

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 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.



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Z-Wave SmartStart

This device supports Z-Wave's new SmartStart feature. **Please do not throw out the card within the box that has your unique QR Code with your DSK (Device Specific Key).** This QR Code can also be found on the back of the switch (metal plate) and box.

HUB Installation Instructions.

All HUB's are different, so why should your installation instructions be the same? Below you'll find a QR Code to specific instructions for your HUB (NOTE: If you don't see your HUB, please scan the, "Other" QR Code). As you can imagine, it's hard to keep written instructions up to date with all the HUB/App changes, so the most recent instructions will be on the site. However, if you're a manual guy/gal, we get it, please see Page 7 for more details! If ever you run into any issues, please reach out to us at: [contact@inovelli.com](mailto:contact@inovelli.com).

SmartThings



[inovelli.com/lzw45/setup/smartthings](http://inovelli.com/lzw45/setup/smartthings)

Home Assistant



[inovelli.com/lzw45/setup/hassio](http://inovelli.com/lzw45/setup/hassio)

Hubitat



[inovelli.com/lzw45/setup/hubitat](http://inovelli.com/lzw45/setup/hubitat)

Other



[inovelli.com/lzw45/setup/other](http://inovelli.com/lzw45/setup/other)

## Technology Behind the Lightstrip

The Inovelli Lightstrip is an advanced smart home lighting product that brings new functionality to this product category. It runs off of the Z-Wave 700 series chip and supports all of its bells and whistles (S2 security, Smart Start, increased range, etc.). It also has some of the most advanced features seen on a commercial product of its kind. Individually addressable LEDs, dozens of pre-defined color effects, customizable effects, energy monitoring, scene control, digital display, and more. It definitely lives up to the Inovelli brand name.

### ⚠ TO AVOID PERSONAL INJURY AND/OR POSSIBLE PRODUCT DAMAGE, THE FOLLOWING CAUTIONS SHOULD BE FOLLOWED:

- ▶ Disconnect power at fuse or circuit breaker before installing or servicing.
- ▶ To prevent early device failure, device should only be installed in operating environments ranging between (0°C and +40°C) 4°F and +104°F
- ▶ Device has passed the ETL for damp locations, but it is recommended to be used in dry locations only.
- ▶ Lightstrip dims via wireless control and will not operate with a dimmer switch.
- ▶ Not for use in totally enclosed luminaires.
- ▶ Not for use in emergency light fixtures or exit signs.
- ▶ Ensure fixture can support the added weight of the lightstrip.
- ▶ Do not clean the lightstrip when it is on and connected to the power supply.
- ▶ Do not place the lightstrip on hot surfaces.
- ▶ Dispose of this device in accordance with disposal laws in your area.
- ▶ Do not use if the lightstrip is broken or missing. If broken or damaged make sure you dispose of it safely. There are risks of electric shock.
- ▶ Do not interconnect parts of this lightstrip with parts of another manufacturer's lightstrip.
- ▶ Interconnection shall be made only by the use of the supplied connectors. Any open ends must be sealed-off before use.
- ▶ maximum system length that may be interconnected is 5 meters; maximum number of strips or max system wattage that may be interconnected is 20W.

### ⚠ POUR ÉVITER DES BLESSURES PERSONNELLES ET / OU DES DOMMAGES POSSIBLES AU PRODUIT, LES PRÉCAUTIONS SUIVANTES DOIVENT ÊTRE SUIVIES: ⚠

- ▶ Débranchez l'alimentation au fusible ou au disjoncteur avant l'installation ou l'entretien.
- ▶ Pour éviter une défaillance prématurée de l'appareil, l'appareil ne doit être installé que dans des environnements d'exploitation compris entre (0 ° C et + 40 ° C) 4 ° F et + 104 ° F
- ▶ L'appareil a réussi l'ETL pour les endroits humides, mais il est recommandé de l'utiliser uniquement dans des endroits secs.
- ▶ La bande lumineuse s'assombrit via la commande sans fil et ne fonctionnera pas avec un variateur.
- ▶ Ne pas utiliser dans des luminaires totalement fermés.
- ▶ Ne pas utiliser dans les luminaires de secours ou les enseignes de sortie.
- ▶ Assurez-vous que l'appareil peut supporter le poids supplémentaire de la bande lumineuse.
- ▶ Ne nettoyez pas la bande lumineuse lorsqu'elle est allumée et connectée à l'alimentation électrique.
- ▶ Ne placez pas la bande lumineuse sur des surfaces chaudes.
- ▶ Mettez cet appareil au rebut conformément aux lois d'élimination de votre région.
- ▶ Ne pas utiliser si la bande lumineuse est cassée ou manquante. S'il est cassé ou endommagé, assurez-vous de vous en débarrasser en toute sécurité. Il existe des risques d'électrocution.
- ▶ N'interconnectez pas les pièces de cette barrette lumineuse avec des pièces d'une barrette lumineuse d'un autre fabricant.
- ▶ L'interconnexion doit être effectuée uniquement par l'utilisation des connecteurs fournis. Toutes les extrémités ouvertes doivent être scellées avant utilisation.
- ▶ la longueur maximale du système pouvant être interconnecté est de 5 mètres; le nombre maximal de bandes ou la puissance maximale du système pouvant être interconnectées est de 20 W.

### SPECIAL NOTES FOR CONNECTED LIGHT STRIP:

- ▶ **The fixture is based on the Z-Wave protocol**, which is used to turn it on/off and change its brightness.
- ▶ **Not suitable for operation on a dimmable circuit** (such as traditional wall dimmer for incandescent lamps or LED lamps). Dimming is only possible via Z-Wave.
- ▶ **For non-replaceable light sources:** The light source of this fixture is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.
- ▶ **Linkable** The product is composed of 5 strips of 1 foot and 2 strips of 0.5 foot, and supports a total length of 16 feet. Connect the male pin at the strip light input to the female pin at the other one.

### REMARQUES SPÉCIALES POUR LA BANDE LUMINEUSE CONNECTÉE:

- ▶ L'appareil est basé sur le protocole Z-Wave, qui est utilisé pour l'allumer / l'éteindre et changer sa luminosité.
- ▶ Ne convient pas pour un fonctionnement sur un circuit dimmable (tel qu'un variateur mural traditionnel pour lampes à incandescence ou LED). La gradation n'est possible que via Z-Wave.
- ▶ Pour les sources lumineuses non remplaçables: La source lumineuse de ce luminaire n'est pas remplaçable; lorsque la source lumineuse atteint sa fin de vie, tout le luminaire doit être remplacé.
- ▶ Linkable Le produit est composé de 5 bandes de 1 pied et 2 bandes de 0,5 pied, et supporte une longueur totale de 16 pieds. Connectez la broche mâle de l'entrée de la bande lumineuse à la broche femelle de l'autre.

## Z-Wave Distance Notes

It's important to understand the limitations of the distances of Z-Wave so that your hub and device can communicate effectively. This device is using the new Z-Wave 700 series chip which greatly improves the wireless range. You may notice when working with this device that there is an improvement in the communication compared to older Z-Wave devices.

If you are still unsure of the distance between your device and your hub, please consult pages 3 & 4 to help you calculate and understand possible range scenarios with your Z-Wave devices.

Z-Wave Range Worksheet.

Feel free to use the below worksheet to give an estimate on where you can put your Z-Wave device relative to your HUB (or other Z-Wave repeater). Below is an example of how to use the sheet, using, “Example 1” from Page 3.

Example #1 -- Original Z-Wave Range



Starting Distance	Obstacle	Signal Degradation	Ending Distance
100m / 328ft	inter Wall	60%	60m / 197ft
60m / 197ft	inter Wall	40%	36m / 118ft
36m / 118ft	Wood Stairs	60%	14m / 45ft
14m / 45ft	inter Wall	40%	9m / 29ft
9m / 29ft	Wood Chair and	60%	5m / 17ft
5m / 17ft	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 outlet 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 Degradation	Ending Distance

Best Practices for Pairing the device to Your Hub/Gateway:

Now that you’ve read how to calculate the Z-Wave range and have determined the best location to put your device, it’s important to understand some best practices of how to pair it. Below are a few things to keep in mind when you start your individualized pairing instructions (Pages 7-8).

**NOTE:** As mentioned on Page 2, please make sure your device is within Z-Wave range first.

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.

If the device is Not Including, Try an Exclusion

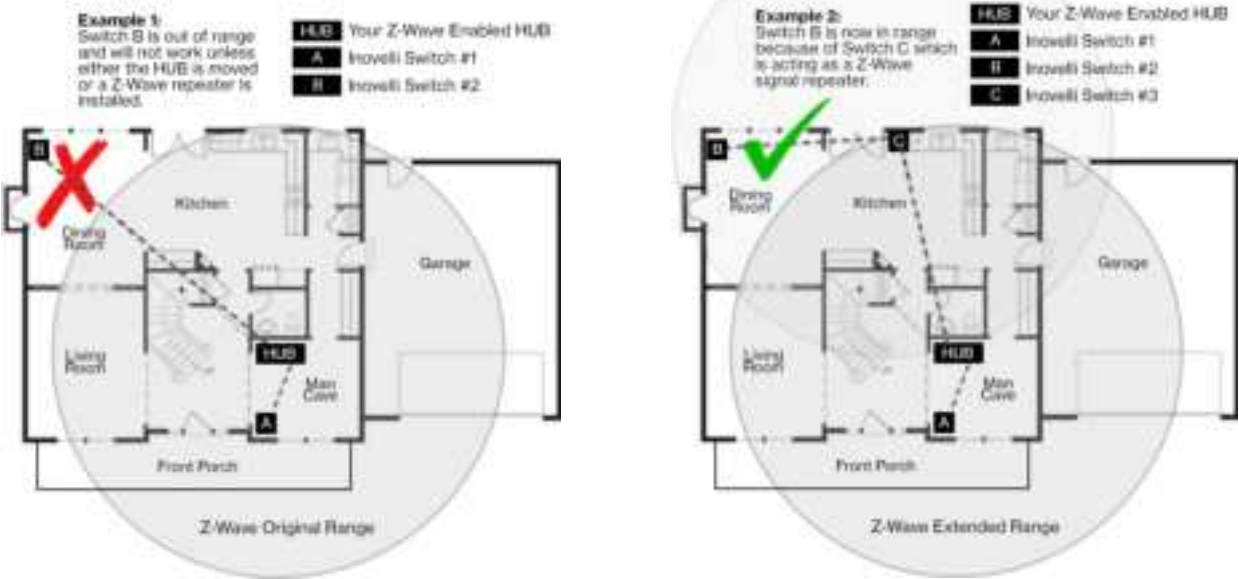
Z-Wave devices can only be included (paired) to one HUB at a time. Sometimes, what happens is that the factory tests the devices by including it to their network and forgets to remove the device from their network, causing the device to believe that it’s paired to the factory HUB. While this is extremely rare, it may happen. This can also happen if you purchased this switch used. Follow the exclusion instructions located on Page 8 if you run into issues or check the range to make sure you are within range of the HUB. Or, if you’ve installed it already, simply hold down the config button for (5) seconds to see whether or not the device is within range. If it lights up GREEN and stays GREEN after you’ve let go, then it’s within range, however, if it lights up RED, then you are not within range.

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. After all, 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.



**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 device 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
Aerated Concrete Stone	< 30cm // 11.8"	20 %
Aluminium Coating	< 1mm // 0.04"	100 %
Ceiling	< 50cm // 11.8"	70 %
Furniture (non wood)	< 30cm // 11.8"	40-60 %
Glass (typical metal coating)	< 5cm // 2.0"	10 %
Inner Wall	< 30cm // 11.8"	40 %
Iron Reinforced Concrete	< 30cm // 11.8"	30-90 %

Material	Thickness	Signal Depreciation
Metal Grid	< 1mm // 0.04"	80 %
Outer Wall	< 50cm // 11.8"	60 %
Plaster	< 10cm // 3.9"	10 %
Pumice	< 50cm // 11.8"	10 %
Red Brick	< 50cm // 11.8"	25 %
Stone	< 50cm // 11.8"	20 %
Wood	< 50cm // 11.8"	40-60 %

Getting to Know Your LZW45 Lightstrip

Now that you’re familiar with Z-Wave and how it works, it’s time to understand the basics of your new smart device. For more advanced configurations, please see Pages 8-10.

**A. Config Button (and Scene Control\*):** This button can be used for various functions as shown in the table to the right. It can also be used to trigger a Z-Wave scene. The scene is triggered when this button is pressed one time.

**B. Level Up Button (and Scene Control\*):** This button can be used to increase the level on your lightstrip. Press (hold) up to increase brightness. It can also be used to trigger a Z-Wave scene. It supports up to 7 scenes (Tap 1x, 2x, 3x, 4x, 5x, Hold, Release).

**C. Level Down Button (and Scene Control\*):** This button can be used to decrease the level on your lightstrip. Press (hold) down to decrease brightness. It can also be used to trigger a Z-Wave scene. It supports up to 7 scenes (Tap 1x, 2x, 3x, 4x, 5x, Hold, Release).

**D. Digital Display:** The display is used for several different functions during the operation of your lightstrips. In local config mode it will display the configuration parameter you are editing and the value. In normal operation it will show the level that the lightstrips are at. When your controller is running an effect (flashing, pulsing etc.), the display will flash alternating symbols. Note: there is a 5 second time out for the display. Five seconds after it has displayed the current status, it will turn off as to not bother the user.

**E. DC Power Connector:** This is where you plug-in the included 12V power supply. The rating of the power supply is 12V DC 2.0A.

NOT SHOWN

**F. Power Supply:** 12V Power Supply to be used with the LZW45 controller.

**G. Lightstrips:** These are the 1ft or 6in lightstrips to be used with the controller. The number of strips may vary based on the configuration you have purchased.

**H. Connectors and End Cap:** These are the various connectors that can be used to make right angle or T connections with your strips. There is also an end cap that needs to be placed at the end of your connected strips. The number and type of connectors included may vary based on the configuration you have purchased.

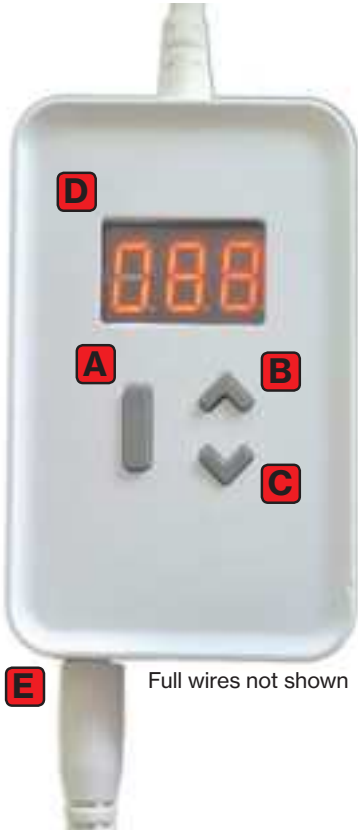
**I. Accessories:** This includes extension wires, mounting hardware, etc. Based on the package you have purchased, the included accessories may differ.

**NOTE:** There are many “Pixel” effects included in the controller. In order for the controller to run these effects correctly, there needs to be an end cap at the end of your connected strips. This is so that the controller can determine how many as well as the configuration of the strips it has connected to it.

Energy Monitoring\* and Scene Control\* are built-in features of this switch as well.

Button Combination Cheat Sheet

Button Combination	Result
Hold A for 5 Seconds	Detect Z-Wave Network Signal
Hold A for 10 Seconds	Enter Local Config Mode
Hold A for 20 Seconds	Z-Wave Factory Reset
Tap A 2x	Dismiss LED Effect
Tap A 3x	Enter Z-Wave Inclusion / Exclusion Mode
Tap A 8x	Enable Local Protection on Buttons (Disable Relay)



Full wires not shown

\* Please make sure your HUB supports these features. See website for more details.



## Installing and Including (Pairing) Your Lightstrip Controller: General Instructions

Below are step by step instructions on how to install and pair your lightstrip controller / lightstrips. For hub specific instructions, please use the QR codes or URL's on Page 1.

### Step 1: Gather Your Materials, Find an Appropriate Location, and Install the Strips

- ▶ Locate an area to install your lightstrip within the recommended distance (Pages 3-4) from your HUB/Gateway.
- ▶ Walls, furniture, and other obstructions may degrade the communication between the device and your HUB/Gateway, so please keep this in mind when selecting a location.

**NOTE:** If you'd like to verify if the device is within range of your Z-Wave hub before installing it, feel free to use the Z-Wave range test that is a feature of the controller. Once the controller has started up, hold down the config button (A) for 5 seconds and the LED strip will turn green. Release the button and if the strip remains Green, then the device is within Z-Wave range. If the strips turn Red, then the device is not within range.

### Step 2: Installing the Lightstrip Controller

Materials Needed: Screw driver (if screw mounting the controller). Power outlet to plug in the controller.

- ▶ Find the location where you would like the lightstrips to be installed and try to find a conspicuous place to install the controller. The length of the wire from the controller is only a few inches. If more length is required, use the optional extension wire that is available from our website.
- ▶ Decide whether you would like to secure the controller and whether you want to use the mounting screws or double sided sticky tape to hold it in place.
- ▶ If you are using the double sided sticky tape, make sure the surface and the controller are clean and dry. Place the double sided tape on the controller and adhere it to the desired location.
- ▶ If you are using the mounting screw, determine if you will need to use the included dry wall anchor or not. If yes, drill a hole slightly smaller than the diameter of the wall anchor and press the dry wall anchor into the hole.
- ▶ Screw the included screw either into the dry wall anchor or into the wall (with wood stud behind it).
- ▶ Place the back of the controller onto the screw head and slide downwards to secure the controller to its desired location.

### Step 3: Installing the Lightstrips

Materials Needed: Cleaning cloth and water.

- ▶ Before installing the strips to their desired location, make sure that the surface is clean and dry so that a good adhesion can be made.
- ▶ Plan out the length of the strip as well as any right angle, T-angle, or other adapters that are to be used.
- ▶ Determine the location that each strip piece needs to go and prepare to place them in that location.
- ▶ After the above steps are complete, remove the protective covering from the back of the lightstrips to reveal the double sided sticky tape.
- ▶ Carefully align the first part of the lightstrip to the desired location and firmly press it against the surface that it is to be attached to.
- ▶ Continue to press each part of the lightstrip until you reach the end.

### Step 4: Including the Controller Into Your Z-Wave Network

- ▶ These are generic instructions. For hub specific instructions please use the QR codes or links on Page 1. Also, our knowledge base is a great location to find additional information on this device. It can be located at <https://kb.inovelli.com>.
- ▶ First, place your controller into pairing mode.
- ▶ Next, triple press the config button (A) on the controller. If successful the lightstrip will start to blink blue.
- ▶ If your controller supports S2 security, you may need to scan the QR code located on the controller or an insert that was included in the box. If scanning the QR code is not supported, you may also manually enter the 5 digit code that is included with the QR code.
- ▶ If the inclusion is successful the lightstrip will turn green. If it turns red, the lightstrip was not included and you will need to try again.

#### Having Problems Including? Try an Exclusion

Place your hub or gateway into exclusion mode. Then:

Press Button A 3x. If it is successful the lightstrip will blink green.

Then, try including again.

## Device Parameters

Below you'll find the various parameters associated with your device. There are a ton of options for customization and as you can imagine, it's hard to write out all the possibilities in a manual. Please use this as a guide, but also feel free to check out our site where we'll give some specific examples using each parameter.

Param #	Change at the controller?	Name	Description	Size	Range	Default
1	Yes	# Of Pixels	When individually addressable LEDs are used, this parameter tells the controller the number of pixels that are attached. 0 - Automatic recognition of pixels. 1-130 - Manually set the number of pixels.	1	0-30	0
2	Yes	Dimming Speed	This changes the speed in which the lightstrip dims up or down. A setting of 0 should turn the light immediately on or off (almost like an on/off switch). Increasing the value should slow down the transition speed. 0 - Instant, 1 - Fast .. 98 - Slow	1	0-98	3
3	Yes	Ramp Rate	This changes the speed in which the lightstrip turns on or off. For example, when a user sends the switch a basicSet(value: 0xFF) or basicSet(value: 0x00), this is the speed in which those actions take place. A setting of 0 should turn the light immediately on or off (almost like an on/off switch). Increasing the value should slow down the transition speed. A setting of 99 should keep this in sync with parameter 2. 0 - Instant. 1 - Fast .. 98 - Slow. 99 - Keep in sync with parameter 2	1	0-99	99
4	Yes	Minimum Level	The minimum level that the strip can be dimmed to. Useful when the user has an LED strip that does not turn on or flickers at a lower level.	1	1-45	1
5	Yes	Maximum Level	The maximum level that the strip can be dimmed to. Useful when the user has an LED strip that reaches its maximum level before the dimmer value of 99.	1	55-99	99
6	No	Auto Off Timer	Automatically turns the strip off after this many seconds. When the strip is turned on a timer is started that is the duration of this setting. When the timer expires, the strip is turned off. 0 - Auto off is disabled	2	0-32767	0
7	Yes	Default Level (Local)	Default level for the strip when it is powered on from the local switch. A setting of 0 means that the switch will return to the level that it was on before it was turned off. 0 - Previous	1	0-99	0
8	Yes	Default Level (Z-Wave)	Default level for the dimmer when it is powered on from a Z-Wave command (i.e. BasicSet(0xFF). A setting of 0 means that the switch will return to the level that it was on before it was turned off. 0 - Previous	1	0-99	0
9	No	Default Color	Byte(3-2): Values between 2700-6500 represent a color temperature. Byte(1-0): Values between 1-360 represent the color on the Hue color wheel. The value of 361 represents a random color and a value of 0 represents the previous color.	4	0-6500	0
10	Yes	State after power Restored	The state the switch should return to once power is restored after power failure. 0 - Off. 1 - Default Color / Level (Parameter 9). 2 - Previous	1	0-2	2
17	No	Active Power Reports	The power level change that will result in a new power report being sent. The value is a percentage of the previous report. 0 = disabled.	1	0-100	10
18	No	Periodic Power & Energy Reports	Time period between consecutive power & energy reports being sent (in seconds). The timer is reset after each report is sent.	2	0-32767	3600
19	No	Active Energy Reports	Energy reports Energy level change which will result in sending a new energy report. Available settings: 0 - energy reports disabled, 1-127 (0.01-1.27 kWh) - report triggering threshold, Default setting: 10 (0.1 kWh)	1	0-100	10
21	No	Quick Strip Effect	Turn on a quick effect that is similar to the LED notifications on our dimmers and switches. See website for details.	4	0-2147483647	0
22	No	Custom Effect Parameter 1	A custom effect with up to 4 actions can be turned on with correct input for parameters 22-24, 30. This parameter controls the color and transition of those actions. See website for details.	4	0-2147483647	0
23	No	Custom Effect Parameter 2	A custom effect with up to 4 actions can be turned on with correct input for parameters 22-24, 30. This parameter controls the level of those actions. See website for details.	4	0-2147483647	0

Continued on next page . . .

24	No	Custom Effect Parameter 3	A custom effect with up to 4 actions can be turned on with correct input for parameters 22-24, 30. This parameter controls the duration of those actions. See website for details.	4	0-2147483647	0
30	No	Custom Effect Parameter 4	A custom effect with up to 4 actions can be turned on with correct input for parameters 22-24, 30. This parameter controls the number of iterations, the end effect, and the scale of the duration in parameter 24. See website for details.	4	0-32768	0
31	No	Pixel Effect	Turn on an effect that utilizes the individually addressable LEDs. Listed Below. Byte 0 = Effect, Byte 1 = Level	2	0-32767	0
51	No	Disable Physical On/Off Delay	The 700ms delay that occurs after pressing the physical button to turn the switch on/off is removed. Consequently this also removes the following scenes: 2x, 3x, 4x, 5x tap. Still working are the 1x tap, held, released, and the level up/down scenes.	1	[1:No (Default), 0:Yes]	1

Pixel Effects

At release, the controller has around 50 effects that utilize the ability of the controller to control each individual LED. These effects allow you to really show off the capabilities of this device and dazzle your friends and neighbors. Listed below are some of the effects that are available. Describing them in this manual would take up too much room, but see below for some of their names. To try them out you need to set parameter 31. 31 is the effect number and the brightness that you would like the strip to have.

1. Static
2. Blink
3. Breath
4. Color Wipe
5. Color Wipe Reverse Inverse
6. Color Wipe Random
7. Random Color
8. Single Dynamic
9. Multi Dynamic
10. Rainbow
11. Rainbow Cycle
12. Scan
13. Dual Scan
14. Fade
15. Running Lights
16. Twinkle
17. Twinkle Random
18. Twinkle Fade
19. Twinkle Fade Random
20. Sparkle
21. Flash Sparkle
22. Hyper Sparkle
23. Strobe
24. Blink Rainbow
25. Chase White
26. Chase Color
27. Chase Random
28. Chase Rainbow
29. Chase Flash
30. Chase Flash Random
31. Chase Rainbow White
32. Chase Blackout Random
33. Chase Blackout Rainbow
34. Color Sweep Random
35. Running Color
36. Running Red Blue
37. Running
44. Halloween
45. Aurora
- More to come!

Resetting Your Device

You may hold the Config Button (A) for 20 seconds or use a certified controller to remove the device from your network to factory default. Only use this procedure in the event that the network primary controller is missing or otherwise inoperable.

OTA Note

Over-the-Air updates are available on this device. It will take about 1 minute after completion for it to, “settle”, so please leave the device alone for a minute after flashing.  
If the power is cut off immediately after OTA is completed, OTA may fail.

Local Configuration Mode

There are a couple different ways you can set the configuration parameters of your device (listed on page 7 & 8). It is recommended that you set them from your hub when possible, but if not, you can set them directly from the device! For more detailed instructions, please check our support web page at support.inovelli.com. Here are some basic instructions:

1. Enter into configuration mode by holding down the **configuration button (A)** for **10 seconds**.
2. Press the **configuration button (A)** the number of times that corresponds with the parameter number you want to change (listed on page 7 & 8).
3. Use the **level up/down (B & C) buttons** to set the parameter to the value you would like. Each press increments the value by 1.
4. You will see the value of the parameter on the controller’s display. This gives you instant feedback of the value you are going to set the parameter to.
5. After you are finished, **press and hold JUST the A button** for 10 seconds to save and exit. While holding the button the LED strip will first turn green. At this point keep holding the button. After 5 more seconds the strip will turn yellow. Release the button at this point and you will see “SUC” on the display and the LED strip will flash cyan.



Command Class Information

Command Class	Version	Not added	Non-Secure added	Securely added Non-secure CC	Secure CC
Z-WAVE PLUS INFO	2	X	X	X	
TRANSPORT SERVICE	2	X	X	X	
SECURITY 0	1	X	X	X	
SECURITY 2	1	X	X	X	
SUPERVISION	1		X	X	
APPLICATION STATUS	1		X	X	
SWITCH MULTILEVEL	4		X		X
CONFIGURATION	4		X		X
ASSOCIATION	2		X		X
ASSOCIATION GRP INFO	3		X		X
VERSION	3		X		X
MANUFACTURER SPECIFIC	2		X		X
DEVICE RESET LOCALLY	1		X		X
POWERLEVEL	1		X		X
SWITCH COLOR	3		X		X
SWITCH BINARY	1		X		X
PROTECTION	2		X		X
FIRMWARE UPDATE MD	5		X		X
METER	3		X		X
CENTRAL SCENE	3		X		X
BASIC	2		X		X
INDICATOR	3		X		X
MULTI-CHANNEL ASSOCIATION	3		X		X
MULTI-CHANNEL	4		X		X

Z-Wave Association Groups

Group #	Max Nodes	Commands
Group 1	5	1. Central Scene 2. Basic Report 3. Multilevel Report 4. Protection Report 5. Device Reset Locally 6. Meter Report
Group 2	5	Basic Set
Group 3	5	Switch Multilevel Set
Group 4	5	Switch Multilevel Set

**Group 1: Lifeline** -- Members of this group will receive unsolicited messages related to the status of the switch.

**Group 2: Basic Set** -- Sends On & Off commands to associated devices. (1. Single press UP button sends BasicSet (0xFF) and 2. Single press Down sends BasicSet (0x00))

**Group 3: Switch Multilevel Set** -- Sends set level commands to associated devices when the up/down button is pressed.  
(1. Hold & Release Up or Down button sends SwitchMultiLevelSet which keeps associated devices in sync with this device. 2. Single press Up button sends SwitchMultiLevelSet(0xFF) and 4. Single press Down button sends SwitchMultiLevelSet(0x00))

**Group 4: Switch Multilevel Set** -- Sends start / stop level change to associated devices.  
(1. Hold Up button sends SW\_MULTILEVEL\_START\_LEVEL\_CHANGE (Up)  
2: Hold Down button sends SW\_MULTILEVEL\_START\_LEVEL\_CHANGE (Down) 3. Release Either button sends SW\_MULTILEVEL\_STOP\_LEVEL\_CHANGE

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 the 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. – Consult the dealer or an experienced radio/TV technician for help.

**Attention FCC:** Cet appareil est conforme à la partie 15 des règles FCC. Son fonctionnement est soumis aux deux conditions suivantes: (1) Cet appareil ne doit pas causer d’interférences nuisibles, et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences susceptibles de provoquer un fonctionnement indésirable.

**REMARQUE:** Cet équipement a été testé et déclaré conforme aux limites d’un appareil numérique de classe B, conformément à la partie 15 des règles FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l’énergie radiofréquence et, s’il n’est pas installé et utilisé conformément aux instructions, peut provoquer des interférences nuisibles aux communications radio. Cependant, il n’y a aucune garantie que des interférences ne se produiront pas dans une installation particulière. Si cet équipement cause des interférences nuisibles à la réception de la radio ou de la télévision, ce qui peut être déterminé en mettant l’équipement hors puis sous tension, l’utilisateur est encouragé à essayer de corriger les interférences par une ou plusieurs des mesures suivantes: – Réorienter ou déplacer le récepteur antenne. – Augmentez la séparation entre l’équipement et le récepteur. – Connectez l’équipement à une prise sur un circuit différent de celui auquel le récepteur est connecté. – Consultez le revendeur ou un technicien radio / TV expérimenté pour obtenir de l’aide.

Device Warranty

Warranty: Inovelli will replace any defective unit for one year after the date of purchase pending the unit was used in the manner it was intended to. Please email us at: [contact@inovelli.com](mailto:contact@inovelli.com) or visit us at [www.inovelli.com/warranty](http://www.inovelli.com/warranty) for full details.

Project Crib

This is the second project that we have teamed up with the community on to help visualize, develop, and beta test it. Having a group of enthusiastic smart home users to guide this project to completion has been invaluable. They have been a true pleasure to work with and this product would not be nearly what it is without them. Thanks to the beta testers for all their hard work - we couldn't do it without you!



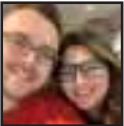
Eric H.  
Founder / CEO

I remember exactly where I was when this idea first came to life. Nathan and I were at the manufacturer eating breakfast and I remember seeing the beautiful lightstrips that they had shown us and we thought, “what if we took those lightstrips and cut them into 1ft sections so that there wouldn't be any waste and people could use the sections elsewhere if need be?” Then, we started thinking about use cases and introduced the T and L-shaped accessories so you could work around corners. Adding the addressable LED's was the final touch and we couldn't be more proud.



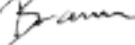
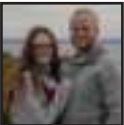
Eric M.  
CTO

As mentioned in the project description, Project Crib has been a long time in the making. Our second Z-Wave 700 product truly stands out from the rest. Addressable LEDs, customizable effects, easily connectable lightstrip sections to name a few of the stand out features. In addition, we have included scenes, energy & power reporting, and all the other advanced features our customers have come to expect. It truly has been a wild ride, but it has been worth it!



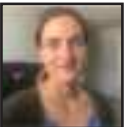
Nathan  
CSO

The lightstrip is going to be huge for the smart home industry. The part I'm most excited about is the customizable effects, pixel effects, and all the other bells and whistles that come with this device. The fact that we had an entire group of community beta testers testing this has been amazing.



Brianna  
Sr. Marketing  
Manager

The Lightstrip continues to be one of my favorite projects to work on. The advanced features and just all around sweetness has pushed us even further in design, packaging, and overall marketing strategy. I'm excited to see the custom spaces that get created in our community as they always know how to push our products even further.



Courtney  
Operations  
Manager

Project Crib! What a wild ride. Between postponements, tariff issues, conflicting demand, pricing issues - you name it - we're finally here! This has been such a fun project to work on. I remember introducing it at CES 2020 and people were going crazy for it! It's the first of it's kind for Z-Wave - individually addressable LED's, chase scenes - it's fun stuff! We all had a blast working on this project and we can't wait to use it in our own homes and to see pictures of everyone else using it in theirs!

Device Specifications

Input Voltage (V)	100-240V AC
Input Frequency (Hz)	50/60
Output Voltage (V)	12V DC
Output Current (A)	2
Luminous Flum(lm)	1600(@4000K 20W)
CCT (K)	2700K-6500K
Power(W)	20W
DF	0.5

Stand-by power Consumption(W)	<1.5
Start up Times(s)	<0.5
Beam angle (°)	120°
Color Rendering Index	>80
Color Rolenance Adjustment (SDCM)	<6@2200K 4000K
Stroboscopic requirements	Yes
Lift time (H)	25000
Dimensional requirement/mm	3250*44*75

Certification requirement	FCC+Zave+ETC
Control distance (m)	30(Indoor open field)
Dimming range	5%-100%
Operating temperature (°)	0°C-40°C
Maximum RF Power (dbm)	-1.5dBm
Frequency Band	908.4-916 MHz
The length can be extended	Up to 30.48*16 cm

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**ISED RSS Warning:**

This device complies with Innovation, Science and Economic Development 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.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.