WaveLinx
Networked Relay Panel

Quick Start

Begin Here

Have a qualified electrician:

- ✓Install the relay panel per the instructions
- ✓Terminate power to the transformer
- ✓Clear all circuits and terminate wiring to the relays and 0-10V dimmers

Have electrician/service personnel:

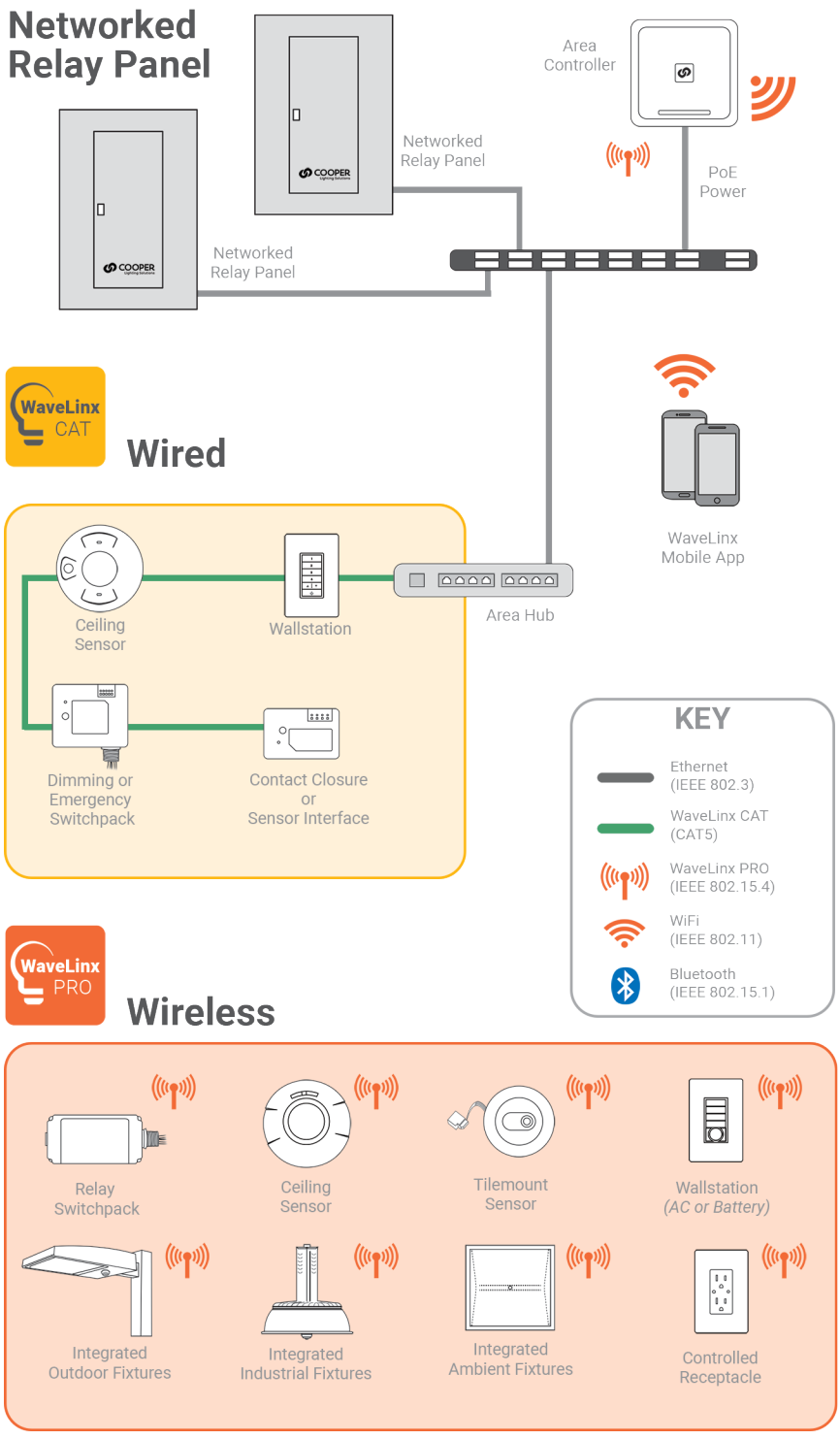
- ✓Configure Emergency operation jumpers on Phase Monitoring and Relay Bypass Output Modules in any Emergency relay panels
- ✓Address dimming modules with a unique address (0,1 thru 0, F and 1,0)

Then:

- ✓Connect the WaveLinx Area Controller to a PoE port on a Network Switch
- ✓Connect the WaveLinx Relay Panel to a standard port on a Network Switch
- ✓Install a current web browser on the device that will be used for configuration
- ✓Install the WaveLinx Mobile Application from the App Store® or Google Play™ on a mobile device with iOS 15+ or Android™ 12+

WaveLinx Mobile App

- ✓Launch the app and tap Register to create an account



The WaveLinx Networked Relay Panel provides WaveLinx control for larger spaces and relay panel retrofit locations. WaveLinx Panel relays and 0-10V dimmers operate from WaveLinx PRO and CAT devices, expanding on the capabilities of the hybrid WaveLinx architecture.

The WaveLinx Networked Relay Panel connects to the WaveLinx Area Controller over the Ethernet. The WaveLinx Mobile App configures the panel's relays and dimmers using Wi-Fi to communicate to the WaveLinx Area Controller.

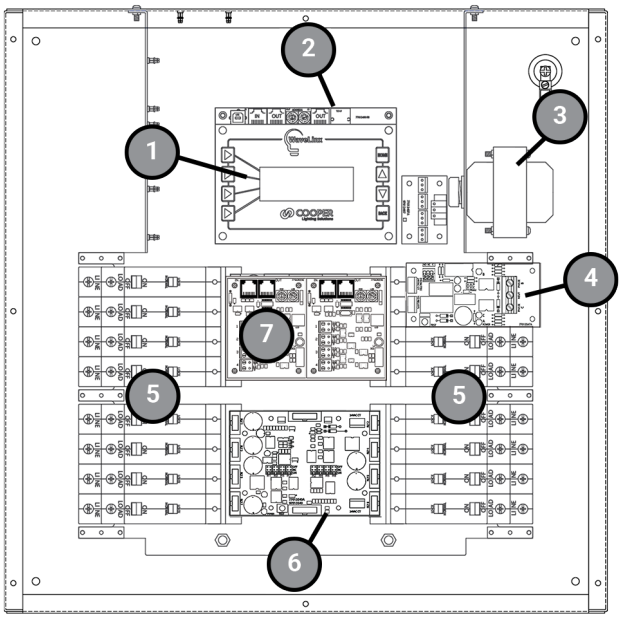
This Quick Start Guide will walk through the configuration and initial connection of the WaveLinx Networked Relay Panel and WaveLinx Area Controller.

Contact Cooper Lighting Solutions Tech Support
(800) 553-3879
controltechsupport@cooperlighting.com

Device Information

WaveLinx Area Controller	• Communicates to the WaveLinx Mobile App using onboard Wi-Fi or the building LAN/WLAN • Communicates via Ethernet to WaveLinx Networked Relay Panels or optionally to WaveLinx Area Hubs connected to WaveLinx CAT devices • Optionally communicates wirelessly (IEEE 802.15.4) to WaveLinx PRO devices • Powered by a PoE Network Switch

WaveLinx Networked Relay Panel	• Available in a variety of enclosure sizes
	  • From 4 to 64 relay sizes
	• Select Normal or Emergency models
	• Powered from onboard transformer
	  • 120/277VAC option
	  • 120/347VAC option
	• Relay options include 1, 2, or 3 pole 40 Amp relays
	• Option to add 0-10V dimmer modules
	  • 1 module = four 0-10V dimmers
	  • Relay panel mount or remote mount
	• Onboard display for basic relay control and initial configuration
	• Connects to Ethernet for communication to the WaveLinx Area Controller.
	• Responds to commands from the WaveLinx Area Controller and WaveLinx PRO and CAT devices



1: Display Interface

2: Controller Card *under display*

3: Transformer

4: Phase Monitoring Module *(Emergency panels only)*

5: Relays

6: Relay Output Module OR Relay Bypass Module *(Emergency panels only)*

under Dimming Module(s)

7: Dimming Module

Out of the Box

The WaveLinx Networked Relay Panel has no out-of-the box functionality.

Power Switch and Manual Relay Operation

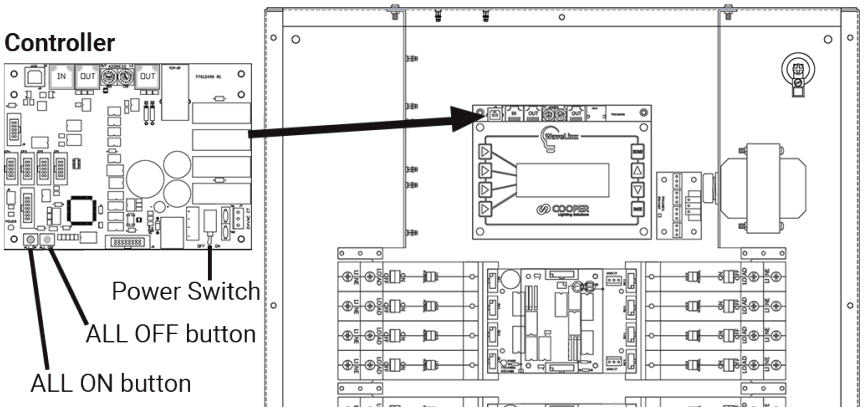
Once power is applied, the relay override buttons and display allow manual operation of the relays and dimmers until a connection can be made to the WaveLinx Area Controller.

Power Switch

The relay panel's Controller Card is under the display and contains an ON/OFF power switch. Power can be switched off to the relay panel's internal components without the need to switch the transformer breaker. Switch to the left to turn power OFF or to the right to turn power ON.

Relay ALL ON/ALL OFF Override Buttons

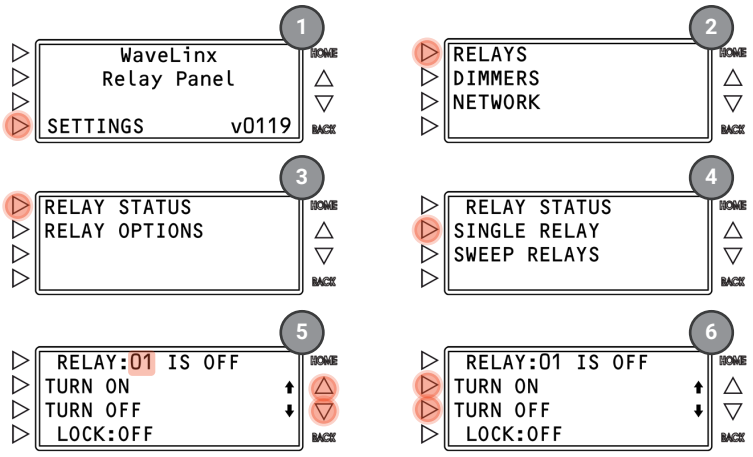
The Controller Card also contains two onboard buttons that allow manual control of all relays in the panel. Press the left button to turn all relays ON. Press the right button to turn all relays OFF. Relays will remain in that state until the next command.



Commanding Relays from the Onboard Display

From the **HOME** screen:

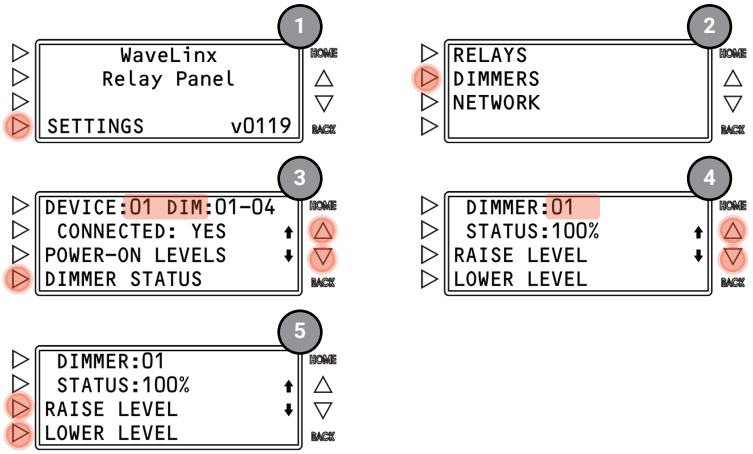
1: Press ▷**SETTINGS**.
2: Press ▷**RELAYS**.
3: Press ▷**RELAY STATUS**.
4: Press ▷**SINGLE RELAY**.
5: Press the scroll buttons ▽△ until the desired relay number is displayed.
6: Press one of the command options:
- ▷**TURN ON** to force the relay ON.
- ▷**TURN OFF** to force the relay OFF.



Commanding Dimmers from the Onboard Display

From the **HOME** screen:

1: Press ▷**SETTINGS**.
2: Press ▷**DIMMERS**.
3: Press the scroll buttons ▽△ until the desired dimmer card address is displayed. Press ▷**DIMMER STATUS**.
4: Press the scroll buttons ▽△ until the desired dimmer number is displayed.
5: Use ▷**RAISE LEVE**L or ▷**LOWER LEVEL**
- Press and release the button to adjust the level of the selected dimmer in 1% increments.
- Press and hold the button to adjust the level more quickly.



Initial Configuration

Follow the steps in this section to configure the initial settings of the WaveLinx Network Relay Panel and the WaveLinx Area Controller.

Configure the WaveLinx Network Relay Panel

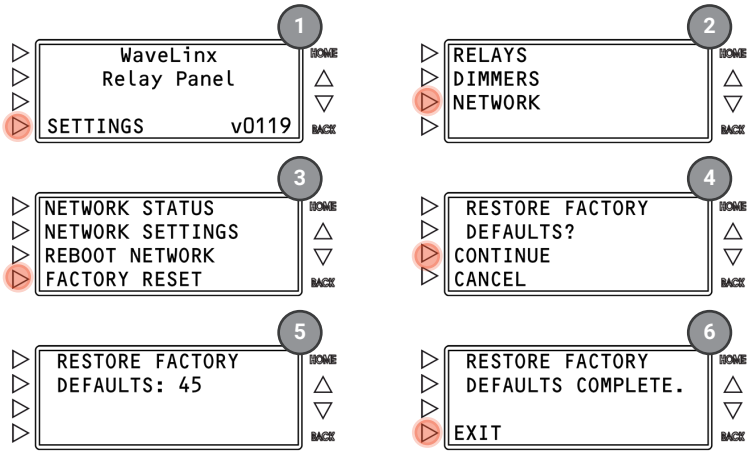
To prepare the relay panel for its connection to the WaveLinx Controller, perform the following steps:

Step 1: Factory Reset the Panel

Before any further configuration, perform a **Factory Reset** to ensure that the panel is operating from a clean configuration. This will factory default the relay pole configuration, power-up states/levels, relay lock settings, and network settings.

From the **HOME** screen:

1: Press ▷**SETTINGS**.
2: Press ▷**NETWORK**.
3: Press ▷**FACTORY RESET**.
4: Press ▷**CONTINUE**.
5: Wait for the panel to restore.
6: Press ▷**EXIT**.

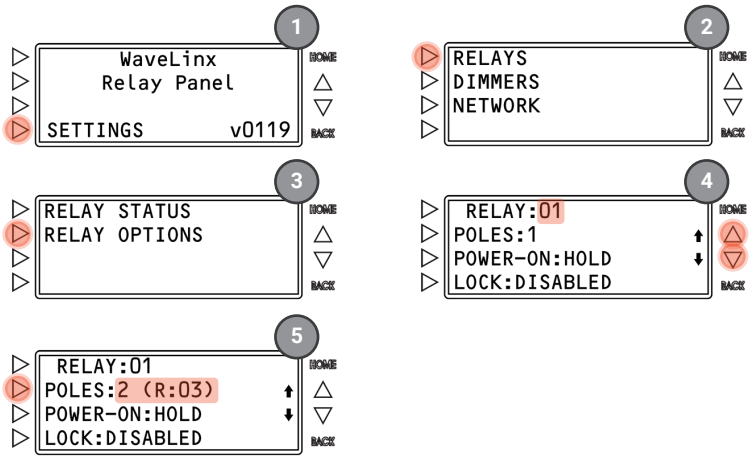


Step 2: Configure Relay Poles

Relays are set for single pole relay configuration by default. If two or three pole relays are being used, they must be configured using the onboard display. Two and three pole relays will always operate from the top relay position.

From the **HOME** screen:

1: Press ▷**SETTINGS**.
2: Press ▷**RELAYS**.
3: Press ▷**RELAY OPTIONS**.
4: Press the scroll buttons ▽△ until the desired relay number is displayed (For 2 or 3 pole relays, select the top relay number).
5: Press ▷**POLES** consecutively to toggle between 1, 2, or 3.
If 2 or 3 pole is selected, the associated relay numbers will be displayed in brackets.



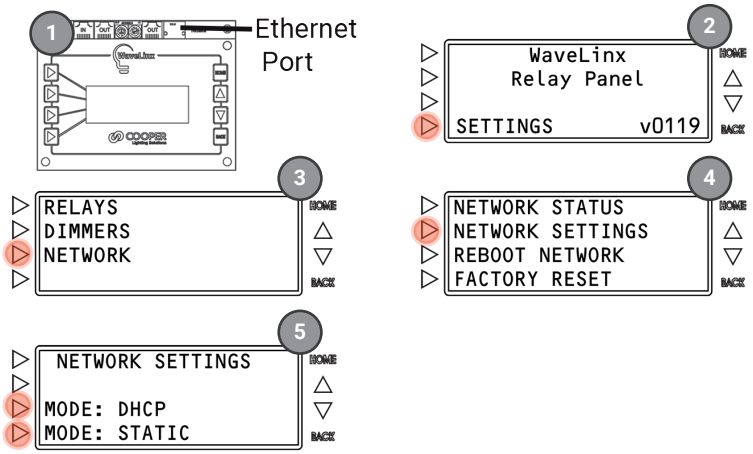
Step 3: Configure Network Settings

IMPORTANT NOTE: If using DHCP to assign the IP address, reserve the IP for the relay panel on the DHCP server to prevent communication issues if the address is changed.

The WaveLinx Networked Relay Panel communicates with the WaveLinx Area Controller over the building LAN. The relay panel must be configured with a unique IP address within the same network range as the WaveLinx Area Controller. By default, the Ethernet port is disabled. The Ethernet port must be set to use either DHCP or a static IP address.

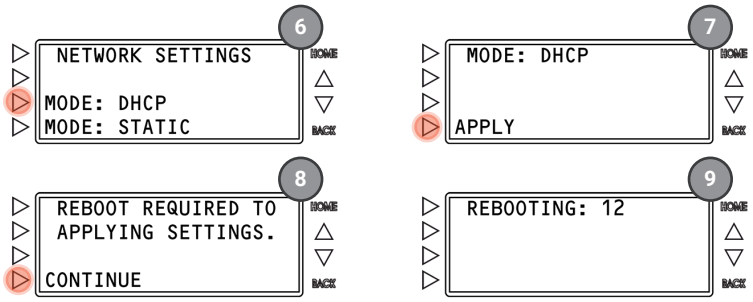
From the **HOME** screen:

1. Make sure that the relay panel Ethernet port is connected to the Building LAN.
2. Press ▷**SETTINGS**.
3. Press ▷**NETWORK**.
4. Press ▷**NETWORK SETTINGS**
5. Select either ▷**MODE: DHCP** or ▷**MODE: STATIC**.



Using DHCP (continue step 6)

6: Press ▷**MODE: DHCP**.
7: Press ▷**APPLY**.
8: Press ▷**CONTINUE**.
9: Wait for the reboot to occur.
Once rebooted, if a DHCP server is online, the panel will acquire an IP address.



For static IP addressing, see next page

Using a Static IP (continue step 6)

6: Press ▷**MODE: STATIC**.

7: Assign the **IP ADDRESS**:

   a. Press ▷ ▸ or ▷ ◂ to move the cursor point ^ beneath the desired address segment.

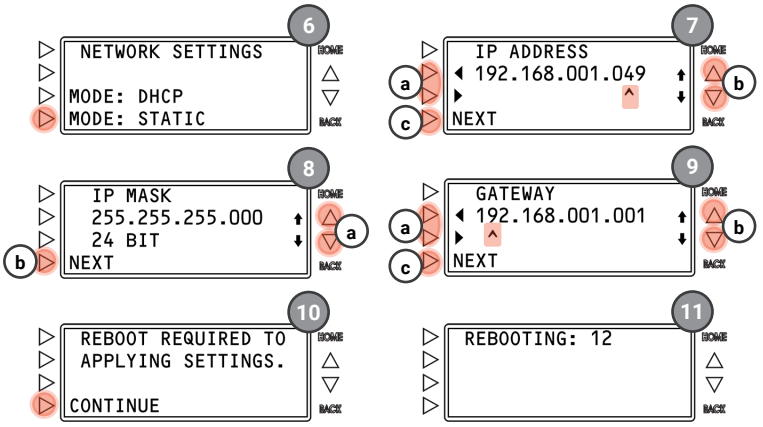
   b. Press and release △ to increment or ▽ to decrement one digit at a time. Press and hold △ to increment or ▽ to decrement more quickly.

   c. Press ▷**NEXT**.

8: Assign the **IP MASK**:

   a. Press and release △ to increment or ▽ to decrement the number of subnet bits one number at a time until the correct subnet mask is displayed (refer to table).

   b. Press ▷**NEXT**.



9: Assign the **GATEWAY ADDRESS**:

   a. Press ▷ ▸ or ▷ ◂ to move the cursor point ^ beneath the desired address segment.

   b. Press and release △ to increment or ▽ to decrement one digit at a time. Press and hold △ to increment or ▽ to decrement more quickly.

   c. Press ▷**NEXT**.

10: Press ▷**CONTINUE**.

11: Wait for the reboot to occur.

Once rebooted, the relay panel should be ready for connection via the assigned static IP address.

Step 4: Verify the Network Status and Note the IP Address

In this step, verify that the network port is enabled and ready for connection. During this step if DHCP was used, note the IP address given to the panel.

From the **HOME** screen:

1: Press ▷**SETTINGS**.

2: Press ▷**NETWORK**.

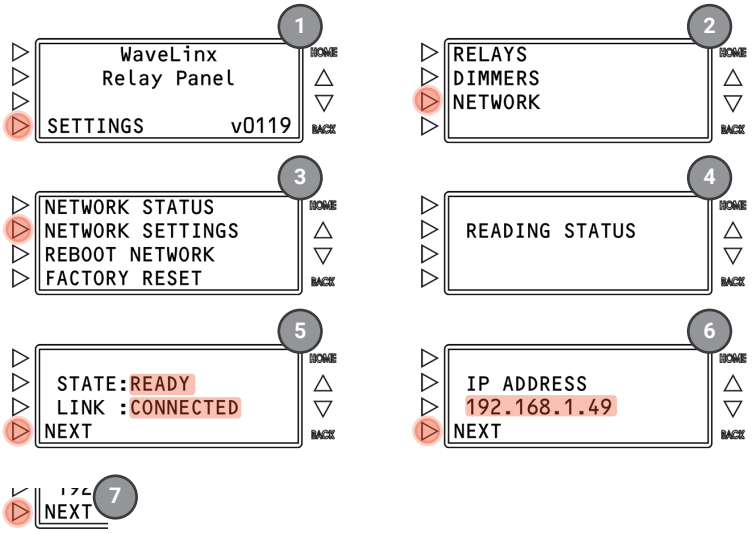
3: Press ▷**NETWORK SETTINGS**.

4: Wait for the relay panel to read the network status.

5: Verify that the network **STATE** is **READY** and that the **LINK** is **CONNECTED** and then press ▷**NEXT**.

6: Review and **note** the **IP ADDRESS** and then press ▷**NEXT**.

7: Continue to press ▷**NEXT** through the remaining screens to exit the Network Status screens.



Configure the WaveLinx Area Controller

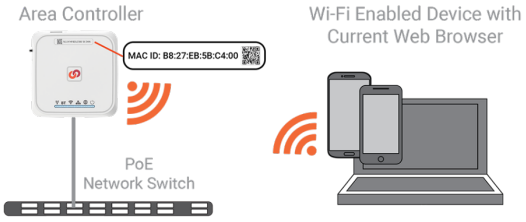
Important
The initial configuration of the WaveLinx Area Controller requires the use of a device that has Wi-Fi, an Ethernet port, and a current web browser. These steps assume that the Area Controller is still in a factory default condition.

Before performing the WaveLinx Area Controller configuration make certain that the Area Controller is connected to PoE port on the network switch.

Step 1: Initial Login Configuration - WaveLinx Area Controller

1 – Prepare for Wi-Fi Connection

- Turn on the device's Wi-Fi and bring it within the Area Controller's range (150 feet). Make note of the Area Controller's MAC address.

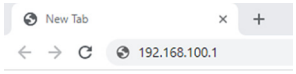


2 – Connect to the Area Controller's Wi-Fi Access Point

- Display the available Wi-Fi networks. Select the network, **Cooper-XXXXXXXXXXXX,** where X is the MAC address on the controller's label. Enter the **password** and select **next**.
- *initial login password*: **wclAdmin**
- *after initial login*: **assigned password**

3 – Open a Web Browser and Access the WaveLinx Area Controller IP Address

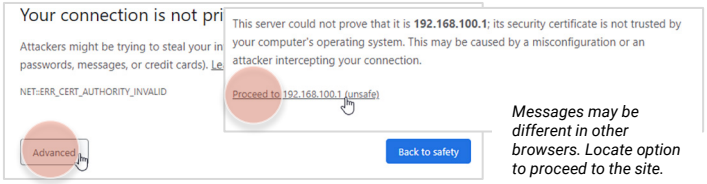
- Open a current web browser and enter the Area Controller's default IP address 192.168.100.1 in the address bar.



4 – Bypass Warnings and Proceed to the Site

Needed only for Initial login or if browser cache is cleared.

- Bypass any warning messages. Select to **proceed** to the site.



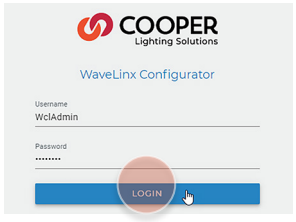
Messages may be different in other browsers. Locate option to proceed to the site.

(continued)

5 – Login to the WaveLinx Configurator Webpage

Needed for initial login only.

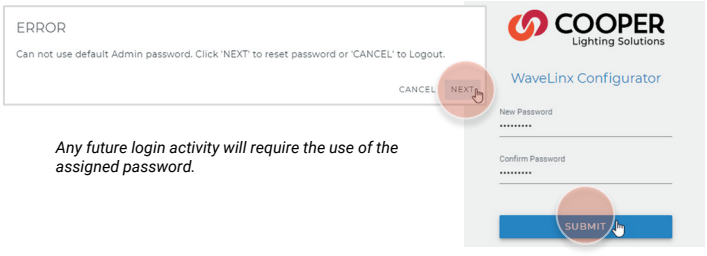
- Enter the admin username, **WclAdmin**, the default password, **wclAdmin**, and then select **Login**.



6 – Update the Password

Needed for initial login only.

- **Follow the prompts** to set a new password.



Any future login activity will require the use of the assigned password.

Continued on next page

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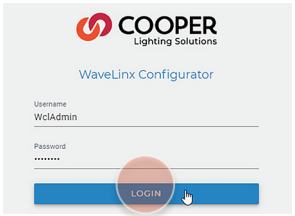
7 – Login to the WaveLinx Configurator Webpage

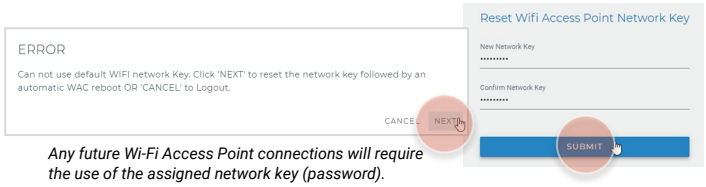
- Login as **WclAdmin** using the **assigned password**.



8 – Update the Wi-Fi Access Point Network Key

Needed for initial login only.

- **Follow the prompts** to set the Wi-Fi network key (password).



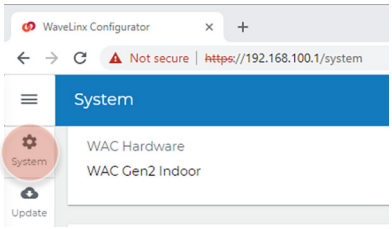
Any future Wi-Fi Access Point connections will require the use of the assigned network key (password).

The WaveLinx Area Controller will reboot. Wait about one minute. Reconnect to the Wi-Fi Access Point using the new password.

Step 2: Set the WaveLinx Area Controller Clock

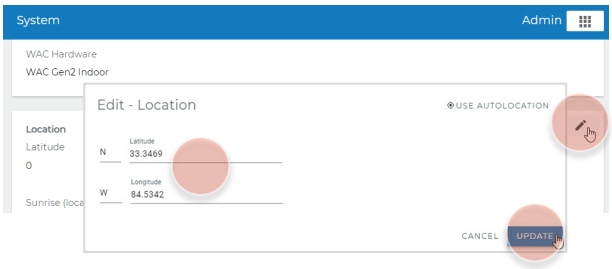
1 – Login

- Login to the WaveLinx Configurator webpage and select **system**.



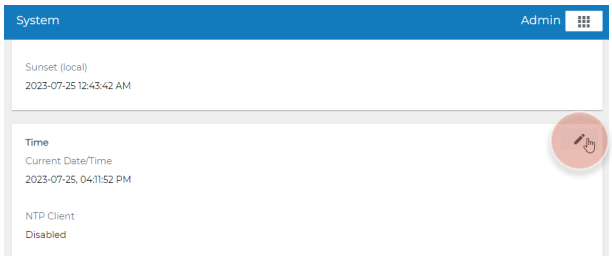
2 – Set the Latitude and Longitude

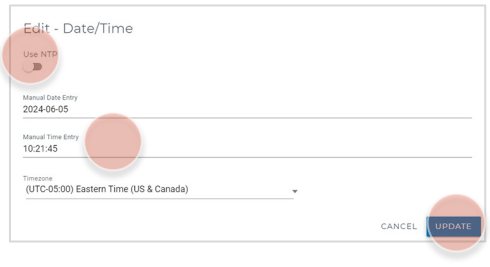
- In the **location** section, select **edit** ✎ and enter the latitude and longitude for the location and select **update** to save changes.



3 – Set the Time and Time Zone

- In the **time** section, select **edit** ✎ , **deselect use NTP** and enter the current date, time, and time zone where the facility is located. Select **update** to save changes.





Step 3: Set the WaveLinx Area Controller IP Address

The WaveLinx Area Controller is set to use DHCP by default. If using a DHCP server, IP configuration is not necessary unless requested to assign a static IP address. If DHCP is not being used, assign a static IP address using the following steps:

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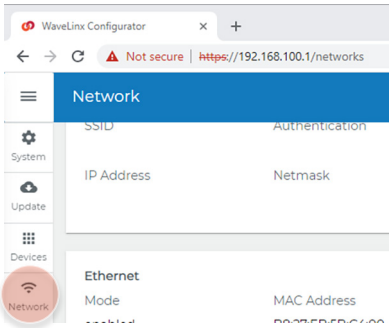
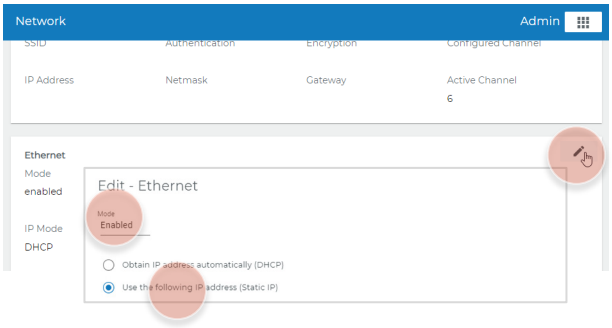
1 – Login

- If needed, login to the WaveLinx Configurator webpage and select **network**.



2 – Enable and Select IP Address Method

- In the **Ethernet** section, select **edit** ✎, set mode to **enabled,** and then select **Use the following IP address** (Static IP).

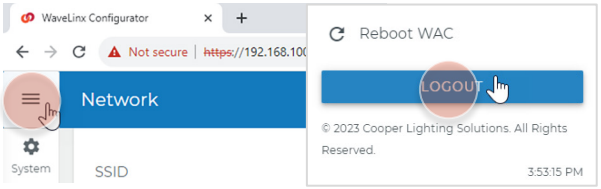


3 – Enter IP Address Information

- Enter the desired **IP address**, **net mask**, and **gateway** and then select **update** to save changes.

4 – Logout of the WaveLinx Configurator

- From the **menu** ☰, select **logout** and then close the web browser.



Adding the Relay Panel to the WaveLinx Area Controller Using the Mobile App

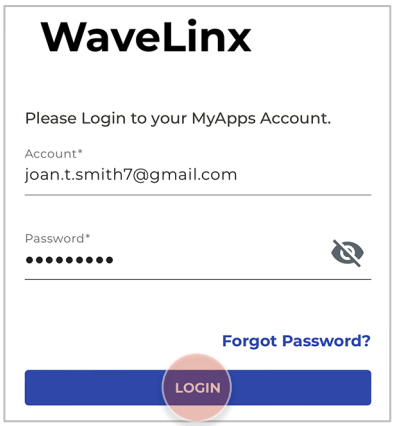
The following sections will use the WaveLinx Mobile App loaded on a mobile device (tablet/smartphone). Use the following sections to login to the mobile app and add the WaveLinx Networked Relay Panel.

Login to the WaveLinx Area Controller

Before proceeding, complete the initial configuration for the WaveLinx Area Controller and the WaveLinx Networked Relay Panel. With the mobile device in hand, stand within 150 feet of the WaveLinx Area Controller for best signal.

Follow the steps below to login to the WaveLinx Area Controller

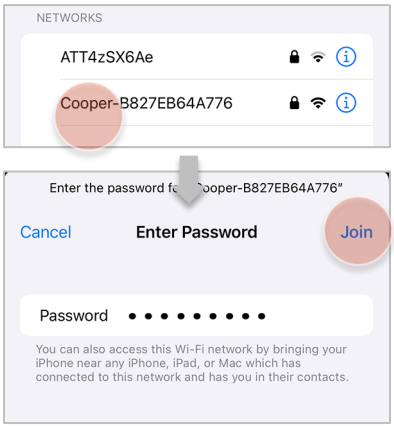
1 – Open and, if not already signed in, login to the Mobile Application



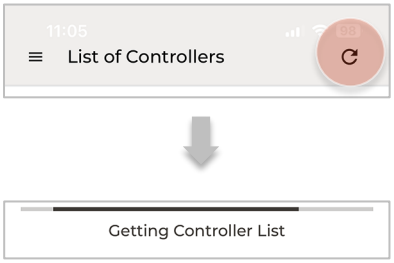
2 – Make sure mobile device Wi-Fi is ON.

3 – Join the WaveLinx Area Controller Wi-Fi using the assigned network key password

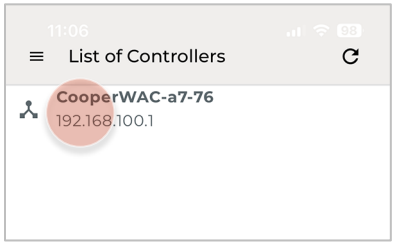
- *The network name = Cooper-XXXXXXXXXXX where X is the MAC address on the controller's label*



4 – Scan for Controllers

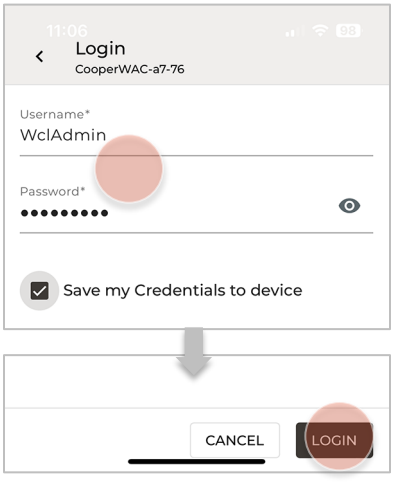


5 – Select the Area Controller



6 – Enter the username and password and login:

- Username: **WclAdmin**
- Password: enter **assigned password**
- Optionally select **Save my Credentials** to streamline future logins to this Area Controller



Add the WaveLinx Networked Relay Panel

To be able to program and control the relays and dimmers in the WaveLinx Networked Relay Panel from the WaveLinx Mobile App, the Relay Panel must be added using its IP address. Before proceeding, open the **WaveLinx Mobile App** and **Login** to the WaveLinx Area Controller.

Follow the steps below to add the Relay Panel:

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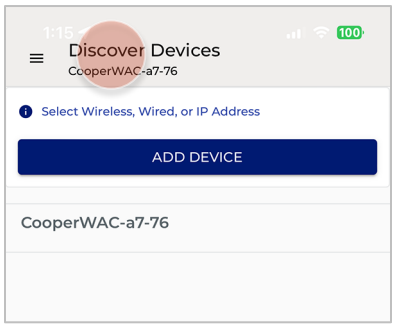
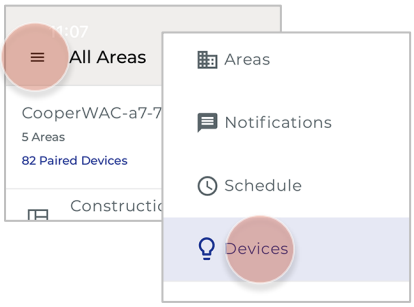
1 – Confirm that the Discover Devices view is displayed.

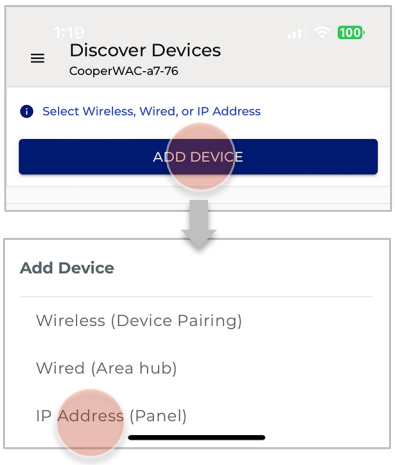


*If not already displayed, select ☰, and tap **Devices**.*

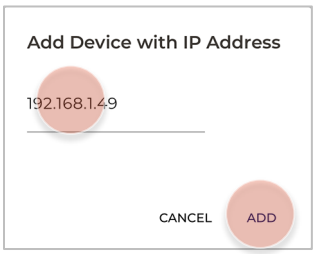


For tablet devices or devices being used in landscape view, tap on the WaveLinx Area Controller.

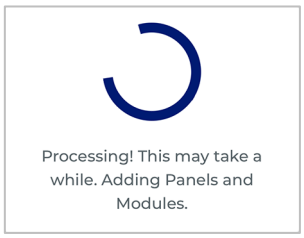
2 – Tap ADD DEVICE and select IP Address (Panel).



3 – Enter the IP Address of the Relay Panel and then tap ADD.



4 – Wait for the Panel Import to Complete.

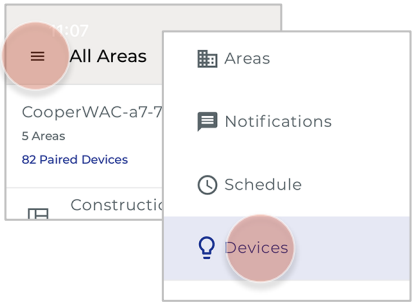


Verify WaveLinx Networked Relay Panel Import and Rename the Panel (Optional)

Check the relay panel import for all expected relays and dimmers. During the check, the panel can be renamed from the default name given (optional). Before beginning these steps, open the **WaveLinx Mobile App** and **Login** to the WaveLinx Area Controller.

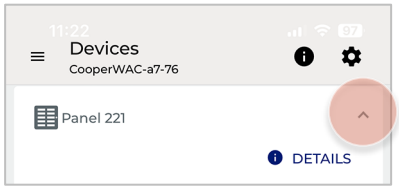
Follow the steps below to view the imported Relay Panel:

1 – If not already displayed, select ☰, and tap Devices.

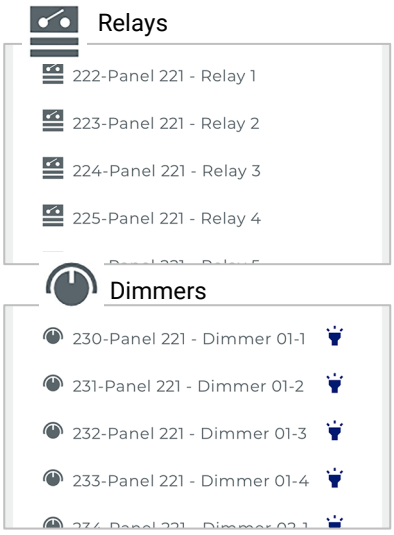


For tablet devices or devices being used in landscape view, tap on the WaveLinx Area Controller.

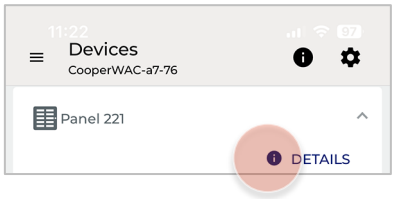
2 – Locate and then tap the panel to expand it.

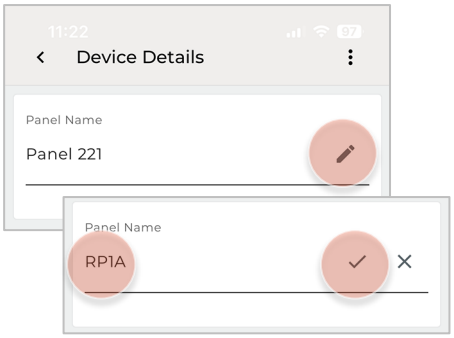


3 – Verify that the correct number of relays and dimmers are displayed.



4 – Optionally rename the panel. Tap ℹ DETAILS and then tap ✎ next to the Panel Name in the Device Details. Enter the desired panel name and then tap ✓ to save.





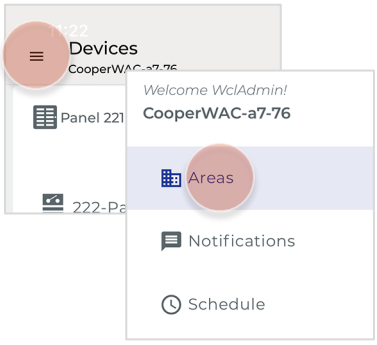
*For tablet devices or devices being used in landscape view, tap on the panel, and then tap ✎ next to the **Panel Name** in the **Device Details**.*

View the Devices in the Construction Area

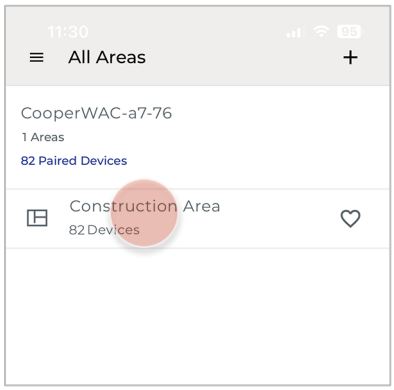
WaveLinx Networked Relay Panel Relays and Dimmers will automatically join the Construction Area once the panel is added to the WaveLinx Area Controller. Before beginning these steps, open the **WaveLinx Mobile App** and **Login** to the WaveLinx Area Controller.

Follow the steps below to view the devices in the Construction Area:

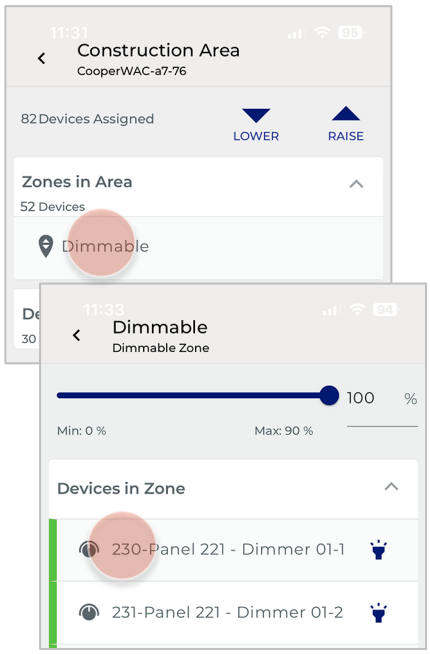
1 – From the menu ☰, select Areas to display the All Areas list.



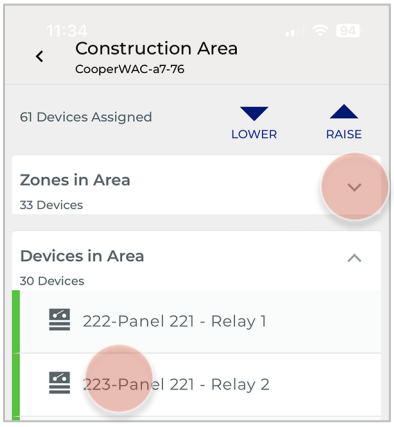
2 – Tap the Construction Area.



3 – To view the dimmers, tap the Dimmable Zone. Tap a dimmer to view it. Tap back ‹ to return to the area.



4 – To view the relays, tap Devices In Area. Tap a dimmer to view it.



Next Steps

The WaveLinx Network Relay Panel's relays and dimmers are ready for programming. Use the WaveLinx Mobile App to assign the relays and dimmers to Areas and Zones and assign control from other WaveLinx devices.

Troubleshooting Tips

If you are unable to connect to the Wireless Area Controller:

- Confirm that the Wi-Fi on your device is turned ON.
- Verify that the Wi-Fi network selected is **Cooper-XXXXXXXXXXX**, where X is the MAC address noted from the WaveLinx Area Controller.
- Once logged in to the mobile app, if the WaveLinx Area Controller is not listed, select ↷ to rescan.

If the WaveLinx Mobile App is not importing the WaveLinx Networked Relay Panel:

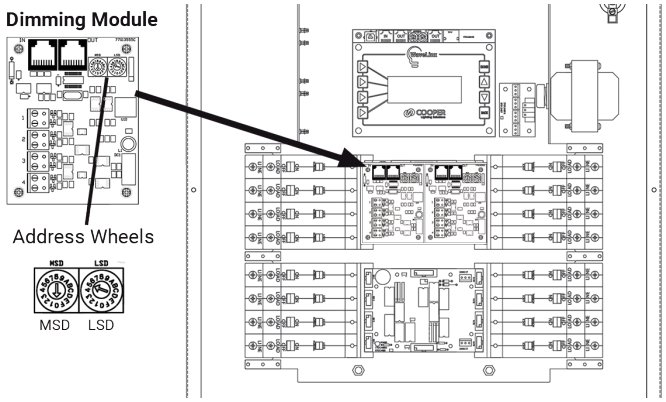
- Confirm that the WaveLinx Networked Relay Panel is powered and connected to the network switch.
- Using the panel's onboard display, view the network status. Make sure that the network **STATE** is **READY** and that the **LINK** is **CONNECTED**. Verify that the IP address showing is the one being used when using the Mobile App to add the panel.
- Confirm that the IP addresses given to the WaveLinx Area Controller and the WaveLinx Area Hub are in the same subnet.
- In the WaveLinx Mobile app try to add the panel again.
- Factory reset the WaveLinx Relay Panel using the onboard display. Reconfigure the Relay Panel and then use the WaveLinx Mobile App to retry adding the panel.

If the dimmers are not appearing as devices in the WaveLinx Networked Relay Panel:

- Confirm that the WaveLinx Networked Relay Panel has been imported.
- Make sure that the Dimmer Module addresses are properly set. Each Dimmer Module connected to the same panel should have a unique address.

Device	MSD	LSD
1	0	1
2	0	2
3	0	3
4	0	4
5	0	5
6	0	6
7	0	7
8	0	8

Device	MSD	LSD
9	0	9
10	0	A
11	0	B
12	0	C
13	0	D
14	0	E
15	0	F
16	1	0



If the devices are not operating as expected:

- Verify that the relays and dimmers are showing online in the WaveLinx Mobile App (green indicator next to device in the zone or area).
- Verify that the relays and dimmers can be manually commanded from the onboard display.
- Verify that the relays and dimmers can be manually commanded from the WaveLinx Mobile App.
- Verify that the relays have not been placed in relay **lock**. Refer to the *WaveLinx User Guide and Programing Manual* for details on this feature.
- Verify the Area programming is correct.

For More Details

This document is designed to get you up and running with your WaveLinx Networked Relay Panel and only covers the beginning basics of configuring your system. For more details, see the *WaveLinx User Guide and Programming Manual*.

Printed in USA
Publication No. IB50389824
July 2024