

## Thank You.

Thank you for taking the chance on us. We are truly humbled to be a part of your smart home journey and know that out of the many companies out there, you trusted us to make your life simpler and we don't take that for granted. Our mission is to provide the best products, with the best customer support, at the best prices. Sure, every company says that... but we'd like to think we're different. Why? Well, because we have our own smart homes, with our own desires to make our life simpler through home automation. We wake up every day to lights turning on to different colors based on the weather, coffee automatically brewing before we leave for work, and the thermostat changing based on our schedules. We take our nerdiness seriously by engaging in online groups and design our products around community suggestions and needs. We don't pretend to be a multi-billion dollar corporation worried about their shareholders and bottom line. We're ok with being the little guy. The underdog. Looking out for the best interests of people like us... the everyday smart home enthusiast who is passionate about moving the industry forward and we wouldn't have it any other way. So again, from the bottom of our hearts, thank you for trusting us.

- Team Inovelli

## Meet Your NZW31 (With Scene Control)

Below you'll find the basics about your NZW31, followed by in-depth setup instructions for your specific HUB.

### UP/ON Button (A)

Use this to manually turn on your light(s), exclusion mode, invert the LED indicator, or as a backup for inclusion mode (primary inclusion is via, "auto-inclusion"). This is also used to activate a scene (2x/3x/4x/5x Tap)

- **HOLD A** to Dim Brighter
- **TAP A (1x)** to turn on to the last Dim level

### DOWN/OFF Button (B)

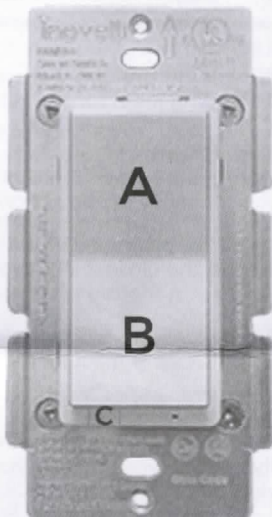
Use this to manually turn off your light(s), or invert your switch. This is also used to activate a scene (2x/3x/4x/5x Tap)

- **HOLD B** to Dim Darker
- **TAP B (1x)** to turn the light off

### Air-Gap Switch (C)

The air-gap switch is a safety switch that's to be used to cut power to the switch so you can change the bulb connected to it without the worry of being shocked. You can also use this for auto-inclusion. Simply pull the tab out, put your HUB in inclusion mode and push the tab back in.

**NET:** Air-Gap should be pushed in and flush with the rest of the switch for the switch to operate correctly. Once the air-gap is pulled out, power will be cut to the switch until it is pushed in again.



### Scene Control

Double tap upwards on (A) or downwards on (B) to activate a scene.  
Ex: Bedtime scene = all lights turn off, temperature changes to 68, and doors lock.

**NOTE:** Only available on HUB's that support Z-Wave's CENTRAL SCENE COMMAND CLASS (SmartThings, HomeSeer)

Scene Installation Instructions for SmartThings can be found on Page 7.

### 8 Scenes are Available:

Scenes 1-4 Button A	Scenes 5-8 Button B
Tap 2x = Scene #1	Tap 2x = Scene #5
Tap 3x = Scene #2	Tap 3x = Scene #6
Tap 4x = Scene #3	Tap 4x = Scene #7
Tap 5x = Scene #4	Tap 5x = Scene #8

## Custom Options

This device has the following manual options available for customization:

- 1) Change LED Status = Tap UP (A) 10x  
(Default = Light On / LED Off)  
➤ Tap UP (A) 10x = Light On / LED On  
➤ Tap Up (A) 10x = Disable LED  
➤ Return to default = Tap UP (A) 10x
- 2) Invert Switch = Tap DOWN (B) 10x  
(Default = (A) is ON / (B) is OFF)  
➤ Tap DOWN (B) 10x = (A) is OFF / (B) is ON  
➤ Return to default = Tap DOWN (B) 10x

In addition, there are parameters that can be set to change the following (please see page 8 for a full list):

- 1) Change LED Status (Invert/Disable)
- 2) Invert Switch
- 3) Automatic Shutoff
- 4) Dimmer Step (How Fast to Dim)
- 5) Dimmer Minimum (Edit the lowest setting for brightness)

## HUB Specific Instructions

All HUB's are different. So, why should your instructions be the same? Below you'll see a QR Code that takes you directly to **video and written instructions** on how to setup your NZW31. Or, if you'd like to follow along on Page 6 & 7 of this instruction manual, that's fine too. As always, if you run into any trouble, please reach out to us at: [contact@inovelli.com](mailto:contact@inovelli.com).

**PLEASE NOTE:** The scene function has only been tested on SmartThings. If you have any other HUB, make sure it supports the following Command Class: **CENTRAL\_SCENE**. If it doesn't, please return this and purchase our non-scene enabled switch.

**NOTE: If you're not using SmartThings, please scan the, "Other" QR Code (after you've confirmed your HUB/Gateway supports the CENTRAL\_SCENE Z-Wave Command Class).**

If you'd prefer to read the HUB instructions on paper, please turn to Page 6. However, please note that SmartThings regularly updates their interface, so for the most up to date instructions, we encourage you to go to our website (**NOTE: Z-Wave Instructions start on Page 2 and Wiring Instructions start on Page 4**).

SmartThings



[inovelli.com/nzw31S-setup/smarthings](http://inovelli.com/nzw31S-setup/smarthings)

Other\*



[inovelli.com/nzw31S-setup/other](http://inovelli.com/nzw31S-setup/other)



## About Z-Wave

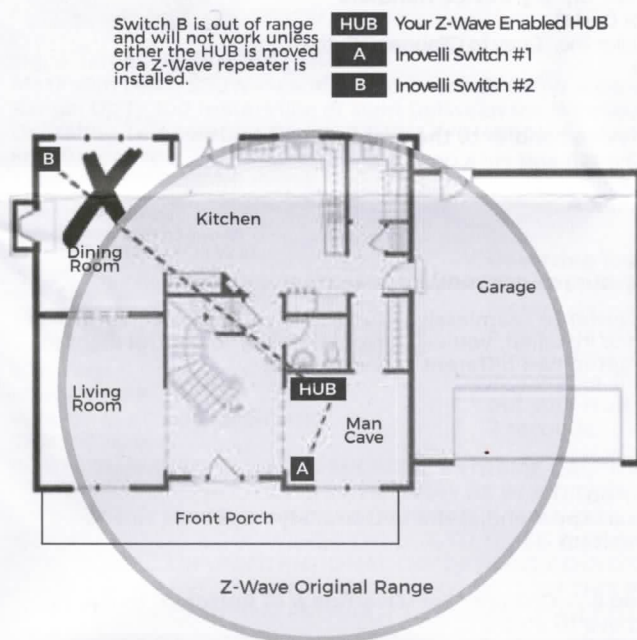
Z-Wave is an incredible technology. With it powering your home, you can choose from over 600 companies and 2100 products, all of which will work with each other. The more devices, the more stable the network. The purpose of this portion of the manual is to help you understand how Z-Wave works (in layman's terms) as well as help you organize an efficient Z-Wave network, setting you up for success in the long run. Afterall, we're assuming you'll want more than one smart home device!

## Z-Wave Network | Using Devices that Repeat Signals

As referenced in the intro, Z-Wave can be used with a few devices or it can be used to build a large network. Below you'll see two examples. In the first example, a user has a HUB which is looking for Z-Wave devices within its radius. Z-Wave devices outside this radius will not be found and need to either be moved within the radius, or use a repeating device to reach it. The second example shows how a repeater can be used to reach a device outside of the initial radius. Keep this in mind when building your own network and make sure to use the range estimator below.

### Example #1 -- Original Z-Wave Range

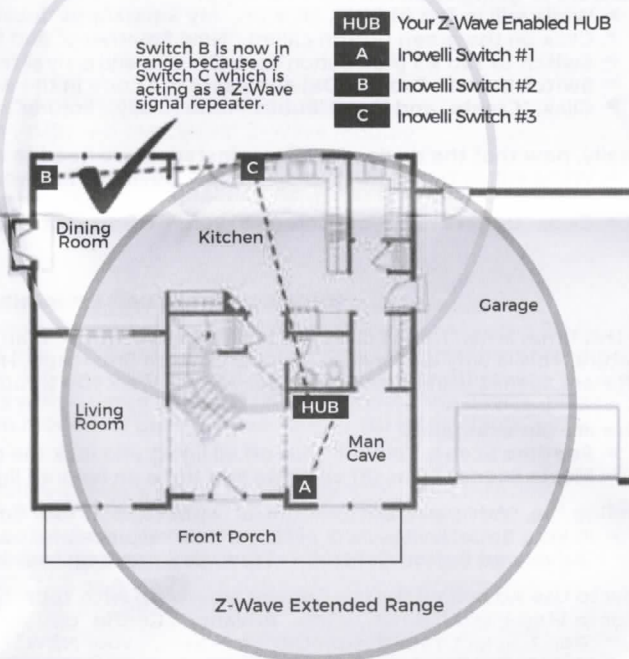
In this example, "Switch A" will work because it is in range of the HUB's Z-Wave antenna, whereas, "Switch B" will not because it is out of the HUB's Z-Wave antenna range. To bring, "Switch B" into range, you will either have to move the HUB or put a Z-Wave repeater along the path as shown in Example #2.



### Example #2 -- Extended Z-Wave Range

In this example, "Switch B" will now work because it's using, "Switch C" as a repeater to repeat signals to and from the HUB.

**Please note:** Switches A & B are also signal repeaters in this example. We just didn't have enough space to show the additional circles!



**NOTE:** Z-Wave range will never be a perfect circle due to walls, furniture, etc. The above is for reference only, please use the [Range Estimator](#) below and the [Worksheet on Page 3](#) for a better idea of where to place your switch or whether or not your chosen location will be in range.

## Z-Wave Range Estimator

Please use the below information to determine the depreciation of the Z-Wave signal. Z-Wave devices should have a distance of approximately 100m (328ft) without any obstacles in the way. Using the below information, if a signal has to travel through an inner wall, it will lose approximately 40% of its signal. Therefore, 100m multiplied by (100% - 40%) = 60m (197ft). Do this for every wall, window, etc and you will have your approximation. There's a worksheet on Page 3 that will help. As always, this is just an estimate. Depending on the manufacturer's quality for your other Z-Wave products, your signal may vary.

Material	Thickness	Signal Depreciation	Material	Thickness	Signal Depreciation
Aerated Concrete Stone	< 30cm // 11.8"	20%	Metal Grid	< 1mm // 0.04"	90%
Aluminum Coating	< 1mm // 0.04"	100%	Outer Wall	< 30cm // 11.8"	60%
Ceiling	< 30cm // 11.8"	70%	Plaster	< 10cm // 3.9"	10%
Furniture (non-wood)	< 30cm // 11.8"	40-60%	Pumice	< 30cm // 11.8"	10%
Glass (w/out metal coating)	< 5cm // 2.0"	10%	Red Brick	< 30cm // 11.8"	35%
Inner Wall	< 30cm // 11.8"	40%	Stone	< 30cm // 11.8"	30%
Iron Reinforced Concrete	< 30cm // 11.8"	30-90%	Wood	< 30cm // 11.8"	40-60%



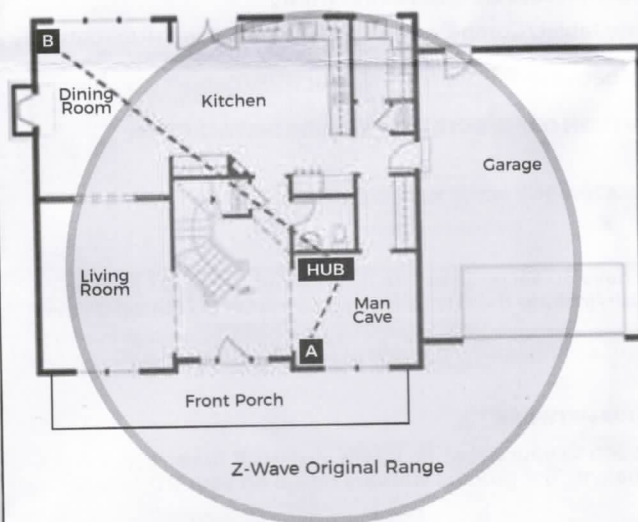
## Z-Wave Range Worksheet

Feel free to use the below worksheet to give an estimate on where you can put your Z-Wave Switch relative to your HUB (or other Z-Wave repeater). Below is an example of how to use the sheet, using, "Example 1" from Page 2.

### Example #1 -- Original Z-Wave Range

Based on the example chart to the right, you can see that, "Switch B" is out of range as the signal would only reach to about the dining room.

**HUB** Your Z-Wave Enabled HUB  
**A** Inovelli Switch #1  
**B** Inovelli Switch #2



Starting Distance	Obstacle	Signal Depreciation	Ending Distance
100m // 328ft	Inner Wall	40%	60m // 197ft
60m // 197ft	Inner Wall	40%	36m // 118ft
36m // 118ft	Wood Stairs	60%	14m // 47ft
14m // 47ft	Inner Wall	40%	9m // 28ft
9m // 28ft	Wood Cabinet	50%	5m // 15ft
5m // 15ft	Wood Table & Chairs	60%	2m // 7ft


For the starting Distance, use 100m. Then look directly from your HUB to wherever you'd like to put the switch and see what obstacles are in the way. Then list those obstacles on the worksheet below (using the charts from Page 2).

Starting Distance	Obstacle	Signal Depreciation	Ending Distance

## Best Practices for Pairing your NZW31 (Dimming) In-Wall Switch

Now that you've read how to calculate the Z-Wave range and have determined the best location to put your switch, it's important to understand some best practices of how to pair this device. Below are a few things to keep in mind when you start your individualized pairing instructions (Pages 6-7).

### 1) Auto-Inclusion (ie: Network Wide Inclusion)

This switch is equipped with Auto-Inclusion. What that means is that as soon as you flip the power back on after installation, it will initiate its pairing/inclusion process and start sending signals to the HUB that it wants to be paired/included. You will have 30 seconds to start the inclusion process on your phone/computer before it times out. So, we suggest you start the inclusion process first, and when your HUB is actively looking for the signal, then turn the power back on. We will indicate this in your step by step instructions with a  icon, indicating you should turn your power back on. We realize this is not a lot of time (it's the maximum amount Z-Wave allowed us to do) so we've provided a backup solution as well (tap the UP (A) button 6 times).

### 2) Calculate the Maximum Distance From the Worksheet Above and Place Well Within That Distance

Please use the worksheet above to calculate your maximum distance. This will save us both the headache of offline devices. Remember to add all objects that could potentially be in the way and it's our recommendation to be conservative with the distance numbers.

### 3) Run a Z-Wave Refresh After Successfully Pairing/Including and Your Plug is at its Final Location

When you have successfully paired/included your device and have moved it to its final location, it's important to run a "Z-Wave Refresh" on your network. In summary, your HUB/Gateway assigns a NodeID to every single Z-Wave device and catalogs those NodeID's into a table to access later when it's sending/receiving information from each. It catalogs where each NodeID is and what neighbors it has around it so that the transmission signals are efficient. Running a, "Z-Wave Refresh" will tell the HUB to re-catalog the various devices (NodeID's) and update where each device is to, again, optimize the transmission path. NET: Run this when your device is in its final location and wait 20 minutes for the path to optimize.

### 4) If You Run Into Any Issues, We're Here to Help... Seriously.

A lot of problems can be easily taken care of. Whether it's through troubleshooting or a replacement device, we're here to make sure you're setup for success. I know this is an art that has been lost over the years with online companies, but if you do a quick search on Amazon on our listing for, "Customer Service", you'll see many people who call it out. So, from the bottom of our hearts, we are here for you and want your house to be the smartest house on the block. Our email address is at the bottom of the page. We typically respond within an hour during the day as our phones are glued to us!



## Wiring Instructions - A Few Quick Reminders

A quick note before we give out the wiring schematics. Please do not try installing this device if you are unsure of how electrical circuits operate within your home. As exciting as it is to have a smart switch installed, it can be dangerous and even life-threatening if you do not install this correctly. Please consult a qualified electrician if necessary. With that said, here are a few other warnings we'd like to point out for your safety:

### ⚠ CAUTION - PLEASE READ! ⚠

This device (NZW31) is intended for installation in accordance with the National Electric Code and local regulations in the United States, or the Canadian Electrical Code and local regulations in Canada. If you are unsure or uncomfortable about performing this installation consult a qualified electrician.

### ⚠ OTHER WARNINGS ⚠

Risk of Fire  
Risk of Electrical Shock  
Risk of Burns

### ⚠ WARNING - SHOCK HAZARD ⚠

**TURN OFF THE POWER** to the circuit for the switch and lighting fixture at the service panel (circuit breaker) prior to installation.

**ALL WIRING CONNECTIONS MUST BE MADE WITH THE POWER OFF** to avoid personal injury and/or damage to the switch.

### ⚠ USING MULTIPLE SWITCHES ⚠

The metal plates surrounding the switch assembly is a heat sink. The maximum load rating (500W) is provided when installed in a single gangbox with all six (6) tabs are still in tact. To install multiple switches in a gangbox please remove the tabs on the outside. This can be done by removing either the left and/or right sides. Please see "Max Wattage Key" for max wattage based on removing the tabs.

### ⚠ CONTROLLING APPLIANCES ⚠

These dimming switches are NOT meant to control appliances. Please only use these for controlling lights.

In addition, please DO NOT use these to control fans as it will ruin your fan's motor. These switches are not built to control a fan or any motor.

### ⚠ MEDICAL EQUIPMENT ⚠

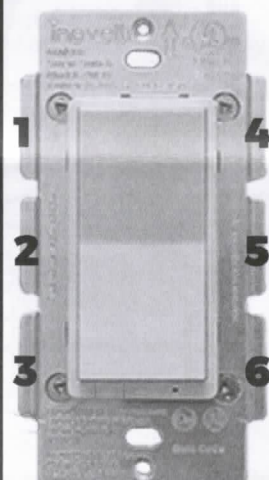
Please DO NOT use this switch to control Medical or Life Support equipment. Z-Wave devices should never be used to control the On/Off status of Medical and/or Life Support equipment.

### MAX WATTAGE KEY

**This switch is designed for use only with permanently installed features.** Sometimes you may want to install multiple smart switches in a gangbox and to do that, you will have to remove the heat sink tabs (#'s 1-6). Doing so will reduce the maximum wattage available for your switch to control.

To determine this new maximum wattage please use the following key:

**Tabs 1-6 NOT REMOVED = 500W**  
**Tabs 1-3 REMOVED = 400W**  
**Tabs 4-6 REMOVED = 400W**  
**Tabs 1-6 REMOVED = 300W**



## PLEASE READ | Pro-Tips Prior to Installation

Below are some helpful tips to read prior to installing our smart switch. Please read prior to moving onto the wiring schematics on Page 5.

### 1) Please ensure there is enough room in the gangbox prior to installation.

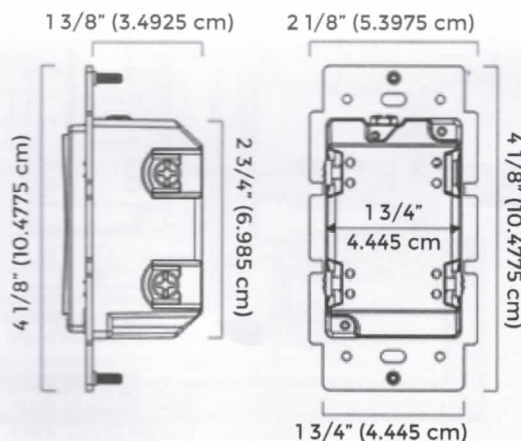
Since this is a smart switch with advanced circuitry, the depth of the switch is much larger than a normal (non-smart) switch. To the right are the dimensions for reference.

### 2) Ensure the gangbox you're installing the switch to HAS A NEUTRAL WIRE.

The switch will not work without one.

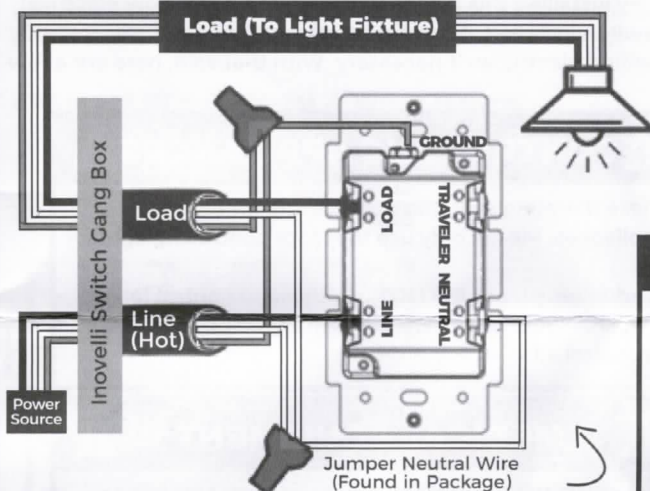
### 3) Please follow the wiring schematics exactly as written out. This may sound silly that we have to write this, but the Line must go where the Line insertion point/screw is located as with the Neutral and Load.

### 4) Consider upgrading your gangbox to a plastic gangbox if you are currently using a metal one. The Z-Wave signal can travel easier through plastic than it can metal.

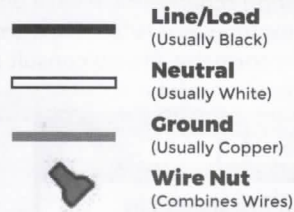




## Single Switch Installation



### Key (Single Switch)



### Screw Terminals

There are two ways to install the wires..

- 1) Around the Screw
- 2) Into the Terminal (hole)

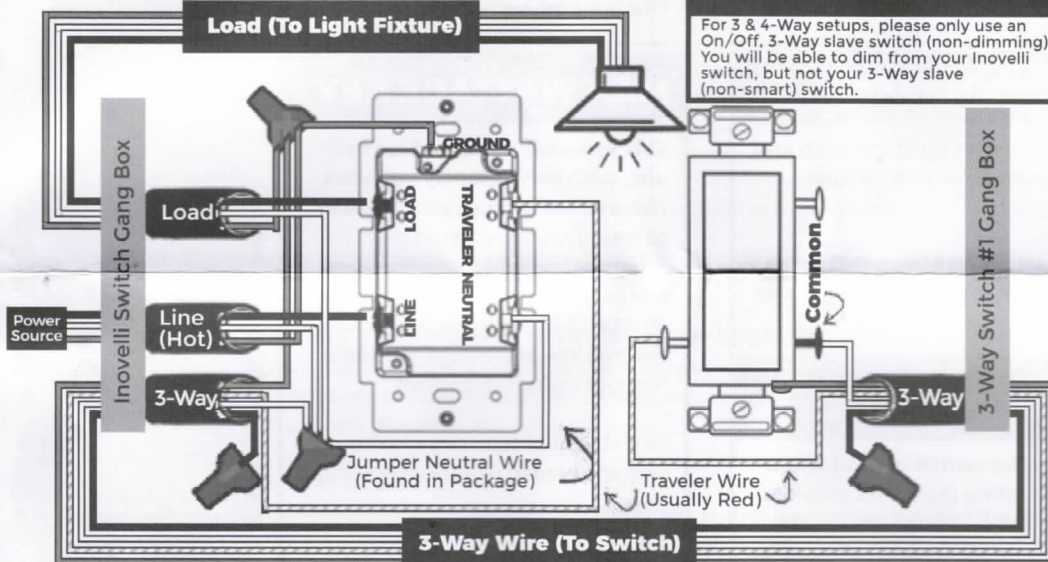
Strip the wire 1" for around the screw and 5/8" for the terminal.

When loosening the screw, **DO NOT** unscrew it completely and remember, Counter-clockwise (Left) = Loosen Clockwise (right) = Tighten

### Pro-Tips

- Remember to turn off the power prior to installation and ensure all connections are made prior to turning the power back on. No need to be a hero!
- The Line wire is Hot. Please use a multimeter to locate it.
- Our smart switches will work with normal 3-Way switches. You do not need a special auxiliary switch.
- Our switches require a Neutral wire. Please do not try wiring without one.
- Please remember to Ground all connections.
- Remember to start the inclusion process prior to flipping the power back on (see specific HUB instructions for more info).
- Use Wire-strippers to cut 1" for Screw Installation and 5/8" for Terminal Installation

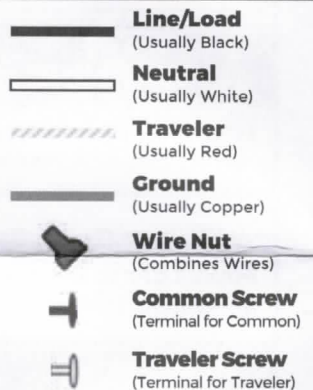
## 3-Way Switch Installation



### IMPORTANT! Please Read.

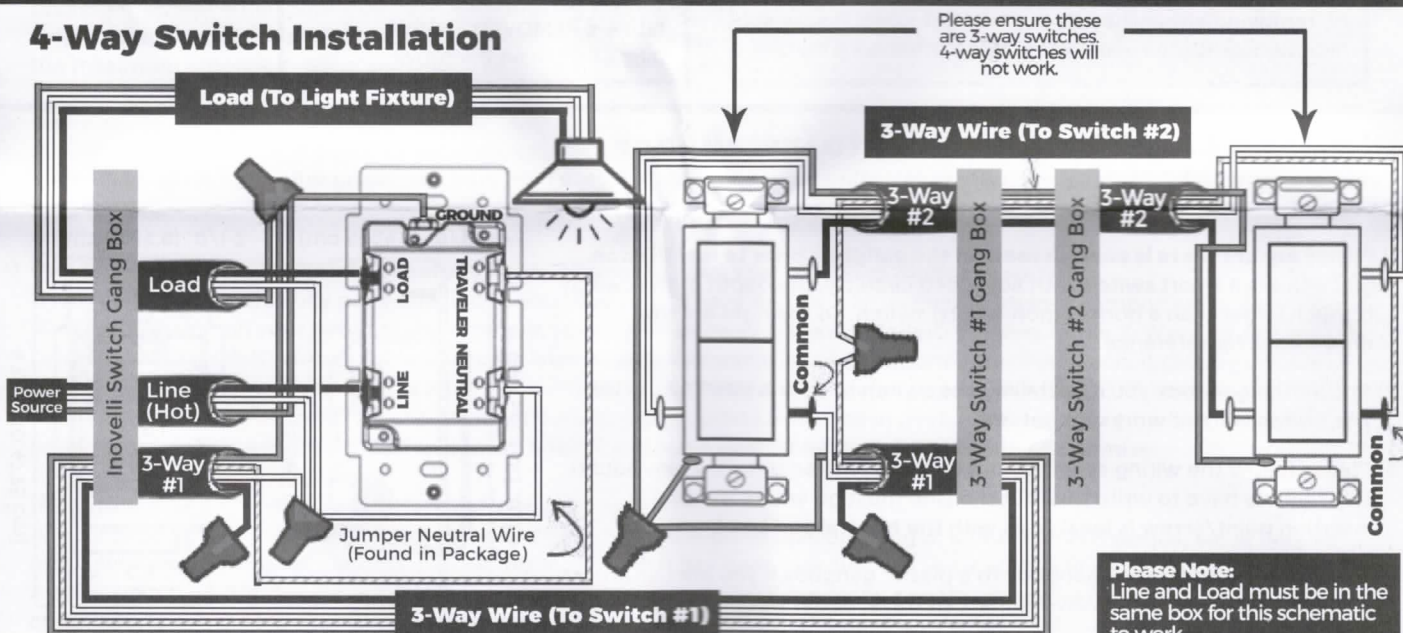
For 3 & 4-Way setups, please only use an On/Off, 3-Way slave switch (non-dimming). You will be able to dim from your Inovelli switch, but not your 3-Way slave (non-smart) switch.

### Key (3 and 4-Way)



**Please Note:** Line and Load must be in the same box for this schematic to work. If yours is not, please reach out for a custom schematic.

## 4-Way Switch Installation



Please ensure these are 3-way switches. 4-way switches will not work.

**Please Note:** Line and Load must be in the same box for this schematic to work.



## General HUB/Gateway Quick Setup

Remember, **DO NOT** turn on your power until you see this icon ⚡

The below instructions will allow you to pair/include your NZW31 with any Z-Wave enabled HUB. However, please remember to check to see if your HUB/Gateway supports the, "Central Scene" Z-Wave Command Class. If not, you will only be able to control this device in an on/off manner (ie: no scene control)

**\*\* IMPORTANT: If you are having issues pairing/including your device, please ensure your switch is within range of your HUB (pages 2-3). 95% of the pairing/including failures stem from this issue. Best practice is to start with Z-Wave products near your HUB and build your network out. The more Z-Wave devices, the more efficient your network. \*\***

### ◀ STEPS 1 & 2 ▶

#### GATHER YOUR MATERIALS, FIND AN APPROPRIATE LOCATION, AND INSTALL YOUR SWITCH

- Materials Needed: Gangbox with Neutral, Line & Load Wires, Cell Phone/Tablet/Computer, and a Z-Wave enabled HUB/Gateway
- Locate an area to install your switch within the recommended distance (Pages 2-3) from your HUB/Gateway
- Walls, furniture, and other obstructions may affect the communication between the Switch and your HUB/Gateway, so please keep this in mind
- Follow the recommended wiring instructions on page 5 -- **REMEMBER: TURN OFF ELECTRICITY BEFORE INSTALLATION!**

### ◀ STEP 3 ▶

#### ADDING (INCLUDING) TO THE NETWORK & COMPLETING THE SETUP PROCESS

- Now that your switch is installed, we'll start the inclusion process
  - Start the Inclusion process on your HUB/Gateway
  - ⚡ ➤ Turn the power back on and auto-inclusion will activate. You will have 30 seconds before it times out (sorry, it's all the time Z-Wave allows). If it does time out, the backup method to pair/include the device is to press the UP (A) button 6 times within 2 seconds
- **AGAIN:** If you have issues with including, please check to make sure your switch is within range of your HUB (pages 2-3)

### ◀ STEP 4 ▶

#### START A Z-WAVE REFRESH ON YOUR NETWORK

- This step is highly recommended whenever a new Z-Wave device is added to your network. It tells your HUB to re-map the network which, ultimately, will make your network faster and more efficient. The process will vary based on your HUB/Gateway, so please check with the manufacturer to determine how to do this.

## SmartThings Quick Setup

Remember, **DO NOT** turn on your power until you see this icon ⚡

The below instructions will allow you to pair/include your NZW31 with your SmartThings HUB. Remember, for the most up to date instructions, please visit our website as occasionally SmartThings updates their app.

**\*\* IMPORTANT: If you are having issues pairing/including your device, please ensure your switch is within range of your HUB (pages 2-3). 95% of the pairing/including failures stem from this issue. Best practice is to start with Z-Wave products near your HUB and build your network out. The more Z-Wave devices, the more efficient your network. \*\***

### ◀ STEPS 1 & 2 ▶

#### GATHER YOUR MATERIALS, FIND AN APPROPRIATE OUTLET, AND PLUG IN LAMPS OR APPLIANCES

- Materials Needed: Gangbox with Neutral, Line & Load Wires, Cell Phone/Tablet/Computer, and a Z-Wave enabled HUB/Gateway
- Locate an area to install your switch within the recommended distance (Pages 2-3) from your HUB/Gateway
- Walls, furniture, and other obstructions may affect the communication between the Switch and your HUB/Gateway, so please keep this in mind
- Follow the recommended wiring instructions on page 5 -- **REMEMBER: TURN OFF ELECTRICITY BEFORE INSTALLATION!**

### ◀ STEP 3 ▶

#### ADDING (INCLUDING) TO THE NETWORK & COMPLETING THE SETUP PROCESS

- Now that your switch is installed, we'll start the inclusion process
  - Open up your SmartThings app and click on the, "My Home" tab followed by the, "Things" tab
  - Scroll to the bottom and click on, "Add a Thing"
  - ⚡ ➤ Turn the power back on and auto-inclusion will activate. You will have 30 seconds before it times out (sorry, it's all the time Z-Wave allows). If it does time out, the backup method to pair/include the device is to press the UP (A) button 6 times within 2 seconds.
  - You should now see that your device is detected (it should say, "Dimmer Switch")
  - After your device is detected, press, "Save" (or if you'd like to rename your device, please do so and click, "Save")
  - Once you click, "Save" a pop-up will appear asking you to, "Confirm Paired Devices" -- Click, "OK"
  - Now, you should be back at the, "My Home" screen and you should be able to see your switch!
- **AGAIN:** If you have issues with including, please check to make sure your switch is within range of your HUB (pages 2-3)

### ◀ STEP 4 ▶

#### RUN A Z-WAVE REFRESH TO UPDATE YOUR MESH NETWORK WITH YOUR NEW SWITCH

- This step is highly recommended whenever a new Z-Wave device is added to your network. It tells your HUB to re-map the network which, ultimately, will make your network faster and more efficient.
  - In the SmartThings app, click on the, "Menu" button, followed by, "Hub is Online"
  - Then click, "Z-Wave Utilities" followed by, "Repair Z-Wave Network" and then, "Start Z-Wave Network Repair"
  - Wait 20 minutes for your SmartThings HUB to re-map (rediscover) the network (DO NOT touch anything on your network).
  - Congratulations! You now have a smart switch!

**\*\*Please go to Page 7 to set up Scene Control for SmartThings\*\***



## SmartThings Scene Setup

There are a few extra steps you'll have to take to setup various scenes with SmartThings. As we write this manual, we are working with SmartThings to make this a bit easier, but we wanted to get this switch in your hands as fast as possible since we love the capabilities it holds. Below is step-by-step instructions on how to finish the setup process as of November 2017. Please remember to check the website as we continuously update it with step-by-step video and written instructions based on the ever changing SmartThings platform. With that said, let's get started!

### ◀ STEP 1 ▶ INSTALL THE PROPER DEVICE HANDLER & SMARTAPP

**NOTE:** If you've installed this switch and it says, "Dimmer Switch" and does not show up as an Inovelli switch, you will have to install a device handler. If, when you installed this device and it showed up as an Inovelli switch, it means SmartThings was able to publish our handler and you can skip this step.

Start by opening three tabs on your computer/tablet:

- Tab #1 - SmartThings IDE: [www.graph.api.smartthings.com](http://www.graph.api.smartthings.com) (FREE - sign up with the same Username/Password as your ST App)
- Tab #2 - Inovelli Device Handler Code: [www.inovelli.com/nzw31s-setup/smartthings/device-handler-code](http://www.inovelli.com/nzw31s-setup/smartthings/device-handler-code)
- Tab #3 - Advanced Button Controller SmartApp: [www.inovelli.com/nzw31s-setup/smartthings/abc-smartapp](http://www.inovelli.com/nzw31s-setup/smartthings/abc-smartapp)

Open Tab 1 (IDE) and follow the directions below:

- Click on the green, "Login" button on the top right of the screen and login (if you don't have an account, please sign up)
- Once logged in, click, "My Locations" (top left of the screen) -- you should see your HUB's location there
- Click on your HUB's location underneath where it says, "Name" -- you may be prompted to login again (please do if so)

Now we're going to install the Device Handler:

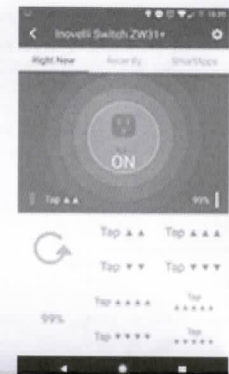
- While still in Tab #1 (IDE), click on, "My Device Handlers" located at the top/middle of your screen
- Click on the green button labeled, "Create New Device Handler" and then, "From Code"
- Switch to Tab #2 (Device Handler URL) and copy all lines of code (click the, "Copy to Clipboard" Button)
- Switch back to Tab #1 (IDE) and paste the code in the white space
- Click, "Create" and then, "Publish" and finally, "For Me"

Next, we're going to install the SmartApp:

- While still in Tab #1 (IDE), click on, "My SmartApps" located to the left of, "My Device Handlers"
- Click on the green button called, "New SmartApp" and then, "From Code"
- Switch to Tab #3 (Adv. Button Controller URL) and copy all lines of code (click the, "Copy to Clipboard" Button)
- Switch back to Tab #1 (IDE) and paste the code in the white space
- Click, "Create" and then, "Publish" and finally, "For Me"

Finally, now that the device handler is installed, we need to apply the device handler to the switch:

- While still in Tab #1 (IDE), click on, "My Devices", find your Inovelli Switch and click on it
- Click, "Edit" and find the drop-down titled, "Type" and select, "Inovelli Switch NZW31 w/Scene"
- Click, "Update" and your screen in your ST App should look like Exhibit A



**Exhibit A**  
(Shown on an Android Phone)

### ◀ STEP 2 ▶ SETTING UP THE SCENES USING THE, "ADVANCED BUTTON CONTROLLER" SMARTAPP

At this time, SmartThings does not have a native way to map buttons in order to seamlessly setup the "double-tap, triple-tap, etc" feature. This is why we have to install a Custom SmartApp. However, once installed, you will have the ability to control eight (8) different scenes using this SmartApp. We will walk you through how to setup two different scenes below!

Here are our examples:

- **Bedtime Scene:** This will shut off all lights and lock the doors
- **Movie Scene:** Turns off all lights and turns on colored lights

Finding the, "Advanced Button Control" SmartApp in Your SmartThings App

- In your SmartThings App, click on, "Marketplace", followed by, "SmartApps" and at the bottom, "My Apps" and select, "Advanced Button Control" -- Now we'll move on to actually setting it up

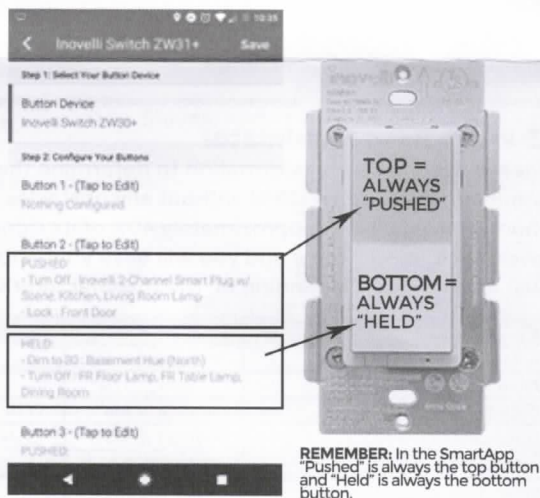
How to Use Advanced Button Control SmartApp with Your NZW31

Prior to Step 1, scroll down to the, "Advanced Config" options and click on it -- Change, "Set/Override # of Buttons?" to five (5)

- Step 1: Select Your Button Device -- Select your NZW31 switch and move to Step 2
- Step 2: Configure Your Buttons -- Only use Buttons 2-5 (DO NOT USE BUTTON #1)

Setting Up the Bedtime Scene and Movie Scene under Button #2:

- Click on, "Button 2" to set up both scenes. It will have the following behavior after we set it up:
  - Double Tap (A) = Activate Bedtime Scene
  - Double Tap (B) = Activate Movie Scene
- **VERY IMPORTANT!! When You click on the dropdown you'll see, "When Pushed" and, "When Held"**
  - When Pushed **ALWAYS** relates to the Top (A) button
  - When Held **ALWAYS** relates to the Bottom (B) button
- Since we are assigning, "Bedtime Scene" to the Top Button (A), we will always select, "When Pushed"
  - Click on, "Switches (Turn Off)" and under, "When Pushed", select the lights you want turned off
  - Click on, "Locks (Lock Only)" and under, "When Pushed", select your lock
- Since we are assigning, "Movie Scene" to the Bottom Button (B) we will always select, "When Held"
  - Click on, "Switches (Turn Off)" and this time click on, "When Held" and select the lights you want off
  - Click on, "Dimmers (On to Level - Group 1)" and under, "When Held" select the Light and the Brightness Level
- Click, "Save" and test out your "Double Tap"!



**REMEMBER:** In the SmartApp "Pushed" is always the top button and "Held" is always the bottom button.



## Federal Communications Commission (FCC) Statement

**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. 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.

**NOTE:** 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 or more 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 or consult the dealer or an experienced radio/TV technician for help. This equipment should be installed and operated with minimum distance 8in (20cm) between the radiator and your body.

**IC Caution:** 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.

**DECLARATION DE CONFORMITE D'INDUSTRIE CANADA:** Ce périphérique a été testé et reconnu conforme aux limites spécifiées dans RSS-210. Son utilisation est soumise aux deux conditions suivantes: (1) il ne doit pas provoquer d'interférences gênantes et (2) il doit tolérer les interférences reçues, notamment celles susceptibles d'en perturber le fonctionnement.

## Warranty, Specifications & Warnings

**Warranty:** Inovelli will replace any defective unit for the lifetime of the unit, pending the unit was used in the manner it was intended to. Please email us at: [contact@inovelli.com](mailto:contact@inovelli.com) to receive a pre-paid shipping label for the return of your defective unit.

### Specifications:

Model: ZW31 (Scene Enabled)

Power: 120V AC, 60Hz

Signal (Frequency): 908.42 MHz

Maximum Load: 500W Incandescent (1-Gang), 400W Incandescent (2-Gang), 300W Incandescent (3-Gang)

Range: Up to 100 meters line of sight between the Wireless Controller (HUB) and the closest Z-Wave Module

Operating Temperature Range: 32-104° F (0-40° C)

For indoor use.

Specifications subject to change without notice due to continuing product improvement

Approval: UL/FCC/Z-Wave Plus Certified

UL: E464831

FCC ID: OXGZW31



### Warning:

RISK OF FIRE

RISK OF ELECTRICAL SHOCK

RISK OF BURNS

CONTROLLING APPLIANCES: EXERCISE EXTREME CAUTION WHEN USING Z-WAVE DEVICES TO CONTROL APPLIANCES.

OPERATION OF THE Z-WAVE DEVICE MAY BE IN A DIFFERENT ROOM THAN THE CONTROLLED APPLIANCE, ALSO AN

UNINTENTIONAL ACTIVATION MAY OCCUR IF THE WRONG BUTTON ON THE REMOTE IS PRESSED. Z-WAVE DEVICES MAY

AUTOMATICALLY BE POWERED ON DUE TO TIMED EVENT PROGRAMMING. DEPENDING UPON THE APPLIANCE, THESE

UNATTENDED OR UNINTENTIONAL OPERATIONS COULD POSSIBLY RESULT IN A HAZARDOUS CONDITION. FOR THESE

REASONS, WE RECOMMEND YOU DO NOT RETURN THIS PRODUCT TO THE STORE, BUT RATHER CONTACT THE

MANUFACTURER OF THE PRODUCT TO ARRANGE AN EXCHANGE OR REFUND IF THE PRODUCT IS DEEMED DEFECTIVE

### Resetting Your Device

Please use a certified controller to remove the device from your network to factory default. Or, to manually remove your device, hold down the button (B) for 5 seconds (after shutting power off and turning it back on). Only use this procedure only in the event that the network primary controller is missing or otherwise inoperable. If your HUB is within range and you'd like to remove the device, please put your HUB in exclusion mode and tap the down button (B) six (6) times within 2 seconds.

## Command Class Information

Generic Device Class GENERIC\_TYPE\_SWITCH\_MULTILEVEL

Specific Device Class SPECIFIC\_TYPE\_POWER\_SWITCH\_MULTILEVEL

Command Classes

- 85 - COMMAND\_CLASS\_ASSOCIATION
- 59 - COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO
- 71 - COMMAND\_CLASS\_APPLICATION\_STATUS
- 5B - COMMAND\_CLASS\_CENTRAL\_SCENE
- 70 - COMMAND\_CLASS\_CONFIGURATION
- 5A - COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY
- 7A - COMMAND\_CLASS\_FIRMWARE\_UPDATE\_MD
- 72 - COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC
- 26 - COMMAND\_CLASS\_SWITCH\_MULTILEVEL
- 8E - COMMAND\_CLASS\_MULTI\_CHANNEL\_ASSOCIATION
- 75 - COMMAND\_CLASS\_PROTECTION\_V2
- 73 - COMMAND\_CLASS\_POWERLEVEL
- 98 - COMMAND\_CLASS\_SECURITY
- 6C - COMMAND\_CLASS\_SUPERVISION
- 27 - COMMAND\_CLASS\_SWITCH\_ALL
- 25 - COMMAND\_CLASS\_SWITCH\_BINARY
- 55 - COMMAND\_CLASS\_TRANSPORT\_SERVICE
- 86 - COMMAND\_CLASS\_VERSION
- 5E - COMMAND\_CLASS\_ZWAVEPLUS\_INFO

### Parameter Settings

Invert | Default = Top/On, Bottom/Off

-- Parameter = 4, size = 1 byte, value = 00, Up = On, Down = Off

-- Parameter = 4, size = 1 byte, value = 01, Up = Off, Down = On

Countdown | Default = No Timer

-- Parameter = 5, size = 2 byte, value = xx xx

-- Value = 00 (default) = No Timer

-- (0x00---x8000) (range = 0-32768 Seconds)

Dimmer Step Configuration (Dimmer Speed Setting)

-- Parameter = 1, size = 1, value = xx (0x01 - 0x63)

Dimmer Minimum Configuration (Minimum Dim Setting)

-- Parameter = 2, size = 1, value = xx (0x01 - 0x63)

### Special Settings

Tap 10x on Button (A) = Disable/Invert LED

Tap 10x on Button (B) = Invert Switch

\*The association group supports five nodes and lifeline function