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# WaveLinx Wallstation

## Installation Instructions

Please read this leaflet completely before getting started.

www.eaton.com/lighting  
www.eaton.com/wavelinx  
IB503018EN

### SAFETY INSTRUCTIONS

#### IMPORTANT SAFEGUARDS

##### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- Installation should be performed by a qualified electrician
- Installation shall be in accordance with all applicable local and NEC codes
- Turn the power off at circuit breakers before wiring
- Designed for indoor installation and use only
- All new wiring must be fully verified before applying power
- Servicing of equipment should be performed by qualified service personnel

## General Information

### Overview

The WaveLinx Wallstation is an integral part of the WaveLinx Wireless Connected Lighting System and is available in several small and large button configurations as well as various colors. These Wallstations are mains powered and are fully configurable to provide wireless local and multi-level control of the lighting in each area via its host WACPOE Wireless Area Controller (WAC). The Wallstations operate on a mesh wireless network based on IEEE 802.15.4 standards.

The Wallstation mounts in a standard wallbox and includes a decorator style color matching wallplate. Each button is pre-configured to control a lighting scene for an area and each button's functionality can be modified using the WaveLinx Mobile Application.

The Wallstation is a multi-scene, single area dimming Wallstation which provides customized light level for each area.

The Wallstation provides default sequence of operations including 50% light level, scene light levels between 30-70% as well as 100% and full off. Many of the available configurations also include scene raise/ lower buttons to allow further manual adjustment of the light levels.

The intended use of the WaveLinx Wallstation is for commercial lighting and control integration as part of the WaveLinx Wireless Connected Lighting (WCL) system. Listed below are a few operating notes related to the wallstation.

The Wallstation design configurations supports up to:

- Seven buttons
- Six scene controls
- ON/OFF and Raise/Lower

**Note:** When ON/OFF and Raise/Lower are active, only four scene controls are present.

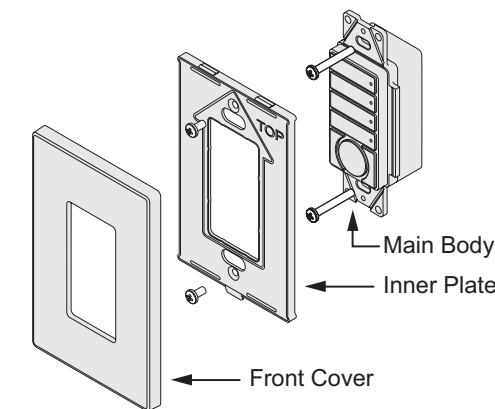
- Each is powered by an internal universal 120/277V (+/- 10%) input power supply with line, neutral, and ground.
- The WaveLinx Wallstation alone does not support any load switching. A WaveLinx Wireless Area Controller (WAC) is required with this accessory for full functionality.

## WaveLinx Wallstation

### Supplied Parts

Designed for installation into a standard single gang wiring box, each Wallstation is installed in the same manner as an ordinary wall switch per the diagram below.

**Note:** Before installing the unit in the junction box, please wire the wall station per the instructions listed in the "Wiring Diagram" section.



## Specifications

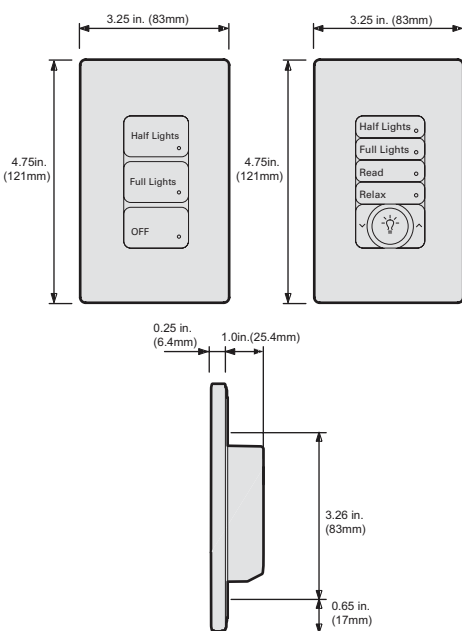
**Technology:** Wireless Wallstation for Lighting and Scene control based on IEEE 802.15.4. Compatible only with Eaton Lighting Wireless Systems.

Power	Input power: 120VAC 10.0 mA 50/60 Hz 277VAC 7.0 mA 50/60 Hz Connections: Line, Neutral, Ground
Indicators	Button LEDs White (1 per scene button) LED functionality <ul style="list-style-type: none"> <li>• Indication of wireless network join request</li> <li>• Indication of wireless network connection</li> <li>• Scene indication of operations</li> </ul>
Button Configuration	Large buttons 1-3 Small buttons 2,4,5,6
Installation	Standard decorator opening
Size	4.75"H x 3.25"W x 1.25"D (121mm x 83mm x 32mm)
Environmental Specifications	Operating Temperature Range: 32°F to 113°F (0°C to 45°C) Storage Temperature Range: 32°F to 167°F ( 0°C to 75°C) Relative Humidity: 5% to 95% non-condensing, for indoor use only
Standards	Listings: ULus Certified, FCC Meets ASHRAE Standard 90.1 requirements Meets IECC 2015 requirements Meets CEC Title 24 requirements
Wireless Specifications	Radio 2.4GHz Standard IEEE 802.15.4 Transmitter Power + 7dBm Configuration type Router, End Point 150ft (50m) LOS (see note) # of walls 3 interior walls standard construction Max # of Devices 200 per Wireless Area Controller

**Note:** Use of a metal wallstation faceplate will result in reduced wireless range.

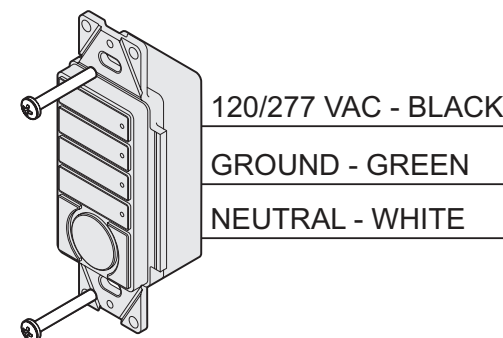
## Wallstation Dimensions

The WaveLinx Wallstation is intended to fit into a single gang wall box with a minimum internal depth of 2 inches (51 mm).



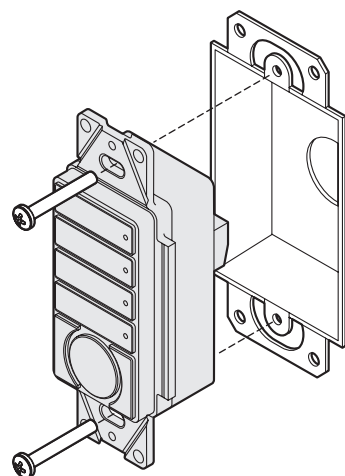
## AC Wiring

1. Make sure power is turned OFF at the branch circuit breaker.
2. Wire units as shown per the "Wiring Diagram" section.
3. Mount the unit to wall box.
4. All installations should comply with the National Electrical Code and all state and local codes.
5. Turn power back ON at the branch circuit breaker and wait for the unit to stabilize.

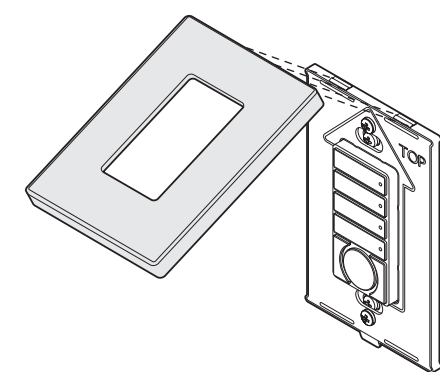
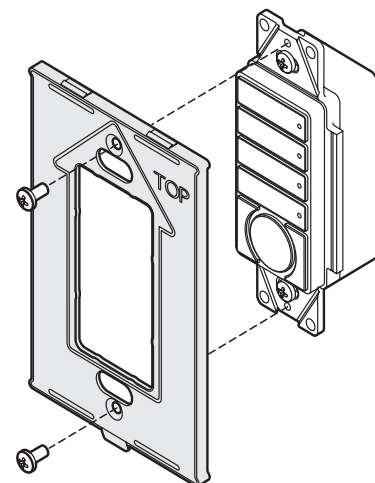


## Wallstation Installation

1. The WaveLinx Wallstation is intended to fit into a single gang wall box with a minimum internal depth of 2 in. (51mm). With the front cover removed, use the two supplied long screws to secure the rear chassis plate to the wall box.
2. Store all removed parts in a safe place to prevent loss or damage.



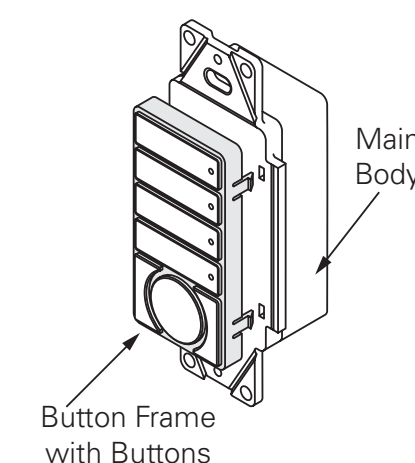
3. Use the two retaining screws located above and below the buttons and attach the inner plate to the main body.
4. Clip the front cover to the top of the inner plate and press the bottom of the front cover to snap into place.



### Changing buttons

The WaveLinx Wallstation allows customization of the appearance of the buttons.

1. Remove the front cover and inner plate as discussed in the previous section.
2. Locate the four clips (two on each side) of the button frame. Carefully press in all four clips to disengage the button frame and pull the frame away from the main body.
3. Buttons can now be removed from the frame and new buttons installed.



4. With the new buttons in place within the frame, align its clips with the four holes of the main body and press it into place so that all four clips click as they lock.
5. If the button configuration has changed, update the wallstation configuration using the WaveLinx Mobile Application.

## Out of the Box functionality

### Out of the Box functionality

- The Wallstation will search for Eaton WaveLinx wireless networks to join for 30 minutes upon initial power up and after a power cycle.
- Button press will also initiate a search for Eaton WaveLinx wireless networks. The LED will blink (Slow Blink) while searching.
- If no response from Wireless Area Controller, upon Button press LED will fast blink for 5 seconds.

### Wireless setup

- Upon power up, the Wallstation will search for Eaton WaveLinx wireless network.
- If not joined, press any button to force the Wallstation to search for an Eaton WaveLinx wireless network.

The Wallstation will not have control functionality until it has paired or joined with the Wireless Area Controller (WAC). When a Wallstation successfully joins a Wireless Area Controller, the Wallstation blinks all LED indicators:

- Providing visual indication of which Wallstations have joined the WaveLinx system.
- Allowing documentation of which Wallstations did not blink and join the WaveLinx system to facilitate any required troubleshooting.
- The following chart describes the default button settings for a Wallstation after it has joined in the default area.

Description	Model Number	Default Button Setting
1 Button large wallstation	W1L-x	Button#1: Toggle Scene (Scene 0/Scene1)
1 Button large wallstation, with RL	W1L-RL-x	Button# 1: Scene 3 ON/OFF: Toggle Scene (scene 0/ Scen 1) Raise/Lower Current Area
2 Button large wallstation	W2L-x	Button#1: Scene 1 Button#2: Scene 0
2 Button large wallstation, with RL	W2L-RL-x	Button#1: Scene 3 Button#2: Scene 1 ON/OFF: Toggle Scene (Scene 0/ Scene1) Raise / Lower: Raise / Lower Current Area
3 Button large wallstation Ivory, Unit pack label	W3L-x	Button#1: Scene 3 Button#2: Scene 1 Button#3: Scene 0
2 Button small wallstation, Ivory, Unit pack label	W2S-x	Button#1: Scene 1 Button#2: Scene 0
2 Button small wallstation, with RL	W2S-RL-x	Button#1: Scene 3 Button#2: Scene 1 ON/OFF: Toggle Scene (Scene 0/ Scene1) Raise / Lower: Raise / Lower Current Area

## Default Scenes Values

4 Button small wallstation	W4S-x	Button#1: Scene 3 Button#2: Scene 1 Button#3: Scene 4 Button#4: Scene 0
4 Button small wallstation with RL	W4S-RL-x	Button#1: Scene 3 Button#2: Scene 1 Button#3: Scene 2 Button#4: Scene 4 ON/OFF: Toggle Scene (Scene 0/ Scene1) Raise / Lower: Raise / Lower Current Area
5 Button small wallstation	W5S-x	Button#1: Scene 3 Button#2: Scene 1 Button#3: Scene 2 Button#4: Scene 4 Button#5: Scene 0
6 Button small wallstation	W6S-x	Button#1: Scene 3 Button#2: Scene 1 Button#3: Scene 2 Button#4: Scene 4 Button#5: Scene 5 Button#6: Scene 0

### Default Scenes Values

Scene	Default Engraving	Dimmable Light Zone (Level)	ON / OFF Zone	Receptable (Level)
Scene 0	OFF	0%	0%	0% (OFF)
Scene 1	Full Lights	100%	100%	ON
Scene 2	Read	70%	100%	ON
Scene 3	Half Lights	50%	100%	ON
Scene 4	Relax	30%	100%	ON
Scene 5	Dimmed	10%	100%	ON
Scene 6	Night	1%	100%	ON

**Note:** The bottom button on all stations shall be OFF. At this point, the Wallstation is ready for use with the Eaton WaveLinx Mobile App so it can be configured.

**Note:** Please refer to the WaveLinx Mobile Application User Manual for complete configuration information.

## LED's Definitions

There are two major LED patterns for a Wallstation:

- LED blinks at 0.5Hz (Slow Blink, 50% duty cycle for 10 seconds); indicating the wallstation is searching for an Eaton WaveLinx wireless network.
- Upon Button press, the LED will repeat the pattern at 5Hz (50% duty cycle (Fast Blink) for 5 seconds). This indicates that the wallstation joined the Wireless Area Controller in the past, but has not received a response from Wireless Area Controller currently. (Check Communication Issues in the troubleshooting section).
- Once a Wallstation is paired or joined with the Wireless Area Controller and configured, the LED will blink fast when the corresponding button is pressed.

## Troubleshooting

Issue	Possible Causes	Suggestions
LED will not Blink when button is pressed	Power Interruption	Check incoming voltage and/or wiring
LED blinking fast	Communication Issue	Check that the Wallstation joined the correct Wireless Area Controller. Then verify that there is a Commiunication link between the Wallstation and Wireless Area Controller.
Wallstation cannot join the EatonWaveLinx Network and/or not reliable	Communication Issue	Check that the Wallstation is within range of the WAC without obstacles and can establish reliable communications with the Wireless Area Controller. Check the Wireless Area Controller for additional details.
Button toggles incorrect scene	Configuration Issue	Check that the Wallstation is within range of the WAC without obstacles and can establish reliable communications with the Wireless Area Controller. Check the Wireless Area Controller for additional details.

If still having trouble, call Technical Services at 1-800-553-3879

## EATON'S LIMITED 2 YEAR WARRANTY

EATON warrants its Ground Fault Circuit Interrupter (GFCI) to be free of defects in materials and workmanship in normal use and service for a period of two years from date of original purchase. THIS TWO (2) YEAR LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS, OR LIABILITIES, EXPRESSED OR IMPLIED (INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE THAT IS IN DURATION IN EXCESS OF TWO YEARS FROM THE DATE OF ORIGINAL CONSUMER PURCHASE). NO AGENT, REPRESENTATIVE, OR EMPLOYEE OF EATON HAS AUTHORITY TO INCREASE OR ALTER THE OBLIGATIONS OF EATON UNDER THIS WARRANTY. To obtain warranty service for any properly installed EATON GFCI that proves defective in normal use send the defective GFCI prepaid and insured to Quality Control Dept. EATON, 203 Cooper Circle, Peachtree City, GA 30269.

EATON will repair or replace the defective unit, at its option. EATON will not be responsible under this warranty if examination shows that the defective condition of the unit was caused by misuse, abuse, improper installation, alteration, improper maintenance or repair of damage in shipment to EATON. EATON SHALL HAVE NO RESPONSIBILITY FOR INSTALLATION OF THE GFCI, OR FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR ANY SPECIAL, INCIDENTAL, CONTINGENT, OR CONSEQUENTIAL DAMAGES OF ANY KIND, RESULTING FROM DEFECTS IN THE GFCI OR THE FAILURE OF THE PRODUCT TO FUNCTION IN THE EVENT OF A GROUND FAULT ON ITS PROTECTED CIRCUIT, OR FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT.

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