

ExtremeWireless™ AP360i/e Access Points

Installation Guide

9036628-00 RevAA June 2020



Copyright © 2020 Extreme Networks, Inc. All rights reserved.

Legal Notice

Extreme Networks, Inc. reserves the right to make changes in specifications and other information contained in this document and its website without prior notice. The reader should in all cases consult representatives of Extreme Networks to determine whether any such changes have been made.

The hardware, firmware, software or any specifications described or referred to in this document are subject to change without notice.

Trademarks

Extreme Networks and the Extreme Networks logo are trademarks or registered trademarks of Extreme Networks, Inc. in the United States and/or other countries.

All other names (including any product names) mentioned in this document are the property of their respective owners and may be trademarks or registered trademarks of their respective companies/owners.

For additional information on Extreme Networks trademarks, please see: www.extremenetworks.com/company/legal/trademarks

Open Source Declarations

Some software files have been licensed under certain open source or third-party licenses. Enduser license agreements and open source declarations can be found at: www.extremenetworks.com/support/policies/software-licensing

Table of Contents

Preface	5
Text Conventions	5
Documentation and Training	7
Getting Help	7
Subscribe to Service Notifications	7
Providing Feedback	8
AP360i/e Overview	9
AP360i/e Features	9
Power Source	12
AP360i/e Power Tables	12
LED Indicators	13
Access Point Purchase Order Information	14
Install the Access Point	15
AP360i/e Box Contents	15
Access Point Mounting Options and Bracket Information	16
Position the Access Point before Installation	17
Ground Connection	17
Install the Access Point on a Wall or to a Flat Surface	20
Install the Access Point to a Flat Surface Using KT-147407-02 Flat Part and 1-Axis	
Tilt Part	20
Install the Access Point to a Flat Surface Using the KT-147407-02 Flat Part, 1-axis	
Tilt Part, and the KT- 150173-01 Extension Arm	22
Install the Access Point On a Flat Surface Using the KT-150173-01 Extension Arm	24
Install the Access Point on a Flat Surface Using the MBO-ART02 Articulating	
Mounting Bracket	25
Install the Access Point on a Hard Vehicle Surface Using the WS-MBV-VMM	
Vehicle Bracket (#32216)	27
Install the Access Point on a Pole	32
Attach the Access Point to a Pole Using All Three KT-147407-02 Bracket Parts	33
Attach the Access Point to a Pole Using the KT-147407-02 Pole Part	37
Attach the Access Point to a Pole Using KT-147407-02 Pole Part and the	
KT-150173-01 Extension Arm	39
Attach the Access Point to a Pole Using the KT-147407-02 Bracket Parts and the	
KT-150173-01 Extension Arm	41
Attach the Access Point to a Pole Using WS-MBO-POLE01 Bracket and MBO-	
ART02 Articulating Mounting Bracket	43
GE and Console Connections	. 48
Console Cap Assembly	48
Cable Gland Adapter Assembly	49

Safe Removal of the RJ45 Cable	54
Antenna Configuration for External Antenna Model Access Point	55
Form a Drip Loop Connection for Cables	57
Access Points Specifications	58
Product Specifications	58
Regulatory Information	59
Professional Installation Instruction	59
Qualified personnel	59
External antenna	59
Installation procedure	60
Instructions d'installation professionnelle	60
Safety Guidelines	60
Federal Communications Commission (FCC) Notice	61
Industry Canada Notice	61
Detachable Antenna Usage	62
Australia Notice	63
AU co-location MPE Statement	63
Brazil Anatel Statement	63
Hazardous Substances	63
Supplement to Product Instructions	64
NCC Statement	64
CE Information	65
All Operational Modes	65
European Waste Electrical and Electronic Equipment (WEEE) Notice	65
Declaration of Conformity in Languages of the European Community	
Index	68



Preface

This section describes the text conventions used in this document, where you can find additional information, and how you can provide feedback to us.

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*.

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.

Table 1: Notes and warnings

Icon	Notice type	Alerts you to
<u> </u>	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.

Table	1:	Notes	and	warnings	(continued)
-------	----	-------	-----	----------	-------------

Table 2: Text

Convention	Description
screen displays	This typeface indicates command syntax, or represents information as it appears on the screen.
The words <i>enter</i> and <i>type</i>	When you see the word <i>enter</i> 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 <i>type</i> .
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.
<i>italic</i> 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.
х у	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, such as passwords, are enclosed in angle brackets.
	Repeat the previous element, for example, <i>member</i> [<i>member</i>].
	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/software compatibility matrices for Campus and Edge products

Supported transceivers and cables for Data Center products

Other resources, like 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/.

Getting Help

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 Service Notifications

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

- 1. Go to www.extremenetworks.com/support/service-notification-form.
- 2. Complete the form (all fields are required).

3. Select the products for which you would like to receive notifications.



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

4. Select Submit.

Providing Feedback

The Information Development team at Extreme Networks has made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, 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 in the document.
- Broken links or usability issues.

If you would like to provide feedback, you can do so in three ways:

- In a web browser, select the feedback icon and complete the online feedback form.
- 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.

AP360i/e Overview

AP360i/e Features on page 9 Power Source on page 12 AP360i/e Power Tables on page 12 LED Indicators on page 13 Access Point Purchase Order Information on page 14

The AP360i/e access points are outdoor model enterprise class 802.11ax access points. The "i" in AP360i indicates that the access point comes with internal antennas and the "e" in AP360e indicates that it comes with external antenna connectors. The access points feature a dual-band radio, one band-locked radio WiFi radio, one bluetooth radio, four WiFi internal or external antennas, and one Bluetooth Low Energy (BLE) antenna.



Note

The AP360i/e requires a minimum base firmware of WiNG 7.3.1.

In this document, the access point is addressed as AP360i/e wherever the procedure and general information is applicable to both access points.

AP360i/e Features

The AP360i/e access points have the following features:

- Radios:
 - Two 802.11ax radios (one 2×2 2.4GHz and 5GHz radio, and one 2×2 5GHz radio)
 - One IoT radio (2.4GHz)
- Console port: RJ45
- Two Ethernet ports:
 - 1×100/1000 Mbps auto-negotiation Ethernet port, RJ45
 - 1×10/100/1000 Mbps auto-negotiation Ethernet port, RJ45
- LEDs: Six. All LEDs will be on during reset
- One rest button
- Power: PoE 802.3af (for more information on power used at 802.3af and 802.3at modes, see AP360i/e Power Tables)
- Antennas:
 - Four WiFi internal antennas on AP360i and four WiFi external antennas on AP360e

- One BLE internal antenna on AP360i and one BLE external antenna port on AP360e
- Temperature: -40°C to +60°C (-40°F to +140°F) @ 6000 ft.
- Enclosure: Plastic

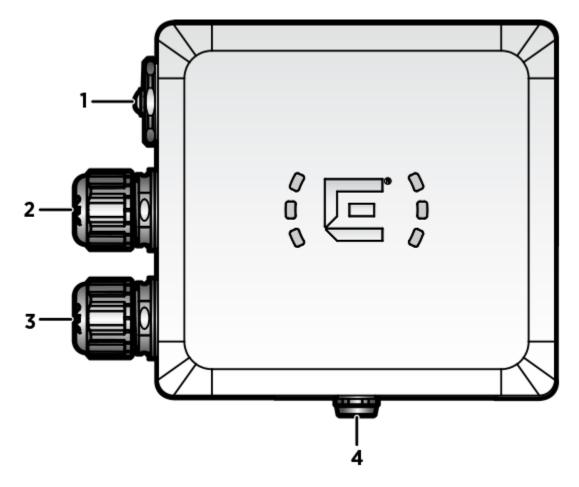


Figure 1: AP360i access point front view

Callout	Description
1	Console port and reset button cap
2	GE2
3	GE1-PoE
4	Vent

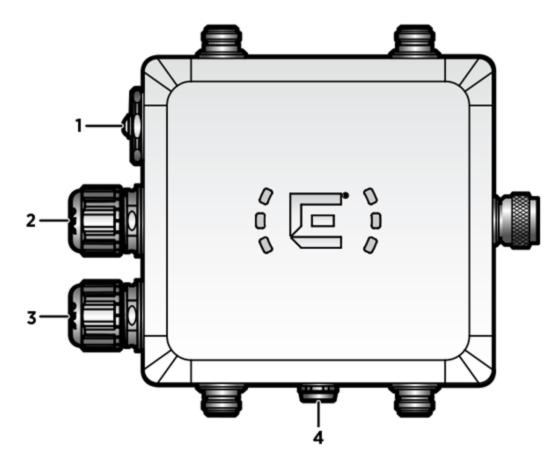


Figure 2: AP360e access point front view

Callout	Description
1	Console port and reset button cap
2	GE2
3	GE1-PoE
4	Vent



Note

The BLE antenna on the AP360e access point comes with a dust cap. Do not remove the dust cap until you need to install the antenna.

Power Source

The AP360i and AP360e access points have one Power over Ethernet (PoE) PD converter that supplies power.



Note

This product is intended to be supplied with a listed power adapter or a DC power source, suitable for use at 60°C, and whose output meets ES1 or separated extra-low voltage (SELV) properties, with a rating of 54v DC (0.6A minimum). For further assistance with purchasing a power adapter, contact Extreme Networks Support.

000-	1
_	

Note

Power for this access point is supplied by PoE through an UL-listed Information Technology Equipment (ITE).

Power source	Description
PoE	Power is provided through the RJ45 Ethernet port of AP360i/e, compliant to be powered with 802.3at and 802.3bt to provide full functionality. For reduced functionality, use 802.3af.

AP360i/e Power Tables

Table 4: AP360i power table

AP360i	802.3af and 802.3at
Radio O (sensor)	2.4G:2×2 (23 dBm) 5G:2×2 (21 dBm)
Radio 0 (2.4G)	2×2 (23 dBm)
Radio 0 (5G-L)	2×2 (20 dBm)
Radio 1 (5G-F)	2×2 (21 dBm)
Radio 1 (5G-H)	2×2 (20 dBm)
BLE	On
GPS	On

Table 5: AP360e power table

AP360e	802.3af and 802.3at
Radio 0 (sensor)	2.4G:2×2 (22 dBm) 5G:2×2 (19 dBm)
Radio 0 (2.4G)	2×2 (22 dBm)
Radio 0 (5G-L)	2×2 (18 dBm)
Radio 1 (5G-F)	2×2 (19 dBm)
Radio1(5G-H)	2×2 (18 dBm)

Table 5: AP360e power table (continued)

AP360e	802.3af and 802.3at
BLE	On
GPS	On

LED Indicators

There are six LEDs located on the front face of the access point but are not visibly marked.

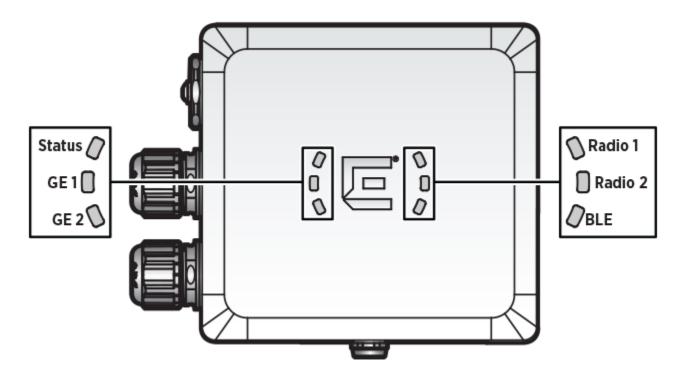


Figure 3: AP360i/e LED indicators

Note

The LED icons and the status on AP360i and AP360e are the same.

Table 6: AP360i/e LED status indicators

LED icon	LED color	Description
Status	Amber	Non-operational status
	Green	Normal operational status
GE1	Amber	100 Mbps
	Green	1000 Mbps
GE2	Amber	100 Mbps
	Green	1000 Mbps

LED icon	LED color	Description
Radio 1	Amber	5G activity
	Green	2.4G activity
Radio 2	Amber	5G activity
IoT (BLE)	Blue	Indicates BLE is enabled

Table 6: AP360i/e LED status indicators (continued)

Access Point Purchase Order Information

The AP360i and AP360e access points must be ordered separately, the ordering details of which are presented in the following tables:

Table 7: AP360i purchase order information

Part number	Description
AP360i-FCC	Dual-radio 802.11ax, 2×2:2, dual 5G outdoor internal antenna access point. Domain: US and Puerto Rico
AP360i-CAN	Dual-radio 802.11ax 2×2:2, dual 5G outdoor internal antenna access point. Domain: Canada
AP360i-WR	Dual-radio 802.11ax 2×2:2, dual 5G outdoor internal antenna access point. Domain: EMEA and Rest of World

Table 8: AP360e purchase order information

Part number	Description
AP360e-FCC	Dual-radio 802.11ax 2×2:2, dual 5G outdoor external antenna access point. Domain: US and Puerto Rico
AP360e-CAN	Dual-radio 802.11ax 2×2:2, dual 5G outdoor external antenna access point. Domain: Canada
AP360e-WR	Dual-radio 802.11ax 2×2:2, dual 5G outdoor external antenna access point. Domain: EMEA and Rest of World



Install the Access Point

AP360i/e Box Contents on page 15 Access Point Mounting Options and Bracket Information on page 16 Position the Access Point before Installation on page 17 Ground Connection on page 17 Install the Access Point on a Wall or to a Flat Surface on page 20 Install the Access Point on a Pole on page 32

About This Task

The access point can be installed to a flat surface such as a wall or to a pole. Refer to the purchase order information to know more about selecting the right access point for your installation needs.

Before installing the access point:

Procedure

- 1. Verify the box contents.
- 2. Visually inspect the access point, the bracket, and any other optional accessories you have ordered for physical damage.

If there is any damage, contact Extreme Networks Support.

- 3. Read and review the safety guidelines.
- 4. Install the ground connection.

AP360i/e Box Contents

When you purchase the AP360i or AP360e access point, ensure that the following items are available in the box:

- An AP360i/e Quick Reference
- One access point (AP360i or AP360e)
- One hardware bag containing:
 - One ground screw
 - One ring terminal
 - One star washer

Access Point Mounting Options and Bracket Information

The access points can be mounted on a wall or to a pole by purchasing separate mounting brackets, which are described in the following table:

Mounting bracket and part number	Wall install	Pole install	Notes
KT-147407-02 bracket	Yes	Yes	The KT-147407-02 bracket has three parts: • Flat part • 1-axis tilt part • Pole part
			For attaching to a wall or a flat surface, use the bracket part that has two holes on the surface of the metal portion, also called the flat part. For attaching to a pole, if the 1-axis tilt is not required, attach the pole part of the bracket to the access point. If 1-axis tilt is required, attach the pole part of the bracket on top of the second wall part.
KT-150173-01 extension arm. It can be used with KT-147407-02 bracket parts, to provide an extension or a tilt	Yes. Use the KT-147407-02 flat wall mount part, if you need a bracket tilt during installation	Yes. Use the KT-147407-02 bracket pole part or use all three KT-147407-02 bracket parts	The KT-150173-01 extension arm can also be used by itself without the other KT-147407-02 bracket parts.
MBO-ART02 10 in. 2- axis articulating mounting bracket	Yes	Yes. Attach the MBO- ARTO2 articulating mounting bracket to the WS-MBO-POLE01 bracket	The wall must be strong enough to support the access point during inclement weather.

Table 9: Mounting bracket usage

Mounting bracket and part number	Wall install	Pole install	Notes
WS-MBO-POLE01 bracket	No	Yes. The POLE01 bracket can only be used with the MBO-ART02 articulating mounting bracket	If the pole diameter is >= 1.0 in. (25.4 mm), use a small cable clamp. If the pole diameter is between 5.0 in 7.0 in. (127.0 mm - 178.0 mm), use a large cable clamp. For any other pole diameter, provide your own stainless steel cable clamp. The band must be 0.5 in. (12.7 mm) wide.
WS-MBV-VMM vehicle bracket (#32216)	Yes	No	 The VMM vehicle bracket has four parts: Flat plate with thumbscrews Stiffener plate 1 Stiffener plate 2 Vehicle attach assembly plate

Table 9: Mounting bracket usage (continued)



Note

All mounting brackets are sold separately.

Position the Access Point before Installation

When you install the access point, the vent must be on the side closest to the ground, and not above the plastic cover. You must provide a 3.0 in. (76.2 mm) drip loop on all cables. For more information, see Form a Drip Loop Connection for Cables on page 57.

<mark>-000</mark>	
_	

Note

The BLE antenna on the AP360e access point comes with a dust cap. Do not remove the dust cap until you are ready to install the antenna.

Related Topics

Ground Connection on page 17 Form a Drip Loop Connection for Cables on page 57

Ground Connection

About This Task

The ground connection for the AP360i/e is located on the rear of the device. Attach a ground to earth cable to the grounding terminal.

Hardware requirements:

- One ground screw
- One ring terminal
- One star washer
- One ground wire



Note

The hardware is shipped with the access point box, but the ground wire must be provided by the installer.

Procedure

1. Strip the insulation off of one end of the ground screw wire.



Tip The best practice is to use a 10 AWG electrical wire. 2. Attach the ground wire ring terminal to the access point using the M4 ground screw assembly with the star washer.



Note

The wire should be as close to the access point bottom as possible.



Note

The star washer must be in contact with both the ring terminal and the access point.

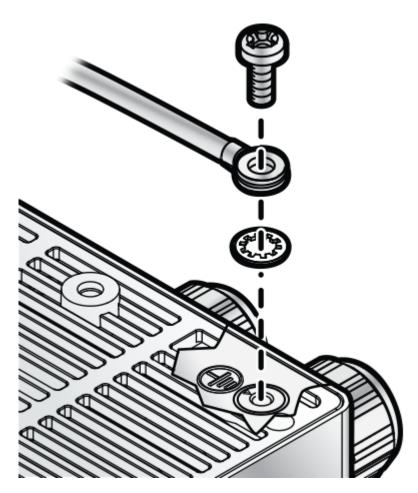


Figure 4: Ground wire connection

3. Tighten the screw to a torque of 10.0 in-lbs.

Related Topics

AP360i/e Box Contents on page 15

Install the Access Point on a Wall or to a Flat Surface

You can install the access point on a flat surface such as a wall using one of the following bracket options:

- KT-147407-02 bracket
- KT-150173-01 extension arm
- MBO-ART02 10 in. 2-axis articulating mounting bracket
- WS-MBV-VMM vehicle bracket (#32216)



Note

The wall install options are applicable to both internal and external antenna model outdoor access points.

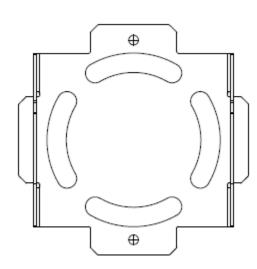
Install the Access Point to a Flat Surface Using KT-147407-02 Flat Part and 1-Axis Tilt Part

Before You Begin

The KT-147407-02 bracket has three bracket parts:

- Flat part
- 1-axis tilt part
- Pole part

For a flat surface installation, you require the flat part and the 1-axis tilt part.



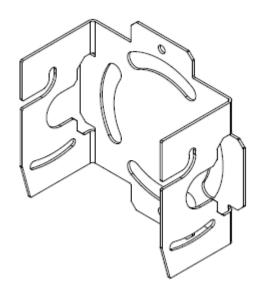


Figure 5: KT-147407-02 bracket flat part

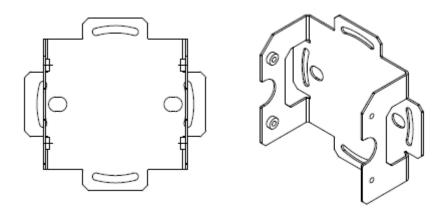


Figure 6: KT-147407-02 bracket 1-axis tilt part

րիներ	

Note

The flat part and the 1-axis tilt part can be used interchangeably with the access points. You can either attach the flat part or the 1-axis tilt part first, and the rest of the installation procedure will not be affected by it.

The following hardware is required:

- KT-147407-02 flat part
- KT-147407-02 1-axis tilt part
- Access point
- Ten M6 hex-head screws
 - Two M6 screws to attach the KT-147407-02 flat part to the access point
 - Four M6 screws to attach the KT-147407-02 1-axis tilt part to a flat surface
 - Four M6 screws to attach the KT-147407-02 flat part to the 1-axis tilt part

Procedure

- 1. Using two M6 hex-head screws, attach the KT-147407-02 flat part to the access point.
- 2. Using the 1-axis tilt part as a template, mark and drill four holes on a wall or a flat surface.
- 3. Using four M6 screws, attach the 1-axis tilt part to a wall or a flat surface.
- 4. Align the KT-147407-02 flat part bracket inside the 1-axis tilt part, and attach it using four M6 screws.

5. Tilt the access point to a desired angle and tighten the four M6 screws to a torque of 45 in-lbs. The tilt bracket can be adjusted from +15 degrees to -15 degrees of tilt.

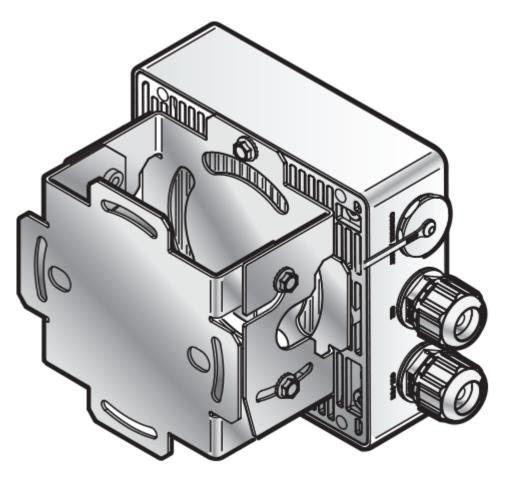


Figure 7: KT-147407-02 flat part and 1-axis tilt part attached to the back of the AP360i access point

Install the Access Point to a Flat Surface Using the KT-147407-02 Flat Part, 1-axis Tilt Part, and the KT- 150173-01 Extension Arm

Before You Begin

The KT-150173-01 extension arm is used to install the access point on a flat surface, away from any obstruction and to get a stronger antenna signal. For installations that require an extension arm, the access point can be attached to a flat surface using the KT-147407-02 bracket parts and the KT-150173-01 extension arm, or can be installed by only using the KT-150173-01 extension arm.

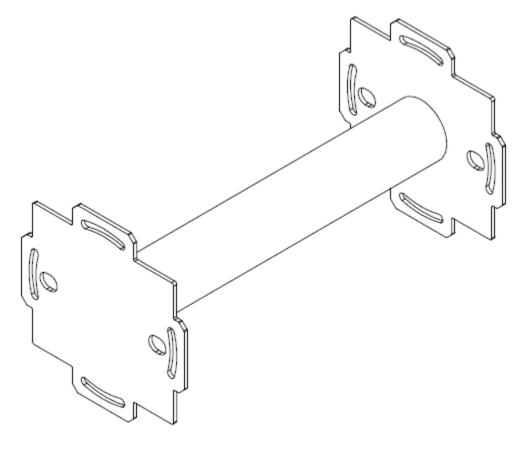


Figure 8: KT-150173-01 extension arm

The following hardware is required for installation:

- KT-147407-02 flat part
- KT-147407-02 1-axis tilt part
- KT-150173-01 extension arm
- Access point
- Ten M6 hex-head screws
 - Two M6 hex-head screws to attach the flat part to the access point
 - Four M6 hex-head screws to attach the 1-axis tilt part to the flat part
 - Four M6 hex-head screws to attach the KT-150173-01 extension arm to a flat surface
- Two hex-head M12 stainless-steel screws and nuts

Procedure

- 1. Using two M6 screws, attach the KT-147407-02 flat part to the access point.
- 2. Place the KT-147407-02 flat part inside the 1-axis tilt part, and attach it using four M6 screws.
- 3. Using the KT-150173-01 extension arm as a template, mark four hole centers on a flat surface. The holes must be within the semi-circular cuts of the extension arm.
- 4. Using two hex-head M12 stainless-steel screws and two M12 hex-head stainless-steel nuts, attach one end of the KT-150173-01 extension arm to the 1-axis tilt part.

The screws and nuts are fastened through the two large circular holes on the KT-150173- 01 extension arm.

Tip

5. Using four M6 hex-head screws, attach the KT-150173-01 extension arm to a flat surface.



The best practice is to use screw-in anchors with the M6 screws on a wood surface, and concrete anchors on a concrete surface.

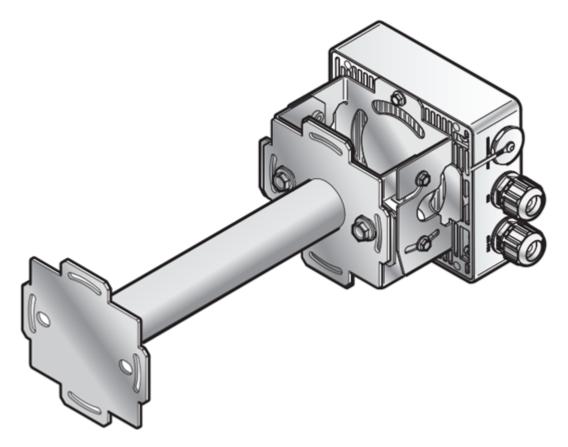


Figure 9: KT-147407-02 flat part, 1-axis tilt part, and the KT-150173-01 extension arm attached to the back of the AP360i access point

Install the Access Point On a Flat Surface Using the KT-150173-01 Extension Arm

Before You Begin

The KT-150173-01 extension arm is used to install the access point on a flat surface, away from any obstruction and to get a stronger antenna signal.

The following hardware is required:

- KT-150173-01 extension arm
- Eight M6 hex-head screws
 - Four M6 hex-head screws to attach one end of the extension arm to the access point
 - Four M6 hex-head screws to attach the other end of the extension arm to the wall
- Access point

Procedure

1. Using the KT-150173-01 extension arm as a template, mark and drill four hole centers on a flat surface.

The holes must be within the semi-circular cuts of the extension arm.

- 2. Using four M6 hex-head screws, attach one end of the KT-150173-01 extension arm to the access point.
- 3. Using four M6 hex-head screws, attach the other end of the KT-150173-01 extension arm to the wall.



The best practice is to use screw-in anchors with the M6 screws on a wood surface, and concrete anchors on a concrete surface.

Install the Access Point on a Flat Surface Using the MBO-ARTO2 Articulating Mounting Bracket

Before You Begin

The following hardware is required:

- MBO-ART02 articulating mounting bracket
- Access point
- Two M6 hex-head screws is used for attaching the MBO-ARTO2 articulating mounting bracket to the access point
- Four M4 hex-head screws are used for attaching the MBO-ARTO2 articulating mounting bracket to the wall

Procedure

1. Using the shorter end of the MBO-ARTO2 bracket end as a template, mark and drill four holes on the wall.

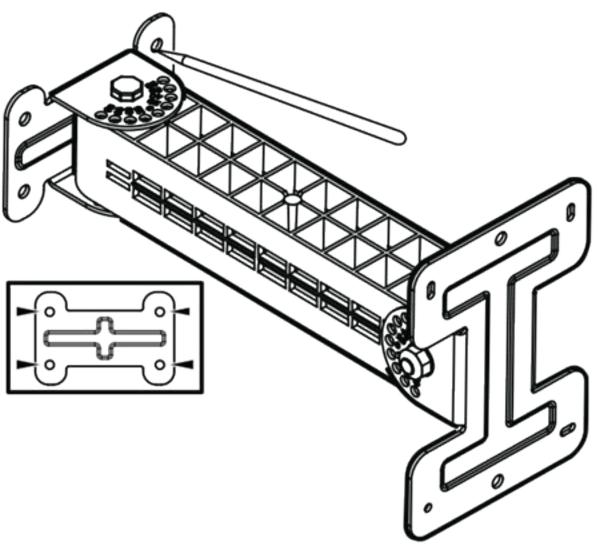


Figure 10: MBO-ARTO2 articulating mounting bracket template for wall attachment holes

2. Using two M6 hex-head screws, attach the MBO-ARTO2 articulating mounting bracket to the access point.

3. Align the MBO-ARTO2 articulating mounting bracket holes against the wall attachment holes and attach the bracket using four M4 hex-head screws.

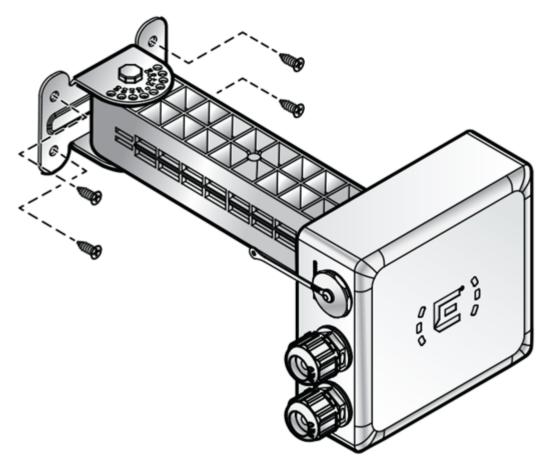


Figure 11: MBO-ART02 bracket being attached to a wall

Install the Access Point on a Hard Vehicle Surface Using the WS-MBV-VMM Vehicle Bracket (#32216)

About This Task

The WS-MBV-VMM vehicle bracket (#32216) is used to mount the access point on a wood or a metal vehicle surface. The vehicle bracket has four parts:

- Flat plate with thumbscrews, called the access point attach assembly plate
- Stiffener plate 1. It is used with the access point attach assembly plate

- Stiffener plate 2. It is used with the access point attach assembly plate
- Vehicle attach assembly plate with PEM[®] fasteners

Item	Description	
VMM vehicle attach assembly	Vehicle attach plate with PEM® fasteners	
VMM access point attach assembly	Access point attach flat plate with stiffener 1 and stiffener 2	
Phillips pan-head M4 (15 mm) screws	Four screws to attach the access point attach assembly plate to the access point	
The installer must provide the following hardware:		
Access point	The access point that you are using for installation	
Screws or bolts to attach the vehicle attach assembly plate	Four screws or bolts	
Torque wrench or a screwdriver	Required to attach the screws or bolts, and assembly plates	

Procedure

1. Using the vehicle assembly plate four long inner slots as a template, mark and drill the attachment holes on a flat surface.

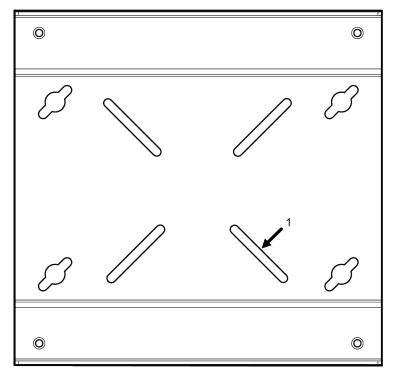


Figure 12: VMM vehicle attach assembly plate

Callout	Description
1	Inner slot on the VMM vehicle attach assembly plate

2. Attach the vehicle attach assembly plate using four screws or bolts.

The screws or bolts must be tightened to hold the bracket and the access point in all environmental conditions.

3. Align the large holes on the stiffener plates with the large holes on the access point assembly plate, and attach the stiffener plates to the access point attach assembly plate.

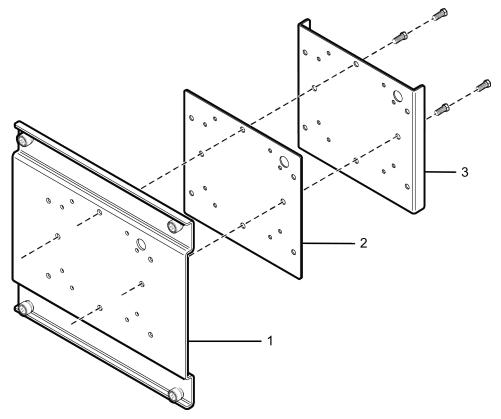


Figure 13: VMM access point attach assembly plate stiffener 1 and stiffener 2

Callout	Description
1	Access point attach assembly plate
2	Stiffener plate 1
3	Stiffener plate 2

4. Attach four M4 or M6 screws to stiffener plate 2, and align the threaded holes of the access point to the access point attach assembly plate.

The screw head goes inside the small bracket with the bent sides.



Note

The bracket comes with four M4 screws.

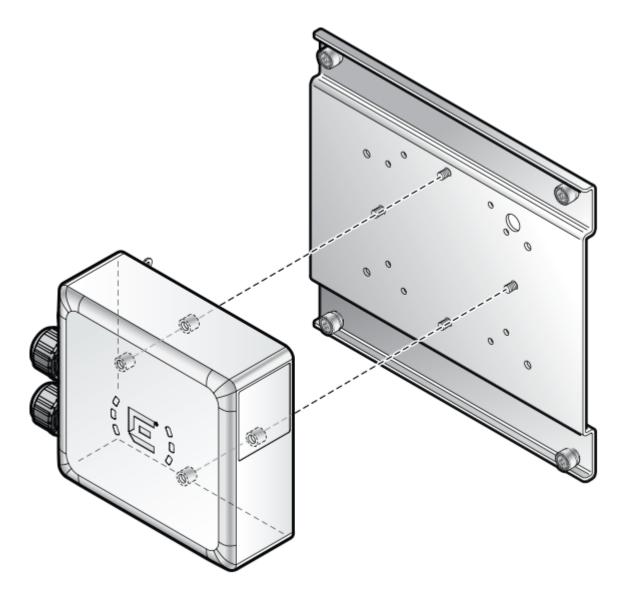


Figure 14: AP360i access point alignment with the access point attach assembly plate

5. Tighten the M4 screws to 10 in-lbs.

6. Using four thumbscrews, attach the access point attach assembly plate to the vehicle attach assembly plate.



Note

The access point will not be centered and some of the attachment holes in the access point attach assembly plate will be visible.

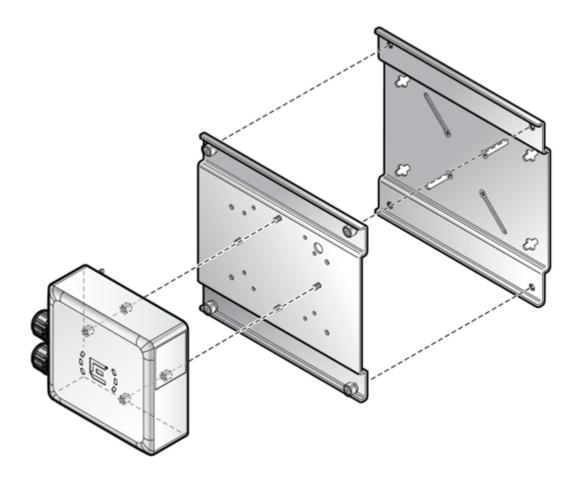


Figure 15: Access point alignment with the access point attach assembly plate and the vehicle attach assembly plate

Install the Access Point on a Pole

You can install the access point on a pole using the following mounting brackets:

- KT-147407-02 bracket parts
- KT-147407-02 pole part
- KT-150173-01 extension arm with the KT-147407-02 pole part
- KT-150173-01 extension arm with KT-147407-02 bracket parts
- WS-MBO-POLE01 bracket with the MBO-ART02 articulating mounting bracket

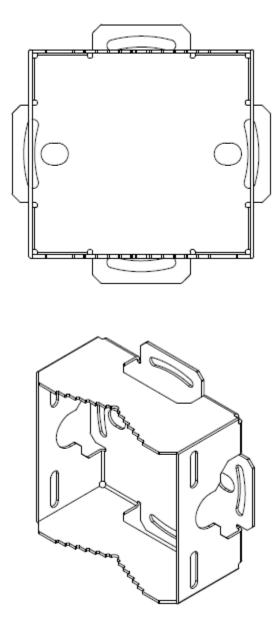


Figure 16: KT-147407-02 pole part



Note

The pole install options are applicable to both internal and external antenna model outdoor access points.

Attach the Access Point to a Pole Using All Three KT-147407-02 Bracket Parts

Before You Begin

The following hardware is required to mount the access point on to a pole:

- KT-147407-02 flat part
- KT-147407-02 1-axis tilt part

- KT-147407-02 pole part
- Access point
- Four M6 hex-head screws
- Two hex-head M12 stainless-steel screws and nuts
- Two 0.5 in. (12.7 mm) wide stainless-steel cable clamps

About This Task

To attach the access point to a pole:

Procedure

1. Attach the flat part and the 1-axis tilt part of the KT-147407-02 bracket to the access point.

For instructions on how to attach the bracket parts, see Install the Access Point to a Flat Surface Using KT-147407-02 Flat Part and 1-Axis Tilt Part.

2. Attach the pole part to the 1-axis tilt part using two M12 bolts through the large bracket holes on the 1-axis tilt part and the pole part.

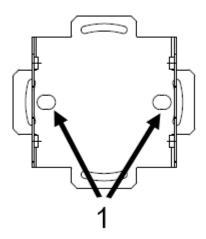


Figure 17: Large bracket holes on the 1-axis tilt part of KT-147407-02 bracket

Callout	Description
1	Large bracket holes used for attaching the M12 screws on the 1-axis tilt part of the KT-147407-02 bracket

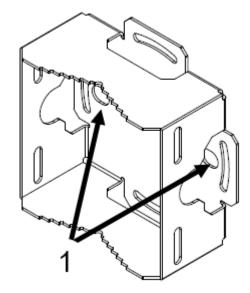


Figure 18: Large bracket holes on the pole part of the KT-147407-02 bracket

Callout	Description
	Large bracket holes used for attaching the M12 screws on the pole part of the KT-147407-02 bracket

3. Fasten the M12 screws using two M12 hex nuts.

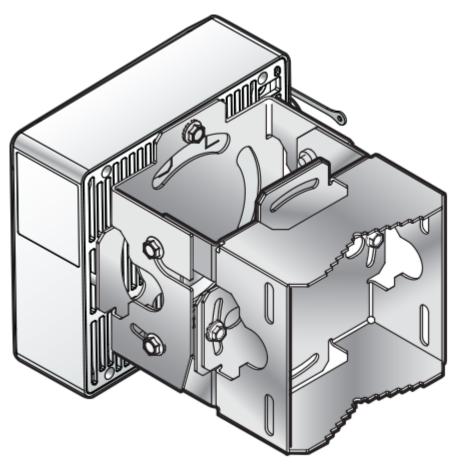


Figure 19: KT-147407-02 bracket parts attached to the back of the AP360i access point

4. Insert the 0.5 in. (12.7 mm) wide stainless-steel cable clamps through the long slots on the sides of pole bracket.

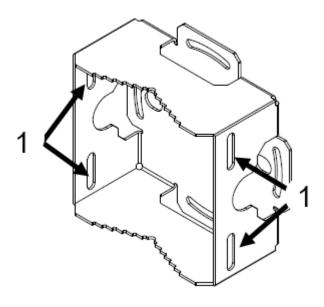


Figure 20: Long slots on the pole part of the KT-147407-02 bracket

Callout	Description
1	Long slots on the sides of the pole part of the KT-1474017-02 bracket. These slots are used to insert the 0.5 in. (12.7 mm) wide stainless-steel cable clamps.

5. Position and insert the ends of the cable clamps around the pole.

6. Tighten the clamp screws to a torque of 11 in-lbs.

Attach the Access Point to a Pole Using the KT-147407-02 Pole Part

Before You Begin

If 1-axis tilt is not required, you can use the pole part of the KT-147407-02 bracket for pole installation.

The following hardware is required:

- KT-147407-02 pole part
- Two 0.5 in. (12.7 mm) wide stainless-steel cable clamps
- Access point
- Four M6 hex-head screws

Procedure

 Attach the KT-147407-02 pole part to the access point using four M6 hex-head screws. Use the semi-circular cuts on the pole part of the KT-147407-02 bracket to attach the screws.

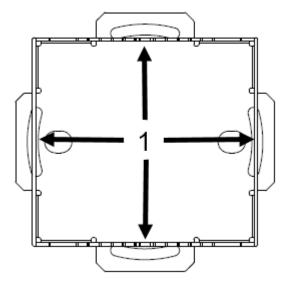


Figure 21: Semi-circular cuts on the pole part of the KT-147407-02 bracket

Callout	Description
1	Semi-circular cuts on the pole part of the KT-147407-02 bracket, used for attaching the M6 hex-head screws.

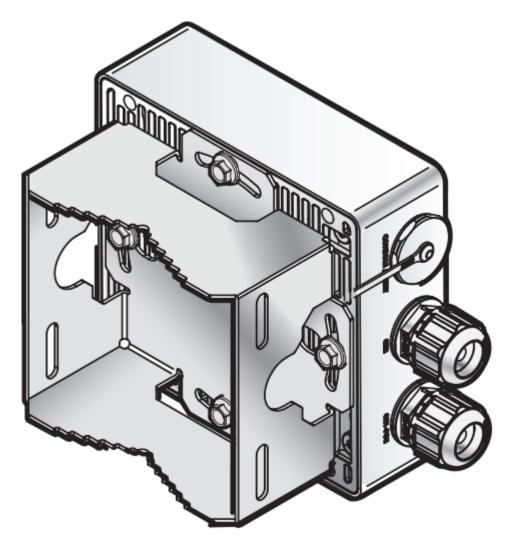


Figure 22: KT-147407-02 pole part attached to the back of the AP360i access point

- 2. Insert the 0.5 in. (12.7 mm) wide stainless-steel cable clamp through the long slots on the sides of KT-147407-02 pole part.
- 3. Position and insert the ends of the cable clamps around the pole.
- 4. Tighten the clamp screws to a torque of 11 in-lbs.

Attach the Access Point to a Pole Using KT-147407-02 Pole Part and the KT-150173-01 Extension Arm

Before You Begin

The access point can be mounted on a pole using the KT-147407-02 pole part and the KT-150173-01 extension arm.

The following hardware is required:

- KT-147407-02 pole part
- KT-150173-01 extension arm

- Four M6 hex-head screws
- Two M12 stainless-steel screws and nuts
- Two 0.5 in. (12.7 mm) wide stainless-steel cable clamps
- Access point

About This Task

To install the access point on a pole:

Procedure

- 1. Attach one end of the KT-150173-01 extension arm to the access point using two M6 hex-head screws.
- 2. Attach the KT-147407-02 pole part to the other end of the KT-150173-01 bracket using two hex-head M12 stainless-steel screws, and two hex-head M12 stainless-steel nuts.
- 3. Attach the pole bracket to the pole.

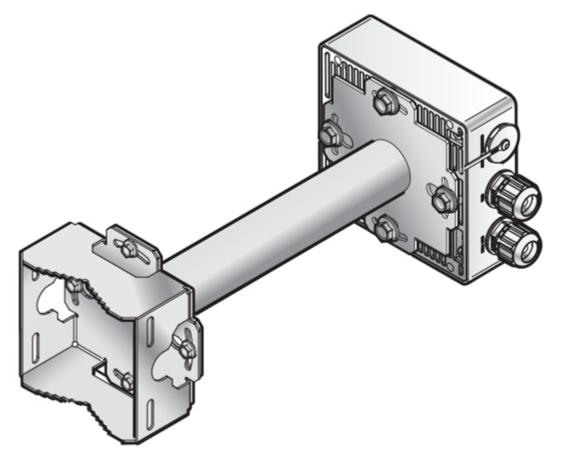


Figure 23: AP360i access point pole installation using KT-147407-02 pole part and the KT-150173-01 extension arm

Attach the Access Point to a Pole Using the KT-147407-02 Bracket Parts and the KT-150173-01 Extension Arm

Before You Begin

You can attach the access point to a pole using all the parts of the KT-147407-02 bracket and the KT-150173-01 extension arm.

The following hardware is required:

- KT-147407-02 flat part
- KT-147407-02 1-axis tilt part
- KT-147407-02 pole part
- KT-150173-01 extension arm
- Six M6 hex-head screws
- Four hex-head M12 stainless-steel screws and nuts
- Two 0.5 in. (12.7 mm) wide stainless-steel cable clamps
- Access point

About This Task

To install the access point on a pole:

Procedure

1. Attach the KT-147407-02 flat part to the access point.

For instructions on how to attach the bracket parts, see Install the Access Point to a Flat Surface Using KT-147407-02 Flat Part and 1-Axis Tilt Part.

2. Align the circular holes on one end of the KT-150173-01 extension arm against the large holes on the 1-axis tilt part.

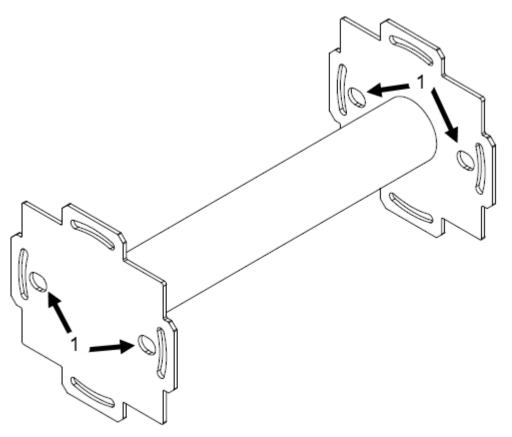


Figure 24: Circular holes on the KT-150173-01 extension arm

Callout	Description
	Circular holes on the KT-150173-01 extension arm that is used to attach to the KT-147407-02 1-axis tilt part, to attach to the wall, and to KT-147407-02 pole part.

3. Attach the KT-150173-01 extension arm to the 1-axis tilt part by using two hex-head M12 stainlesssteel screws and two hex-head M12 stainless-steel nuts. 4. Attach the KT-147407-02 pole part to the other end of the KT-150173-01 extension arm using two M12 screws and M12 hex-nuts.

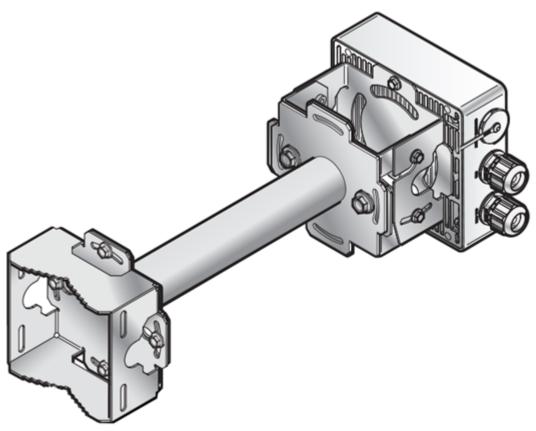


Figure 25: AP360i pole installation using all KT-147407-02 bracket parts and the KT-150173-01 extension arm

- 5. Insert the 0.5 in. (12.7 mm) wide stainless-steel cable clamps through the long slots on the sides of the KT-147407-02 pole part.
- 6. Position and insert the ends of the cable clamps around the pole.
- 7. Tighten the clamp screws to a torque of 11 in-lbs.

Attach the Access Point to a Pole Using WS-MBO-POLE01 Bracket and MBO-ART02 Articulating Mounting Bracket

Before You Begin

The following hardware is required:

- WS-MBO-POLE01 bracket
- MBO-ART02 bracket
- Two M6 hex-head screws
- Four M3 screws, nuts, and washers to attach the WS-MBO-POLE01 bracket to the MBO-ART02 articulating mounting bracket

• Two cable clamps

000	1	ľ
_		`

Note You need to provide your own stainless-steel cable clamps. The band must be 0.5 in. (12.7 mm) wide.

• Access point

Procedure

1. Attach the MBO-ARTO2 articulating mounting bracket to the access point using two M6 hex-head screws.

2. Attach the WS-MBO-POLE01 bracket to the MBO-ART02 articulating mounting bracket using four M3 screws, nuts, and washers.

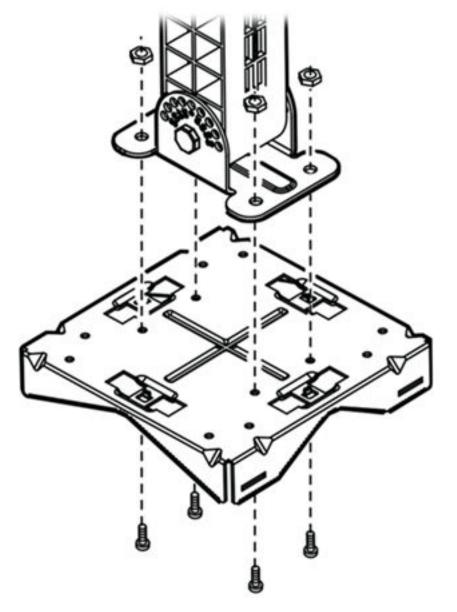


Figure 26: POLE01 bracket being attached to the ART02 articulating mounting bracket

- 3. Open the cable clamp by turning a flat-bladed screwdriver counterclockwise.
- 4. Insert the non-clamp end into the pole bracket through the holes.
- 5. Attach both the cable clamps to the WS-MBO-POLE01 bracket.
- 6. Place the metal band around the pole, and attach the WS-MBO-POLE01 bracket to the pole.

7. Tighten the cable clamp screw clockwise, tightening the band around the pole.

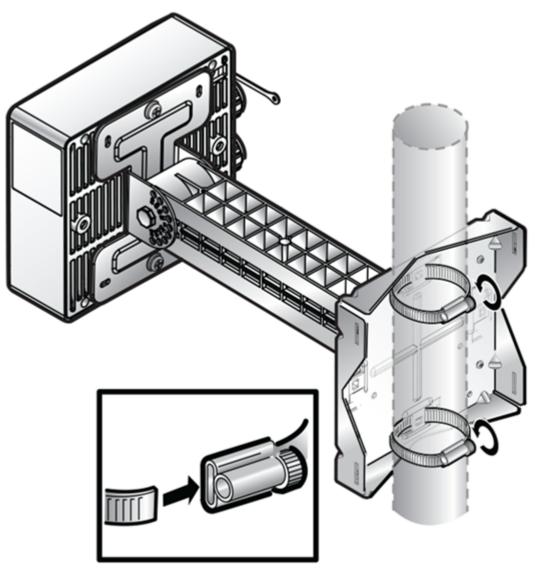


Figure 27: Tightening the cable clamp around the pole

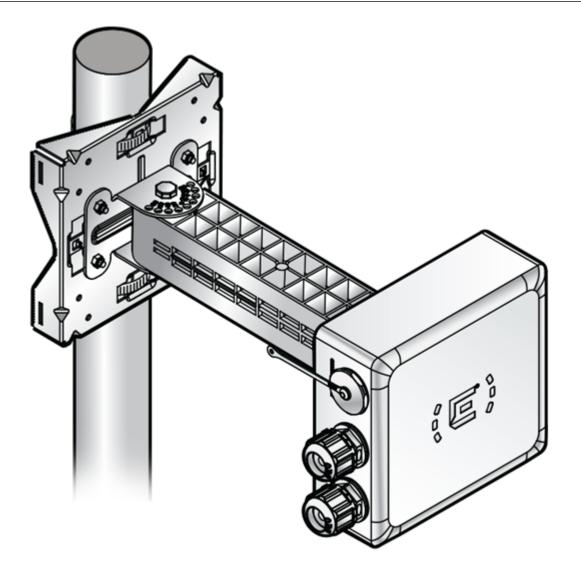
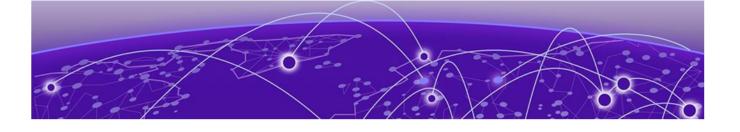


Figure 28: AP360i access point attached to a pole using MBO-ART02 articulating mounting bracket and POLE01 bracket



GE and Console Connections

Console Cap Assembly on page 48 Cable Gland Adapter Assembly on page 49

The access points have two GE (Ethernet) ports and a Console port. During administration and maintenance through the GE or Console port, the access points must still have a power connection through an Ethernet PoE cable.

For information about the location of the GE and Console ports, see AP360i/e Features.

Console Cap Assembly

About This Task

The GE ports, console port, and vent on all outdoor access points must be torqued properly to ensure proper protection of access points against water intrusion. The AP360i/e access points come with a console port tie that must be torqued.

Procedure

1. Tighten the M25 console cap to a torque of 8.7 in-lbs.



If a torque wrench is not available, tighten the console cap by hand. Use an open end wrench to tighten the cap between 1/8th to 1/4th turn.

2. Loop the console port cap tie to the back of the access point, and place it on top of the tether screw hole.

Figure 29: Console port cap tie installation

- 3. Add the Phillips head screw through the console port cap tie and tether screw hole.
- 4. Toque the screw to 6.0 lb-in.

Related Topics

AP360i/e Features on page 9

Cable Gland Adapter Assembly

Before You Begin

Before connecting the RJ45 cable, a waterproof cable gland adapter assembly must be installed onto the cable.



Important

The cable glands must be torqued properly to protect the access point from water intrusion.

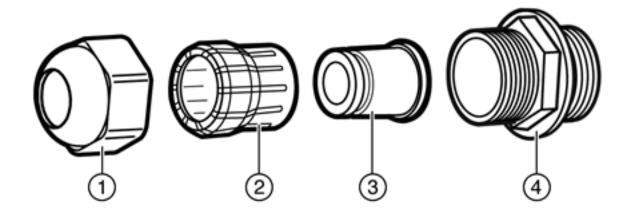


Figure 30: RJ45 cable gland adapter assembly

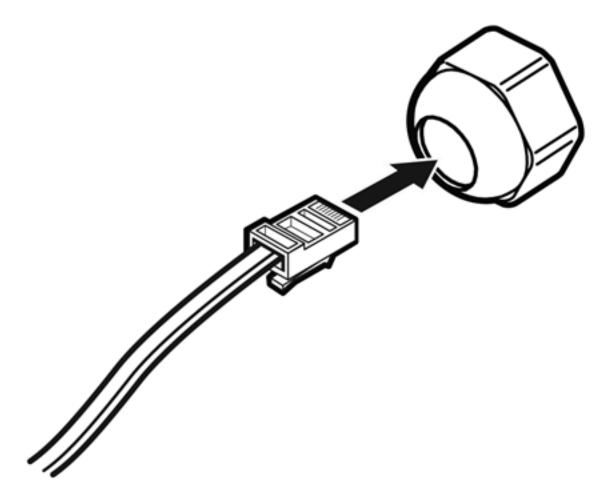
Callout	Description
1	Sealing nut
2	Claw
3	Seal
4	Main body

About This Task

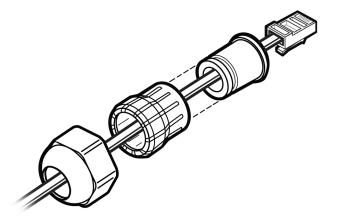
Install the cable gland adapter assembler onto the GE1 or GE2 port:

Procedure

1. Insert the RJ45 cable onto the sealing nut.



2. Slide the claw and seal onto the RJ45 cable.



3. Attach the main body into the GE1 or GE2 port of the access point.

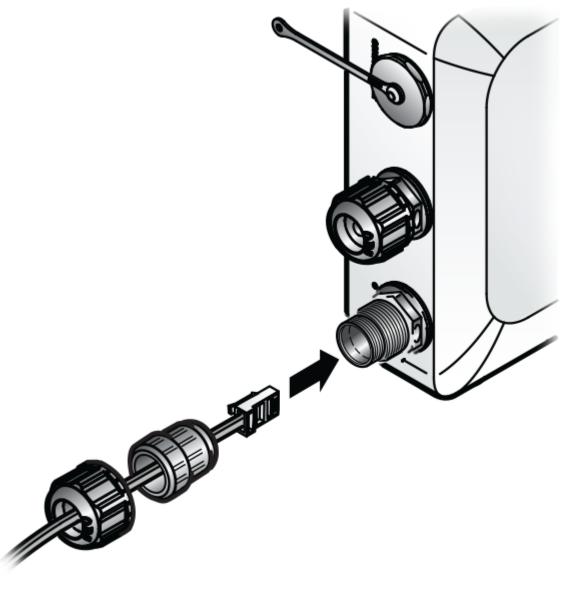
4. Plug the RJ45 cable into the port.



Caution

Do not run the network cable through the cable conduit connector used for connecting the power cables. You must connect the network cable and power cables through separate connectors.

5. Slide the seal and the claw into the main body.



6. Secure the seal nut onto the main body.



7. Tighten the adapter assembly by hand to 5-in. lbs.





Note

There should still be some visible threads after you torque in the cap.



Safe Removal of the RJ45 Cable

Procedure

- 1. Loosen the GE1 gland cap.
- 2. Move the gland cap, gland cage, and the gland gasket at least 6 in. away from the LAN cable and the gland area.
- 3. Use a thin, strong, and non-conductive tool like a flat-bladed orange stick to reach into the gland, and press down the plastic locking latch of the RJ45 connector.



Warning

Ensure that you do not touch any components on the PCBA board near the gland area.

- 4. While pressing down the plastic locking latch on the RJ45 connector, gently pull the LAN wire to take the connector out of the access point.
- 5. Remove the gland cap, gland cage, and the gland gasket from the LAN cable. Repeat the same process on GE2 connection, if necessary.



Antenna Configuration for External Antenna Model Access Point

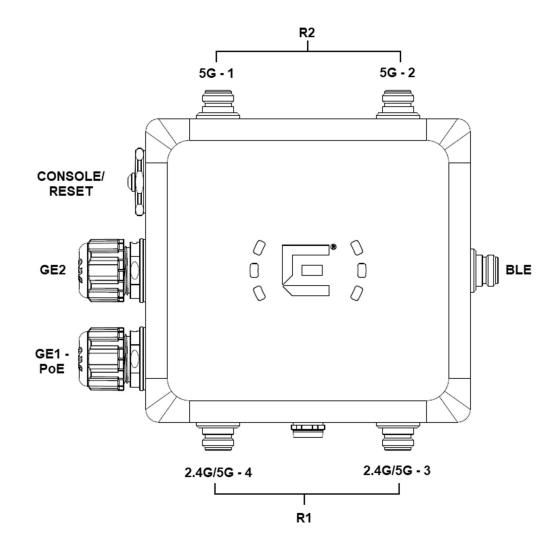


Figure 31: AP360e external antenna connectors

Antenna socket radio mapping information

• Radio 1 (R1) – antennas 3 and 4

• Radio 2 (R2) – antennas 1 and 2

Table 11: AP360e antenna configuration

Software mode	Radio 1	Radio 2
Mode 1	2.4 GHz	5 GHz
Mode 2	2.4/5 GHz	5 GHz
Mode 3	5 GHz-low	5 GHz-high

- Mode1: Dual Band Dual Concurrent (DBDC)
- Mode2: Radio 1 unlocked for sensor operation and radio 2 locked at 5 GHz full band
- Mode 3: Dual 5 GHz, radio 1 locked at 5 GHz low band, and radio 2 locked at 5 GHz high band



Note

The BLE antenna port comes with a dust cap on it. Do not remove the dust cap until you are ready to install the antenna.



Form a Drip Loop Connection for Cables

After the cables and antennas are connected to the access point, gather each cable below the access point, and form a drip loop connection. You do not need a drip loop if the LAN wire is already below the access point.

Note

The drip loop prevents water from entering the access point by channeling water down and away from the connection points. Drip loops are required to ensure proper operation of the access point.

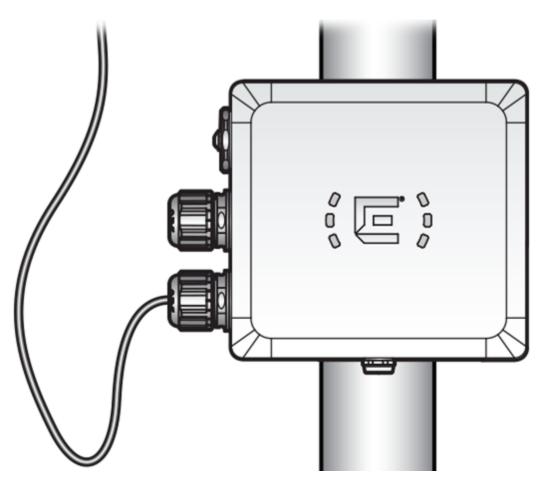


Figure 32: Drip loop connection



Access Points Specifications

Product Specifications

Item	Specification
Dimensions	7.4in. × 5.7in. × 1.9in. (190.0 mm × 145.0 mm × 50.0 mm)
Weight	2.2 lbs. (1.0 kg)
LEDs	Six
Housing	IP67 rated for outdoor use
Radios	2×2:2 5 GHz radio and 2×2:2 2.4 GHz radio
PoE	802.3af
Console port	RJ45

Table 12: Environmental specifications

Item	Description
Operating temperature	-40°C to +60°C (-40°F to +140°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Humidity	10% to 95% (non-condensing)
Operating altitude	6000 ft.



Regulatory Information

Professional Installation Instruction on page 59 Safety Guidelines on page 60 Federal Communications Commission (FCC) Notice on page 61 Industry Canada Notice on page 61 Detachable Antenna Usage on page 62 Australia Notice on page 63 Brazil Anatel Statement on page 63 Hazardous Substances on page 63 Supplement to Product Instructions on page 64 NCC Statement on page 64 CE Information on page 65 European Waste Electrical and Electronic Equipment (WEEE) Notice on page 65 Declaration of Conformity in Languages of the European Community on page 66

Professional Installation Instruction

Qualified personnel

This product is designed for specific application and must to be installed by a qualified personnel who has RF and related rule knowledge. The general user must not attempt to install or change the setting. Qualified persons are defined as persons who are authorized to commission protective 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.

External antenna

Use only the antennas which have been approved by the applicant. The non-approved antennas can produce unwanted spurious or excessive RF transmitting power which can 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 forth in relevant rules. The violation of the rule could lead to serious federal penalty.

Instructions d'installation professionnelle

Personnel d'installation

Ce produit est conçu pour une application spécifique et doit être installé par un personnel qualifié qui possède des connaissances sur les RF et les règles associées. L'utilisateur général ne doit pas tenter d'installer ou de modifier le paramètre. Les personnes qualifiées sont définies comme des personnes autorisées à mettre en service une mise à la terre de protection, à étiqueter les dispositifs, les systèmes et les circuits conformément aux pratiques et normes de sécurité établies. Une personne qualifiée comprend les exigences et les risques liés à l'installation d'équipements électriques d'extérieur conformément aux codes nationaux.

Antenne externe

Utilisez uniquement les antennes approuvées par le demandeur. Les antennes non approuvées peuvent produire une puissance de transmission RF parasite ou excessive indésirable, ce qui peut entraîner la violation de la limite FCC / IC et est interdite.

Procédure d'installation

Reportez-vous aux instructions d'installation pour plus de détails.



Warning

Sélectionnez la position d'installation et assurez-vous que la puissance de sortie finale ne dépasse pas la limite indiquée dans les règles pertinentes. La violation de la règle pourrait entraîner de graves sanctions fédérales.

Safety Guidelines

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



Important

Only qualified personnel should perform installation procedures. Within the context of the safety notes in this documentation, qualified persons are defined as persons who are authorized to commission, ground, and 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.

Federal Communications Commission (FCC) Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.



Caution

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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



Note

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 26 cm between the radiator and your body.

Industry Canada Notice

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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



Caution

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. 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.



Warning

IC Radiation Exposure Statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 31 cm between the radiator and your body.



Warning

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 31 cm de distance entre la source de rayonnement et votre corps.

Detachable Antenna Usage

This radio transmitter [4141B-AP360] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [4141B-AP360] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal d'antenne. Les types d'antennes non inclus dans cette liste qui ont un gain supérieur au gain maximal indiqué pour tout type listé sont strictement interdits pour une utilisation avec cet appareil.

Group	Brand	Model number	Antenna type	Antenna gain (dBi)		
				2.4 GHz	5 GHz	BLE or thread
1	Extreme	ML-2452- APA2-01	Omni	3.17	4.85	-
2	Extreme	ML-2452- APA2-02	Omni	3.17	4.85	-
3	Extreme	ML-2452- HPA5-036	Omni	3.9	5.7	-
4	Extreme	ML-2452- HPAG4A6-01	Omni	4	7.3	-
5	Extreme	ML-2452- PNA5-01R	Panel	4.5	5	-
6	Extreme	ML-2452- PTA4M4-036	Omni	5	6.6	-
7	Extreme	ML-2452- HPAG5A8-01	Omni	5	8	-
8	Extreme	WS-AO- DQ04360N	Omni	5.5	6	-
9	Extreme	AI-DQ04360S	Omni	5.5	6	-

Group	Brand	Model number	Antenna type	Antenna gain (dBi)			
				2.4 GHz	5 GHz	BLE or thread	
10	Extreme	ML-2452- SEC6M4-036 / WS-AI- DQ05120	Panel	6.92	7.23	-	
11	Extreme	WS-AI- DE07025	Panel	7.5	6.5	-	
12	Extreme	ML-2452- PNA7-01R	Panel 1	7.8	10.7	7.8	
13	Extreme	WS-AI- DE10055	Panel 2	10.5	7.5	-	
14	Extreme	ML-2499- HPA8-01	Dipole	-	-	8	

Australia Notice

AU co-location MPE Statement

This equipment complies with AU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 24 cm between the radiator and your body.

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

Hazardous Substances

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

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)	鎬Cadmium (Cd)	六價路 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)	0	0	0	0	0	0		
電路模組 (Circuit Modules)	-	0	0	0	0	0		
電纜及電纜組件 (Cables & Cable Assemblies)	0	0	0	0	0	0		
塑料和聚合物零件 (Plastic and Polymeric parts)	0	0	0	0	0	0		
備考1. "超出0.1 wt%"及 Note 1: "Exceeding 0.1 wt%" and "c reference percentage value c 備考2. "〇"係指該項限 Note 2: "〇" indicates that the percen 備考3. "一"係指該項限 Note 3: The "-" indicates that the res	exceeding 0.01 w of presence cond 用物質之 ntage content of 用物質為	rt%" indicate that ition. 百分比含量 the restricted subst 排除項目。	the percentage conter 未超出百分比 ance does not exceed	nt of the restricted s 七含量基準值	ubstance exceeds the			

Supplement to Product Instructions

NCC Statement

低功率電波輻射性電機管理辦法第十二條經型式認證合格之低功率射頻電機,非經許可,

公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,

應立即停用,並改善至無干擾時方得繼續使用。前項合法通信,指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

無線資訊傳輸設備避免影響附近雷達系統之操作。

「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」。

CE Information

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



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.

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

All Operational Modes

2.4GHz: 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40), 802.11ax (HEW20), 802.11ax (HEW40), 802.15.4 (Thread), Bluetooth (LE)

5GHz: 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80), 802.11ax (HEW20), 802.11ax (HEW40), 802.11ax (HEW80)

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

- 2412-2472 MHz: 19.98 dBm
- 2402-2480 MHz (BR and EDR): 6 dBm
- 2402-2480 MHz (LE): 6.23 dBm
- 5180-5240 MHz: 22.98 dBm
- 5260-5320 MHz: 22.98 dBm
- 5500-5700 MHz: 29.98 dBm
- 2405-2480 MHz: 6.48 dBm

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.

Declaration of Conformity in Languages of the European Community

English	Hereby, Extreme Networks, declares that the radio equipment type (AP360i/e) is in compliance with Directive 2014/53/EU. For full text of the EU Declaration of Conformity, please contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com
Finnish	Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device (AP360i/e) 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 (AP360i/e) 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 (AP360i/e) 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 AP360i/e 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 (AP360i/e) 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" (AP360i/e) 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 (AP360i/e) ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕU. 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 (AP360i/e), 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 (AP360i/e) 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 (AP360i/e) 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 (AP360i/e) 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 (AP360i/e) 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

Index

A

access point protection 57 antenna configurations AP360e access point antenna connectors 55 AP360i/e mounting options KT-147407-02 bracket 16 KT-150173-01 extension arm 16 MBO-ART02 articulating mounting bracket 16 optional bracket 16 pole install 16 wall install 16 WS-MBO-POLE01 bracket 16 WS-MBV-VMM vehicle bracket 16 AP360i/e power source 12 Australia notice 63

В

box contents AP360e box contents 15 AP360i box contents 15

С

console cap 48 console port 48 conventions notice icons 5 text 5

D

documentation feedback 8 location 7 drip loop 57

F

FCC notice 61 features AP360e features 9 AP360i features 9 feedback 8 Flat surface installation KT-150173-01 extension arm 24

G

GE and Console Connections 48 GE1/GE Connection cable gland assembly 49 ground connection 17 grounding 17 grounding terminal 17

I

install the access point AP360e box contents 15 AP360e installation 15 AP360i box contents 15 AP360i installation 15 box contents 15 installation procedure flat Surface install 20 KT-147407-02 flat surface install 20 KT-147407-02 wall install 20 KT-150173-01 extension arm flat surface install 20 KT-150173-01 extension arm wall install 20 MBO-ART02 flat surface install 20 MBO-ART02 wall install 20 VMM vehicle bracket flat surface install 20 wall install 20

K

KT-147407-02 1-axis tilt part flat surface install 20 KT-147407-02 bracket parts pole install 33 KT-147407-02 bracket parts wall install KT-147407-02 l-axis tilt part wall install 22 KT-147407-02 flat part flat surface install 20 KT-147407-02 pole part 39 KT-147407-02 pole part pole install 37 KT-147407-02 pole part with KT-150173-01 extension arm pole install 39 KT-150173-01 extension arm 39 KT-150173-01 extension arm and all KT-147407-02 bracket parts pole install 41

LED LED indicators 13

Μ

MBO-ART02 mounting bracket 25 mounting option pole mounting KT-147407-02 bracket parts 32 KT-147407-02 pole part 32 KT-150173-01 extension arm with KT-147407-02 bracket parts 32 KT-150173-01 extension arm with KT-147407-02 pole part 32 POLE01 bracket with ART02 articulating mounting bracket 32 VMM bracket installation 27

Ν

NCC statement 64 notices 5

0

overview AP360e 9 AP360i 9 firmware use 9

Ρ

POLE01 bracket and the ART02 bracket pole install 43 power table AP360e power table 12 AP360i power table 12 professional installation instruction 59, 60 purchase order information AP360e order information 14 AP360i order information 14

R

Regulatory Information 64 Regulatory Information, Hazardous Substances 63 remove RJ45 cable 54 RJ 45 cable 54

S

safety guidelines 60 specifications environmental specifications 58 product specifications 58 support, *see* technical support

Т

technical support contacting 7 tether screw 48

W

warnings 5