ExtremeWireless™ AP3000X Access Point Installation Guide

9037812-00 Rev AA
May 2023

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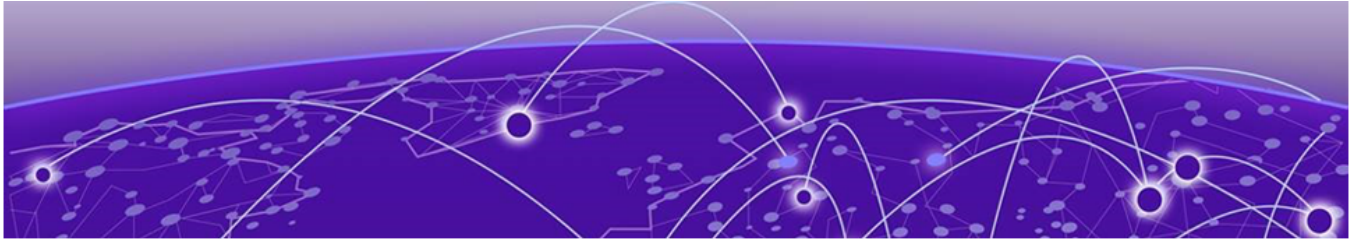

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Preface

Read the following topics to learn about:

- The meanings of text formats used in this document.
- Where you can find additional information and help.
- How to reach us with questions and comments.

Text Conventions

Unless otherwise noted, information in this document applies to all supported environments for the products in question. Exceptions, like command keywords associated with a specific software version, are identified in the text.

When a feature, function, or operation pertains to a specific hardware product, the product name is used. When features, functions, and operations are the same across an entire product family, such as ExtremeSwitching switches or SLX routers, the product is referred to as *the switch* or *the router*.

Table 1: Notes and warnings

Icon	Notice type	Alerts you to...
	Tip	Helpful tips and notices for using the product
	Note	Useful information or instructions
	Important	Important features or instructions
	Caution	Risk of personal injury, system damage, or loss of data
	Warning	Risk of severe personal injury

Table 2: Text

Convention	Description
`screen displays`	This typeface indicates command syntax, or represents information as it is displayed on the screen.
The words *enter* and *type*	When you see the word *enter* in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says *type*.
Key names	Key names are written in boldface, for example **Ctrl** or **Esc**. If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press **Ctrl**+**Alt**+**Del**
Words in italicized type	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.
NEW!	New information. In a PDF, this is searchable text.

Table 3: Command syntax

Convention	Description
bold text	Bold text indicates command names, keywords, and command options.
italic text	Italic text indicates variable content.
`[ ]`	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
`{ x | y | z }`	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
`x | y`	A vertical bar separates mutually exclusive elements.
`< >`	Nonprinting characters, such as passwords, are enclosed in angle brackets.
...	Repeat the previous element, for example, *member*`[`*member*`...]`.
\	In command examples, the backslash indicates a “soft” line break. When a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

Documentation and Training

Find Extreme Networks product information at the following locations:

Current Product Documentation
Release Notes

Hardware and software compatibility for Extreme Networks products
Extreme Optics Compatibility
Other resources such as white papers, data sheets, and case studies

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For details, visit www.extremenetworks.com/education/.

Help and Support

If you require assistance, contact Extreme Networks using one of the following methods:

Extreme Portal

Search the GTAC (Global Technical Assistance Center) knowledge base; manage support cases and service contracts; download software; and obtain product licensing, training, and certifications.

The Hub

A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Call GTAC

For immediate support: (800) 998 2408 (toll-free in U.S. and Canada) or 1 (408) 579 2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any actions already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Subscribe to Product Announcements

You can subscribe to email notifications for product and software release announcements, Field Notices, and Vulnerability Notices.

1. Go to The Hub.
2. In the list of categories, expand the **Product Announcements** list.
3. Select a product for which you would like to receive notifications.

4. Select **Subscribe**.
5. To select additional products, return to the **Product Announcements** list and repeat steps 3 and 4.

You can modify your product selections or unsubscribe at any time.

Send Feedback

The Information Development team at Extreme Networks has made every effort to ensure that this document is accurate, complete, and easy to use. We strive to improve our documentation to help you in your work, so we want to hear from you. We welcome all feedback, but we especially want to know about:

- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information.
- Broken links or usability issues.

To send feedback, do either of the following:

- Access the feedback form at https://www.extremenetworks.com/documentation-feedback/.
- Email us at documentation@extremenetworks.com.

Provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

AP3000X Overview

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The AP3000X access point is an *indoor* access point with a Wi-Fi 6E dual radio and support for multiple Extreme Networks operating systems. It is designed for high density environments where a large number of people will access your network such as classrooms, warehouses, healthcare clinics, and manufacturing sites.

You can operate the AP across the 2.4 GHz and 5 GHz or the 5 GHz and 6 GHz bands. It is supported on the following platforms:

- On-premise: WiNG OS (Centralized)
- Cloud: IQ Engine

The AP3000X has 4 external antennas and ships with following antennas in the box:

- 2 RPSMA dual banded 2.4GHz and 5 GHz antennas.
- 2 permanently attached or integrated external 6 GHz antennas.

It also ships with the AH-ACC-BKT-AX-TB mounting bracket for mounting the AP to a flat t-bar with flat ceiling tiles, flat surface, or a wall.

You do not have to use a country-specific SKU unless you are ordering for Israel or Egypt.

Figure 1: The AP3000X Access point

Product Specifications

The AP3000X access point supports both PoE 802.3af and 802.3at. It is supported on the following platforms:

- ExtremeCloud™ IQ
- Extreme IQ Controller

Antennas

The AP3000X ships with the following antennas:

- 2 RPSMA dual banded 2.4/5 GHz antennas which are shipped with the AP.
- 2 Wi-Fi 6 GHz antennas which are permently attached to the AP.
- 1 Thread®; Zigbee®; Bluetooth® 5.3 Low Energy; IEEE 802.15.4

Radios

The AP3000X has the following radios:

- Two 802.11ax radios (2X2 2.4GHz/2X2 6 GHz radio, and 2X2 5 GHz radio)
- One IoT Radio (2.4 GHz)
- Maximum users:
  - SSID per radio: 8 with a total of 16

- Users per radio: 512 with a total of 1024

Table 4: Radio Modes

AP3000X	Radio 1	Radio 2	Ports in use
Mode 1	2.4 GHz	5 GHz	Two dual band ports. You can change the antennas.
Mode 2	6 GHz	5 GHz	Four ports in use, with 2 ports fixed on 6 GHz. The other 2 ports are external antennas.

Ports and Connectors

The AP3000X has the following ports, connectors, and features:

- One Kensington security slot:
- One USB 2.0 type A connector:
- Two Ethernet ports (ETH0 and ETH1)
  - ETH0: 2500/1000/100 Mbps auto-negotiation Ethernet port, RJ45, Power over Ethernet (PoE) at 802.3at and 802.3af. USB is not available with 802.3af.
  - ETH1: 1000/100/10 Mbps, RJ45

Physical Dimensions

The AP3000X has the following dimensions and weight:

- Physical Specification: 21.84 cm x 17.3 cm x 3.6 cm (8.6 in. x 6.8 in. x 1.4 in.)
- Weight: 0.56 kg (1.2 lbs)

Environmental Specifications

The following table shows the environmental operating conditions for the AP3000X.

Table 5: AP3000X Environmental specifications

Specification	Range
Operating	0° to 50°C (32° to 122° F)
Storage	-40°C to 70°C (-40°F to 158°F)
Humidity	0% to 95% (non-condensing)

Troubleshoot

The AP3000X has the following troubleshooting features:

- Console port: Micro USB
- One bi-color status light that displays in white and amber
- One software reset button

Hardware Ports

The AP3000X has several ports and hardware features to help you when you install the access point. Use the following diagrams and locate the ports and other hardware features.

Figure 2: AP3000X Hardware ports

Table 6: AP3000X Ports and Connections

Item	Port	Description
1	12VDC	12-volts of direct current.
2	ETH1 port	1GE/100/10.
3	ETH0/PoE+ port	2.5GE/1GE/100 with PoE In.

Figure 3: AP3000X Hardware ports continued

Table 7: AP3000X Ports and Connections

Item	Description	Use
1	Kensington security slot	A security feature used to secure your AP. This is an optional task, but it prevents someone from taking the AP.
2	2.0 USB type A port	Used with a thumb drive or other external device.
3	Console port	Micro USB console port for a serial connection between your management system and the access point. Use the port when you troubleshoot the AP. The best practice is to use the Extreme Networks micro USB cable (ACC-WIFI-MICRO-USB). When you connect to the device, the management station must have a VT100 emulation program, such as the terminal emulator TeraTerm Pro or Hilgraeve HyperTerminal®. Set your baud rate to 115200.

LED Status

The Extreme wireless access point has a LED status light that shows the AP's operating status. A solid white indicates that the AP is working normally. A solid or blinking amber indicates a potential issue.

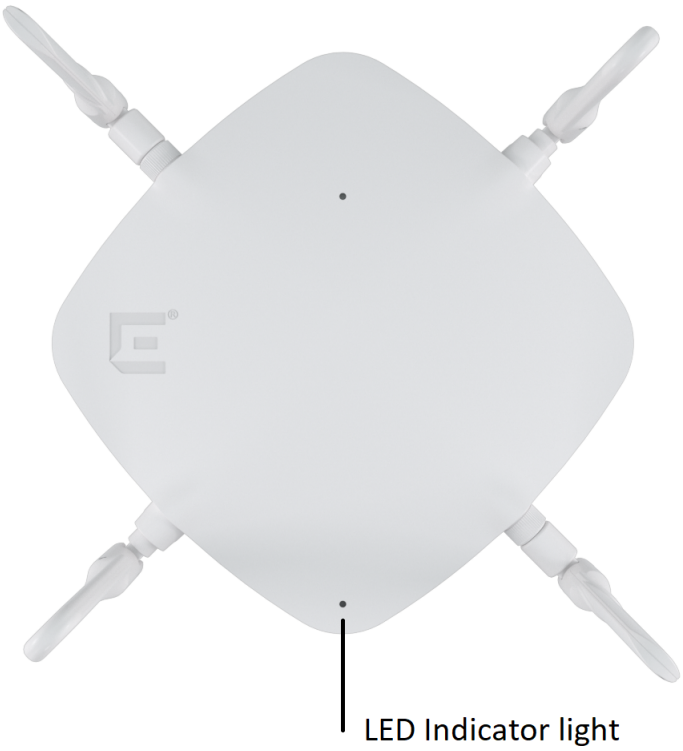

Figure 4: AP3000X LED

The following tables show the LED states based on your firmware platform.

Table 8: IQ Engine Status LED Activity

LED State	Description
Dark	AP is not being powered.
Solid white	Power is on and the access point is ready to use. The AP has a Control And Provisioning of Wireless Access Points (CAPWAP) connection to ExtremeCloud IQ.
Slow-blinking white	The AP has a CAPWAP connection to ExtremeCloud IQ, but it is operating on 802.3af power instead of 802.3at power.
Solid amber	The power is on and the access point is in start-up mode, or is running without a CAPWAP connection.
Slow-blinking amber	The AP does not have a CAPWAP connection to ExtremeCloud IQ. It is operating on 802.3af power instead of 802.3at power.
Fast-blinking amber	A IQ Engine firmware upgrade is in progress.

Table 9: ExtremeWireless WiNG Status LED Activity

LED State	Description
Dark	The AP is not being powered or the LED is turned off from the controller.
Solid white	The AP is starting up and a connection is being established to ExtremeCloud IQ Controller.
Slow-blinking white	The controller is taking over the AP or the controller has failed to take over the AP.
Flashing fading white	A location aid to help you find an AP. This setting is configured from the controller.
Solid amber	A firmware upgrade is in progress.
Fast-blinking amber	The AP is acquiring Dynamic Host Configuration Protocol (DHCP) IP address.

Power Profile

The following table shows the AP3000X power profile. Use this information when you plan your installation.

Table 10: AP3000X power profile

AP3000X	AF profile	AT and DC profile
Radio 1	2×2 (18 dBm)	2×2 (18 dBm)
Radio 2	2×2 (18 dBm)	2×2 (18 dBm)
BLE	On	On
USB (2.5W)	Off	On

Supported Accessories

The AP3000X comes with the AH-ACC-BKT-AX-TB mounting bracket that can be used to mount the access point on flat surfaces, such as Prelude ceilings (15/16 in. ceiling grid), Suprafine ceilings (flat bottomed 9/16 in. ceiling grid), and walls. The ceiling tile sides must be flat.

Supported Antennas

The AP3000X has two 6GHz antenna permently attached to the AP. The following table shows the supported external dual band 2.4 and 5 GHz antennas.

Table 11: Supported antennas

Antenna	Technical Specifications				
	2.4GHz			5.0GHz	
	Port	Gain	Beam	Gain	Beam
ML-2452-HPAG4A6-01	1	4	360	7.3	360
ML-2452-PNA5-01R	1	4.5	120	5	120
ML-2452-HPAG5A8-0	1	4.7	360	8	360
ML-2452-APA2-01	1	3.04	360	4.96	360
ML-2452-APA2-02	1	3.04	360	4.96	360
ML-2452-HPA5-036	1	3.9	360	5.7	360
ML-2452-PTA2M2-036	2	4	360	5	360
ML-2452-SEC6M4-036	4	6.92	100	7.3	80
AI-DS0305360-RPSMA	1	3.23	360	5.22	360
AIO-DD75060-RPSMA	2	7.5	60	7.5	60
AIO-DD05120-RPSMA	2	5	120	5	120

Supported Mounting Options

Purchase one of the following accessories if you are installing the access point on a surface other than a standard flat surface.

Table 12: Supported brackets

Accessory	Description
AH-ACC-BKT-AX-TB	Mounting bracket that can be used to mount the access point on flat surfaces such as Prelude ceilings (15/16 in. ceiling grid), Suprafine ceilings (flat bottomed 9/16 in. ceiling grid), and walls. **Note:** AH-ACC-BKT-AX-TB is included with the access point.
AH-ACC-BKT-AX-IL	Mounting bracket for Interlude ceilings (9/16 in. wide T-bar with center protrusion).

Table 12: Supported brackets (continued)

Accessory	Description
AH-ACC-BKT-AX-SL	Mounting bracket for Silhouette ceilings (ceiling grid with 1/8 in. or 1/4 in. bottom opening).
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations when a 1.25 inches of space is desired between the wall and the access point.
ACC-BKT-TB-NF	Mounting bracket for 15/16 in. wide T-bars with sculpted ceiling tiles.
AH-ACC-BKT-916-KIT	Mounting bracket for 9/16 in. wide T-bars with sculpted ceiling tiles.
ACC-BKT-AX-TBW	Mounting bracket for 1.5 in. wide T-bars.
ACC-BKT-AX-BEAM	Mounting bracket for beam mounting.
ACC-BKT-AX-JB	Mounting bracket for junction box or wall mounting.

Supported Power Accessories

You can power the access point through the ETH0 RJ45 Ethernet port. But if you need to power the AP with an external power supply, you can purchase a 12V DC power supply.

There is no wall mount bracket for the 12VDC power supply.

Table 13: Power accessories

Part number	Description
37215	PWR 12 VDC, 2A (24W), 2.5 mm X 5.5 mm connector

Other Accessories

The following table shows the additional accessories available for your access point.

Table 14: Accessories

Part number	Description
ACC-WIFI-MICRO-USB	Extreme Networks micro USB cable. **Note:** When you connect to the device using the micro USB Console port, the management station from which you connect to the device must have a VT100 emulation program, such as TeraTerm Pro (a free terminal emulator) or Hilgraeve HyperTerminal. Set your baud rate to 115200.

Micro USB Console Port Information

Use the console port to make a serial connection between your management system and the access point. You can order a micro USB console adapter for your access point using the part number ACC-WIFI-MICRO-USB.

Note
When you connect to the Micro USB console port, the management station from which you connect to the device must have a VT100 emulation program, such as Tera Term Pro (a free terminal emulator) or Hilgraeve HyperTerminal® (provided with Windows operating systems from XP forward).

Table 15: Micro-B USB Pin Information

Pin number	Pin name and description
1	NC
2	R×D (input to access point)
3	T×D (output to terminal)
4	Signal (GND)
5	Signal (GND)

MAC Address

The media access control address (MAC address) is located on the bottom of the access point. You can record the address for your company's records. Some deployment scenarios require that you use the address when you deploy the AP.

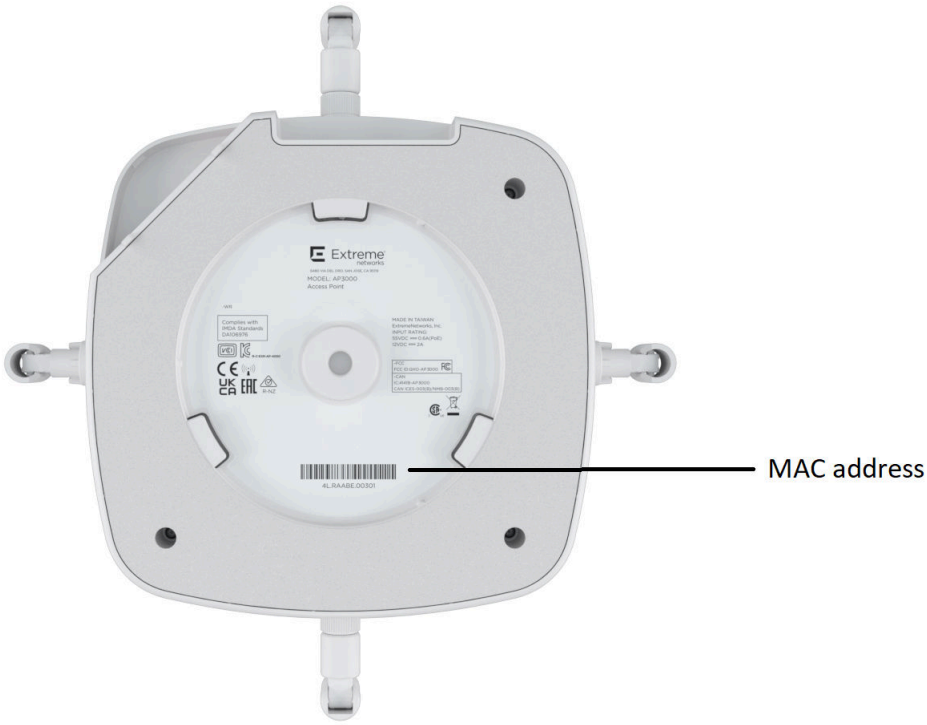

Figure 5: Access Point MAC address

Cleaning Guidelines for Radome

You can use the following cleaning solutions:

- Hydrogen peroxide (a 3% solution)
- Chlorine bleach
- Sodium hypochlorite (a 0.05% solution)
- Ethyl alcohol (a 75% solution)
- Isopropyl alcohol (a 75% solution)
- White vinegar
- Sporicidal (peracetic acid; a 0.5% solution)
- Water
- Baking soda (a 3:1 solution)
- Non-abrasive soap

Note
Do not wash the AP3000X. You will damage the device and void the warranty. Instead you can wipe the radome with a damp cloth. But you must avoid the ports and connectors. Do not power wash the AP.

Purchase Information

The AP3000X access point is sold with the AH-ACC-BKT-AX-TB mounting bracket. Use the information below when you order the AP.

Table 16: Access point part number

Part number	Description
AP3000X-WW	Indoor Dual Radio Wi-Fi 6E AP, 2.4 GHz and 5 GHz or 5GHz and 6GHz, Multirate Port, External antennas. BLE/Zigbee. Includes AH-ACC-BKT-AX-TB mounting bracket, 2 integrated 6 GHz and 2 AI DS0305360-RPSMA antennas. Domain: World SKU

Access Point Installation

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The AP3000X access point is an indoor access point that can be installed on a ceiling rail, on non-standard ceilings, and on a wall. For more information about selecting the right access point bracket and accessory for your installation needs, see the *Extreme Networks 11.ax Access Points Accessories Guide*.

Installation Work Flow

Use the information in the following table to help you install your AP3000X access point.

Table 17: Installation Work flow

Steps	Action	Purpose
1.	Verify the box contents.	Confirm that your AP and accessories arrived complete and undamaged.
2.	Install the access point based on your needs. You can do any of the following: • Attach the AP to a standard ceiling rail. • Attach the AP to a wall with AH-ACC-BKT-AX-WL. • Attach the AP to a Silhouette ceiling. • Attach the AP to an Interlude ceiling. • Attach the AP to a junction Box. • Attach the AP to a beam.	Install the AP on a ceiling or wall, and connect the network cable. If you use Power over Ethernet, then the AP powers up. The AP begins a discovery process to determine its own IP address and the IP address of the controller. When the discovery process is successful, the AP registers with the controller.
3.	Connect antennas	Connect the 2 RPSMA dual banded 2.4/5 GHz antennas which are shipped with the AP.
4.	(Optional) Connect to a power supply.	Connect to an external 12-volt DC power supply if you are not using Power over Ethernet (PoE).
5.	(Optional) Lock the access point.	Secure the AP and prevent someone from removing it.
6.	Complete the post-installation tasks and confirm registration.	Confirm that the AP registered with the controller, configure the AP for your network, and assign it to one or more Virtual Network Services (VNS).

Box Contents

Your Extreme access point ships with everything that you need for a basic installation. All optional brackets and accessories are sold separately.

Confirm that you have received the following items before you install your device.

Table 18: Hardware

Quantity	Item
1	Extreme AP 3000X access point
2	External antennas; dual band 2.4 GHz and 5 Ghz (AI-DS0305360-RPSMA)
1	Quick reference guide for your access point

Table 18: Hardware (continued)

Quantity	Item
1	AH-ACC-BKT-AX-TB mounting bracket
2	Phillips pan head wood screws
2	Screw-in anchors

Install the Access Point on a Wall or a Flat Ceiling

Before You Begin

Confirm that you have the following items:

- An AP3000X access point
- One AH-ACC-BKT-AX-TB mounting bracket. The bracket is used for flat surface wall or solid ceiling installation.
- Two M3.5 pan head wood screws and two screw-in anchors.

About This Task

Follow these steps when you install the access point on a wall or solid ceiling.

Procedure

1. Mark and drill two mounting holes.

   Use the AH-ACC-BKT-AX-TB mounting bracket as a template.
2. Attach the bracket to the wall.

   Use the two M3.5 pan head screws. Use push-in anchors or screw-in anchors for drywall or plastic board installations.
3. Attach the access point to the bracket

   Align the red dots on the bracket and the access point base.
4. Press and rotate the AP one-sixth turn clockwise.

   The AP clicks into place on the bracket.
5. Attach the network cable and power-up the AP.
   - If you use Power over Ethernet (PoE) then attach the network cable to the ETH0 port.
   - If you use Power Sourcing Equipment (PSE), then connect the power supply and attach the network cable to the ETH0 port.

Install the Access Point on a Silhouette Ceiling

Before You Begin

You need the following items:

- AP3000X
- AH-ACC-BKT-AX-SL bracket

About This Task

You can mount the access point to a ceiling grid with 1/8 in. or 1/4 in. bottom opening.

Silhouette is an Armstrong Ceiling Solutions name.

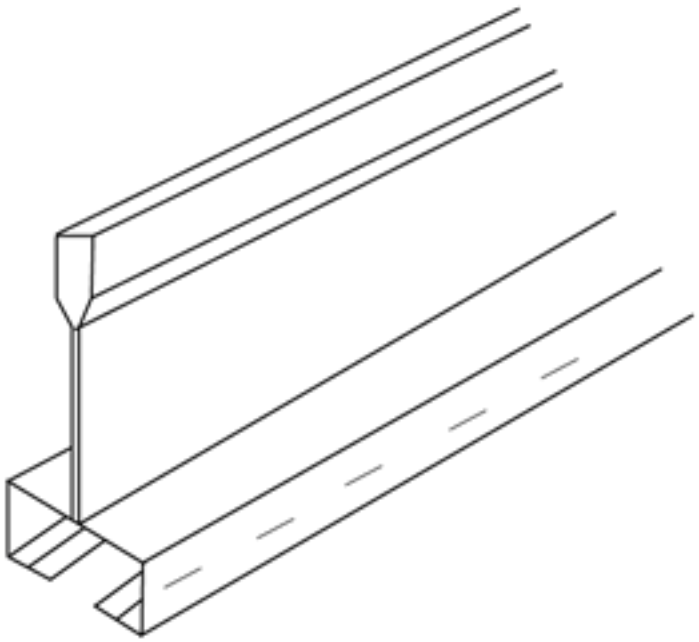


Figure 6: Ceiling grid with 1/8 in. or ¼ in. bottom openings

Procedure

1. Remove the ceiling tiles.
2. Place the bracket on the ceiling rail in such a way that the accessory metal hinges are almost perpendicular to the sides of the ceiling rail with the ceiling rail over the center hole.

3. Lightly push onto to the ceiling rail and rotate the accessory clockwise until the hinges hook over the edge of the rail and the white tabs click in place.

Note
There are two white tabs in the back of the bracket that holds on to the ceiling rail in place. Use your finger to pull and unhook one side of the white tab if you want to remove the accessory from the ceiling rail.

Gently rotate the bracket counterclockwise and if there is resistance, the other white tab in the back of the accessory must also be released.

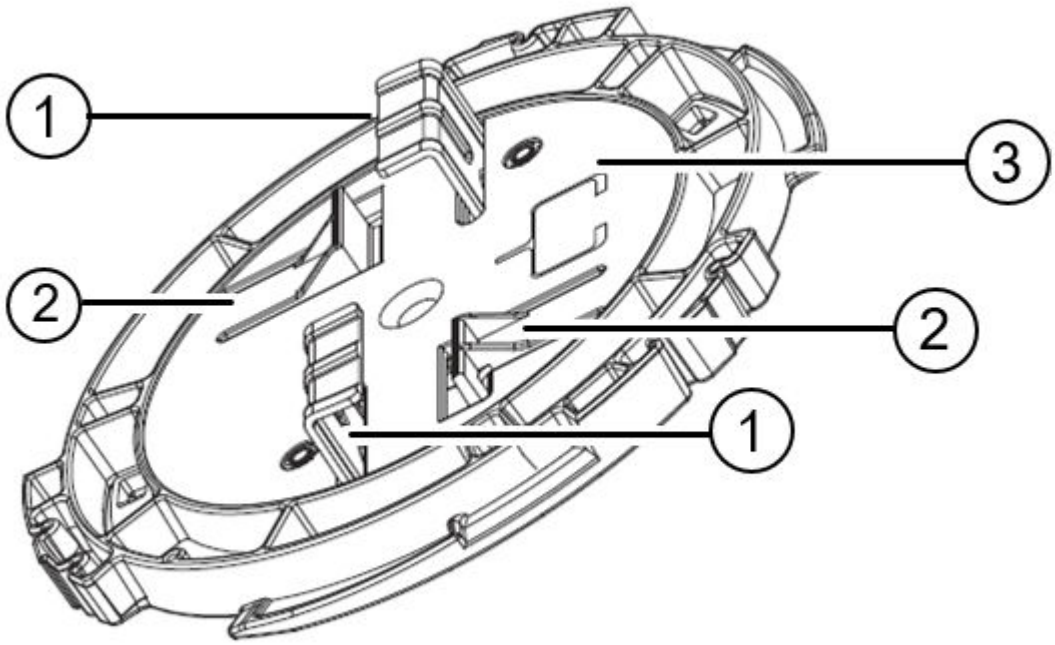


Figure 7: AH-ACC-BKT-AX-SL accessory bracket

Call out	Description
1	Metal hinges on the AH-ACC-BKT-AX-SL bracket.
2	White tabs on the AH-ACC-BKT-AX-SL bracket.
3	Drawing of 1/8 in. or 1/4 in. ceiling grid, for your reference.

4. Align the red dot on the back of the access point against the accessory bracket red dot.

Note
The accessory has a circular tip that fits into the circular depression on the back of the access point.

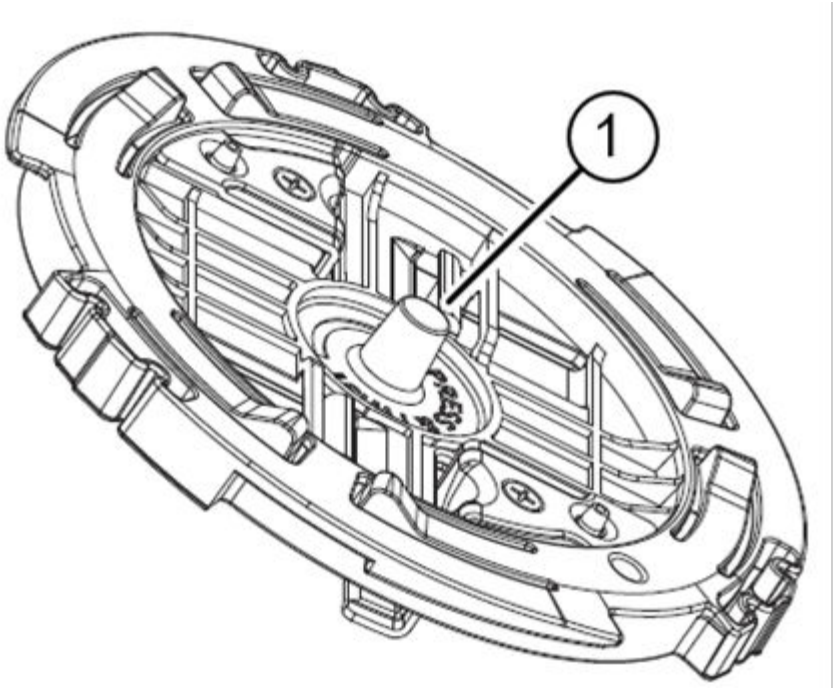


Figure 8: AH-ACC-BKT-AX-SL accessory bracket circular tip

Call out	Description
1	AH-ACC-BKT-AX-SL bracket circular tip

5. Press and rotate the access point clockwise until it locks into place on the accessory.
6. Connect the network cable.
7. Replace the ceiling tiles.

Install the Access Point to a 9/16th T-bar Ceiling

Before You Begin

You need the following items:

- AP3000X
- One AH-ACC-BKT-AX-IL accessory bracket

About This Task

You can mount the access point to a ceiling that has a 9/16 in. wide T-bar with a center protrusion.

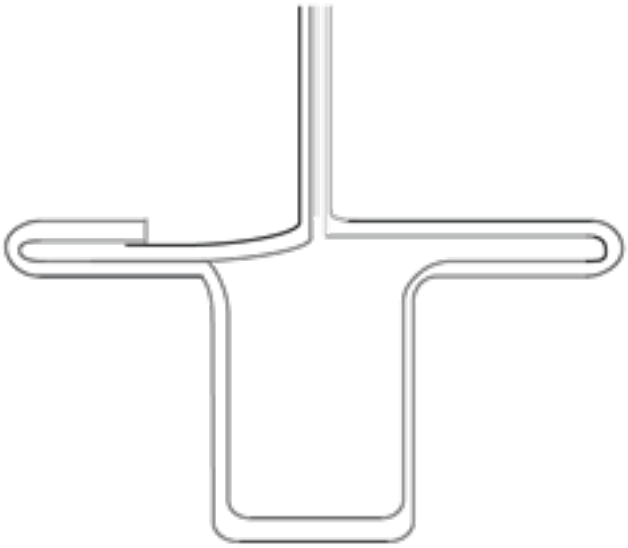


Figure 9: 9/16 in. wide T-bar with protrusion

Procedure

1. Remove the ceiling tiles.
2. Place the bracket on the ceiling rail in such a way that the accessory center is over the protrusion and the metal hinges are between perpendicular and about one-eighth of a turn from the sides of the ceiling rail.
3. Push up gently and rotate the bracket clockwise until the hinges hook over the edge of the rail and the white tabs click in place.

Note

There are two white tabs in the back of the accessory bracket that holds on to the ceiling rail in place. Use your finger to pull and unhook one side of the white tab if you want to remove the accessory from the ceiling rail.

Gently rotate the bracket counterclockwise and if there is resistance, the other white tab in the back of the accessory must also be released.

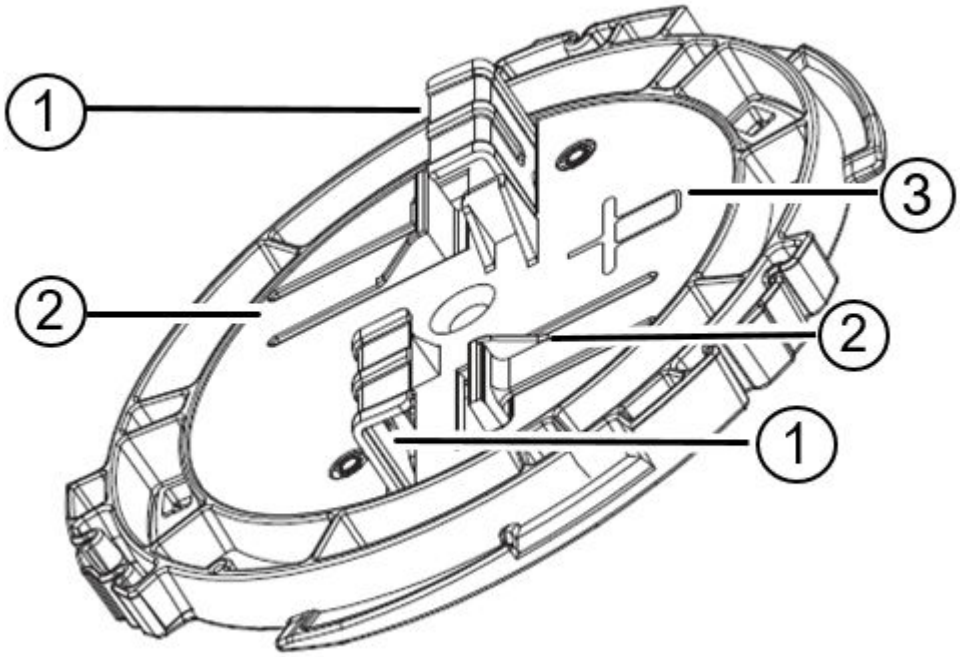


Figure 10: AH-ACC-BKT-AX-IL accessory bracket

Call out	Description
1	Metal hinges on the AH-ACC-BKT-AX-IL bracket.
2	White tabs on the AH-ACC-BKT-AX-IL bracket.
3	Drawing of 9/16 in. ceiling grid, for your reference.

4. Align the red dot on the back of the access point against the accessory red dot.

Note
The bracket has a circular tip that fits into the circular depression on the back of the access point.

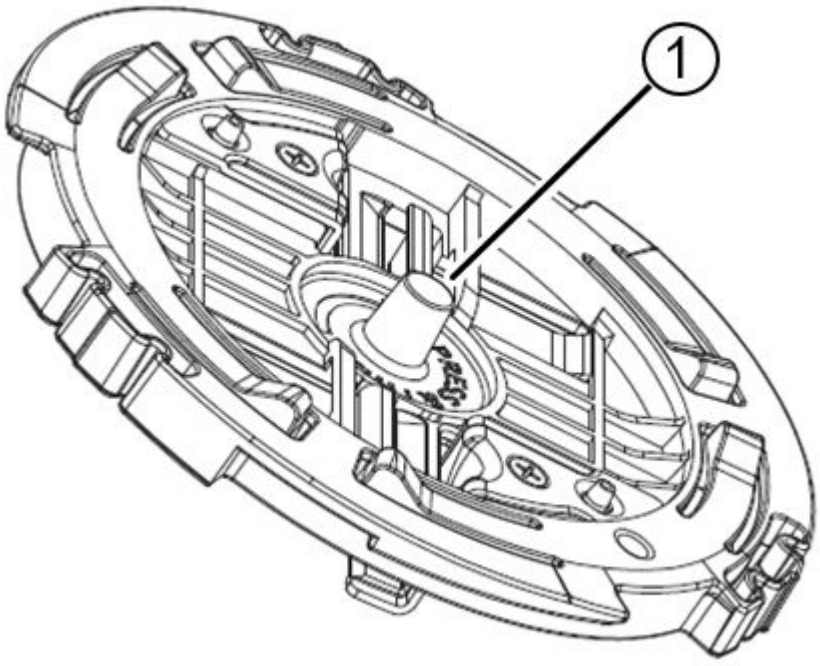


Figure 11: AH-ACC-BKT-AX-IL accessory bracket circular tip

Call out	Description
1	AH-ACC-BKT-AX-IL bracket circular tip

5. Press and rotate the access point clockwise about one-sixth of a turn until it locks into place on the accessory bracket.
6. Connect the network cable.
7. Place the cable cover over the Ethernet cable.
8. Replace the ceiling tiles.

Install the Access Point to a Wall with AH-ACC-BKT-AX-WL

Before You Begin

You need the following items:

- AP3000X
- Three M3.5 screws and three screw-in anchors, shipped with the -WL bracket
- One AH-ACC-BKT-AX-WL bracket

About This Task

Use the AH-ACC-BKT-AX-WL bracket when you need a 1.25 in. space between the wall and the access point.

Procedure

1. Using the -WL bracket as a template, mark and drill mounting holes on the wall.

2. Bring the LAN cable from the wall through the bracket hole.

   Align the cable before attaching the bracket to the wall.

   Note
   A standard Ethernet cable can be used if you do not mind the cable being visible. To hide the Ethernet cable, a flat cable and a cable cap is required.

3. Attach the wall bracket to the wall using three M3.5 screws and three screw-in anchors.
4. Align the access point red dot against the three red dots on the -WL bracket.
5. Press and rotate the access point clockwise about one-sixth turn until it locks into place on the bracket.
6. Attach the network cable.

Install the Access Point on a Junction Box

Before You Begin

You need the following items:

- AP3000X
- ACC-BKT-AX-JB for junction box mounting.

About This Task

Install a access point to a junction box if you want to power the AP using an electrical connection.

The ACC-BKT-AX-JB accessory bracket is used when you need to install the access point on an indoor junction box. The ACC-BKT-AX-JB access has two parts:

- A metal part that attaches to the junction box (also called the sheet-metal junction box hole plate)

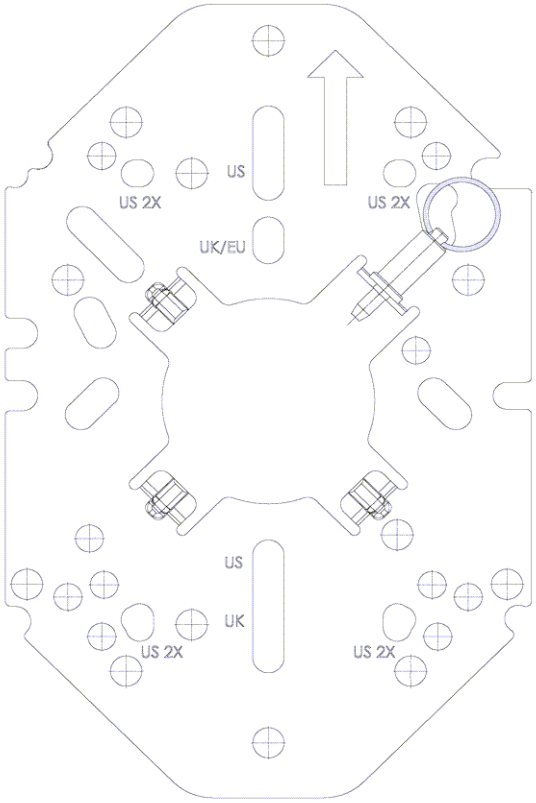


Figure 12: ACC-BKT-AX-JB accessory bracket metal part

- A plastic part that attaches to the metal part and the access point (also called the plastic twist plate)

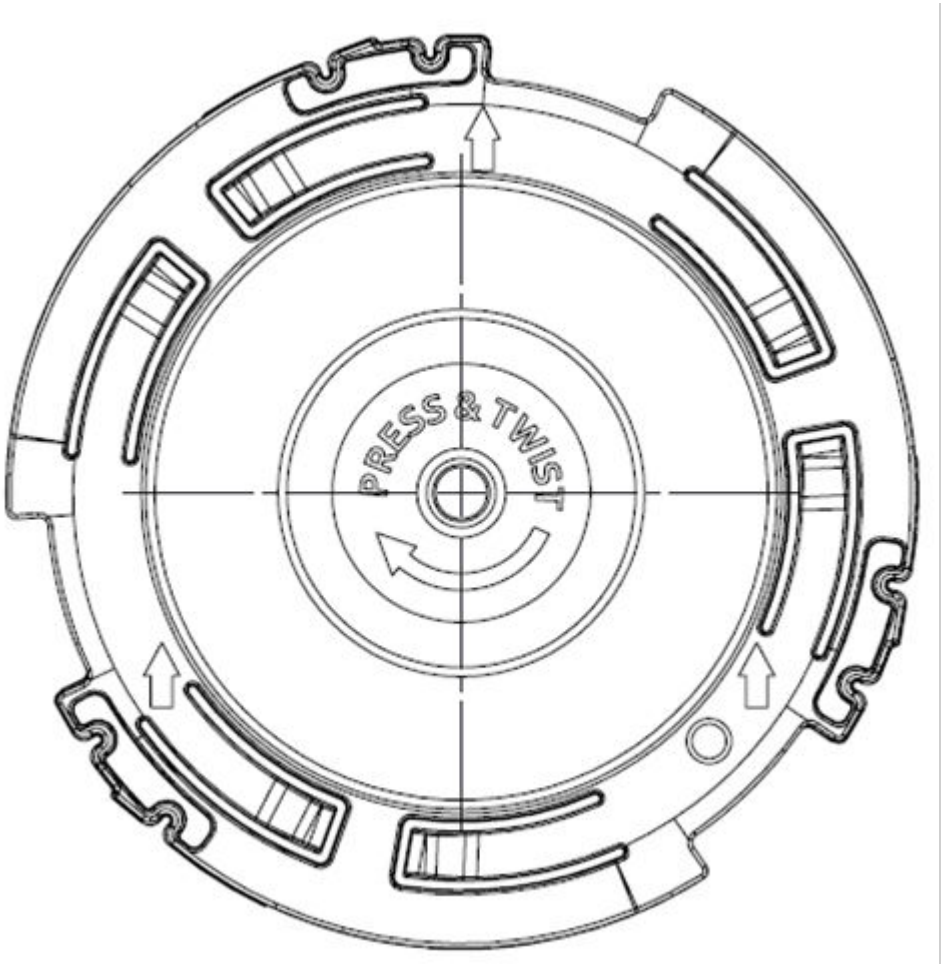


Figure 13: ACC-BKT-AX-JB accessory bracket plastic part

Procedure

1. Align the red dot on the back of the access point against the red dot on the plastic part.
2. Push the access point onto the plastic part and turn it clockwise until you hear it lock in place.
3. Insert the RJ45 cable connector to the Ethernet connector on the access point.

Install the Access Point on a Beam

Before You Begin

You need the following items:

- AP3000X
- ACC-BKT-AX-BEAM mounting bracket

Find a location that supports the following requirements:

- The beam must be able to support the access point in all environmental conditions.
- The beam must be flat.

- Beam attachment area is at least 0.5 in. (12.7mm) wide and as long as the access point's largest dimension.
- Beam mounting surface is at least 0.040 in. (1.0 mm) thick, but less than 0.650 in. (16.5mm) thick.

About This Task

If you are installing the access point in a warehouse or other industrial environments, then you might have to install the AP on a beam instead of a ceiling.

Procedure

1. Align the red dot on the access point with the red dot on the accessory bracket.
2. Insert the plastic part posts into the access point back recess.
3. Push the access point onto the plastic part, and rotate the access point about one-sixth turn clockwise to make it lock in place.

   Note
   If you can turn or twist the access point, it was not locked in place properly. Remove the access point and attach it again until it locks in place.

4. Plug the RJ45 connector plug into ETH or ETH0, RJ45 connector receptacle on the access point.

   If desired, flat Ethernet cables and caps may be used with all indoor access points.
5. Open the top screw as necessary and place the beam clip onto a beam.

   Note
   You must hold the access point when attaching the beam clip.

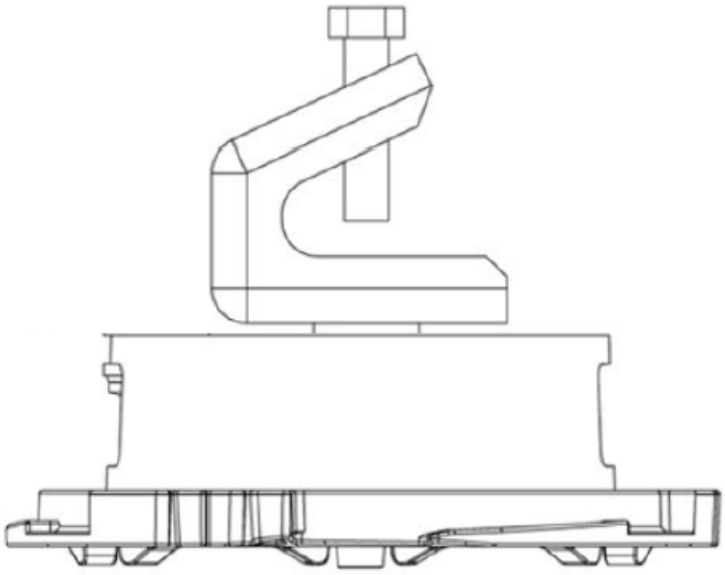


Figure 14: ACC-BKT-AX-BEAM accessory bracket

6. Tighten the beam clip top screw to a torque of 50 in-lbs.

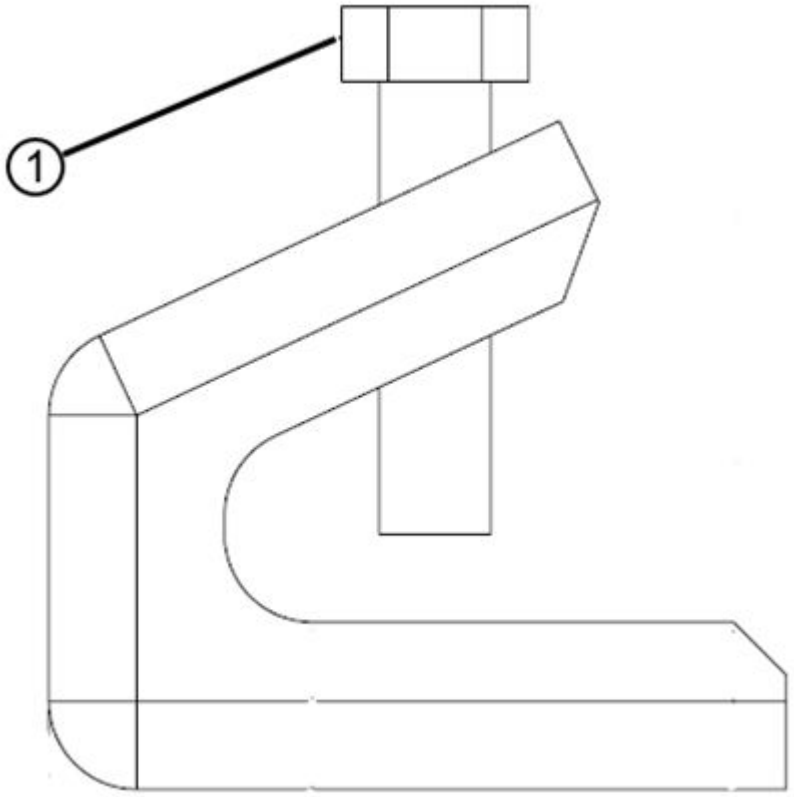


Figure 15: Beam clip top screw

Call out	Description
1	Beam clip top screw that is used to attach the beam accessory bracket to a beam

Connect Antennas

Before You Begin

Locate the 2 RPSMA dual banded 2.4/5 GHz antennas which are shipped with the access point.

About This Task

Connect the included antennas and adjust the antennas for maximum signal.

Procedure

1. Thread the antennas onto the RP-SMA connector.
2. Torque the antennas to 5 in-pounds.
3. Twist all antennas so the bend opening is towards the radome.

   Adjust the two 2.4/5 GHz antennas and the two permanently attached antennas.

4. Rotate each antenna to the 45 or 90-degree position for maximum signal strength.

Connect a Power Supply

Before You Begin

Obtain a Powertron 12V DC power supply. The power supply is ordered separately. See the table below.

Caution
Only use Extreme approved power supplies for your access point. Unapproved third-party components can damage your AP.

Table 19: Power Accessory

Part number	Description
37215	PWR 12V DC, 2A (24W), 2.5 mm X 5.5 mm connector

About This Task

You can power the AP through the ETH0 RJ45 Ethernet port. But if you prefer an external power supply, then you can use the 12V DC power supply. There is no wall mount bracket for the power supply.

See the Power Profile for power consumption specifications.

Note
Power over Ethernet (PoE) is disabled when you use an external power supply.

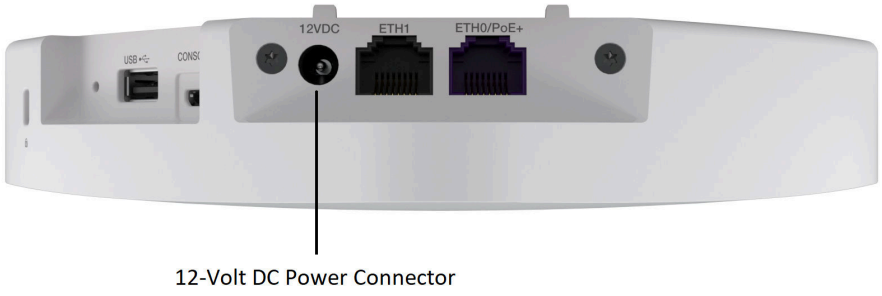


Figure 16: AP3000 Power connector

Procedure

Plug the power supply into the 12-volt power connector.

The LED lights up.

Lock Your Access Point

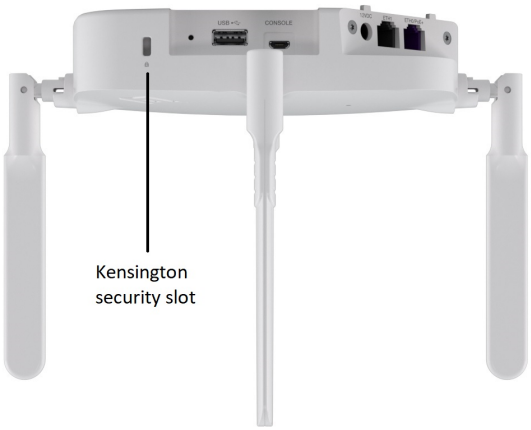
Before You Begin

You will need the following items:

- A 3 mm diameter security cable
- A lock to secure the cable

About This Task

You can use the Kensington security slot to secure your access point. The security feature prevents someone from taking the AP.



Procedure

1. Insert a Kensington lock into the security slot in the access point.
2. Insert a 3mm diameter safety cable into the lock.
3. Secure the cable to the device and another permanent item.

Post Installation

After you have installed the access point, you should do the following tasks:

- Confirm that the LED is white. A white LED indicates that your AP has powered up and registered with the controller. An amber light indicates a technical issue that requires a resolution. See LED Status on page 13 for an explanation of the LED states. You can see a list of registered APs and the status of each AP in the controller.
- Wireless APs are added to your network with the default settings. After the AP registers with a controller, you should configure the AP to meet your needs and assign it to one or more Virtual Network Services (VNS). You can also modify the settings for each radio on the AP.

  Each AP has a tab in the controller where you can find the settings and configurations. You can configure both individual APs or a group of APs.

Regulatory and Compliance Information

Safety Guidelines on page 36
Professional Installation Instruction on page 37
FCC Notice (Part 15 - Class B) on page 37
FCC Radiation Exposure Statement on page 38
Conformitè Europëenne (CE) Information on page 39
CE Marking and European Area (EEA) on page 39
Brazil Anatel Statement on page 39
Mexico Compliance Statement on page 39
UK Statement and CE Statement on page 40
Extreme Networks UK Address on page 40
Extreme Networks EU Importer Address on page 40
Taiwan Regulatory Statement on page 41
European Waste Electrical and Electronic Equipment (WEEE) Notice on page 41
Supplement to Product Instructions on page 42
Declaration of Conformity in Languages of the European Community on page 42

Learn about safety guidelines, compliance notices, and regulatory information pertaining to various countries in which the device can be used.

Safety Guidelines

The following safety guidelines are intended to protect your personal safety and prevent damage to the equipment.

Important
Only qualified personnel must perform installation procedures. Within the context of the safety notes in this documentation, qualified persons are defined as persons who are authorized to commission grounding, label devices, systems, and circuits in accordance with established safety practices and standards. A qualified person understands the requirements and risks involved with installing outdoor electrical equipment in accordance with national codes.

Professional Installation Instruction

Installation personnel

This product is designed for specific application and needs to be installed by a qualified personnel who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

Instructions d'installation professionnelle

Installation

Ce produit est destine a un usage specifique et doit etre installe par un personnel qualifie maitrisant les radiofrequences et les regles s'y rapportant. L'installation et les reglages ne doivent pas etre modifies par l'utilisateur final.

Procedure d'installation

Consulter le manuel d'utilisation.

Warning
Avertissement: Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne depasse pas les limites en vigueur. La violation de cette regle peut conduire a de serieuses penalites federales.

FCC Notice (Part 15 - Class B)

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.

Note
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 when the equipment is operated in a commercial environment. This equipment uses, generates, and can radiate radio frequency energy and if not installed in accordance with the operator's manual, 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 antenna of the receiving devices.
- Increase the separation between this equipment and receiving equipment.
- Connect this equipment into an outlet on a circuit different from that to which the receiving equipment is connected.
- Consult the dealer or an experienced radio or TV technician for help.

Warning
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.

FCC Radiation Exposure Statement

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.

Operation in the band 5925-7125 MHz subject to, (1) FCC regulations restrict the operation of this device to indoor use only, (2) the operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet, and (3) operation of transmitters in the 5.925 GHz - 7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

Warning
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 47 cm between the radiator and your body.

Conformitè Europëenne (CE) Information

Warning
CE co-location MPE Statement: This equipment complies with CE radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

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

Table 20: Selling Countries:

	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 (NI)

CE Marking and European Area (EEA)

Warning
This is a class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Brazil Anatel Statement

Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução nº. 242/2000 e atende aos requisitos técnicos aplicados.

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores informações, consulte o site da ANATEL –www.anatel.gov.br

Mexico Compliance Statement

La operación de este equipo está sujeta a las siguientes dos condiciones

1. es posible que este equipo o dispositivo no cause interferencia perjudicial y
2. este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

The operation of this equipment is subject to the following two conditions:

1. it is possible that this equipment or device does not cause disruptive interference and
2. this equipment or device must accept any interference, including interference that may cause undesired operation.

UK Statement and CE Statement

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

The frequency and the maximum transmitted power in the UK and European Conformity are listed below:

CE	UK
2400-2483.5 MHz: 19.98 dBm	2400-2483.5 MHz: 19.98 dBm
2400-2483.5 MHz (802.15.4): 8.03dBm	2400-2483.5 MHz (802.15.4): 8.03 dBm
2400-2483.5 MHz (BLE®): 8.0 dBm	2400-2483.5 MHz (BLE®): 8.0 dBm
5150-5725 MHz: 29.96 dBm	5150-5725 MHz: 29.96 dBm
5725-5850 MHz: 13.97 dBm	5720-5850 MHz: 29.97 dBm
5945-6425 MHz: 22.99 dBm	5945-6425 MHz: 22.99 dBm

CE - The device is restricted to indoor use only when operating in the 5945 to 6425 MHz frequency range.

UK - The device is restricted to indoor use only when operating in the 5945 to 6425 MHz frequency range.

Hereby, Extreme Networks declares that the radio equipment AP3000X is in compliance with Radio Equipment Regulations 2017.

Operation on oil platforms, cars, trains, boats, and aircraft shall be prohibited except for on large aircraft flying above 10,000 ft.

For full text of the UK Declaration of Conformity, please contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com.

Extreme Networks UK Address

Extreme Networks, UK Ltd.

250 Longwater Avenue Green Park

1st Floor

Reading, UK

Extreme Networks EU Importer Address

Extreme Networks, Ireland Ops Ltd.

Rineanna House Shannon Industrial Estate

Shannon, V14CA36 Ireland

Taiwan Regulatory Statement

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率
率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通
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。前述合法通信，指
法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及 醫療用電
機設備之干擾。
本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者。
無線資訊傳輸設備避免影響附近雷達系統之操作。

請至此連結□讀中文□明: https://www.extremenetworks.com/support/documentation.

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 user's 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.

Supplement to Product Instructions

單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr^{+6})	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
金屬零件 (Metal Parts)	○	○	○	○	○	○
電路模組 (Circuit Modules)	–	○	○	○	○	○
電纜及電纜組件 (Cables & Cable Assemblies)	○	○	○	○	○	○
塑料和聚合物零件 (Plastic and Polymeric parts)	○	○	○	○	○	○

備考1. 〝超出0.1 wt %〞及〝超出0.01 wt %〞係指限用物質之百分比含量超出百分比含量基準值。
Note 1：“Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. 〝○〞係指該項限用物質之百分比含量未超出百分比含量基準值。
Note 2：“○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. 〝–〞係指該項限用物質為排除項目。
Note 3：The “–” indicates that the restricted substance corresponds to the exemption.

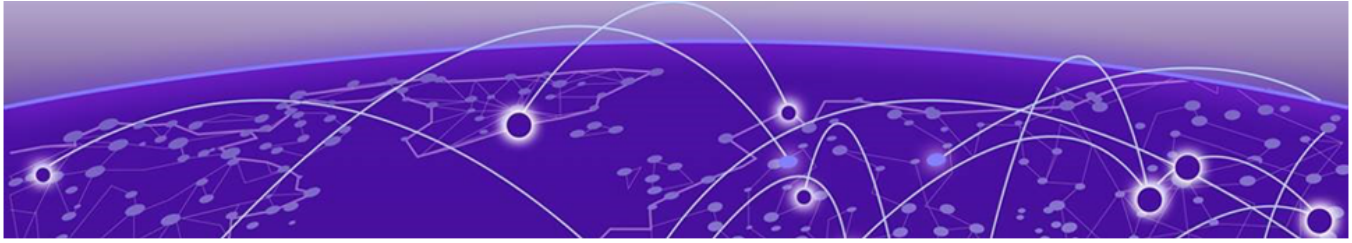
Declaration of Conformity in Languages of the European Community

English	Hereby, Extreme Networks declares that the radio equipment type (AP3000X) is in compliance with Directive 2014/53/EU. For full text of the EU Declaration of Conformity, contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com
Finnish	Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device (AP3000X) tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen. EU-vaatimustenmukaisuusvaatimuksen täydellisestä tekstistä ota yhteyttä äärimmäisiin säädösten noudattamiseen osoitteessa compliancerequest@extremenetworks.com

Dutch	Hierbij verklaart Extreme Networks dat het toestel Radio LAN device (AP3000X) in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU. Neem voor de volledige tekst van de EU-conformiteitsverklaring u contact opnemen met extreme regelgeving op compliancerequest@extremenetworks.com
French	Par la présente Extreme Networks déclare que l'appareil Radio LAN device (AP3000X) est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU. Pour obtenir le texte intégral du processus de Déclaration de la conformité de l'UE, veuillez contacter la conformité réglementaire extrême à l'adresse suivante: compliancerequest@extremenetworks.com
Swedish	Härmed intygar Extreme Networks att radioutrustningstypen (AP3000X) överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/ EU. För fullständig text av EU-försäkran om överensstämmelse, kontakta Extreme regelefterlevnad på compliancerequest@extremenetworks.com
Danish	Undertegnede Extreme Networks erklærer herved, at følgende udstyr Radio LAN device (AP3000X) overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU. For den fulde ordlyd af EU-overensstemmelseserklæringen bedes du kontakte Extreme Regulatory Compliance på compliancerequest@extremenetworks.com
German	Hiermit erklärt Extreme Networks die Übereinstimmung des "WLAN Wireless Controller bzw. Access Points" (AP3000X) mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 2014/53/EU. Für den vollständigen Wortlaut der EU-Konformitätserklärung wenden Sie sich bitte an extreme Regulatory Compliance unter compliancerequest@extremenetworks.com

Greek	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Extreme Networks ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device (AP3000X) ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU. Για το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ, παρακαλούμε επικοινωνήστε με την ακραία κανονιστική συμμόρφωση στο compliancerequest@extremenetworks.com
Icelandic	Extreme Networks lysir her med yfir að thessi bunadur, Radio LAN device (AP3000X), uppfyllir allar grunnkrofur, sem gerdar eru i R&TTE tilskipun ESB nr 2014/53/EU. Fyrir fullan texta í ESB yfirlýsingu um samræmi, vinsamlegast hafðu samband við Extreme Reglufylgni á compliancerequest@extremenetworks.com
Italian	Con la presente Extreme Networks dichiara che questo Radio LAN device (AP3000X) è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU. Per il testo integrale della Dichiarazione di conformità dell'UE, contattare Extreme Regulatory Compliance presso compliancerequest@extremenetworks.com
Spanish	Por medio de la presente Extreme Networks declara que el Radio LAN device (AP3000X) cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU. Para obtener el texto completo de la Declaración de conformidad de la UE, póngase en contacto con Extreme Regulatory Compliance en compliancerequest@extremenetworks.com

Portuguese	Extreme Networks declara que este Radio LAN device (AP3000X) está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/EU. Para o texto integral da declaração de conformidade da UE, contacte a conformidade regulamentar extrema em compliancerequest@extremenetworks.com
Malti	Hawnhekk, Extreme Networks, jiddikjara li dan Radio LAN device (AP3000X) jikkonforma mal-htigijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 2014/53/EU. Għat-test sħiħ tad-dikjarazzjoni ta ' konformità tal-UE, jekk jogħġbok ikkuntattja lill-konformità regolatorja compliancerequest@extremenetworks.com



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