



# WaveLinx Pro Wallstation

## Installation Instructions

Please read this leaflet completely before getting started.

www.cooperlighting.com  
IB503048EN

### WARNING

**IMPORTANT:** Read carefully before installing product. Retain for future reference.



**Risk of Fire, Electrical Shock, Cuts or other Casualty Hazards:** Installation and maintenance of this product must be performed by a qualified electrician. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved. For continued protection against shock hazard replace all covers and guards after field wiring is completed.



**Risk of Fire and Electric Shock:** Before installing or performing any service, the power MUST be turned OFF. All installations should be in compliance with the National Electric Code and all state local codes.



**Risk of Burn:** Disconnect power and allow product to cool before handling or servicing.



**Risk of Personal Injury:** Due to sharp edges, handle with care.

Failure to comply with these instructions may result in death, serious bodily injury and property damage.

**DISCLAIMER OF LIABILITY:** Cooper Lighting Solutions assumes no liability for damages or losses of any kind that may arise from the improper, careless, or negligent installation, handling or use of this product.

**NOTICE:** Product may become damaged and/or unstable if not installed properly. Note: Specifications and dimensions subject to change without notice.

**ATTENTION Receiving Department:** Note actual product description of any shortage or noticeable damage on delivery receipt. File claim for common carrier (LTL) directly with carrier. Claims for concealed damage must be filed within 15 days of delivery. All damaged material, complete with original packing must be retained.

**NOTICE:** Designed for indoor installation and use only.

## General Information

### Overview

The WaveLinx Pro Wallstation is an integral part of the WaveLinx Pro 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 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 may be pre-configured to control a lighting scene for an area and each button's functionality can be modified using the WaveLinx Pro 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 Pro Wallstation is for commercial lighting and control integration as part of the WaveLinx Pro 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.

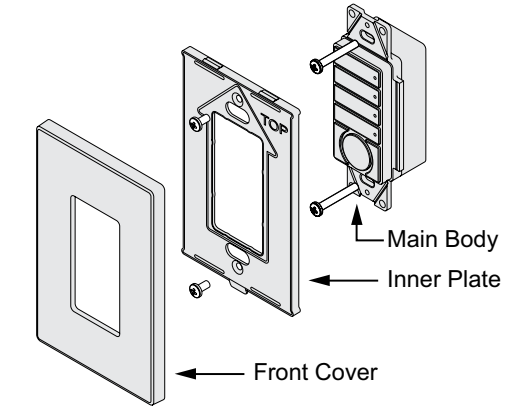
- Each is powered by an internal universal 120-277 VAC (+/- 10%) input power supply with line, neutral, and ground.
- The WaveLinx Pro Wallstation alone does not support any load switching. A WaveLinx Pro Wireless Area Controller (WAC) is required with this accessory for full functionality.

## WaveLinx Pro Wallstation

### Supplied Parts

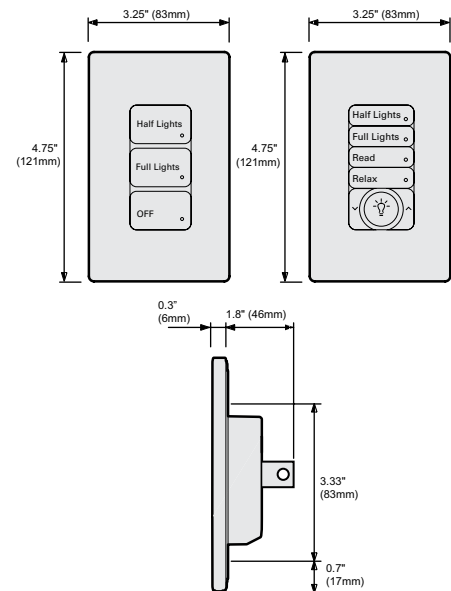
Designed for installation into a standard single gang wiring box, each Wallstation is installed in the same manner as an ordinary wall switch per the diagram below.

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



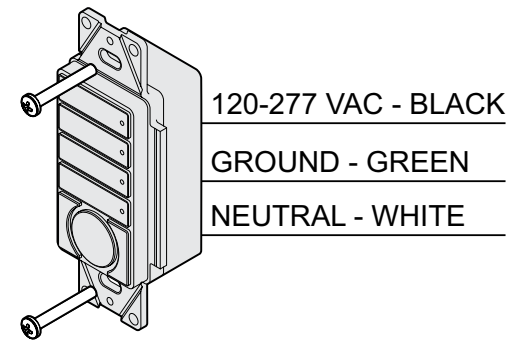
## Wallstation Dimensions

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



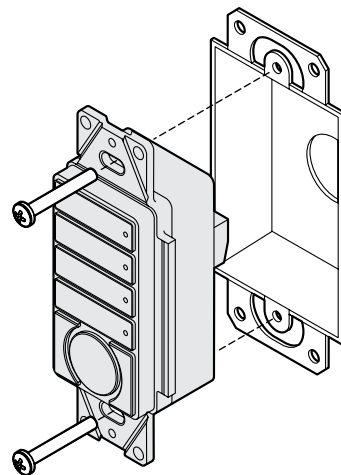
## AC Wiring

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.

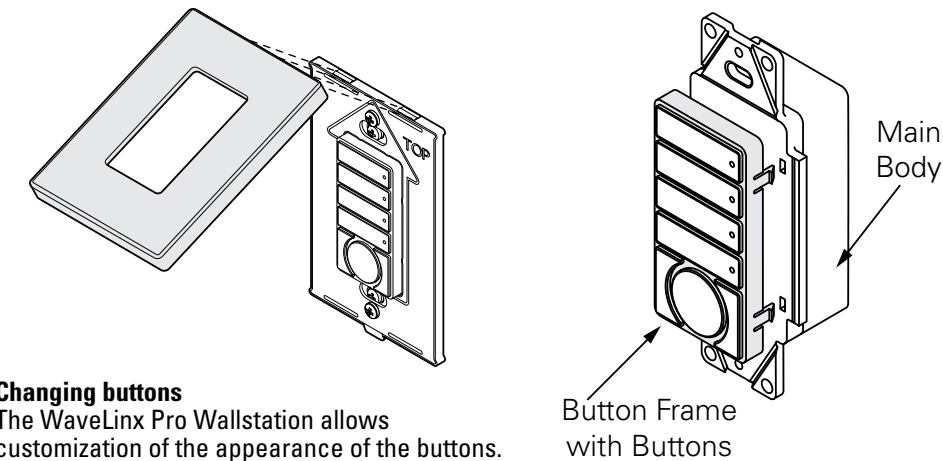
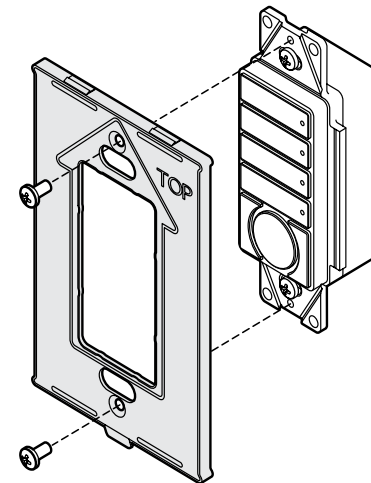


## Wallstation Installation

1. The WaveLinx Pro 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 Pro 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.

Button Frame with Buttons

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 Pro Mobile Application.

## Specifications

**Technology:** Wireless Wallstation for Lighting and Scene control based on IEEE 802.15.4. Compatible only with WaveLinx Pro 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 • Indication of wireless network join request • Indication of wireless network connection • Scene indication of operations
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 latest ASHRAE Standard 90.1 requirements Meets latest IECC requirements Meets latest 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) 2 interior walls standard construction 150 devices per WAC (100 best practice)

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

## Out of the Box functionality

### Out of the Box functionality

- The Wallstation will search for WaveLinx Pro wireless networks to join for 30 minutes upon initial power up and after a power cycle.
- Button press will also initiate a search for WaveLinx Pro 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

1. Upon power up, the Wallstation will search for WaveLinx Pro wireless network.

2. If not joined, press any button to force the Wallstation to search for a WaveLinx Pro 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 Pro system.
- Allowing documentation of which Wallstations did not blink and join the WaveLinx Pro 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 WaveLinx Pro Mobile App so it can be configured.

**Note:** Please refer to the WaveLinx Pro 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 a WaveLinx Pro 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

## LIMITED 2 YEAR WARRANTY

Cooper Lighting Solutions 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 COOPER LIGHTING SOLUTIONS HAS AUTHORITY TO INCREASE OR ALTER THE OBLIGATIONS OF COOPER LIGHTING SOLUTIONS UNDER THIS WARRANTY.

To obtain warranty service for any properly installed Cooper Lighting Solutions GFCI that proves defective in normal use send the defective GFCI prepaid and insured to Quality Control Dept. Cooper Lighting Solutions, 203 Cooper Circle, Peachtree City, GA 30269. Cooper Lighting Solutions will repair or replace the defective unit, at its option. Cooper Lighting Solutions 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 Cooper Lighting Solutions.

COOPER LIGHTING SOLUTIONS 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. THE EXCLUSIVE REMEDY FOR BREACH OF THE LIMITED WARRANTY CONTAINED HEREIN IS THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT AT COOPER LIGHTING SOLUTIONS OPTION. IMPLIED WARRANTIES (IF ANY) INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, ARE LIMITED IN DURATION TO A PERIOD ENDING TWO YEARS FROM THE DATE OF ORIGINAL CONSUMER PURCHASE. IN NO CASE SHALL Cooper Lighting Solutions LIABILITY UNDER ANY OTHER REMEDY PRESCRIBED BY LAW EXCEED THE PURCHASE PRICE. Some states do not allow the exclusion or limitation of incidental or consequential damages or allow disclaimers or modifications of or limitations on how long an implied warranty lasts, so the above limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Read enclosed instructions carefully.