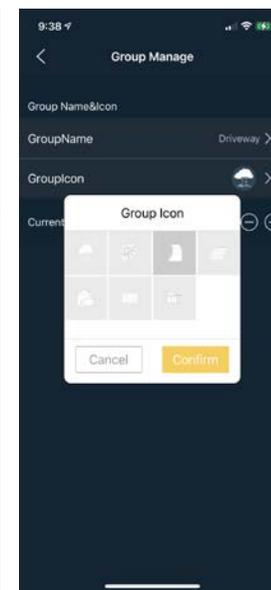
**Step 2:** Click on the group you want to control to bring up the options panel. Select “Manage” to bring up the group manage panel.



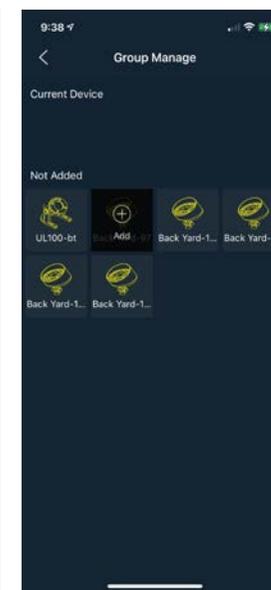
**Step 3:** Click on the “GroupName” to bring up the “Input Group Name” window. Use the keyboard to name the group and then click the yellow “Confirm” box.



**Step 4:** Click on the “GroupIcon” button and select an icon from the pop up window and then click the yellow “Confirm” box.



**Step 5:** Click on the “+” sign to the right of where it says “current device” to bring up the add device to group panel.



**Step 6:** Double click on the icons for the fixtures you want to add to the group. A single click will bring up a “+” sign over the icon, a second click will confirm that you want the fixture added to the group. The fixture will blink off and on as it is being added to the group.



# How To Control a Group

## Working with Groups

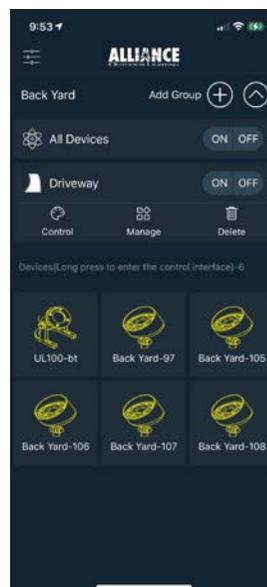
- A single fixture can be in multiple groups.
- A single fixture in a group can be controlled individually or within the group.
- Every fixture will follow with the last command it was given. When the fixture turns off and comes back on it will hold the setting of the last command it was given.
- Groups are different from secured networks, a group will be a part of a secured network. You may prefer to “Group” your fixtures as separate secured networks, for example “Front Yard” and “Back Yard.”

Visit our online video library to learn more about the bt family of products.  
[www.allianceoutdoorlighting.com/bt-support](http://www.allianceoutdoorlighting.com/bt-support)

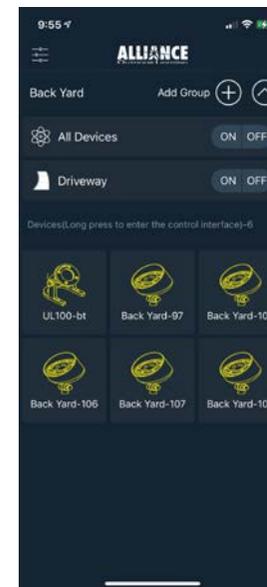
## Removing a device from a Group



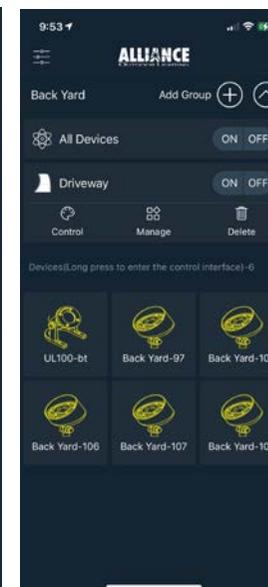
Step 1: From the home screen, click on the group you want to control. In this example a quick click on “Driveway” will bring up the group control panel.



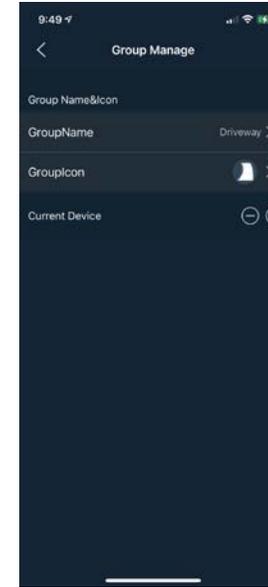
Step 2: Click “Control” in the menu that pops down to bring up the control panels for CCT, RGB and Scene options.



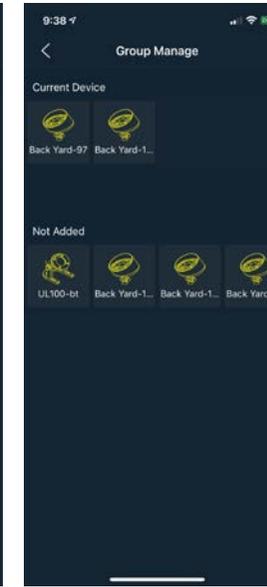
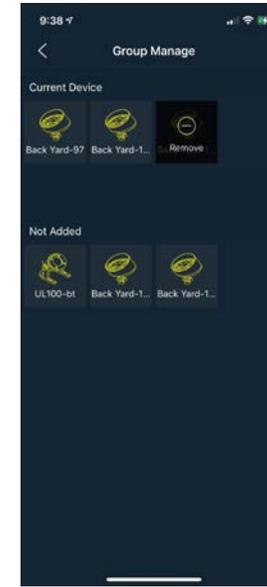
Step 4: Click on the Group button and select “Manage” from the pop down menu to bring up the Group Manage panel.



Step 5: Click on the “-” sign to the right of where it says “current device” to bring up the Current Device panel.



Step 3: Double click on the icons for the fixtures you want to delete from the group. A single click will bring up a “-” sign over the icon, a second click will confirm that you want the fixture deleted from the group.



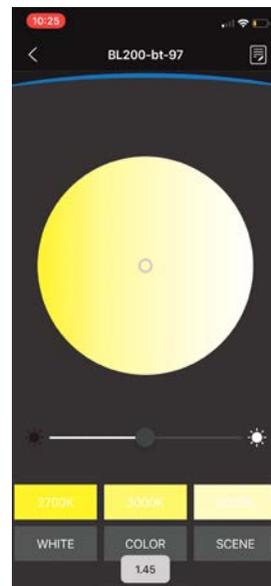
# How to Update Firmware

- Firmware controls how the bt fixture behaves during commands, most noticeably in the “Scenes” mode.
- Firmware does not need to be updated for basic functions of the bt app.
- The original bt firmware is 1.45, these fixtures can have their firmware updated by using an OTA process.
- If different bt fixtures have different firmware the scene cycles might not sync up.
- Firmware can be updated but cannot be reverted.
- Only one fixture can be updated at a time.
- The fixture needs to be on and the device needs to be very close to the fixture during the update process.

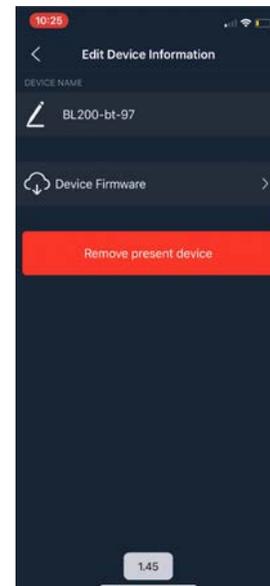
Visit our online video library to learn more about the bt family of products.  
[www.allianceoutdoorlighting.com/bt-support](http://www.allianceoutdoorlighting.com/bt-support)



Step 1: From the home screen, long press on the icon of the fixture that you want to update.



Step 2: Make note of the firmware version that appears at the bottom of the screen. Click on the page icon in the top right corner to bring up the Edit Device panel.



Step 3: Make note of the firmware version that appears at the bottom of the screen. Click on “Device Firmware” to bring up the Device OTA panel.



Step 4: Read the on-screen instructions then click on the “Start OTA” button.



Step 5: Stay near the fixture during the update process. The screen will show the progress of the process. When the update is successful the fixture will blink a few times.





If you are experiencing the following scenario:

- Lights are not on

Then follow these troubleshooting steps

1. Make sure the transformer is on.
2. Make sure the fixtures are not dimmed all the way down. A fixture that is turned off with the icon on the main page will come back on when the transformer comes on. A fixture that is dimmed all the way down will remain dim when the transformer comes back on.

If you are experiencing the following scenarios:

- Fixtures appear and reappear on the screen
- Cannot find specific fixtures
- Losing connection to fixtures

Then please refer to Law 1:

### **Law 1. Install a bt-RE on every bt job**

- A bt-RE should be on every job no matter how big or small.
- The bt-RE must be in the same network as the fixtures it is supposed to control.
- There is no limit to how many bt-RE's can be installed.
- The bt-RE should have a clear line of site to the antennas on the bt fixtures.
- A green LED indicator on the bt-RE means that it is in a secured network

And Law 2:

### **Law 2. bt Fixtures need 10-14 volts**

- A bt fixture can illuminate under 10 volts, but the signal needs 10 volts to be strong enough to communicate.

If you are experiencing the following scenarios:

- I can not find my fixtures anymore

Then please follow these troubleshooting steps:

1. Make sure your Bluetooth® and Location services are enabled
2. Make sure the lights are turned on
3. Try all secured networks and the default ALLIANCE network

**OR**

Perform a system reset to set all your fixtures back to the default network.

1. The reset is done at the transformer.
2. Timing is very important, it is better to follow along with the video found in the video library (QR code and web address below.)
3. Start in the off position
4. Turn on for 2 seconds then turn off.
5. Turn on for 2 seconds then turn off.
6. Turn on for 8 seconds then turn off.
7. Turn on after 2 seconds.
8. Lights will blink when the reset is successful.



Visit our online video library to learn more about the bt family of products.  
[www.allianceoutdoorlighting.com/bt-support](http://www.allianceoutdoorlighting.com/bt-support)

**ALLIANCE**  
OUTDOOR LIGHTING

West Coast Hub: Temecula, California  
East Coast Hub: Sanford, Florida

[www.allianceoutdoorlighting.com](http://www.allianceoutdoorlighting.com)