

## NuBryte Multiway Supplemental User Guide

LUCIS Technologies  
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# 1. NuBryte Multiway Installation and Operation


## 1.1 Overview

Multiway switching is the interconnection of two or more electrical switches to control a light fixture from more than one location. In traditional wiring, multiway switching requires the use of specialized switches and additional wires that must be run between each switch in a multiway group to the light fixture.

The NuBryte multiway technology eliminates the need for specialized switches and a separate “load” wire connected to the light fixture in a multiway group.

Instead, designated NuBryte products use Wi-Fi and/or ZigBee wireless technologies to logically connect NuBryte devices in multiple locations to control the same light fixture

## 1.2 Multiway Installation and Setup Requirements

 **CAUTION:** This supplement to the NuBryte Touchpoint and App User Guide provides details specific to the Multiway functionality for supported NuBryte products and by itself is not a complete product user guide to install NuBryte products.

All safety and product requirements noted in the user’s guides below are prerequisites for multiway installation:

- The NuBryte Touchpoint and App Users Guide
- NuBryte Touchpoint FAN Supplemental User Guide
- NuBryte Smart Switch Series Supplemental User Guide

The supplemental user guides will contain updated information specific to each NuBryte product. In the case of any conflicting information, the latest supplement user guide will have the current information.

## 1.3 Multiway Configuration

**A Multiway group** is comprised of the switching and lighting fixtures of a multiway lighting circuit. Only NuBryte products approved for installation in multiway configurations can be used in a multiway upgrade. If there is any doubt about the multiway functionality of a NuBryte device see the features listing on the product packaging.



**CAUTION:** Do not attempt to wire or use a multiway circuit that consists of either NuBryte TouchPoint or NuBryte Smart Switches and manual switches.  
Do not attempt to wire or use a multiway circuit that consists of NuBryte TouchPoint or NuBryte Smart Switches and “smart” products from different manufacturers.

The devices included in a multiway group are designated either as a **Primary** or **Secondary** device. **There is only one Primary device per Multiway group.** All other devices that are part of the Multiway group are **Secondary devices**. Specifically:

- The Primary device is the Smart Switch / TouchPoint that is **electrically connected to the load** (lighting fixture) that will be controlled by the Multiway group. **The Primary device does the physical switching** of the power to the light fixture.
- NuBryte multiway installations can use either all Smart Switches, all Touchpoints (single or dual gang) or a combination of the two.
- When used in combination with Smart Switches, Touchpoints must be the primary device
  - **Touchpoint dual gang.** Dual gang devices have two switches, referred to as A and B. Dual gang devices **can be used in multiway circuits if the A and B switches of a dual gang TouchPoint are not part of the same Multiway group.** The A and B switches of a dual gang TouchPoint can be either the Primary or Secondary device in **different multiway** groups.
  - **Touchpoint + Fan.** Switch A, which is only used control of lighting fixtures, can be either the Primary device or a Secondary device in a Multiway group.



**WARNING:** Switch B on the Touchpoint + Fan is used for fan control only, and cannot be part of a Multiway group

- If a NuBryte Sense | Dim or NuBryte Dim is used as the Primary device, all secondary devices in the multiway group must be either NuBryte Sense | Dim or NuBryte Dim products.
- All multiway groups that contains Smart Switches requires a NuBryte Link. Only one Link is required per family account.
- Up to 3 Secondary devices can be supported as part of a Multiway group.
  - All Secondary Smart Switch/Touchpoints are logically connected for purposes of control to the Primary device via ZigBee or Wi-Fi.
  - Smart Switch/Touchpoints secondary devices are not physically connected to the lighting fixture, therefore the load wire in the switchbox where the Secondary Smart Switch/Touchpoint is installed is not used.
  - Smart Switch/Touchpoints secondary devices are connected to the home wiring (120V supply and neutral wires ) to provide power for the NuBryte ZigBee and Wi-Fi control components.

## 1.4 How NuBryte Multiway Technology Works

When you turn on the light from Primary Smart Switch/TouchPoint, it does the physical switching of the power to the lighting fixture. When you turn on the light from the secondary Smart Switch/Touchpoint, the device communicates with the primary Smart Switch/Touchpoint via ZigBee or Wi-Fi to physically switch the power to the light. Dimming works in the same way.

- **If the Multiway group includes a Touchpoint and Smart Switches**, the Touchpoints Wi-Fi signal is converted to ZigBee by the Link and vice versa. The link acts as a bridge between the Smart Switches ZigBee network and the Touchpoints Wi-Fi network and connects to the NuBryte cloud via the home Wi-Fi network and the internet.
- **If the Multiway group contains only smart switches**, the Link connects the Smart Switches to the NuBryte cloud via the home Wi-Fi network and the internet.

## 1.5 Wiring

The NuBryte multiway technology eliminates the need for a separate “load” wire (provides power to the light fixture) connected to each device in a multiway group.

Instead, NuBryte products use Wi-Fi and/or ZigBee wireless technologies to logically connect each NuBryte device in multiple locations to control the same light fixture.

Only the Primary device is physically connected to the light fixture. If the NuBryte products are being installed where existing Multiway switches were present, in addition to the source ( “hot”) and neutral wire, there will be a common wire (also referred to as the traveler or interconnect ) that must be capped with a wire nut.

The diagrams in section 1.5.2, Wiring Diagrams, show samples of “before” and “after” installations for multiway circuits. The key items to remember are:

- Only the Primary device must have the wire with the Lightning bulb symbol on the back of the NuBryte switch be connected to the lighting fixture.
- All secondary devices must have the wire with the Lightning bulb symbol on the back of the NuBryte switch capped with a wire nut.
- Any existing Common wire not used must be capped with a wire nut.
- A Neutral wire must be present in each wall box where a NuBryte product will be installed.
- The green ground wires on the NuBryte products may be capped with wire nuts if no ground wire is present in the existing wall boxes, otherwise the green ground wire on the NuBryte products must be connected to the grounding wire in the wall box and capped with a wire nut.

## 1.5.1 NEC Wiring Color Codes

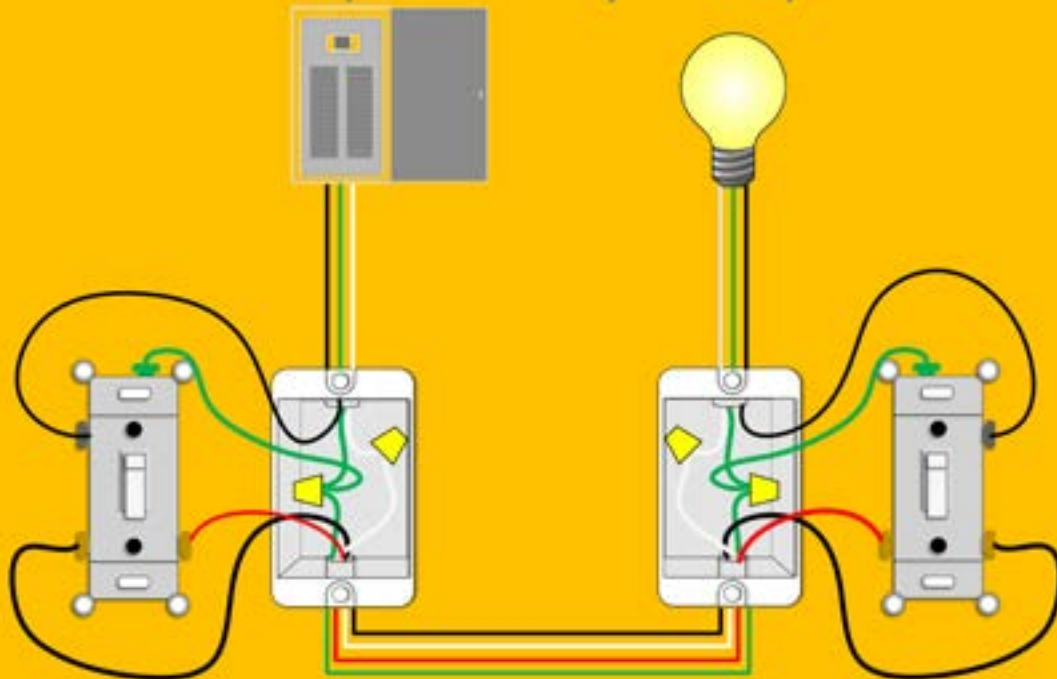
| AC, Single Phase, Color Code ( <b>National Electric Code : NEC 314.16</b> ) |  |
|---|--|
| <b>Hot</b>  | Black, Red or Blue                                       |
| <b>Neutral</b>  | White, Grey or Brown                                     |
| <b>Ground</b>   | Green, bare copper wire, can be green and yellow striped |
| <b>Traveler/Interconnect</b>  | Yellow or marked with tape or other distinguishing mark. |



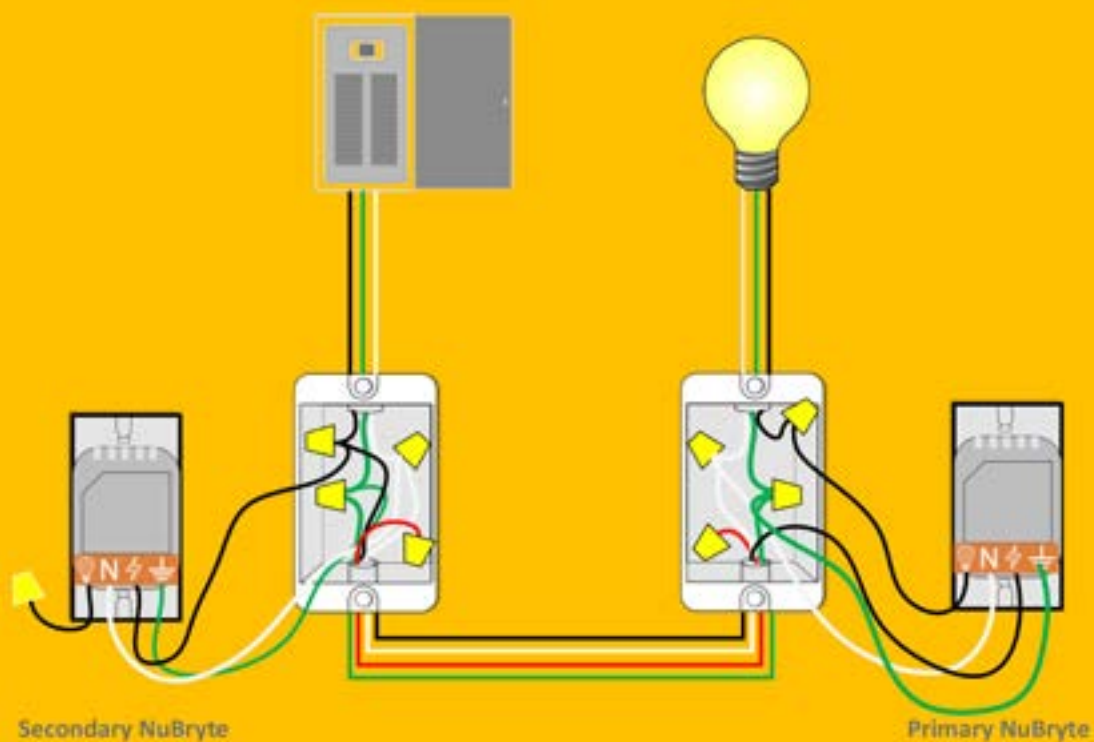
**WARNING:** Color of wires may vary. Always use caution when working with electrical wiring. If you are unsure how to proceed, please seek the advice of a licensed electrical professional.

## 1.5.2 Wiring Diagrams

**Existing 2 switch Multiway wiring  
(uses two 3 way switches)**

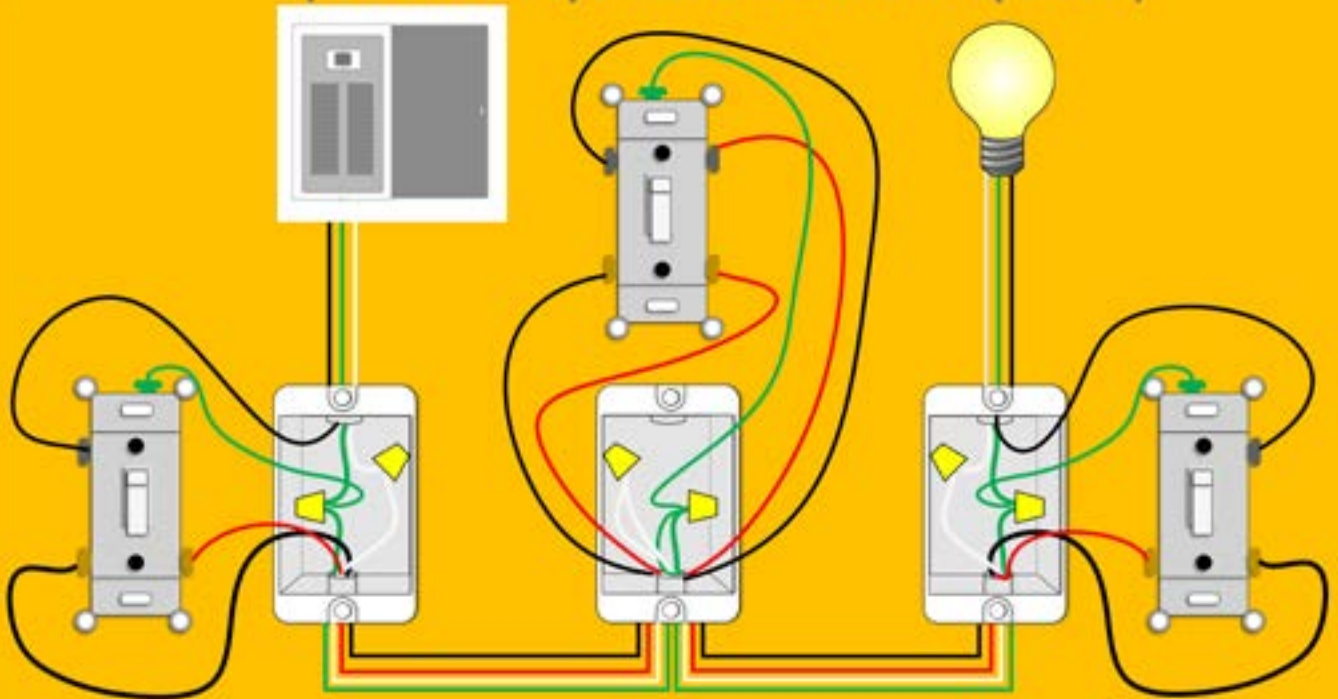


**2 switch Multiway NuBryte wiring**

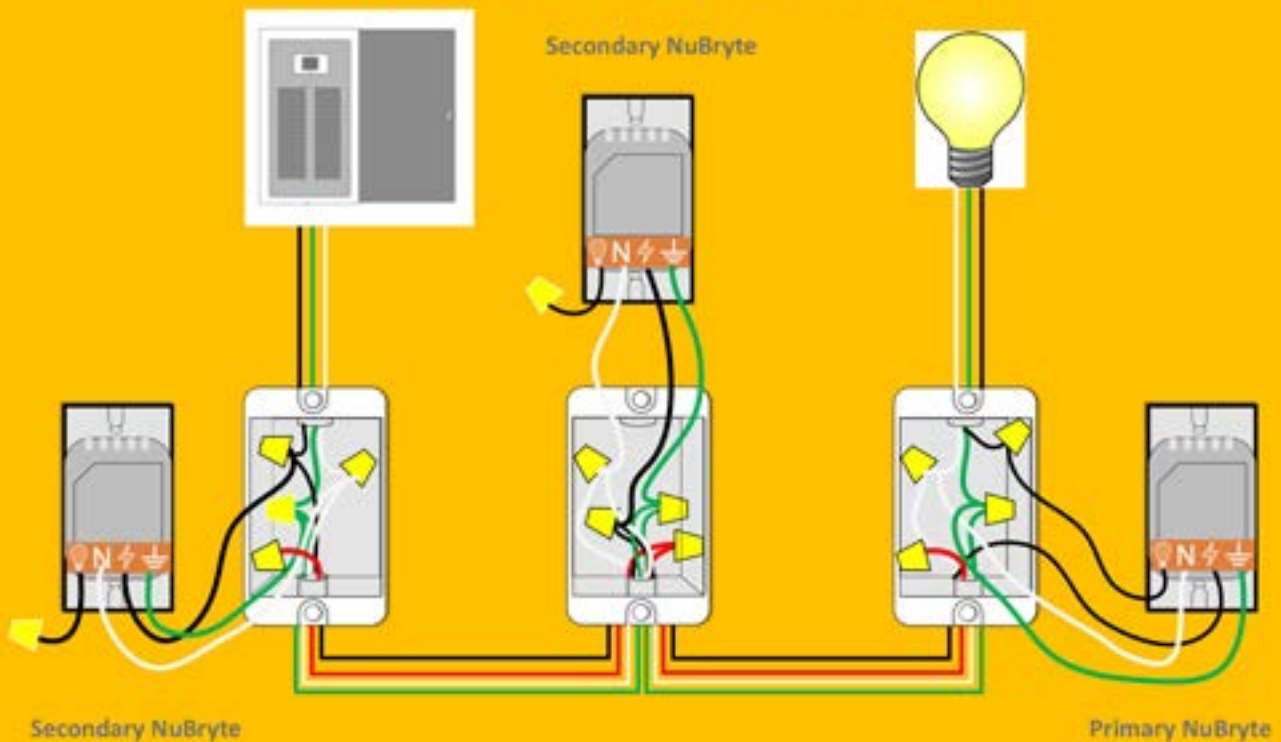




### Existing 3 switch Multiway wiring (uses two 3 way switches and one 4 way switch)

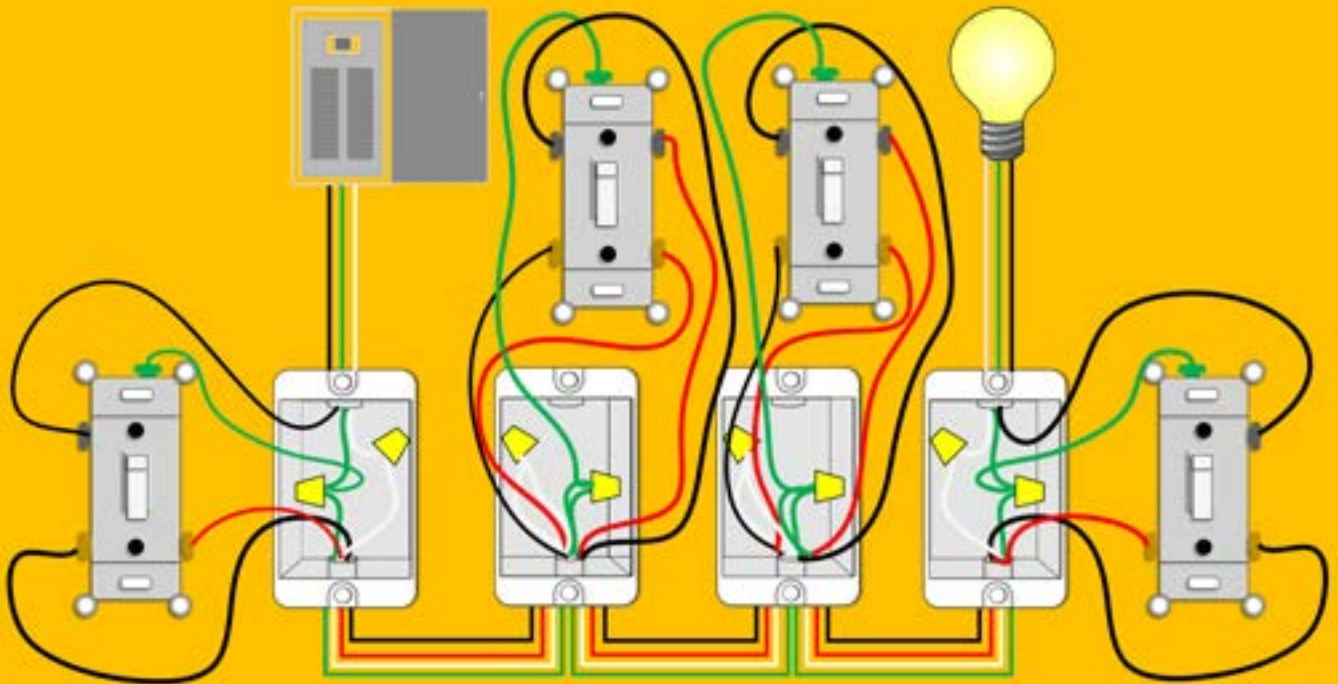


### 3 switch Multiway NuBryte wiring

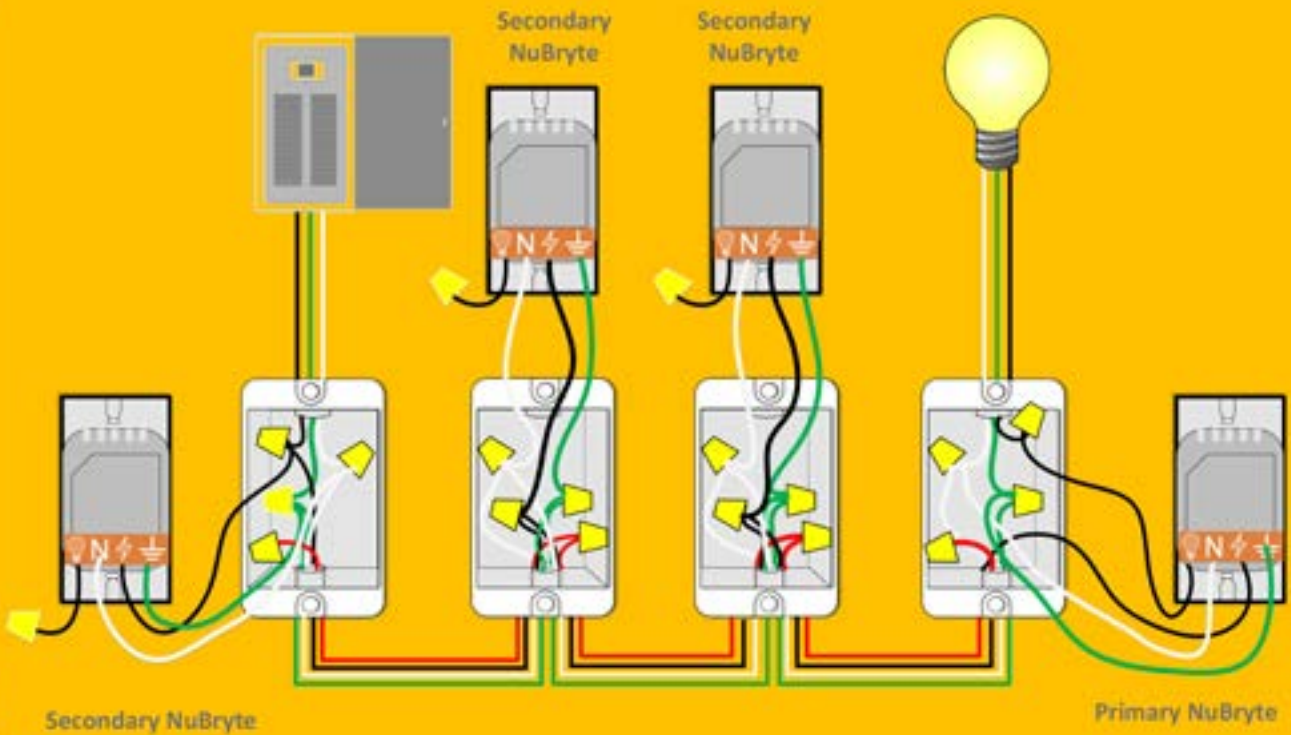




### Existing 4 switch Multiway wiring (uses two 3 way switches and two 4 way switches)



### 4 switch Multiway NuBryte wiring



## 1.6 NuBryte App/TouchPoint Multiway Setup

### Adding a Multiway group

The individual switches that are to be part of a Multiway group must be logically paired to each other from within the NuBryte application or from the display of the Touchpoint if it is a member of the multiway group.

#### Using the NuBryte application:

- Go into the Multiway section of the Settings menu
- Choose Add
- Select the light switches that will be part of the group and choose Next
- Choose the switch that is Primary (the one physically connected via the light bulb symbol/Load wire to the light receptacle)
- Choose Save

#### Using a TouchPoint:

- Go into the Settings menu on the TouchPoint
- Chose Lighting
- When asked “If this is a Multiway switch?” tap on the on the checkmark symbol.
- Click the + symbol to add a new multiway group
- Choose the switches you want to link in a Multiway group
- Tap on the on the checkmark symbol.
- Select the switch wired as the Controller (note this is the same thing as the Primary switch).
- Tap on the on the checkmark symbol.

**NOTE:** The name of the Multiway group that appears in the Settings/Multiway section of the NuBryte application is fixed and cannot be changed. The name assigned to the Multiway group will be a combination of the Nubryte Device name, such as Main Living Room, and the individual switch name, such as Main Liv Room A, with the switch name in parenthesis such as Main Living Room(Main Liv Room A).

## Deleting a Multiway group

Existing multiway groups can be deleted if the individual secondary NuBryte devices are to be repurposed for other use.

**NOTE:** The load wire, marked on the back of the NuBryte devices with the Light Bulb symbol, must be connected to the light fixture the switch will control as described in the NuBryte Touchpoint and App User Guide and the Touch Fan and/or Smart Switch Supplemental User Guides.

To delete an existing Multiway group from the Android version of the NuBryte application:

- Go into the Multiway section of the Settings menu
- Find the name of the existing Multiway group and press the name for approximately 2 seconds.
- A popup window will appear asking to Confirm to Delete or Cancel.
- Choose Delete.

To delete an existing Multiway group from the iOS version of the NuBryte application:

- Go into the Multiway section of the Settings menu
- Press the Delete button in the upper right-hand corner of the screen
- Now press and release the red button with the – symbol to the left of the Multiway group you wish to delete.
- A popup option to the right of the Multiway name to be deleted will appear.

## 1.7 Operation

Once the Multiway group has been configured, the individual physical NuBryte switches that are part of the Multiway group will work to control the same light receptacle. If the lighting receptacle is currently off, pressing the light switch from a different location will turn the light on. If the lighting receptacle is currently on, pressing the light switch from a different location will turn the light off.

**NOTE:** In the NuBryte application / Touchpoint lighting screen, none of switches installed as secondary devices will appear in the Lighting Menu.

The Primary switch and have a different icon as shown below indicating that the switch is the Primary switch in a Multiway group. Since this switch is controlled from the application on the Smart phone, the light fixture can be controlled from any remote location with internet access via Wi-Fi or cellular internet service.



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