**READ ME FIRST**

**QUICK INSTALL GUIDE**

**Apex Wave 2 AC3100 Dual-Band Wireless Access Point**

XAP-1610

Includes:
- Wave 2 AC3100 Dual-Band Wireless AP
- Mounting Brackets and Hardware
- PoE Injector and Power Adapter
- Ethernet Cables

**AP SETUP AND CONFIGURATION**

**Physical Installation**

The XAP-1600 access point is designed for simple and efficient installation and can be located one of three ways. First, the included mount is designed to attach directly to several different regions’ standard electrical boxes. Second, the XAP-1600 may be mounted on a ceiling or wall without a box by using the included mount as a guide to mark attachment locations. Finally, the XAP-1600 can be placed on a flat surface by attaching the included rubber feet to the mount.

**Caution:** Attach the rubber feet to the mount and attach the mount to the AP for flat surface placement to avoid overheating and failure.

**READ ME FIRST - CONTROLLER COMPATIBILITY**

This XAP-1600 is compatible with the Luxul Wireless Controller for fast, easy configuration and deployment of wireless networks with multiple APs.

- **Note:** If you’ll be using this AP with a Wireless Controller, refer to the Quick Install Guide included with the Wireless Controller for setup instructions.
- **Note:** Please check to make sure this AP is running the latest version of firmware (as indicated at [https://www.luxul.com/firmware-updates.asp](https://www.luxul.com/firmware-updates.asp)) before continuing onto the next steps.

**Single Access Point Placement:** Because the signal generated by the XAP-1600 is omnidirectional, the unit should be located as near as possible to the center of the desired coverage area.

**Multiple Access Point Placement:** You may need to experiment with AP placement to optimize the roaming experience. Place APs to ensure adequate coverage, but not so far apart that there is no signal overlap. Adjacent APs should overlap enough that the client device has a good connection to the AP to which it is currently attached, but also sees the next-nearest AP to ensure roaming clients should see signal strength of two overlapping APs in the range of -60 to -70 dBm at the midway point between two APs. To learn more about AP placement, visit luxul.com/ap-placement.

**Note:** Consider using Ekahau HeatMapper to assist with this process, available from www.ekahau.com. Luxul also offers an informative “How-To” video on HeatMapper at luxul.com/how-to-videos.
READ ME FIRST - CONTROLLER COMPATIBILITY

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AP SETUP AND CONFIGURATION

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**Caution:** Attach the rubber feet to the mount and attach the mount to the AP for flat surface placement to avoid overheating and failure.

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**CAUTION:**

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AP SETUP AND CONFIGURATION

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Connecting Ethernet and Power

Ethernet and Power
To apply power and network simultaneously, simply connect one end of an Ethernet cable to a PoE+ switch, and the other end to the XAP-1610 PoE port.

To connect power and Ethernet separately, first connect an Ethernet cable from the supplied PoE Injector Data & PWR Out port to the PoE port on the XAP-1610. An Ethernet cable length of up to 300 feet can be used.

Next, connect an Ethernet cable from your Router or Switch to the Data IN port on the PoE Injector. Finally, connect the AC cord to the included PoE Injector, then to the AC outlet.

IP Addressing
If the XAP-1610 is connected to a network with a 192.168.0.X address scheme, and your computer shares a similar address on the same network, you can skip to the next step, Access and Setup.

If your network uses an address scheme other than 192.168.0.X, you'll need to set a temporary static IP address on the computer you're using for configuration. To do so, set the IP address of your computer to an address in the 192.168.0.X range, then set the Gateway/Router address to 192.168.0.10 (the default IP address of the XAP-1610).

Once you're finished configuring the AP, you can return your computer's IP configuration to normal, typically “Obtain Automatically/DHCP.”

Access and Setup
Getting Connected
Connecting Via an Ethernet Device: Use Ethernet cable to connect your computer to the PoE+ switch or PoE injector to which the XAP-1610 is connected. Ethernet is the preferred method of connection.

Connecting Via a Wireless Device: Connect your client device to the XAP-160 default wireless network named Luxul_XAP1610 or Luxul_XAP1610_5G. The wireless network will run in Open Security mode, so no passphrase is required until Wireless Security is configured.

Logging In
To access the AP's web configuration, open your web browser and enter the AP's default 192.168.0.10 IP address in the address field. Log in to the AP using the default user name and password:

- Default IP: 192.168.0.10
- Username: admin
- Password: admin

If another device on your network shares the 192.168.0.10 address, you'll need to temporarily reassign or remove that device while you configure the XAP-1610.

PoE Injector Setup
Data In: Connect an Ethernet cable from your router or switch to the Data In port of the included PoE Injector.

Data & PWR Out: Connect an Ethernet cable from the Data & PWR Out port of the included PoE Injector to the PoE Port of the XAP-1610.

AC Power: Connect the included AC Cord to the Power Input of the Included Injector first and then to the AC outlet.

PoE Injector Setup

PoE Injector Setup

Preparing for Access

Hardware Operation

LED Indicators
Enclosure: If the green Power LED is on, the XAP-160 is powered and working. If the Power LED is OFF, the AP is not receiving power or the LED has been turned off in the AP's web interface. The green Power LED is blinking, the XAP-160 is booting. The two blue LEDs indicate each of the 2.4GHz and 5GHz networks are configured and broadcasting.

PoE Injector: If the Green ON LED is illuminated, power is connected to the injector. If the ON LED is not lit, the injector is not receiving power.

Reset Button
The Reset button is located underneath the mount and marked RESET. It may be used to reboot the AP or to restore factory default settings.

Reboot the AP: With the XAP-160 powered on, simply press and release the Reset button.

Restore Factory Defaults: With the XAP-160 powered on, press and hold the Reset button for 10 seconds. After 10 seconds the lights will begin to flash quickly, then release the button and the XAP-160 will restore factory defaults and reboot.

CAUTION: Holding the Reset button for more than a few seconds will restore the AP to factory default and remove any custom configuration.

Note: Visit http://luxul.com/ip-addressing to learn more about changing your computer's IP address and getting connected.
# AP SETUP AND CONFIGURATION CONT.

## Connecting Ethernet and Power

### Ethernet and Power
To apply power and network simultaneously, simply connect one end of an Ethernet cable to a PoE+ switch, and the other end to the XAP-1610 PoE port.

To connect power and Ethernet separately, first connect an Ethernet cable from the supplied PoE Injector Data & PWR-Out port to the PoE port on the XAP-1610. An Ethernet cable length of up to 300 feet can be used. Next, connect an Ethernet cable from your Router or Switch to the Data IN port on the PoE Injector Finally, connect the AC cord to the included PoE Injector, then to the AC outlet.

- **Note:** Luxul recommends at least Cat-5e unshielded twisted pair (CAT5e UTP) cabling. To ensure best performance at 1000 Mbps, use CAT6 UTP.

### PoE Injector Setup
- **Data In:** Connect an Ethernet cable from your router or switch to the Data In port of the included PoE Injector.
- **Data & PWR Out:** Connect an Ethernet cable from the Data & PWR-Out port of the included PoE Injector to the PoE Port of the XAP-1610.
- **AC Power:** Connect the included AC Cord to the Power Input of the Included Injector first and then to the AC outlet.

## Preparing for Access

### IP Addressing
If the XAP-1610 is connected to a network with a 192.168.0.X address scheme, and your computer shares a similar address on the same network, you can skip to the next step. **Access and Setup**

If your network uses an address scheme other than 192.168.0.X, you’ll need to set a temporary static IP address on the computer you’re using for configuration. To do so, set the IP address of your computer to an address in the 192.168.0.X range, then set the Gateway/Router address to 192.168.0.10 (the default IP address of the XAP-1610).

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## Access and Setup

### Getting Connected

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### Logging In

To access the AP’s web configuration, open your web browser and enter the AP’s default IP address 192.168.0.10 in the address field. Log in to the AP using the default user name and password:

- **Default IP:** 192.168.0.10
- **Username:** admin
- **Password:** admin

- **Note:** If another device on your network shares the 192.168.0.10 address, you’ll need to temporarily reassign or remove that device while you configure the XAP-1610.

- **Note:** The XAP-160 is not a router and will need to be connected to a network with a router in order to deliver Internet access.

### Hardware Operation

#### LED Indicators
- **Enclosure:** If the green Power LED is on, the XAP-1610 is powered and working. If the Power LED is OFF, the AP is not receiving power or the LED has been turned off in the AP’s web interface. If the green Power LED is blinking, the XAP-1610 is booting. The two blue LEDs indicate each of the 2.4GHz and 5GHz networks are configured and broadcasting.

- **PoE Injector:** If the green ON LED is illuminated, power is connected to the Injector. If the ON LED is not lit, the Injector is not receiving power.

**Reboot the AP:** With the XAP-1610 powered on, simply press and release the Reset button.

- **Restore Factory Defaults:** With the XAP-1610 powered on, press and hold the Reset button for 10 seconds. After 10 seconds the lights will begin to flash quickly, then release the button and the XAP-1610 will restore factory defaults and reboot.

- **CAUTION:** Holding the Reset button for more than a few seconds will restore the AP to factory default and remove any custom configuration.

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**CAUTION:** When using the SSID and Password, ensure that the SSID and Password are not easily guessable or predictable.

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**Note:** The XAP-1610 is not a router and will need to be connected to a network with a router in order to deliver Internet access.

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Next, connect an Ethernet cable from your Router or Switch to the Data IN port on the PoE Injector. Finally, connect the AC cord to the included PoE Injector, then to the AC outlet.

Note: Luxul recommends at least Cat-5e unshielded twisted pair (CAT5e UTP) cabling. To ensure best performance at 1000 Mbps, use CAT6 UTP.

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Next, connect an Ethernet cable from your Router or Switch to the Data IN port on the PoE Injector. Finally, connect the AC cord to the included PoE Injector, then to the AC outlet.

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PoE Injector Setup

- **Data In**: Connect an Ethernet cable from your router or switch to the Data In port of the included PoE Injector and the PoE Port of the XAP-1610.
- **Data & PWR Out**: Connect an Ethernet cable from the Data & PWR Out port of the included PoE Injector to the XAP-1610 Power Port.
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