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LEGAL AND REGULATORY INFORMATION

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FCC Compliance


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.

FCC ID: W59XAP1240

IC: 8584A-XAP1240

FCC Statement—Wireless FCC 2.4GHz 802.11bgn

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.

 Hereby, Luxul, 14203 Minuteman Drive, Suite 201, Draper, Utah, 84020, declares that this Luxul XAP-1240 is in compliance with the essential requirements and other relevant provisions of Directive 1995/5/EC. For a copy of this report send a self addressed stamped envelope to: Luxul CE, 14203 Minuteman Drive, Suite 201, Draper, Utah, 84020.

Industry Canada (RSS-Gen Issue 4)
CAN ICES-3(B)/NMB-3(B)

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READ ME FIRST

QUICK INSTALL GUIDE

High Power Wireless 300N Outdoor Access Point XAP-1240

Includes:

- ▶ One: XAP-1240 Wireless Access Point
- ▶ One: PoE Injector and Power Cord
- ▶ One: Ethernet Cable
- ▶ Two: Cable Ties

LUXUL

READ ME FIRST - AP COMPATIBILITY

This XAP-1240 is compatible with the Luxul XWC-1000 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.

If you're using separately-purchased Luxul APs or installing this AP along with a Wireless Controller in an existing Luxul deployment, you may need to manually upgrade firmware for some of those APs before installing the Wireless Controller.

Luxul APs running firmware version 5 or later (like the one in this package) are Wireless Controller-compatible and can be used with the Controller as-is. When purchasing Luxul APs for use with the Wireless Controller, look for an orange "Version 5 Firmware" sticker on the box to avoid the manual upgrade process.



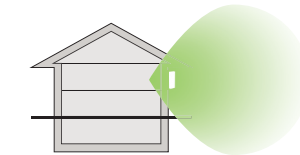
✔ **Note:** Visit <http://luxul.com/ap-upgrade> for help upgrading your AP's firmware to version 5 or newer.

AP SETUP AND CONFIGURATION

1 Physical Installation

The XAP-1240 access point is designed for simple and efficient installation. Four keyholes allow for easy wall-mounting, or for mounting to a pole, use the included cable ties (zip ties) to secure the AP to the pole. Loosely secure two cable ties, one through each mounting flange slot, then tighten the cable ties.

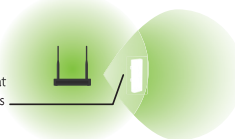
▶ **Single Access Point Placement:** Because the signal generated by the XAP-1240 is directional, the unit should be located at the perimeter of the desired coverage area, with the large flat surface aimed toward the center.



XAP-1240 Single AP Coverage Pattern

▶ **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. Ideally, 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.

Ideally, 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



XAP-1240 Multiple AP Coverage and Overlap

✔ **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.

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AP SETUP AND CONFIGURATION CONT.

2 Connecting Antennas, Ethernet and Power

Ethernet and Power

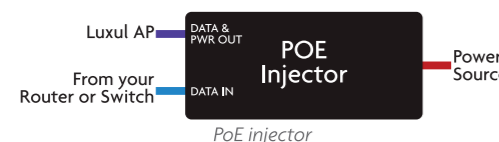
With the XAP-1240 properly mounted, plug the Ethernet cable into the RJ-45 connector on the Access Point.

The XAP-1240 is PoE ready and supports 802.3at PoE. A PoE injector is included with the device. To apply power, simply connect the opposite end of the Ethernet cable to which the access point is connected to the provided PoE injector or other PoE switch or injector. An Ethernet cable length of up to 300 feet can be used.

✔ **Note:** *Category-6 shielded twisted pair is recommended for best results and stable data transmission at the highest data rates. However, Category-5, super Category-5 or Category-6 unshielded twisted pair (CAT5/CAT5e/CAT6 UTP) cable can also be used.*

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-1240
- ▶ **AC Power:** Connect the included AC Cord to the Power Input of the Included Injector first and then to the AC outlet.



3 Preparing for Access

IP Addressing

If the XAP-1240 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**.

✔ **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-1240.*

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-1240).

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

✔ **Note:** *Visit <http://luxul.com/ip-addressing> to learn more about changing your computer's IP address and getting connected.*

4 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-1240 is connected. Ethernet is the preferred method of connection.

- ▶ **Connecting Via a Wireless Device:** Connect your client device to the XAP-1240 default wireless network named Luxul1240. 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

✔ **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-1240.*

✔ **Note:** *The XAP-1240 is not a router and will need to be connected to a network with a router in order to deliver Internet access.*

5 Hardware Operation

LED Indicators

The LED indicators are located on the rear portion of the enclosure, near the top of the AP.



PWR: If the Power LED is On, the XAP-1240 is powered. If the Power LED is Off, the XAP-1240 is not receiving power or the LED has been turned off in the AP's software interface. The Power LED blinks when the XAP-1240 is booting.

LAN: If the LED is On, there is an active Ethernet connection. If the LED is Off, there is no active Ethernet connection. Flashing indicates Ethernet activity.

WLAN: If the LED is On, the wireless radio is active and wireless access is enabled. Off indicates the wireless radio is not active and wireless access is disabled.

Luxul Icon: This LED is for future or custom capabilities.

PoE Injector: If the PWR LED is On, Power is Connected to the injector. If the PWR LED is Off, the injector is not receiving power.

Reset Button: The Reset button is located on the bottom panel of the XAP-1240 and is used to restore factory default settings. To Restore Default Settings, with the XAP-1240 powered on, press and hold the Reset button for 10 seconds, then release.

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



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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

REGULATORY COMPLIANCE AND SAFETY NOTIFICATION

This documentation contains regulatory compliance and safety information for both wireless and non-wireless hardware. Not all the information contained in this document applies to every product.

FCC Compliance

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.

Regulatory Compliance

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. This equipment also complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 in) during normal operation.

Unauthorized antennas, modifications, or attachments could cause damage and may violate regulatory approvals. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate the equipment.

Luxul equipment marketed in the U.S. is restricted to usage of channels 1-11 only for 2.4GHz and channels 100-140/149-165 for 5GHz.

FCC Statement—Wireless FCC 2.4GHz & 5GHz 802.11b/g/n/ac

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.

This equipment has been tested and found to comply with the limits for either a Class A or Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Refer to included Quick Installation Guide for device-specific FCC Class information.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

- ▶ This device complies with part 15 of the FCC Rules.
- ▶ This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm (8in) between the radiator & your body.

Warnings and Safety Information

- ▶ Verify that the electrical circuits have appropriate grounding and overload protection.
- ▶ Attach only approved power cords to the device.
- ▶ Verify there is adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications.
- ▶ DO NOT install in or near hot or humid places, such as a kitchen or bathroom. Take care to minimize exposure to excessive heat or moisture.
- ▶ Small parts and plastic bags used for packaging may be harmful to small children. KEEP ALL ACCESSORIES OUT OF THE REACH OF CHILDREN!
- ▶ This product may become hot when in use for extended time periods. This is normal and is not a malfunction. DO NOT install where it will be exposed to paper, cloth or other flammable materials.

Health and Safety Recommendations

Warnings for the use of Wireless Devices: Please observe all warning notices with regard to the usage of wireless devices

Potentially Hazardous Atmospheres: You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants, and other similar areas where the air contains chemicals or particles (such as grain, dust, or metal powders).

Safety in Hospitals: Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, it is advised to verify that the adjacent equipment is not adversely affected.

RF Exposure Guidelines

Safety Information: The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices.

Warning: Exposure to Radio Frequency (RF) Radiation:

The radiated output of this device is below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact during normal operation is minimized.

- ▶ The end user must avoid any extended human RF exposure directly in front of the device, up to a distance of 20cm (8in), when unit is on.
- ▶ When servicing the equipment and selecting a location for the antennas, it is important to note that a minimum distance of 20cm (8in) is required between personnel and the device or antenna to comply with the radio frequency exposure limit.
- ▶ The antenna used for this transmitter must be installed to provide a separation distance of at least 20cm (8in) from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

The following safety precautions should be observed:

- ▶ Do not touch or move the antenna while the unit is transmitting or receiving.
- ▶ Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.
- ▶ Do not operate the radio or attempt to transmit data unless the antenna is connected; this behavior may cause damage to the radio.

Industry Canada (RSS-Gen Issue 4)

This device complies with Industry 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'Industrie Canada 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.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

CAN ICES-3(B)/NMB-3(B)