

# Installing the ExtremeWireless Indoor AP-7612 Access Point

## Overview of the AP-7612

The AP-7612 is a wall plate 11ac Wave 2 AP that lets you extend your Wireless LAN and deploy local WiFi while still providing extension for wired clients from the same Ethernet jack. This fully-featured access point plugs into existing Ethernet cabled wall plates. The AP provides application visibility and control and policy support over dual integrated radios and a Bluetooth Low Energy (BLE) radio. AP-7612 will also include a second Gigabit Ethernet port with PoE sourcing capability. The PSE port provides PoE (802.3af) which can be used to power devices such as IP Phones. The AP-7612 is designed with five single-band internal antennas for indoor use only.

**Note:** The AP-7612 requires a minimum base firmware of WiNG 5.9.1.

The AP-7612 model has the following specifications:

- Primarily designed to support wall, single and dual-gang box installation.
- Radios: Two concurrent WiFi radios (2.4 GHz and 5 GHz) and one additional radio that can operate as Bluetooth or 802.15.4.
- LEDs: 3 (Figure 2)
- Power: 802.3at (PoE+) compliant for full functionality. 802.3af is supported with reduced functionality.
- The AP-7612 supports the 802.11ac and 802.11n wireless standards, with full backward compatibility with legacy 802.11abg.
- The AP-7612 interoperates fully with Wireless LAN, including support for VoWLAN, branch office mode, guest services, RTLS, availability, and mobility.

For detailed installation information about the AP-7612, see the *Extreme Wireless WiNG AP-7612 Installation Guide*.

## Uplink and Power Connections

The AP-7612 uses Power over Ethernet (PoE) as follows:

**Table 1 Power Sources**

Input	PoE Power Sourcing on GE2
GE1 PoE 802.3at	15.4 Watts.
GE1 PoE 802.3af	Not available.
12V DC	Not available.

The AP has two client ports (GE1/POE and GE2), where:

- GE1/POE port is the system connection.
- GE2 port is used for connecting to an IP Phone.

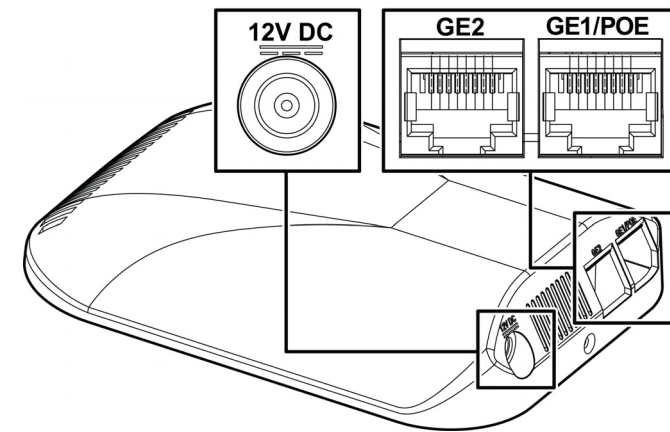
**Note:** Both the client ports (GE1/POE and GE2) are not accessible when the AP is mounted on to a bracket.

The GE2 port let users connect wired clients, such as laptops and printers, to the network only when the AP is taken off the bracket.

**Caution:** The AP should be taken off the bracket only by the owner or someone who is trained to perform the task professionally.

**Warning:** To reduce potential safety issues, only the AC adapter provided with the product, a replacement AC adapter provided by agency, or an AC adapter purchased as an accessory from agency should be used with the product.

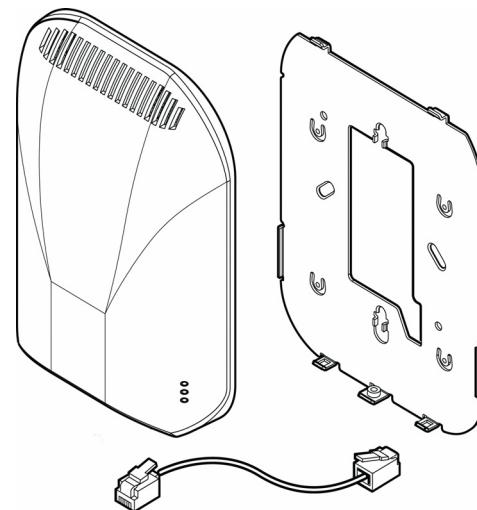
**Figure 1 Power Connections**



## Verifying the AP-7612 Box Contents

Verify the contents of the box as listed in the following table:

**Figure 2 AP-7612 Box Contents**



**Table 2 Contents of the AP-7612 Box**

Quantity	Item
1	AP-7612 Quick Reference
1	AP-7612-680B30-xx
1	Wall/Junction box/Gang box mounting bracket (includes Security Torx screw)
The following hardware is included:	
1	100mm twisted pair RJ45 Flat Cable
1	Security Torx screw (size 0.45X6)

**Note:** Before mounting the AP-7612, read the Safety Guidelines section.

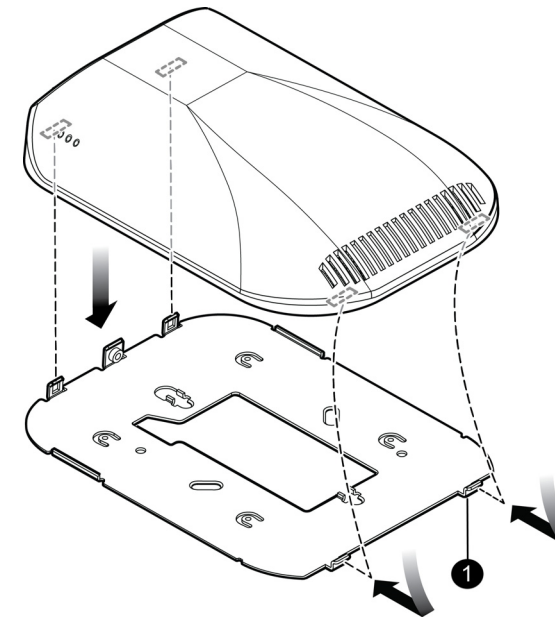
## Mounting and Connecting the AP-7612

Use these instructions as guidelines for mounting and connecting the AP-7612 easily and safely.

Attach the AP-7612 to an indoor wall or junction/gang box. The wall plate bracket is included with the AP box contents.

The AP mounting bracket is designed for single and dual-gang box configurations. For wider installations, you can either adapt the existing bracket or opt to wall-mount the AP.

**Figure 3 Mounting Bracket**



**Table 3**

Number	Description
1	AP mounting tabs

## Mounting the AP-7612 to a Wall

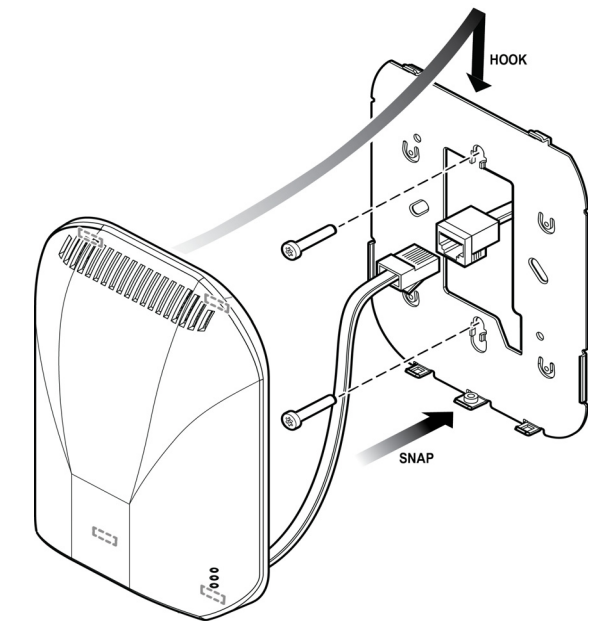
- 1 Using the mounting bracket (Figure 3) as a guide, choose a location where it is feasible to place the AP's center. The location must allow the LAN cables to come out of the wall within the large rectangular hole. Place the bracket against the wall. (The captive screw will be used to lock the AP in place.) Decide which two holes to use to mount the bracket. We recommend using the two holes at the top and the bottom center of the opening. At a minimum, use two holes on opposite sides of the large center opening.
- 2 Mark the two hole centers.
- 3 Drill the two holes using the appropriate drill bit size. For drywall/plasterboard walls, drill two holes using a drill bit of 1/4" or 6mm diameter.
- 4 Attach two screws so there is about 1/4" between the screw head and the wall. For drywall/plasterboard walls, insert the anchors into the wall first and then insert the screws into the anchors.
- 5 Insert the bracket over the screw heads and slide the bracket in such a way that both screws get attached to the bracket.
- 6 Tighten the screws to secure the bracket in its place. Torque the screws to 9.0 in-lbs.
- 7 Connect the LAN1 (GE1/POE) cable and the LAN2 (GE2) cable (if applicable) from the wall and attach the AP to the mounting bracket, as described below.

## Mounting to a Junction/Gang Box

- 1 Place the bracket over the junction box with the two tabs inserted into the AP (Figure 3) and keep it oriented toward the top. The flat surface of the bracket should be kept against the wall.

- 2 Align two of the bracket holes with two of the box's holes. The two holes should be on opposite sides of the larger center opening. Use bracket holes that are closest to the center of the bracket. Make sure that the entire box is covered by the bracket.
- 3 Using the two pan head machine screws, attach the bracket to the box using the aligned holes. Torque the screws to 9.0 in-lbs.
- 4 Connect the LAN1 (GE1/POE) cable from the wall and attach the AP to the mounting bracket. Connect the LAN2 (GE2) cable (if applicable) after attaching the AP to the mounting bracket, as described below.

**Figure 4 Mounting the AP**



## Connecting the AP to the Network

Connect the RJ45 Flat Cable to the GE1/PoE port and pass the cable through the back of the unit. Connect the other end of the cable to the Building LAN outlet.

## Mounting the AP to the Bracket

- 1 Stuff any extra GE1 cable into the wall/box (Figure 3).
- 2 Keep the bracket at an angle and insert the two tabs at the top of the bracket into the AP (Figure 3).
- 3 Rotate the AP (on the tabs), until it clips to the other side of the bracket at the bottom of the AP (the side where the cable enters).
- 4 Attach and tighten the security screw to the bottom of the AP (as shown in Figure 3) and make sure that the AP is attached to the bracket. Torque the screw to 7.0 in-lbs.

**Note:** If you are using the optional 12 VDC-IN adapter instead of PoE on GE1, then fully insert the friction fit connector into the AP. Plug the AP into an AC receptacle.

## Regulatory and Compliance Information

### Federal Communications Commission (FCC) Notice:

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. 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.



**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. 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.

For product available in the USA/Canada market, only channel 1-11 can be operated. Selection of other channels is not possible.

This device is going to be operated in 5.15-5.25GHz frequency range, it is restricted in indoor environment only.

This device is restricted for indoor use.



**Warning: FCC 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 22cm between the radiator & your body.

### Industry Canada Notice:

This device complies with Industry Canada license-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.

#### Caution:

- 1 For product available in the USA/Canada market, only channel 1-11 can be operated. Selection of other channels is not possible.
- 2 Dynamic Frequency Selection (DFS) for devices operating in the bands 5250- 5350 MHz, 5470-5600 MHz and 5650-5725 MHz.
- 3 The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
- 4 The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit.
- 5 The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.
- 6 For indoor use only.

#### Avertissement:

- 1 Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.
- 2 Sélection dynamique de fréquences (DFS) pour les dispositifs fonctionnant dans les bandes 5250-5350 MHz, 5470-5600 MHz et 5650-5725 MHz.
- 3 Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- 4 le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.
- 5 le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.
- 6 Pour une utilisation en intérieur uniquement.

### For Mobile Device Usage



**Warning: IC Radiation Exposure Statement:** This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 24cm between the radiator & your body.



**Warning: Déclaration d'exposition aux radiations:** Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 24 cm de distance entre la source de rayonnement et votre corps.

### Safety Guidelines

This section contains notices that you must adhere to ensure your personal safety and to prevent any damage to the equipment.



**Caution:** The unit and all interconnected equipment must be installed indoors within the same building, including all PoE-powered network connections as described by Environment A of the IEEE 802.3af standard.

## European Waste Electrical and Electronic Equipment (WEEE) Notice



In accordance with Directive 2012/19/EU of the European Parliament on waste electrical and electronic equipment (WEEE):

- 1 The symbol above indicates that separate collection of electrical and electronic equipment is required.
- 2 When this product has reached the end of its serviceable life, it cannot be disposed of as unsorted municipal waste. It must be collected and treated separately.
- 3 It has been determined by the European Parliament that there are potential negative effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment.
- 4 It is the users' responsibility to utilize the available collection system to ensure WEEE is properly treated.

For information about the available collection system, please contact Extreme Environmental Compliance at [Green@extremenetworks.com](mailto:Green@extremenetworks.com).

### CE Statement for Mobile Device Usage



**Warning: MPE Radiation Exposure Statement:** This equipment complies with EU 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.

### All operational modes:

2.4GHz: 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20), 802.11ac (VHT40), Bluetooth(BR/EDR, LE)

5GHz: 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80)

The frequency and the maximum transmitted power in EU are listed below:

2412-2472MHz: 19.84 dBm  
2402-2480MHz (BR/EDR): 9.99 dBm  
2402-2480MHz (LE): 9.63 dBm  
5180-5320MHz: 22.93 dBm  
5500-5700MHz: 29.97 dBm

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

### Selling Countries:

Restriction in	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK

### Hazardous Substances

This product complies with the requirements of Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

#### Declaration of Conformity in Languages of the European Community

Hereby, Extreme Networks, Inc. declares that the radio equipment type AP-7612 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following Internet address: <http://www.extremenetworks.com/>



**Note:** Changes or modifications made to this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### 产品说明书附件 Supplement to Product Instructions

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr <sup>6+</sup> )	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	×	○	○	×	○	○
电路模块 (Circuit Modules)	×	○	○	×	○	○
电缆及电缆组件 (Cables & Cable Assemblies)	×	○	○	×	○	○
塑料和聚合物部件 (Plastic and Polymeric parts)	○	○	○	○	○	×
电路开关 (Circuit Breakers)	○	○	×	×	○	○

○: 表示该有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。  
Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T 11363-2006 standard.

×: 表示该有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006 标准规定的限量要求。  
Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T 11363-2006 standard.

对销售之目的所售产品, 本表显示。  
凯创供应链的电子产品信息产品可能包含这些物质。注意: 在所售产品中可能会也可能不会含有所有所列的部件。  
This table shows where these substances may be found in the supply chain of Extreme electronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or may not be a part of the enclosed product.

除非另外特别的标注, 此标志为针对所涉及产品的环保使用期标志。某些零部件会有一个不同的环保使用期(例如, 电池单元模块)贴在其产品上。  
此环保使用期限只适用于产品是在产品手册中所规定的条件下工作。  
The Environmentally Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain parts may have a different EFUP (for example, battery modules) and so are marked to reflect such. The Environmentally Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.



### 5GHz band (W52, W53): Indoor Use Only

## NCC Statement 低功率射頻電機產品

(1) 「經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能」。

(2) 「低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾」。

(3) 「電磁波曝露量 MPE 標準值 1mW/cm<sup>2</sup>，本產品使用時建議應距離人體：22 cm」。

(4) 「無線資訊傳輸設備避免影響附近雷達系統之操作」。

# Extreme Wireless™ WiNG™ Access Points

## Quick Reference

P/N 37103

AP-7612-680B30-EG

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