ExtremeWireless AP4020FX Installation Guide

Setup, Maintenance, and Best Practices

(Available in Canada and United States only)

9039381-00 Rev AA
October 2025

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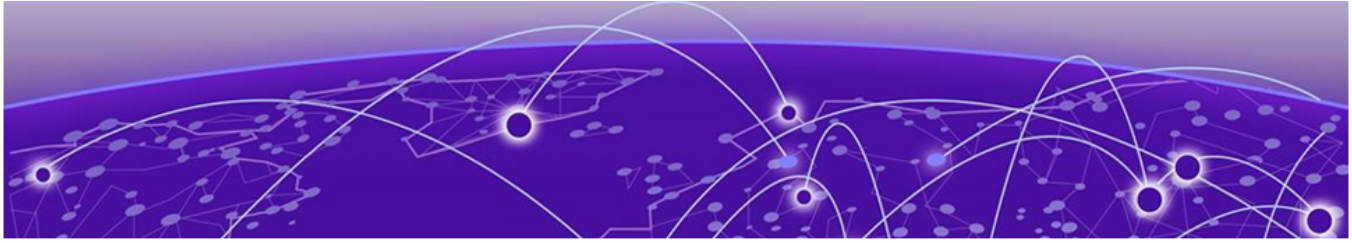

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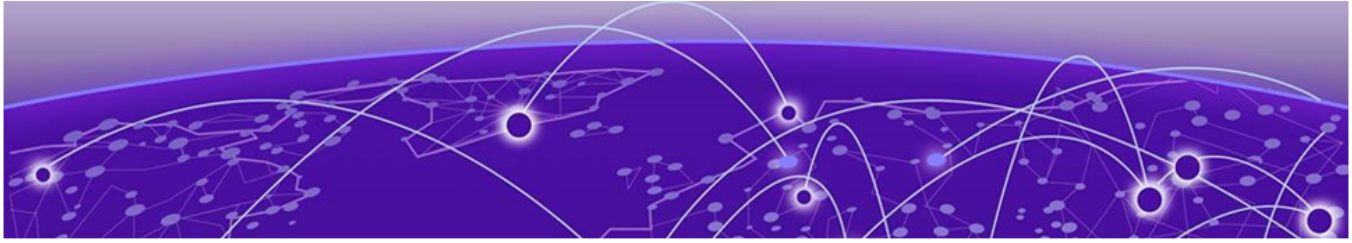

Abstract

This installation guide for the ExtremeWireless™ AP4020FX indoor access point (October 2025) provides detailed technical procedures and configuration parameters for deploying a quad-radio Wi-Fi 7 (802.11be) access point managed via ExtremeCloud™ IQ. The AP4020FX supports concurrent operation across 2.4 GHz, 5 GHz, and 6 GHz bands, with six RP-SMA connectors for external dual-band and IoT antenna configurations. It includes specifications for power delivery via 802.3af/at/bt PoE and 12V DC input, with detailed power profiles per radio mode and USB load. The document outlines physical installation methods for various ceiling grid types (15/16", 9/16", Silhouette, Interlude), wall surfaces, junction boxes, and structural beams, using specific mounting brackets and torque requirements. It defines onboarding workflows using DHCP, DNS, and NTP prerequisites, and supports pre-provisioning and mobile onboarding via QR code scanning. Security features include WPA3, PPSK, L2–L7 DPI firewall, BLE-based location analytics, and physical tamper prevention via Kensington lock. Additional content includes antenna radiation patterns, LED state diagnostics for CAPWAP and controller modes, environmental tolerances, regulatory compliance by region, and supported accessory part numbers. The guide is intended for network engineers and IT professionals responsible for enterprise WLAN infrastructure deployment.

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.

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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.

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- 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

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- Broken links or usability issues.

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Overview

Important
The AP4020FX (SKUs AP4020FX-WW and AP4020FX-WW-TAA) is **only available in the USA and Canada** because of the 6 GHz external ports.

The AP4020FX is an ExtremeCloud IQ managed, Wi-Fi 7 (802.11be) universal *indoor* access point (AP). It has a quad-radio design with three 2x2:2 radios for use across the 6 GHz, 5 GHz, and 2.4 GHz bands. It also features a dedicated sensor and dual IoT radios.

The AP4020FX supports six optional RP-SMA antennas which you can attach to the AP and use to extend your coverage. You can use any of the supported antennas documented in the Supported Antennas section of Accessories.

You can operate the AP in one of two modes:

- Mode 1: 2.4 GHz /5 GHz/6 GHz data radios and sensor
- Mode 2: 2.4 GHz, and dual 5 GHz, and sensor

It can be mounted to a ceiling, wall, beam or junction box. The AP4020FX ships with the AH-ACC-BKT-AX-TB mounting bracket for use on flat t-bar ceiling grids and flat surfaces.

The AP4020FX must run under standard power regulatory rules and follow Automated Frequency Coordination (AFC) regulatory rules.

Purchase Information

Important
The AP4020FX is **only available in the USA and Canada** because of the 6 GHz external ports.

The Use the information below when you order your AP.

Table 4: Access Point Part Number

Part Number	Description
AP4020FX-WW	Indoor Quad Radio Wi-Fi 7 (2x2:2): 2.4 GHz, 5GHz, 6GHz and dedicated sensor, Multi-Rate Port, Extended Temp, External antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU **USA and Canada only**.
AP4020FX-WW-TAA	Indoor Quad Radio Wi-Fi 7 (2x2:2): 2.4 GHz, 5GHz, 6GHz and dedicated sensor, Multi-Rate Port, Extended Temp, External antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU TAA Compliant **USA and Canada only**.

Features and Specifications

The AP4020FX features 802.11be, also known as Extremely High Throughput (EHT). For more information about the technical specifications, see the *AP4020 Data Sheet*.

Physical Specifications

The AP4020FX has the following dimensions and weight:

- Dimensions: 9.65 in. x 9.65 in. x 1.69 in. (245mm x 245mm x 43mm)
- Weight: 3.1 lbs (1.40 kg)

Environmental Specifications

The following list shows the environmental operating conditions for the AP4020FX:

- Operating: -20°C to 55°C (-4°F to 131°F)
- Storage/Transportation: 0°C to 70°C (32°F to 158°F)
- Humidity: 0% to 95% (non-condensing)
- Operational Shock: IEC60068-2-27, IEC60721-3-4, Class 4M3; ASTM D3332-99
- Operation Vibration: IEC60068-2-6,IEC60068-2-64, IEC60721-3-4 Class 4M3, ASTM D3580-95, ETSI 300 019-2-3 v2.2.2, Section 3.1 Class 3.1 table 6.2

Antenna Specifications

The AP4020FX supports the following antennas.

External:

- Two (2) single band 6 GHz antennas
- Two (2) dual band 2.4 GHz and 5 GHz
- One (1) dual band 2.4 GHz (IoT) and 5 GHz
- One (1) single band 5 GHz

Internal:

- IoT Radio 1: Selectable between internal and external
- IoT Radio 2: Two (2) selectable internal antennas
- One (1) 2.4 GHz/5 GHz/6 GHz sensor

Radiation Patterns

Antenna radiation patterns are an important tool when you install your access point. Use this information to optimize your coverage, to reduce interference from other devices, and to ensure you comply with government regulations.

BLE Radio 1 Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020FX BLE radio 1.

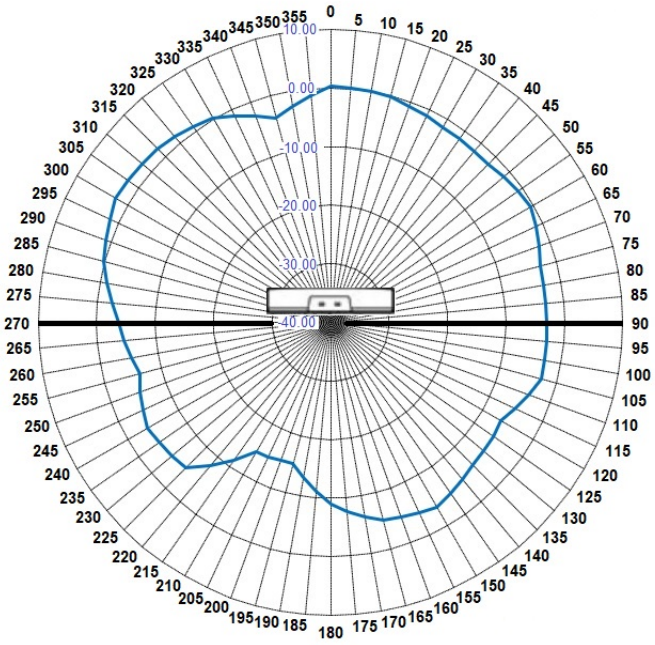


Figure 1: AP4020FX BLE Radio 1 - Vertical Radiation Pattern

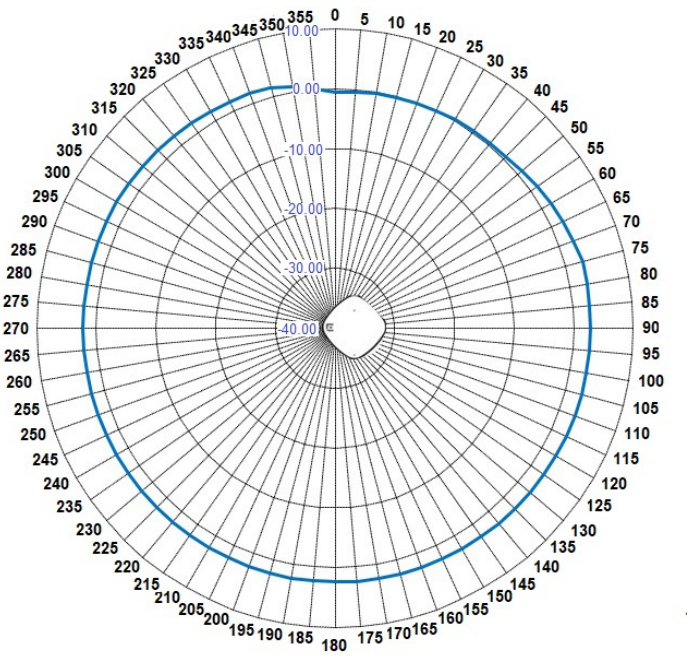


Figure 2: AP4020FX BLE Radio 1 - Horizontal Radiation Pattern

Sensor Radiation Patterns

The following diagrams illustrate the radiation patterns for the AP4020FX sensor.

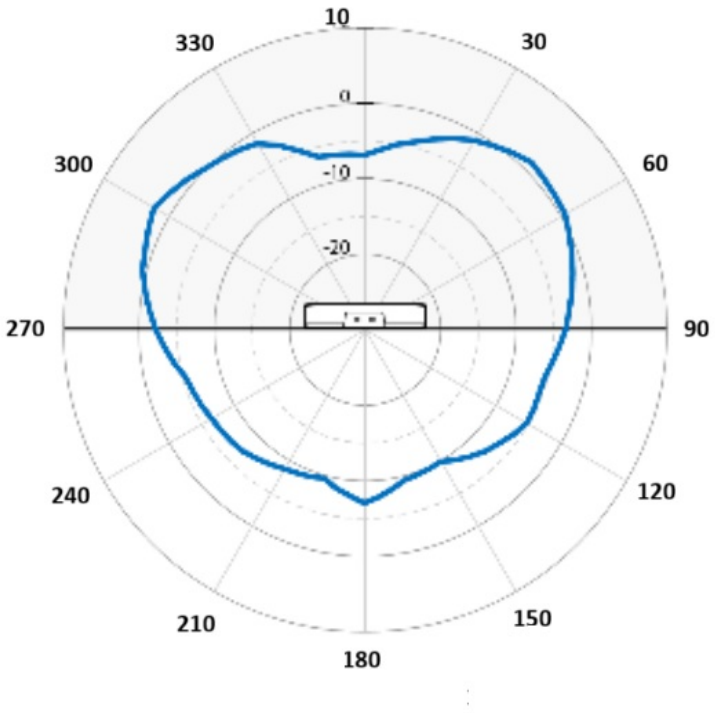


Figure 3: AP4020FX 2.4 GHz Sensor - Vertical Radiation Pattern

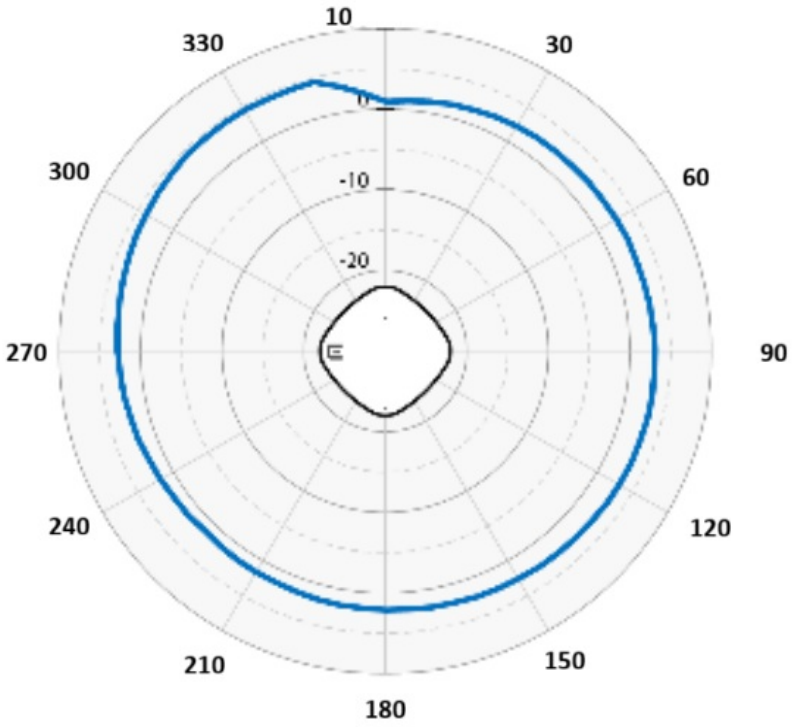


Figure 4: AP4020FX 2.4 GHz Sensor - Horizontal Radiation Pattern

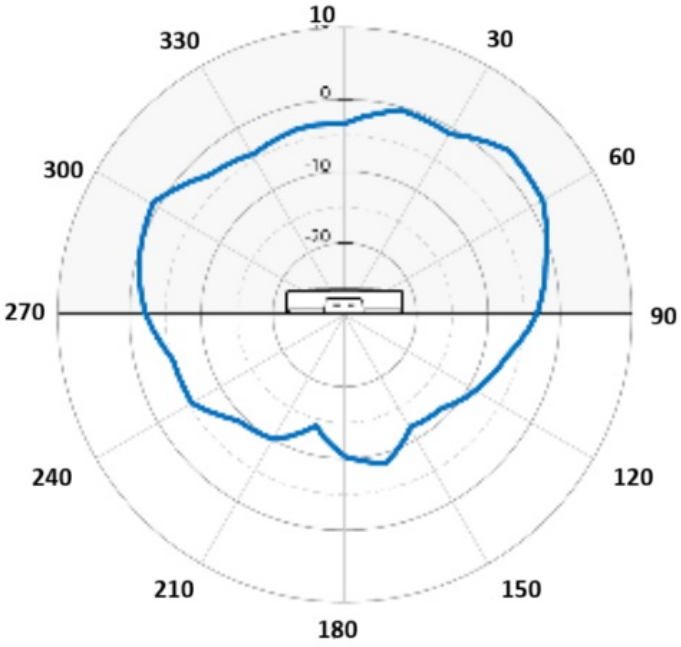


Figure 5: AP4020FX 5 GHz Sensor - Vertical Radiation Pattern

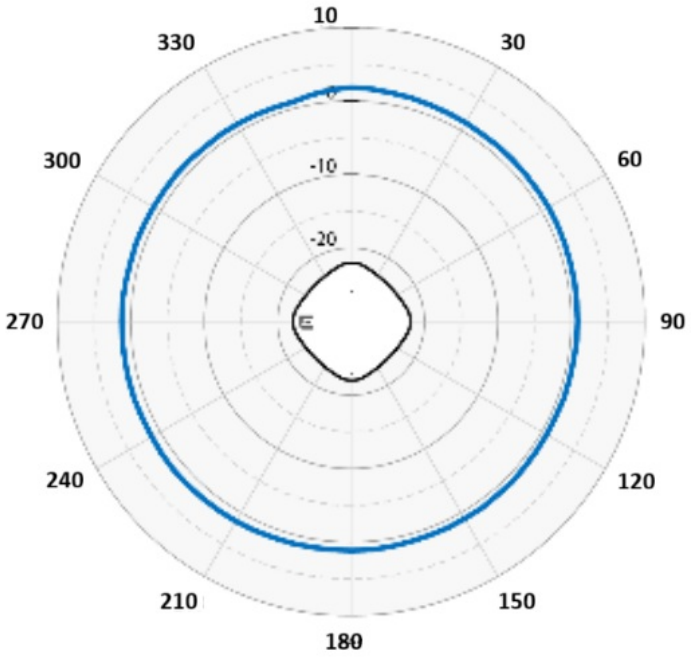


Figure 6: AP4020FX 5 GHz Sensor - Horizontal Radiation Pattern

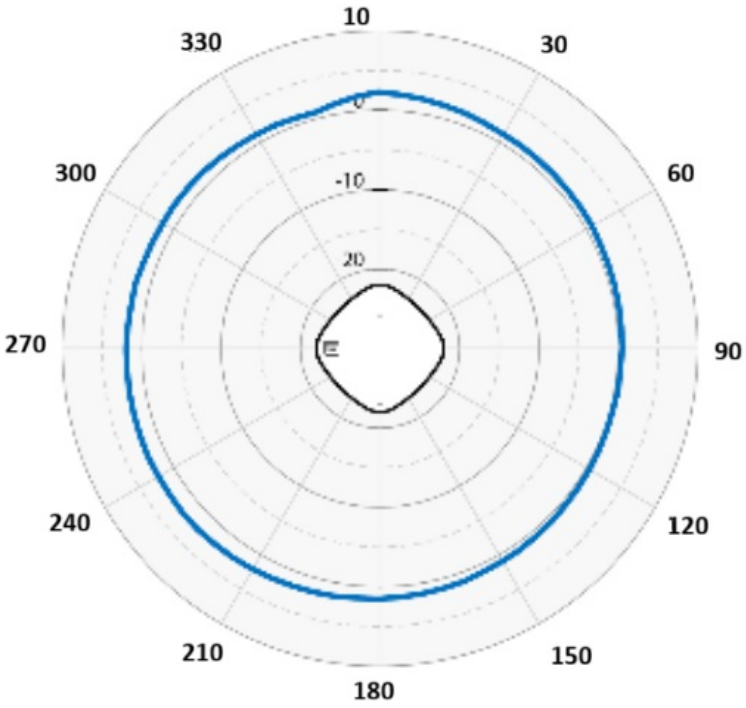


Figure 7: AP4020FX 6 GHz Sensor - Horizontal Radiation Pattern

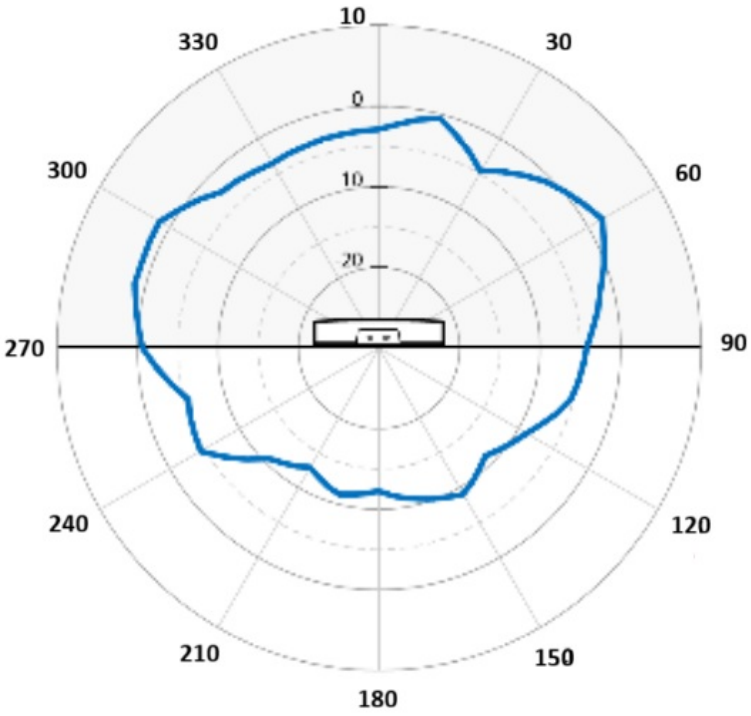


Figure 8: AP4020FX 6 GHz Sensor - Vertical Radiation Pattern

Ports, Connectors, and Hardware Features

The AP4020FX has the following ports, connectors, and hardware features:

- Six ports for detachable antennas (2 ports for dual-band 2.4/5 GHz, 2 ports for 5 GHz, and 2 ports for 6 GHz)
- One console port
- One 12-volt connector
- One Kensington security slot
- USB 2.0 Type A, 5V/500mA with PoE 802.3at or 5V/1,000mA with PoE 802.3bt
- Two Ethernet ports with RJ45 connectors:
  - ETH0: 100/1000/2500/5000Mbps autosensing link speed Ethernet port, PoE PD.
  - ETH1: 100/1000/2500Mbps autosensing link speed Ethernet port, PoE PD.
  - 802.3az Energy-Efficient Ethernet (EEE).

Hardware Ports - Front

The following table and graphic show the available ports on the front of the AP.

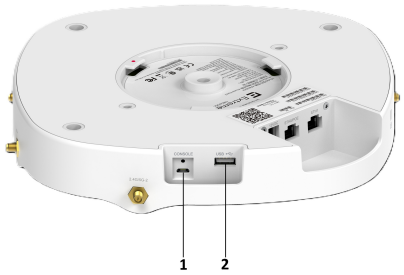


Figure 9: Front Ports and Connectors

Table 5: AP4020FX Front Ports and Connections

Item	Port	Description
1	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. **Tip:** 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. **Note:** The console port can only be used with the Extreme Networks console cable. You could damage the AP if you use another cable.
2	2.0 USB type A	Used with a thumb drive or other external device.

Hardware Ports - Rear

The following table and graphic show the available ports on the rear of the AP.

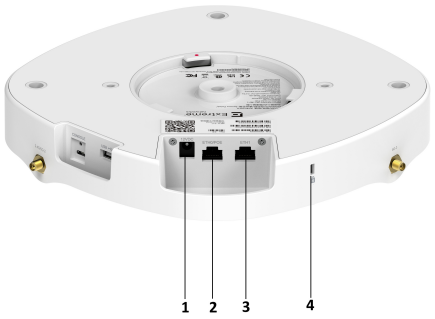


Figure 10: Rear Ports and Connectors

Table 6: AP4020FX Rear Ports and Connections

Number	Port	Description
1	12VDC	12 volts of direct current
2	ETH0/POE port	Ethernet port
3	ETH1 port	Ethernet port
4	Kensington security slot	A security feature that prevents someone from removing the AP. This is optional.

AP4020FX Antenna Ports

The following table lists the available radio modes on the AP4020FX.

Table 7: AP4020FX Available Radio Modes

	Radio 1	Radio 2	Radio 3	Scan Radio	Active WiFi Antennas
Radio Mode 1	2.4GHz - Full	5GHz - Full	6GHz - Full	1X1 Sensor	1, 2, 3, 4
Radio Mode 2	2.4GHz - Full	5GHz - High	5GHz - Low	1X1 Sensor	2, 4, 5, 6

Note
BLE/5G-5 antenna is active when BLE is enabled.

The following graphic and table show the antenna ports on the AP4020FX.

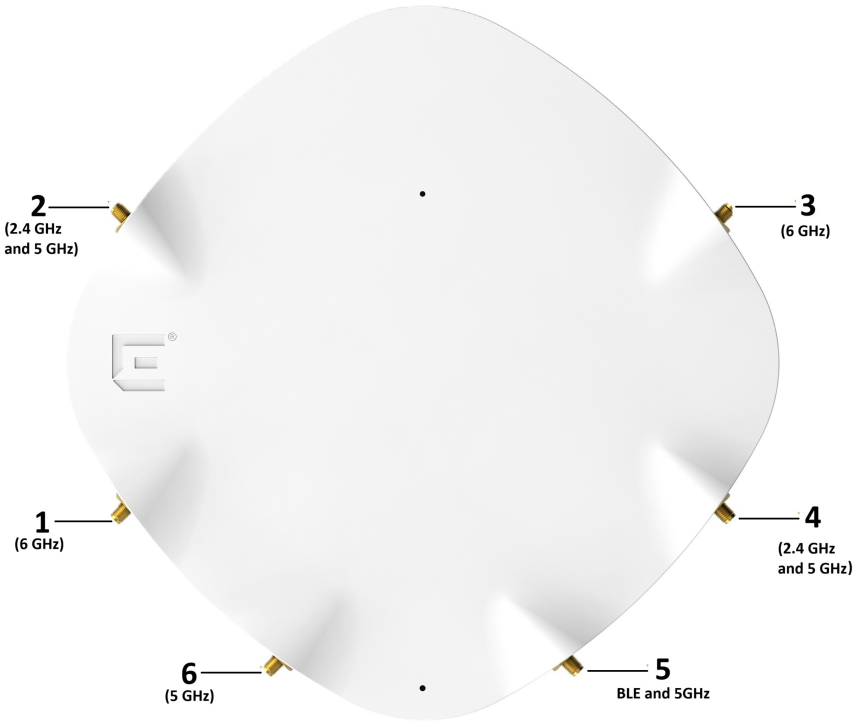


Figure 11: AP4020FX Antenna Ports

Table 8: AP4020FX Antenna Ports

Port	Description
1	External RPSMA-type antenna connector Single frequency: 6G-Full Label: 6G-1
2	External RPSMA-type antenna connector Dual frequency: 2.4G-Full, 5G-Full, 5G-High Label: 2.4G/5G-2
3	External RPSMA-type antenna Single frequency: 6G-Full Label: 6G-3
4	External RPSMA-type connector Dual frequency: 2.4G-Full, 5G-Full, 5G-High Label: 2.4G/5G-4

Table 8: AP4020FX Antenna Ports (continued)

Port	Description
5	External RPSMA-type connector Dual frequency: BLE/IOT (2.4G) Radio 1, 5G-Low Label: BLE/5G-5
6	External RPSMA-type connector Single frequency: 5G-Low Label: 5G-6

Note
The 6 GHz antennas (number 1 and 2 in the preceding table) are only used during Mode 1. The 5GHz antennas (number 5 and 6 in the table) are only used during Mode 2.

Radios

The AP4020FX has a quad-radio design with three 2x2:2 radios (2.4 GHz, 5 GHz, and 6 GHz bands), a dedicated sensor and dual IoT radios.

Operational Modes:

- Mode 1: 2.4 GHz /5 GHz/6 GHz data radios and sensor
- Mode 2: 2.4 GHz, and dual 5 GHz, and sensor

For more information about the antennas, see AP4020FX Antenna Ports on page 21.

Max Users:

- SSID per Radio/Total:16/48
- Users per Radio/total: 512/1536

Power Options

The AP4020FX supports the following power options:

- Power Draw: 802.3at PoE - Typical 21W with USB 2.5W; Max: 25.5W with USB 2.5W
- Power Draw: 802.3bt - Max: 28W with USB 5W
- 12V DC/3A. DC power has priority when both DC and PoE power sources are available
- PoE Failover

Power Profile

The following tables show the AP4020FX power profiles for the radio modes. Use this information to plan for power consumption as you deploy your APs.

Table 9: AP4020FX 802.3at Power Profile

	Radio 1	Radio 2	Radio 3	1x1 Sensor	Ethernet Ports	USB
Radio Mode 1	2.4GHz (17dBm), 2x2	5GHz (18dBm), 2x2	6GHz (18dBm), 2x2	Yes	Yes	2.5
Radio Mode 2	2.4GHz (17dBm), 2x2	5GHz High (16dBm), 2x2	5GHz Low (16dBm), 2x2	Yes	Yes	2.5

Table 10: AP4020FX 802.3bt Power Profile

	Radio 1	Radio 2	Radio 3	1x1 Sensor	Ethernet Ports	USB
Radio Mode 1	2.4GHz (17dBm), 2x2	5GHz (18dBm), 2x2	6GHz (18dBm), 2x2	Yes	Yes	2.5 and 5.0
Radio Mode 2	2.4GHz (17dBm), 2x2	5GHz High (16dBm), 2x2	5GHz Low (16dBm), 2x2	Yes	Yes	2.5 and 5.0

Table 11: AP4020FX 802.3af Power Profile

	Radio 1	Radio 2	Radio 3	1x1 Sensor	Ethernet Ports	USB
Radio Mode 1	2.4GHz (17dBm), 2x2	No	No	Yes	Yes	No
Radio Mode 2	2.4GHz (17dBm), 2x2	No	No	Yes	Yes	No

Note
802.3af is not recommended as an operational mode.

Enclosure

The AP4020FX has a plastic top with an aluminum bottom. For cleaning guidelines, see Cleaning Guidelines on page 29.

Security

The AP4020FX supports Wi-Fi Alliance WPA3 security certifications. Use Extreme Fabric Attach for provisioning and deployment to a Fabric Connect-enabled switch.

The access point also supports the following features:

- A L2-L7 DPI firewall
- Tri-frequency security
- Private Pre-Shared Key (PPSK) for Cloud deployment
- Location analytics sensor

You can physically secure and lock the access point with the Kensington security slot.

Accessories

The AP4020FX comes with the AH-ACC-BKT-AX-TB mounting bracket that can be used to mount the access point on flat t-bar ceiling grids and flat surfaces, such as Prelude ceilings (15/16 in. ceiling grid), Suprafine ceilings (flat bottomed 9/16 in. ceiling grids), and walls. The ceiling tile sides must be flat.

Supported Antennas

The AP4020FX supports up to six RP-SMA antennas, which you can attach to the AP.

Table 12: Supported Antennas

Part Number	Description
AI-TS06360	3.5dBi (2.4 GHz) and 5.5dBi (5 and 6 GHz) Indoor Dipole Tri-band with RP-SMA connector
AI-TH08055	6dBi Indoor Hex Sector 2.4GHz 65 Degrees and 5GHz 55 Degrees Tri-band with 6 port RP-SMA
AI-TH14035	13dBi (2.4 GHz) and 14dBi (5 and 6 GHz) Indoor Hex Sector 35 Degree Tri-band with 6 port RP-SMA
AI-TH06120	6dBi Indoor Hex Sector 120 Degree Tri-band with 6 port RP-SMA

Mounting Accessories

The following table lists the supported mounting accessories. For more information, see the *Wi-Fi6 11ax Accessories Installation Guide*.

Table 13: Supported Mounting Accessories

Part Number	Description	Notes
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.	Can be used for wall - 0.25"
AH-ACC-BKT-AX-IL	Mounting bracket for Interlude ceilings (9/16 in. wide T-bar with center protrusion).	-
AH-ACC-BKT-AX-SL	Mounting bracket for Silhouette ceilings (ceiling grid with 1/8 in. or 1/4 in. bottom opening).	Up to 0.33" ceiling tile protrusion
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations when a 1.25 in. of space is desired between the wall and the access point.	Can be used for wall - 1.25"
ACC-BKT-TB-NF	Mounting bracket for 15/16 in. wide T-bars with sculpted ceiling tiles.	5/16" wide t-bars non-flat/ protruded ceiling tiles
AH-ACC-BKT-916-KIT	Mounting bracket for 9/16 in. wide T-bars with sculpted ceiling tiles.	9/16" non-flat/protruded ceiling tiles
ACC-BKT-AX-BEAM	Mounting bracket for beam mounting.	Up to 0.78" thick beam
ACC-BKT-AX-JB	Mounting bracket for junction box or wall mounting.	Gang/junction box
ACC-BKT-AX-WNGADAPT	Adapter bracket for Cloud AP to WiNG Mounting Plate (#37201). Ships in a pack of 10.	Allow twist mount to mount to legacy mounts
ACC-BTK-AX-TBW	Mounting bracket for 1.5 in. wide extruded T-Bars with flat ceiling tiles.	-

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.

For more information, see the *Wi-Fi6 11ax Accessories Installation Guide*.

Table 14: Power Accessories

Part Number	Description
37219	PWR 12V DC, 3A, 2.5mm x 5.5mm connector

Other Accessories

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

For more information, see the *Wi-Fi6 11ax Accessories Installation Guide*.

Table 15: Other Supported Accessories

Part Number	Description
ACC-WIFI-MICRO-USB	Extreme Networks micro USB cable. **Note:** The console port can only be used with the Extreme Networks console cable. You could damage the AP if you use another 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.

LED Descriptions

The LED status light shows the AP's operating status. A solid white means that the AP is working normally. A solid or blinking amber indicates an issue.

The following table shows the LED states based on your firmware platform.

Table 16: ExtremeCloud IQ LED Activity

Status	Activity
Dark	Power is off.
Solid white	The device power is on and the AP is ready to use. The device has successfully established a Control and Provisioning of Wireless Access Points (CAPWAP) connection to ExtremeCloud IQ and is operating normally.
Solid amber	The power is on and the AP is in boot up mode, or is running without a CAPWAP connection.
Fast-blinking amber	The IQ Engine firmware is updating.

Table 17: ExtremeCloud IQ Controller LED Activity

Status	Activity
Dark	Power is off or the AP is taken over by the controller. Configuration pushes down to AP from Controller to turn off the LED.
Solid white	The AP is starting up or is already taken over by the controller.
Flashing fading white	Configuration pushes down to AP from controller helping the user locate the AP by sight.

Table 17: ExtremeCloud IQ Controller LED Activity (continued)

Status	Activity
Solid amber	A firmware upgrade is occurring.
Fast-blinking amber	The AP is acquiring the DHCP IP.

Micro USB Cable

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 TeraTerm Pro (a free terminal emulator) or Hilgraeve HyperTerminal (provided with Windows operating systems from XP forward).

Note
The console port can only be used with the Extreme Networks console cable. You could damage the AP if you use another cable.

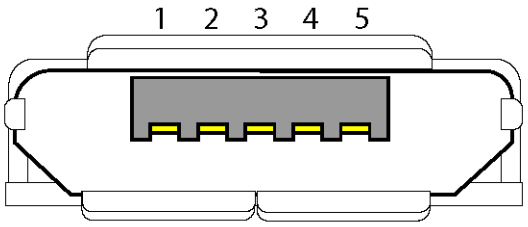


Figure 12: Micro-B model Console Port Pin Information

Table 18: 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)

Cleaning Guidelines

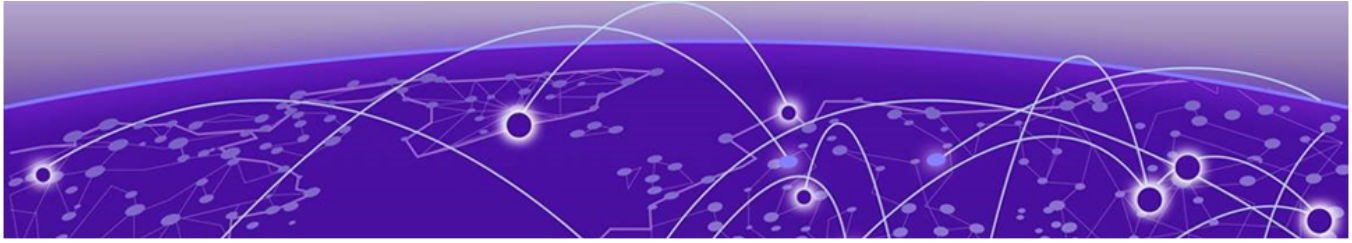
You can clean your AP with the following solutions:

- 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 or immerse the AP in a liquid as you will damage the device and void the warranty. Instead, wipe the plastic housing - also called the radome - with a damp cloth avoiding the ports and connectors.

Do not power wash the AP.



Installation

The AP4020FX 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 Workflow

Access points are automatically added to your network when the DHCP and DNS prerequisites have been met. But you can save time and configure the AP before you

install it with the pre-provision mode. You can revert the AP to production mode when you are ready for deployment.

Note

Confirm that the Domain Name System (DNS), Network Time Protocol (NTP), and the firewall ports are configured and available before deployment. Create a firewall rule to allow outbound traffic from Extreme Networks devices. For more information about firewalls, see Firewall Configuration Guides.

You should configure the DHCP options on your DHCP server to assign an allowed NTP server to Extreme Networks devices. Both DNS and NTP are critical for country and region detection and certificate validation. For more information about DNS and NTP, see *ExtremeCloud IQ User Guide*, and *ExtremeCloud IQ Controller Deployment Guide* for Cloud deployment and *Extreme Campus Controller Deployment Guide* for Campus or on-premises deployment.

For more information about deployment, see the Knowledge Base article How to deploy a New Access Point or replace a faulty Access Point to your ExtremeCloud IQ Controller. AP deployment is also documented in ExtremeCloud IQ Controller documentation and IQ Engine documentation.

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

Table 19: Installation Work Flow

Step	Action	Purpose
1.	Verify the box contents.	Confirm that your AP and accessories arrived complete and undamaged.
2.	Install the access point to one of the following: • Wall or flat ceiling • Wall with AH-ACC-BKT-AX-WL bracket • Standard flat ceiling rail with sculpted ceiling tiles • Silhouette ceiling • 9/16-inch T-bar ceiling • 15/16th-inch T-bar ceiling • 1 1/2-inch T-bar with ACC-BTK-AX-TBW • Non-standard ceiling or wall • Junction box • Beam	Install the AP on a ceiling or wall, and connect the network cable. If you use Power over Ethernet (PoE), 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 registered with the controller. For more information, see the following articles: • Access points failing the Wireless Controller discovery process • How to Onboard, Switch, and Troubleshoot the Universal AP modes between IQE (ExtremeCloud IQ Engine) and WiNG modes
3.	(Optional) Connect the antennas.	Connect the optional antennas and expand your coverage.

Table 19: Installation Work Flow (continued)

Step	Action	Purpose
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). **Note:** Your Extreme AP must be grounded so it can be used safely. Consider this requirement when you plan your deployment.
5.	(Optional) Lock the access point.	Secure the AP and prevent someone from removing it.
6.	(Optional) Onboard the AP with the ExtremeCloud IQ Mobile Onboarding application.	Scan the QR code or bar code on the back of the device and begin the onboarding process.
7.	Confirm that the LED is white.	A white LED indicates that your AP has powered up and registered with the Cloud. An amber light indicates a technical issue that requires a resolution. For an explanation of LED states, see LED Descriptions.

Pre-Installation Tasks

Extreme Networks access points have been designed for a quick and easy deployment. But you can make the process even easier with a little preparation.

Site Survey

Before you install your AP, do a site survey and coverage map so you have identified and addressed any potential issues. Here are a few issues that you should consider before you install the AP.

Ask yourself the following questions:

- What is the WLAN's purpose?
- What applications will be used over the WLAN?
- Who will use the WLAN?
- What devices will be connecting to the WLAN?
- Are there any mounting or aesthetic restrictions?

Consider the following items as you plan your deployment:

- Capacity and coverage requirements.
- Existing issues such as RF interference and dead zones
- Existing networks or devices that can interfere with your network. There could be interference from floors above and below, or from outside sources such as nearby office buildings.
- Antenna radiation patterns. Consider the patterns as you decide where to place your APs, their orientation, and their configuration.

For more information on site surveys, see the Knowledge Base article What is Wireless Site Survey and why is it important?

Other

Perform the following tasks:

- If you plan to use Power over Ethernet (PoE) then confirm that it meets the AP's requirements.
- Document the switch and ports used by the AP with LLDP protocol.
- Confirm cables meet or exceed the required specifications.
- Check that the AP power ups correctly.

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 20: Hardware

Quantity	Item
1	Extreme AP4020FX
1	Regulatory document for your access point
1	AH-ACC-BKT-AX-TB bracket
2	Phillips pan head wood screws
2	Phillips head plastic screw-in anchors

Onboard the AP with the ExtremeCloud IQ Mobile Onboarding Application

Before You Begin

You can download the ExtremeCloud IQ Mobile Onboarding application to your mobile device from the Google application store or from the Apple application store. For more information, see *APs Onboarding - An Effortless Onboarding Experience*.

You require administrator login privileges. Contact your network administrator if you need login credentials.

About This Task

You can use the ExtremeCloud IQ Mobile Onboarding application to quickly onboard, monitor and troubleshoot access points.

Procedure

1. Open the ExtremeCloud IQ Mobile Onboarding application.
2. Enter your login information.
3. Tap **Add a Device**.
4. Scan the QR code or bar code on the back of the AP with your mobile device camera.
5. Verify the AP model and serial number
6. Select the location.
7. Choose any configured network policies for the AP.

Wall and Ceiling Installations

Wall and ceiling installations are often easier to maintain and provide optimal coverage for your target area.

Install the Access Point on a Wall or a Flat Ceiling

Before You Begin

Confirm that you have the following items:

- The access point
- One (1) AH-ACC-BKT-AX-TB mounting bracket. The bracket is used for flat surface wall or solid ceiling installation.
- Two (2) 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.

Note
The AP will protrude 1 1/4 inches (31.75mm) from the wall or ceiling.

Procedure

1. Using the AH-ACC-BKT-AX-TB mounting bracket as a template with the vertical lines pointing in the desired direction, mark and drill two mounting holes corresponding with the center of the holes in the metal tabs.
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.

   a. Align the red dots on the bracket and the access point base.

   b. Press and rotate the AP one-sixth turn clockwise.

   The AP clicks into place on the bracket.
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 to a Wall with AH-ACC-BKT-AX-WL

Before You Begin

The following hardware is required for direct-to-wall installations:

- AP4020FX
- One (1) AH-ACC-BTK-AX-WL bracket
- Three (3) M3.5 screws and three screw-in anchors, shipped with the -WL bracket

About This Task

Use the AH-ACC-BKT-AX-WL bracket when you need a 1.25 inch space between the wall and the access point. If you want less space, use the AH-ACC-BKT-AX-TB that comes with the AP.

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 are 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.

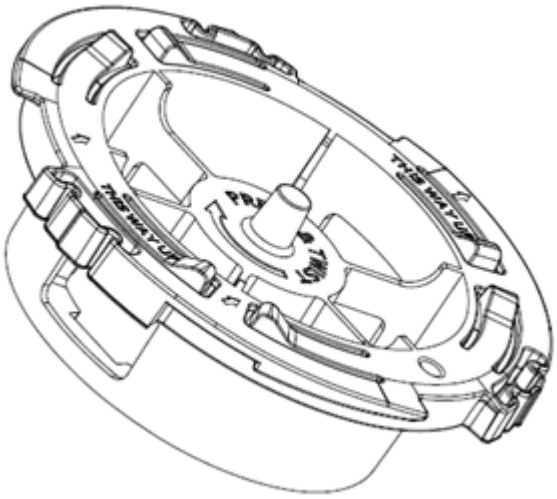


Figure 13: AH-ACC-BKT-AX-WL bracket

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 Standard Flat Ceiling Rail with Sculpted Ceiling Tiles

Before You Begin

The following hardware is required for a standard ceiling rail installation with sculpted ceiling tiles:

- AP4020FX
- One AH-ACC-BTK-AX-TB mounting bracket for prelude T-bar ceiling installation, that is shipped with the access point
- One of the following adapters:
  - For sculpted ceiling tiles with 9/16-inch T-bars, one AH-ACC-BKT-916-KIT adapter
  - For sculpted ceiling tiles with 15/16-inch T-bars, one ACC-BKT-TB-NF adapter

About This Task

The access points ship with a mounting bracket for standard 15/16" (24mm) wide t-bars or 9/16" (14mm) wide t-bar rails.

Procedure

1. Remove the ceiling tiles.
2. Align the bracket on the ceiling rail in such a way that the bracket metal hinges are almost parallel to the sides of the ceiling rail.
3. Rotate the accessory clockwise until the metal hinges hook over the edge of the rail and the white tabs click in place.

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

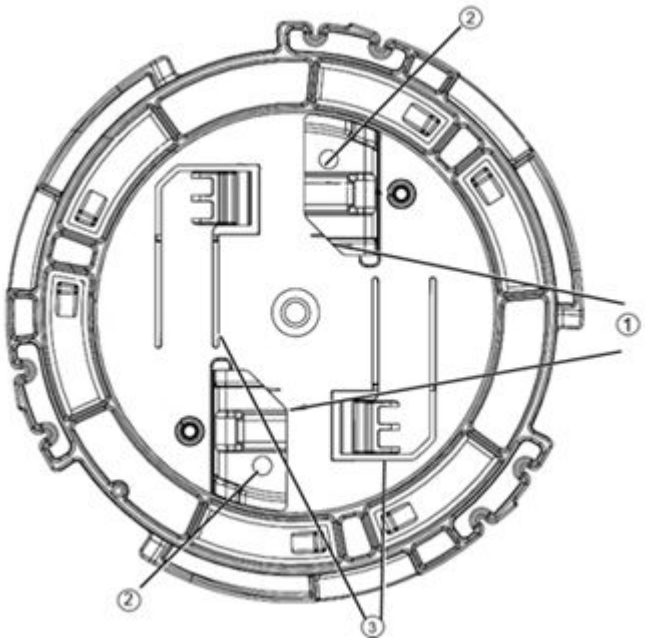


Figure 14: AH-ACC-BKT-AX-TB bracket

Table 21: AH-ACC-BKT-AX-TB bracket parts description

Callout	Description
1	Metal hinges on the AH-ACC-BKT-AX-TB bracket
2	Mounting holes for wall mounting
3	White tab on the AH-ACC-BKT-AX-TB bracket

4. Attach the LAN cable Ethernet plug to the appropriate AP Ethernet receptacle.
5. Align the red dot on the back of the access point against the bracket red dot.

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

6. Press and rotate the access point 1/8th turn clockwise until it clicks into place on the bracket.

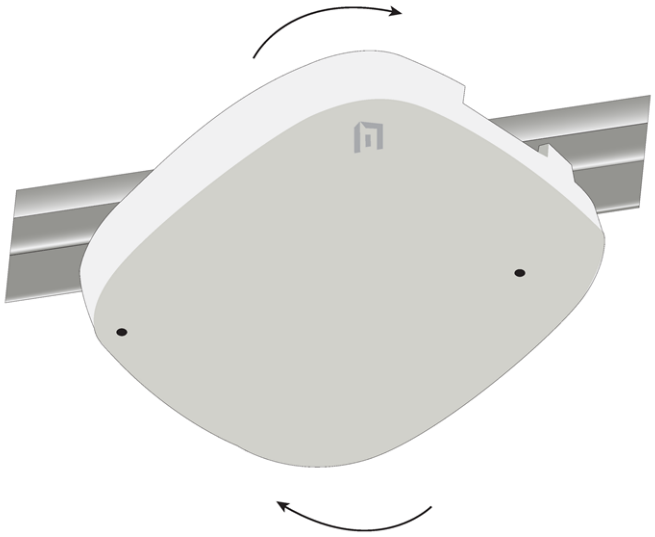


Figure 15: Access point ceiling install

7. Attach the Cat6 RJ45 cable to the ETH0 or ETH1 port.
8. Replace the ceiling tiles.

Install the Access Point on a Silhouette Ceiling

Before You Begin

You need the following items:

- One access point
- One 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.

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. 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.

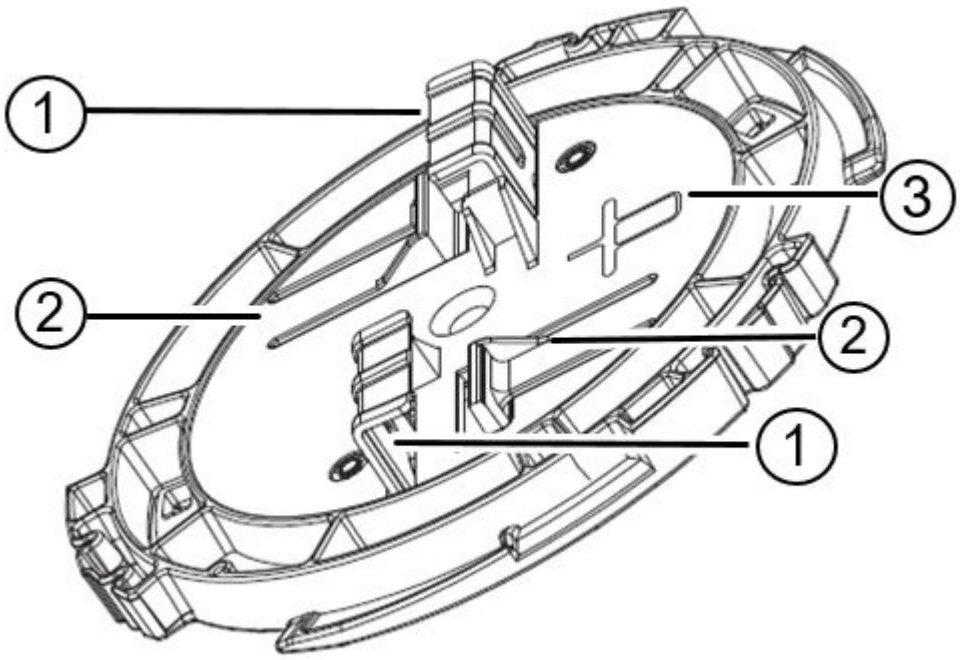


Figure 16: AH-ACC-BKT-AX-SL Accessory Bracke

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.

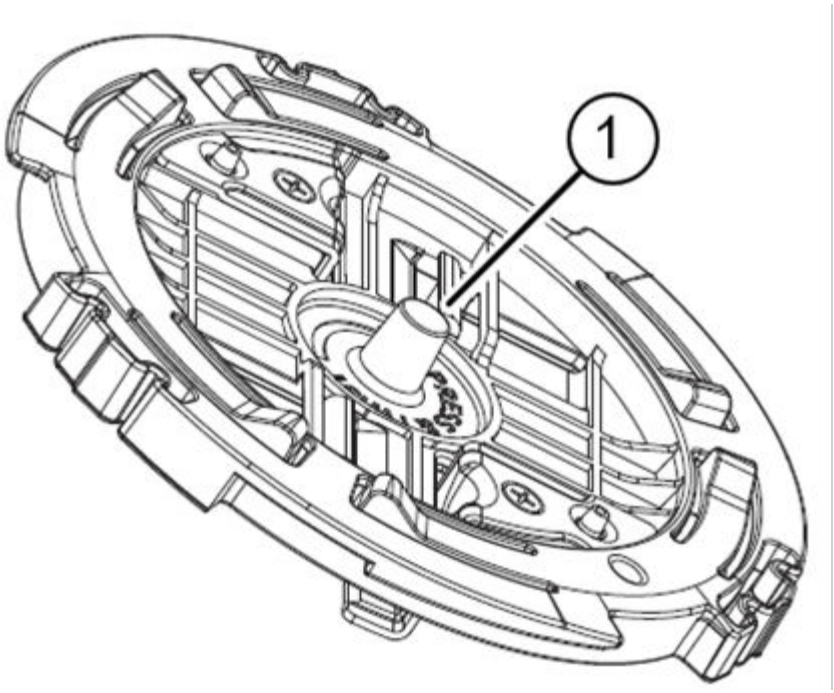


Figure 17: AH-ACC-BKT-AX-SL Accessory Bracket Circular Tip

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 9/16-inch T-bar Ceiling

Before You Begin

You need the following items:

- One (1) access point
- One (1) AH-ACC-BKT-AX-TB accessory bracket if the t-bar bottom is flat
- One (1) AH-ACC-BKT-AX-IL accessory bracket if there is a protrusion in the center of the t-bar bottom
- One (1) AH-ACC-BKT-916-KIT if you have a protruded ceiling tile and you are using the AH-ACC-BKT-AX-TB bracket.

About This Task

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

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

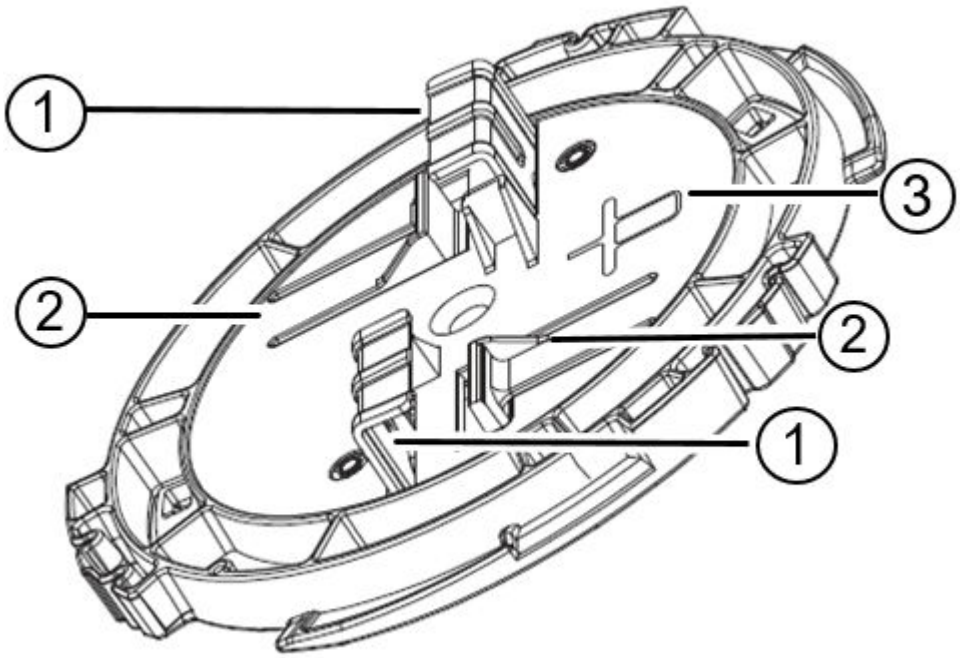


Figure 18: AH-ACC-BKT-AX-IL accessory bracket

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.

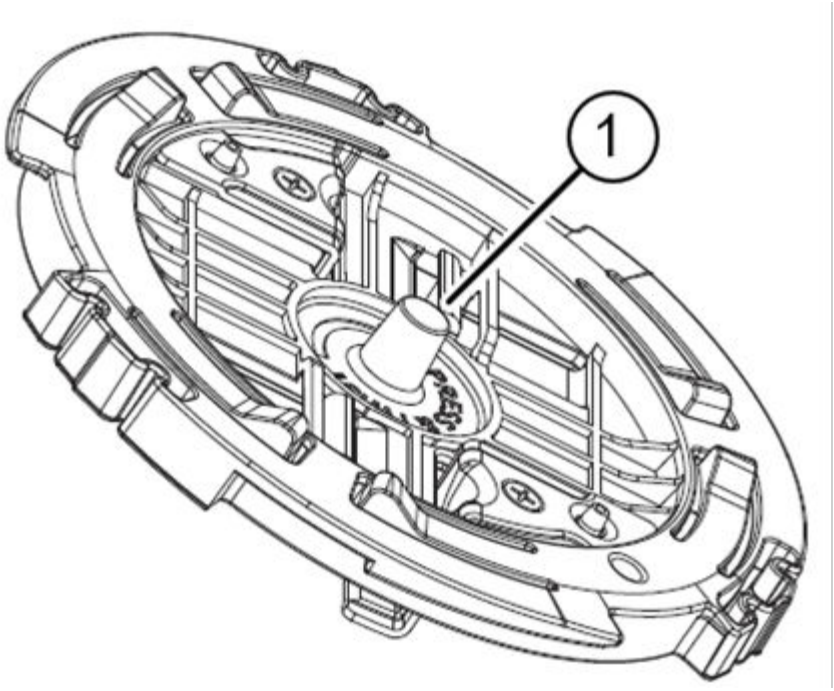


Figure 19: AH-ACC-BKT-AX-IL accessory bracket circular tip

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. Attach the network cable.
7. Place the cable cover over the Ethernet cable.
8. Replace the ceiling tiles.

Install the Access Point on a 15/16-inch T-bar

Before You Begin

Obtain the following items:

- One access point
- One ACC-BKT-TB-NF adapter
- One AH-ACC-BKT-AX-TB accessory

About This Task

Use the ACC-BKT-TB-NF bracket when you install the AP on a suspended ceiling with 15/16-inch grid system.

Procedure

1. Remove the ceiling tiles.

2. Using the adapter guide on the top half of the ACC-BKT-TB-NF adapter, align and attach the -NF on to the ceiling rail.
3. Slide the other part of the -NF adapter onto the half attached to the ceiling rail.
4. Attach the AH-ACC-BKT-AX-TB accessory onto the -NF adapter.
   a. Center the -TB accessory on the attached -NF parts.
   b. Push up and rotate the -TB accessory clockwise until the metal hinges hook over the bottom halves of the -NF adapter ends and the plastic tabs on the -TB accessory click into place.

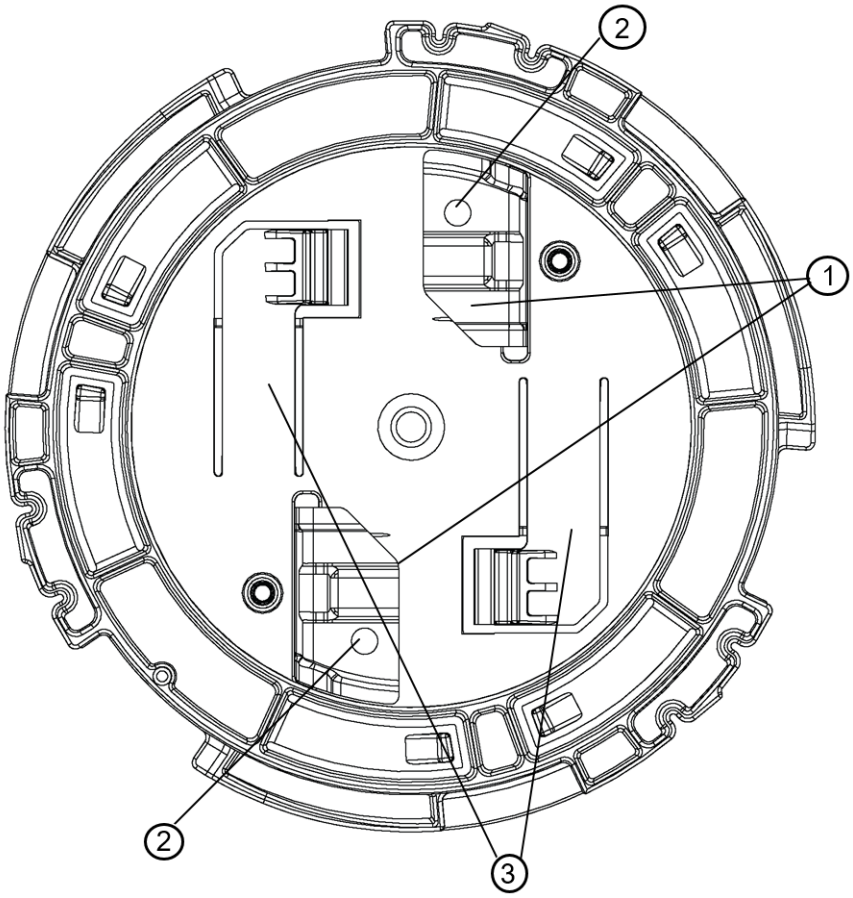


Figure 20: AH-ACC-BKT-AX-TB Accessory Bracket

Callout	Description
1	Metal hinges on the AH-ACC-BKT-AX-TB bracket
2	Mounting holes for wall mounting
3	White plastic tab on the AH-ACC-BKT-AX-TB bracket

5. Align the red dot on the back of the access point against the -TB bracket red dot.

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

6. Press and rotate the access point one-eighth of a turn clockwise until it clicks into place on the accessory.
7. Connect the network cable.
8. Replace the ceiling tiles.

Install the Access Point to a 1 1/2-inch T-bar with an ACC-BKT-AX-TBW

Before You Begin

The following hardware is required for installing the ACC-BKT-AX-TBW accessory on a T-bar:

- An indoor access point
- One ACC-BKT-AX-TBW Accessory
- Two M3.5 screws (included in the -TBW accessory)

Note
The screws come with the accessory and are partially attached in place.

About This Task

You can use the ACC-BKT-AX-TBW accessory for T-bar installation. The -TBW bracket is used for 1.5 inch wide T-bars with varying thickness from 3.175 mm to 6.350 mm, with flush ceiling tiles.

The following ceiling tile protrusions are accommodated by the -TBW mounting bracket:

- If the T-bar is 0.25 inches thick, the -TBW bracket will only accommodate flush ceiling tiles
- If the T-bar is 0.1875 inches thick, the -TBW bracket will accommodate flush ceiling tiles as well as ceiling tiles with 0.062 inches sculpting
- If the T-bar is 0.125 inches thick, the -TBW bracket will accommodate flush ceiling tiles as well as ceiling tiles up to 0.125 inches sculpting

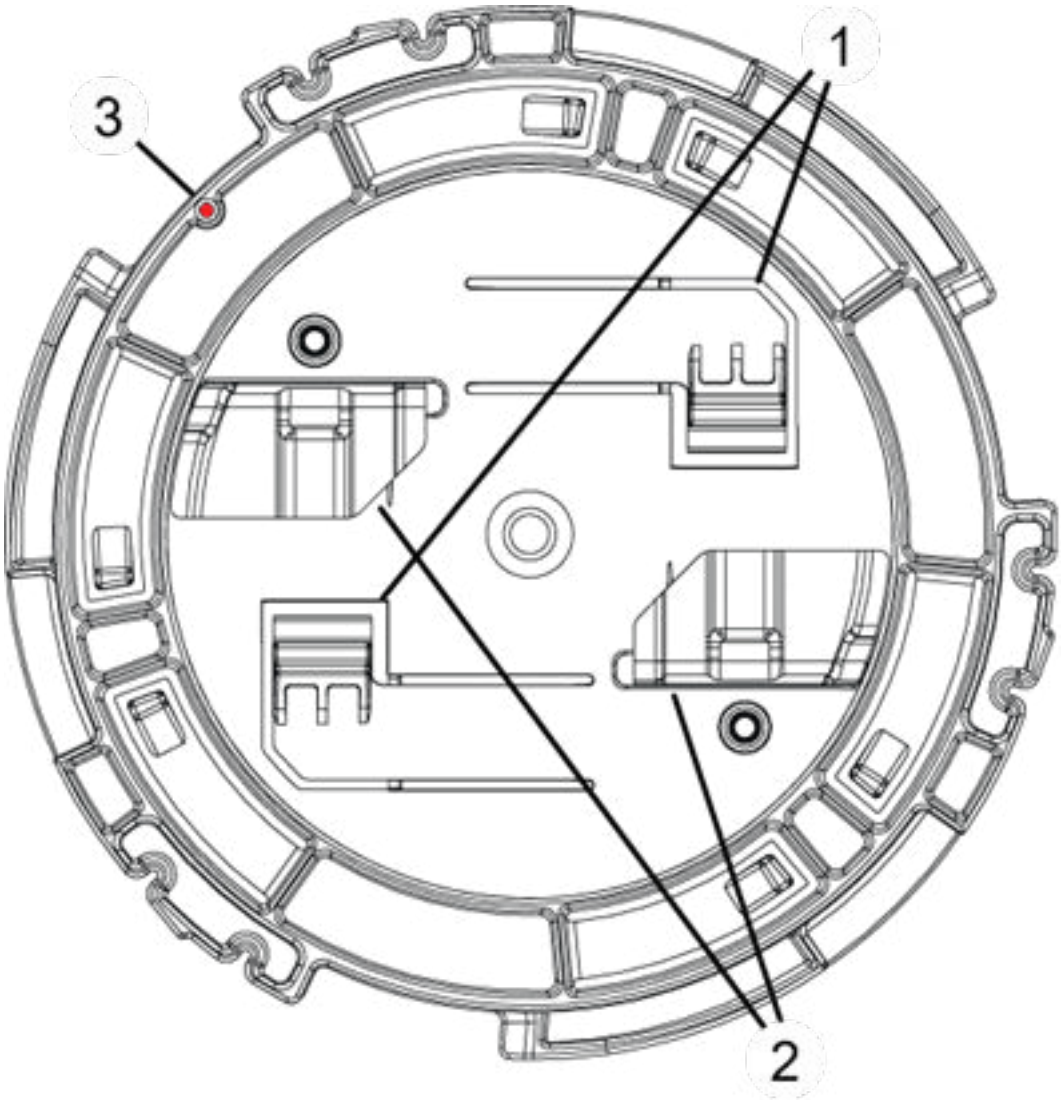


Figure 21: ACC-BKT-AX-TBW bracket T-bar side

Callout	Description
1	-TBW bracket plastic parts
2	-TBW bracket metal parts
3	Red on the bracket to align against the access point

Procedure

1. Turn the -TBW accessory screws in such a way that they do not extend past the plastic on the T-bar side.
2. Align the -TBW accessory metal clips on a T-bar and rotate the metal clip about 1/6th turn clockwise to attach the bracket to the T-bar.

3. Tighten the screws until either resistance is noticed or the screw head bottoms on the -TBW accessory plastic part.

Note
Torque the screws to 1.0 in-lbs, and turn each screw 1 more complete turn clockwise.

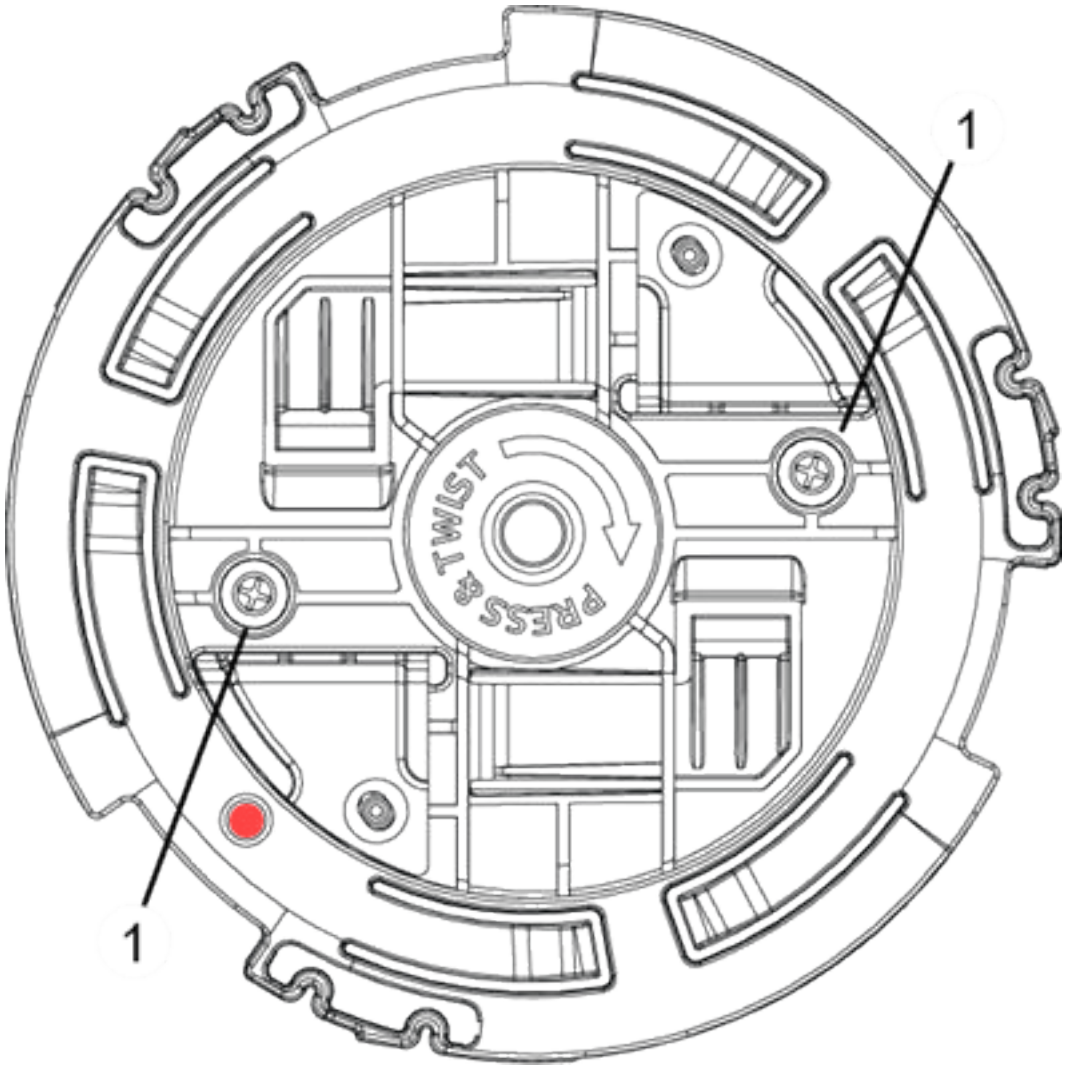


Figure 22: ACC-BKT-AX-TBW bracket access point side

Callout	Description
1	Screws for tightening to T-bar

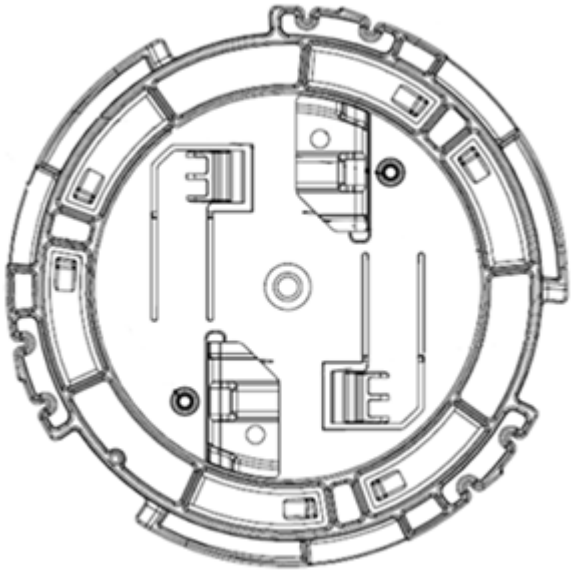
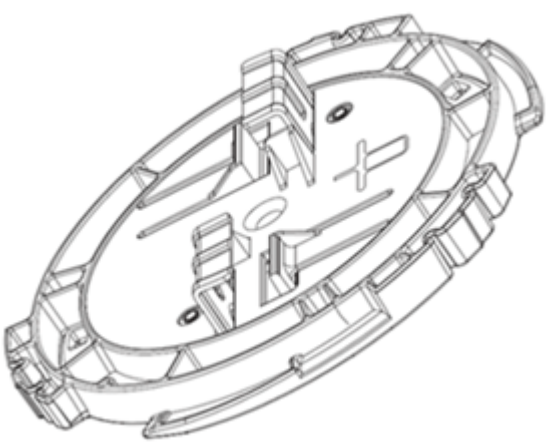
4. Attach the access point to the -TBW bracket by aligning the red dot on the bracket and the access point.

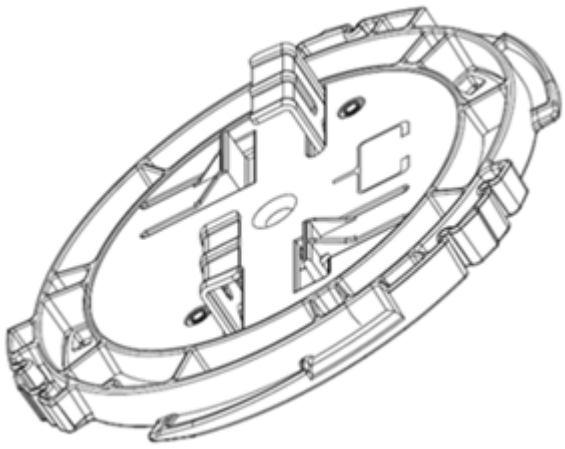
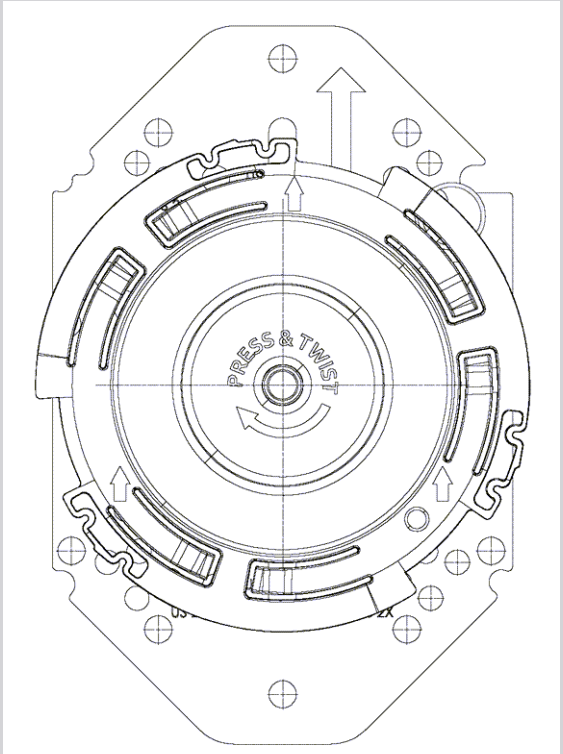
Note
The bracket has a circular tip that fits into the circular depression on the back of the access point.

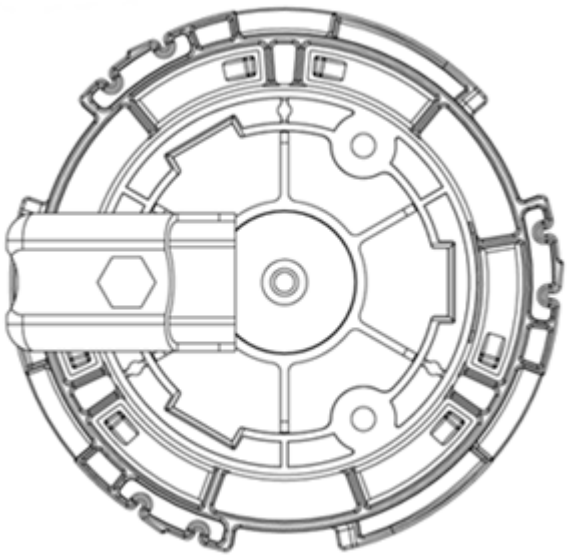
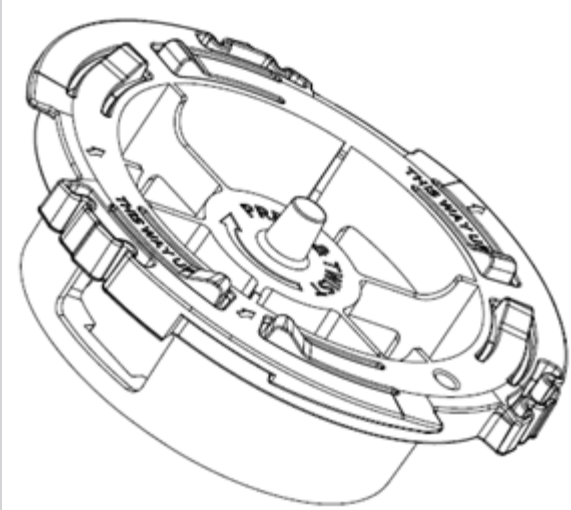
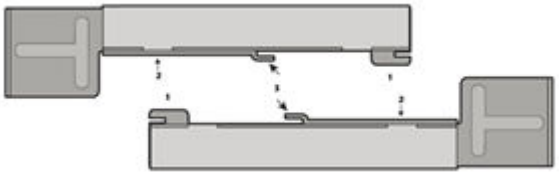
5. Press and rotate the access point 1/6th turn clockwise until it clicks into place on the bracket.
6. Attach the Cat5e RJ45 cable to the ETH0 port on AP305C/CX or the Cat6 RJ45 cable to the ETH0 or ETH1 port on all other indoor access points.
7. If desired for aesthetics, place the cable cover over the Ethernet cable.

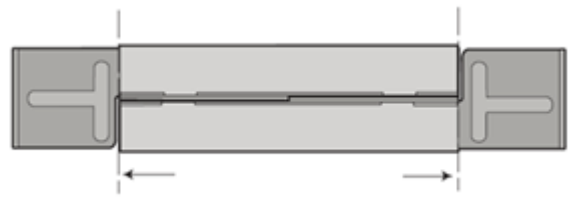
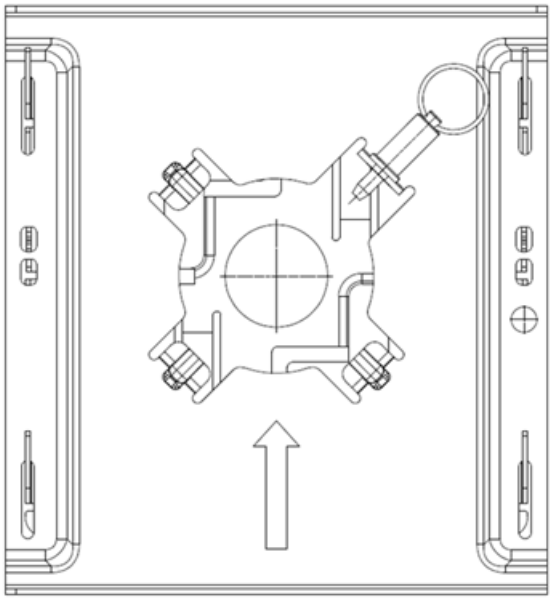
Non-standard Ceiling or Wall

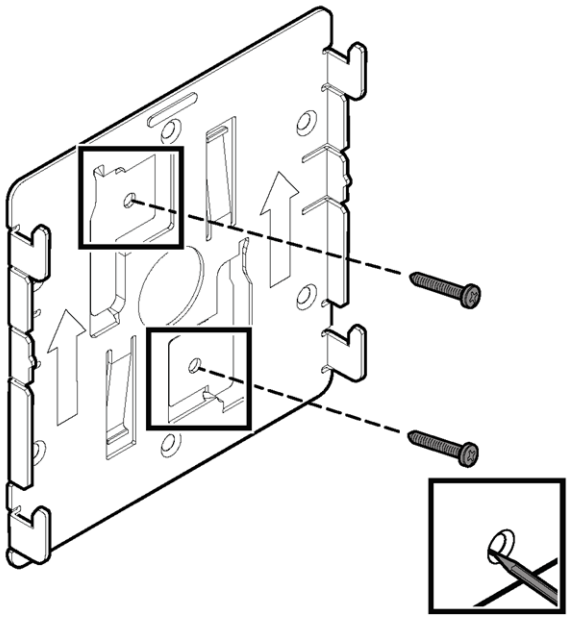
The access point can be installed on a nonstandard ceiling grid using the following accessories:

Order part number	Description
AH-ACC-BKT-AX-TB **Note:** Only this bracket is included with the access point	Mounting bracket for 15/16 in. ceiling grid 
AH-ACC-BKT-AX-IL	Mounting bracket for 9/16 in. wide T-bar with protrusion, 9/16 in. ceilings, and walls 

Order part number	Description
AH-ACC-BKT-AX-SL	Mounting bracket for 1/8 in. and 1/4 in. ceiling grids with a bottom opening 
ACC-BKT-AX-JB	Junction box or wall mounting for indoor access points 

Order part number	Description
ACC-BKT-AX-BEAM	Beam mounting for indoor access points 
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations 
AH-ACC-BKT-916-KIT	9/16 in. ceiling mount brackets for non-flat and protruded ceiling tiles. Use with AH-ACC-BKT-AX-TB 

Order part number	Description
ACC-BKT-TB-NF	Adapter bracket for use with AH-ACC-BKT-TB with 15/16 in. wide T-bars on non-flat or protruded ceiling tiles 
ACC-BKT-AX-WNGADAPT	Adapter bracket for use with cloud access point that has an existing WiNG mounting plate (#37201)  **Figure 23: ACC-BKT-AX-WNGADAPT adapter bracket**

Order part number	Description
	 **Figure 24: WiNG metal bracket (#37201)**

Important
The default bracket for wall installation is the ACC-BKT-AX-JB bracket.

Note
Order the -JB bracket for new wall installations. The AH-ACC-BKT-AX-WL bracket is for users who already have the -WL brackets.

Note
For detailed nonstandard ceiling grid installation or wall installation instructions, refer to the Wi-Fi 6 802.11ax Access Points Accessories Guide.

Install the Access Point on a Beam

Before You Begin

The following hardware is required to install the access point on a beam:

- An indoor model access point
- ACC-BKT-AX-BEAM accessory

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.

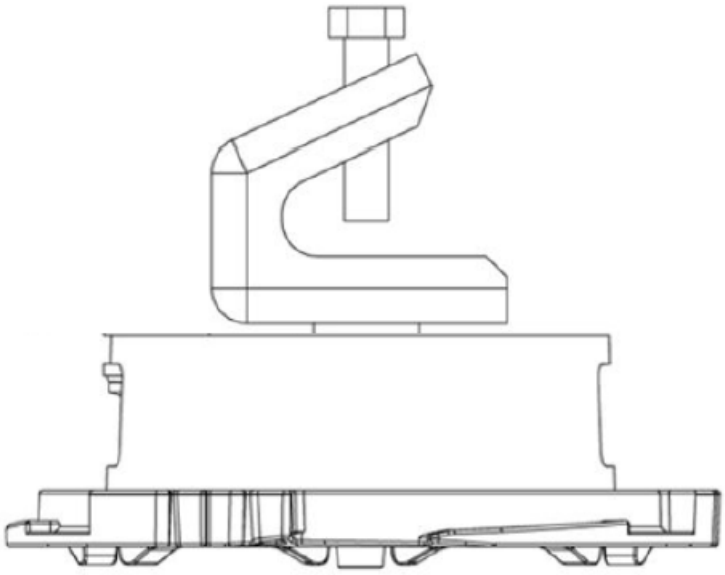


Figure 25: ACC-BKT-AX-BEAM Accessory Bracket

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

Install the Access Point on a Junction Box

Before You Begin

The following hardware is required to install an indoor access point on a junction box (box):

- An indoor access point
- ACC-BKT-AX-JB accessory

About This Task

Install the 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:

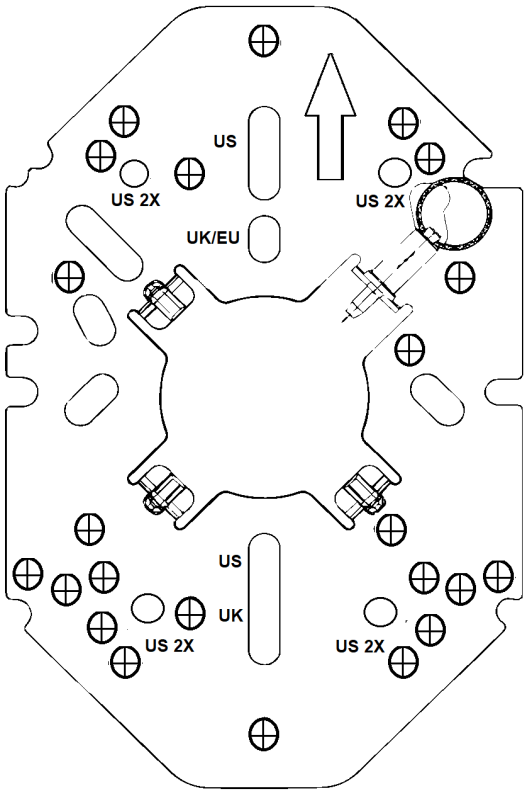


Figure 26: ACC-BKT-AX-JB Accessory Bracket Metal Part

Procedure

1. Remove the screws holding the junction box cover plate.
2. Remove the LAN cable from the cover plate.

3. Bring the LAN cable through the center hole of the metal bracket part.

   The LAN wire must be in-between the metal part and the plastic part during installation.
4. Place the ACC-BKT-AX-JB accessory metal part, with the bracket holes against the cover plate of the box.
5. Using the screws removed from the cover plate, find the bracket holes that align with the junction box screw holes.

   Important
   The text for the holes must be normally readable.

6. Using the cover plate screws, attach the metal bracket part to the junction box.
7. Place the plastic part on the metal part, rotate it ¼th to 1/3rd turn clockwise until you hear it click in place as the lock is set.

   Important
   When installed correctly on a wall, the side arrows on the plastic part must be pointing up.

   Note
   There is a metal pull ring in the metal part that is used to unlock and remove the plastic part.

   To unlock the plastic part, pull out the pin's ring and turn the plastic part 1/3rd turn counter-clockwise and lift it apart.

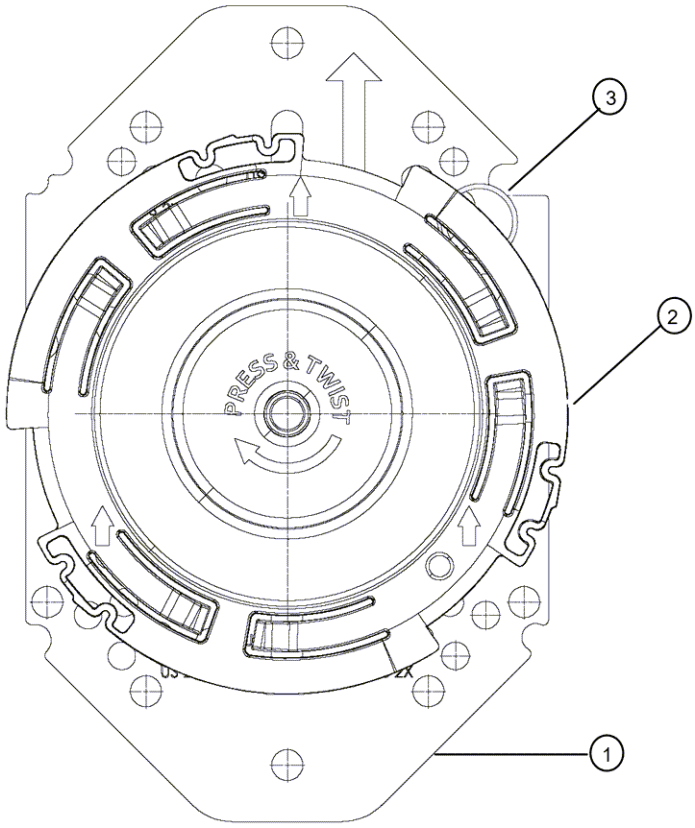


Figure 27: Junction Box Accessory Bracket Assembly

Callout	Description
1	Sheet-metal junction box hole metal part
2	Plastic twist plate part
3	Pull ring with 10 mm diameter ring for unlocking the plastic part

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

Connect the AP to the Network

Before You Begin

You will need a Ethernet cable. Locate the Ethernet ports on the AP before you begin. See Ports, Connectors, and Hardware Features.

About This Task

Connect the AP to your network using one of the Ethernet ports and a network cable.

Procedure

1. Connect the Ethernet cable to one of the Ethernet ports on the AP.
2. Connect the other end of the cable to the Ethernet port on the switch.

Connect to 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 22: Power Accessory

Part number	Description
37219	PWR 12VDC, 3A, 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. See the Power Profile for power consumption specifications.

Figure 28: AP4020FX 12V Port

Draft Comment: Graphic goes here

Table 23: AP4020FX 12V Port

Item	Description	Use
1	12V DC	12-volts of direct current.

Procedure

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

Results

The LED on the top of the AP lights up. It should be white. If the LED is amber, then your AP has a technical issue.

Lock the Access Point

Before You Begin

You will need a Kensington security lock.

About This Task

Secure the access point from damage or theft.

Procedure

1. Securely attach the free end of the Kensington lock cable near the AP.
2. Insert the rectangular lock end into the Kensington security slot on the AP.
3. Lock the Kensington lock.

Connect the Optional Antennas

Before You Begin

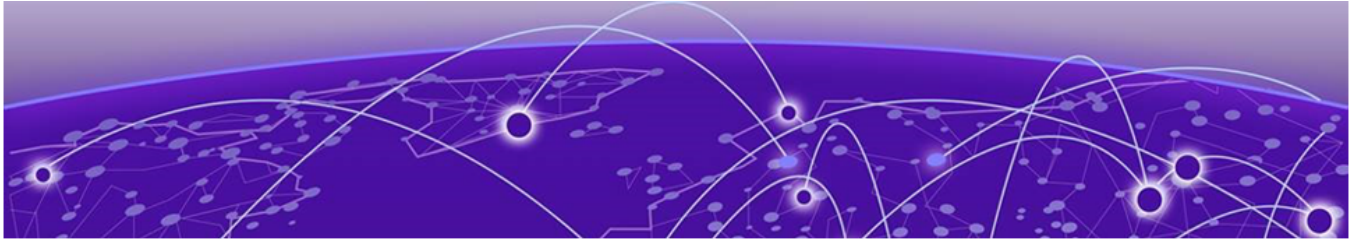
The AP4020FX supports up to six RPSMA antennas, which you can attach to the AP and use to extend your coverage. You can use any of the supported antennas documented in Supported Antennas.

About This Task

Connect the external antennas and adjust them 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.
4. Rotate each antenna to the 45 or 90-degree position for maximum signal strength.



Regulatory and Compliance

The following sections outline the regulatory and compliance information for your AP.

Country of Manufacture

China

Manufacturer: Sercomm Corporation

Address: No.8, Tangzhuang Road, Suzhou Industrial Park, Jiangsu, China

Philippines

Manufacturer: Sercomm Philippines, Inc.

Address: Lot 4, Innovation Drive, CIP 1, Canlubang, 4027, City of Calamba Laguna, Philippines

Taiwan

Manufacturer: Sercomm Chunan

Address: No.81, YuYi Road, Chu-Nan Miao-Li 350, Taiwan

Professional Installation Instructions

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.

Installation Location

The product shall be installed at a location where the radiating antenna can be kept 36 cm from nearby person in normal operation condition to meet regulatory RF exposure requirement.

External Antenna

Use only the antennas which have been approved by the applicant. The non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power, which may lead to the violation of FCC/IC limit and is prohibited.

Installation Procedure

Refer to the installation instructions for details.

Warning
Select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

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.

Emplacement d'installation

En usage normal, afin de respecter les exigences reglementaires concernant l'exposition aux radiofrequences, ce produit doit etre installe de facon a respecter une distance de 36 cm entre l'antenne emettrice et les personnes.

Antenne externe

Utiliser uniquement les antennes approuvees par le fabricant. L'utilisation d'autres antennes peut conduire a un niveau de rayonnement essentiel ou non essentiel depassant les niveaux limites definis par FCC/IC, ce qui est interdit.

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.

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.

FCC Notice (Part 15 - Class B)

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, it 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 the one the receiver is connected

- Consult the dealer or an experienced radio/TV technician for help.

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 transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules

For 5925-6425 MHz and 6525-6875 MHz transmitter operation in Standard power access point mode:

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 in the 5.925-6.425 GHz band.
3. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

FCC Radiation Exposure Statement

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device meets all the other requirements specified in Part15C, Section 247 and Part 15E, Section 15.407 of the FCC Rules.

Warning

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

This device was tested with a separation distance of 58 cm. Always keep the device away from your body to ensure exposure levels remain at or below the tested levels.

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.

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.

Industry Canada Notice

Warning

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.

Warning
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.

This device complies with ISED's licence-exempt RSSs. 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 complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 33cm between the radiator & your body.

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 33cm de distance entre la source de rayonnement et votre corps

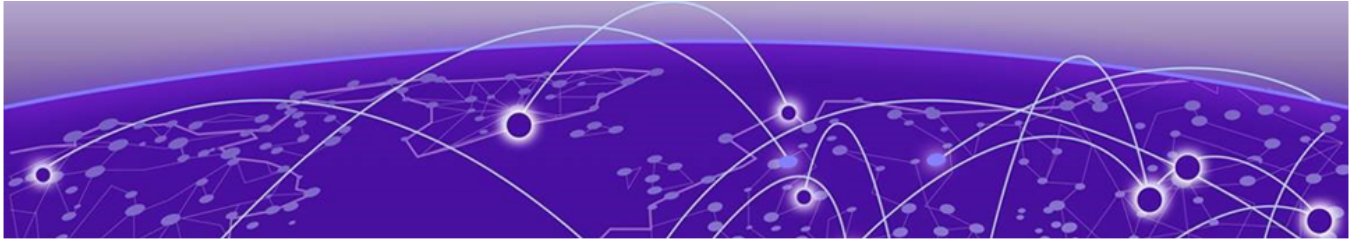
Indoor AP(6SD)

The antenna height shall be determined by the installer or operator of the standard-power access point or fixed client device, or by automatic means. This information shall be stored internally in the device. Provision of accurate device information is mandatory.

La hauteur de l'antenne doit être déterminée par l'installateur ou l'opérateur du point d'accès de puissance normale ou du dispositif client fixe, ou par des dispositifs automatiques. Cette information doit être enregistrée dans le dispositif. La fourniture d'information précise sur le dispositif est obligatoire.

Information for antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 4.5.4 (c) shall be clearly indicated.

Informations pour le ou les types d'antennes, le ou les modèles d'antennes et le ou les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la section 4.5.4 c. s'appliquant au masque de p.i.r.e. doivent être clairement indiqués.



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