

# TQ3403

AT-TQ3403



6181

## Installation Guide

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# Preface

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This guide contains the hardware installation instructions for the TQ3403 access point.

This preface contains the following sections:

- ❑ “Safety Symbols Used in this Document” on page 8
- ❑ “Contacting Allied Telesis” on page 9
- ❑ “Translated Safety Statements” on page 10

## Safety Symbols Used in this Document

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This document uses the following conventions.

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**Note**

Notes provide additional information.

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**Caution**

Cautions inform you that performing or omitting a specific action may result in equipment damage or loss of data.

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**Warning**

Warnings inform you that performing or omitting a specific action may result in bodily injury.

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Warnings inform you of hot surfaces.

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
## **Contacting Allied Telesis**

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If you need Allied Telesis technical support, visit  
**[www.alliedtelesis.com/support](http://www.alliedtelesis.com/support)**.

## Translated Safety Statements

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**Important:** The  indicates that a translation of the safety statement is available in a PDF document titled *Translated Safety Statements* on the Allied Telesis website at [www.alliedtelesis.com/library](http://www.alliedtelesis.com/library).

## Chapter 6

# Product Description

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The sections in this chapter describe the hardware components of the TQ3403 access points:

- ❑ “Hardware Components” on page 12
- ❑ “PORT (POE) LAN Port” on page 16
- ❑ “LEDs” on page 18

## Hardware Components

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The top view of the TQ3403 access points is illustrated in Figure 1.



Figure 1. Access Point Top View

The bottom view is illustrated in Figure 2.

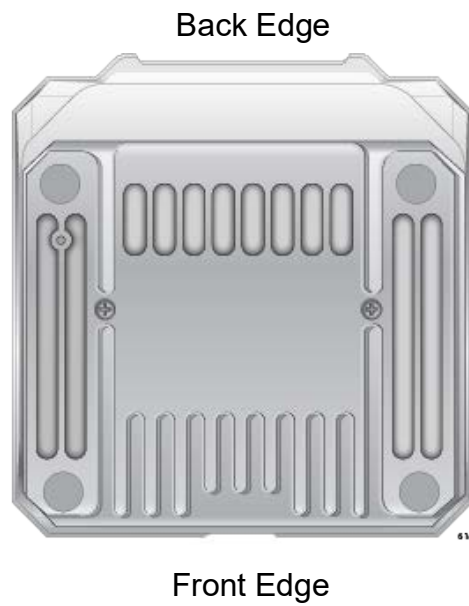


Figure 2. Access Point Bottom View

The front edge view is illustrated in Figure 3.

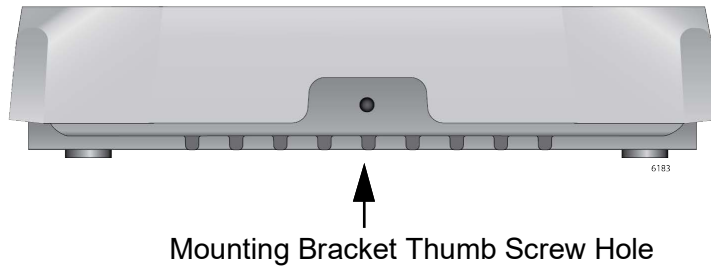


Figure 3. Front Edge View

The back edge view is illustrated in Figure 4.

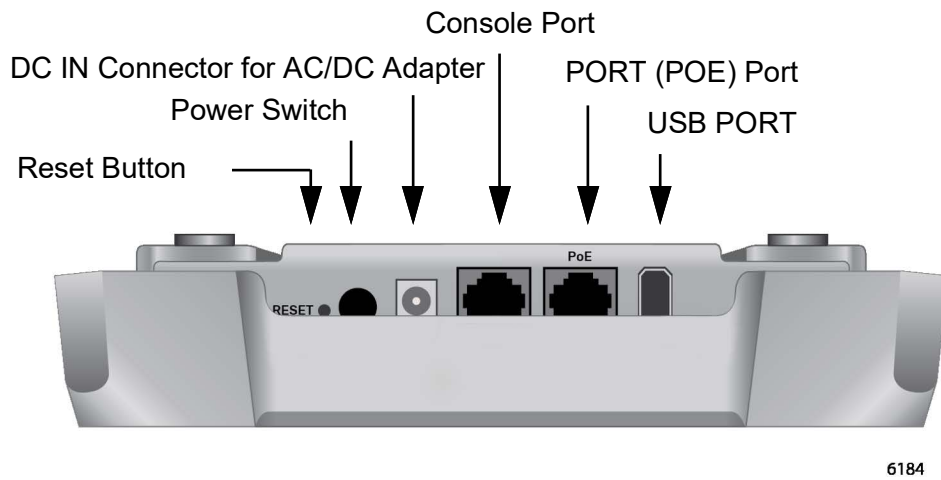


Figure 4. Back Edge View

The left edge view is illustrated in Figure 5.



Figure 5. Left Edge View

**Antennas** The access point has the following embedded antenna:

- two 2.4G/5G dual band antenna
- two 6G single band antenna

**Cable Hide** The top cover of the access point is larger than the access point chassis to create space on the back for cable connectors and cables shown in Figure 2 on page 12.

**Console Port** The Console Serial port on the back panel is for RS-232 communication.

**Power Switch** The Power Switch on the back panel in Figure 4 on page 13 turns On or OFF the access point when power is supplied to the access point only from the AC adapter, not from PORT (POE) port.

When power is supplied to the access point from the PORT (POE) port, the state of the Power Switch does not affect the access point.

**USB Port** The USB port (USB2.0 Type A) can be used for storing configuration and log files and updating firmware.

**Kensington Lock Hole**

The left panel has a hole for the Kensington lock to be connected to an anti-theft cable/lock to physically secure the access point as shown in Figure 5 on page 14.

**Reset Button**

The access point has a Reset button on the back edge in Figure 4 on page 13 for returning the parameter settings of the device to their default values. You might reset the access point if you want to discard its current configuration or if you forgot the manager password and so cannot manage the device.

To reset the device, press the button for five seconds and release.

You can enable or disable the reset button with the management software. The default setting for the button is enabled. If the access point is installed in a public area, you probably should disable it to protect the device from being reset by unauthorized individuals.

## PORT (POE) LAN Port

---

The wireless access point has one Ethernet port, labeled PORT (POE). You use this port to connect the wireless access point to your wired network. Here are its basic properties:

- ❑ PORT (POE) supports PoE.
- ❑ The default setting for PORT (POE) is enabled. You cannot disable it.

### Power Over Ethernet Plus (PoE+)

You can power the wireless access point with either PoE+ on PORT (POE), or an AC/DC power adapter. The wireless access point is a PoE+ Class 4 powered device, with maximum power consumption of 24.1 watts. To power the device with PoE+, you have to connect PORT (POE) to PoE power sourcing equipment (PSE). The network cable connecting PORT (POE) to the PoE PSE carries both network traffic and PoE+.

You can power the device with both PoE+ and an AC/DC power adapter. However, the two power sources are not load sharing. The power adapter is the primary power source and PoE+ is redundant power.

### Connector Type

The PORT (POE) LAN port has an eight-pin RJ45 connector. The port uses four pins of the connector at 100 Mbps and all eight pins at 1G/2.5Gbps. Refer to the tables in “Port Pinouts” on page 45 for the pin assignments.

### Speed

The PORT (POE) LAN port has speeds of 100Mbps/1G/2.5Gbps. The speeds are set automatically with Auto-Negotiation. You cannot disable Auto-Negotiation on the ports.

---

#### Note

The LAN port should be connected to network devices that also adjust port speeds with Auto-Negotiation. If a network device does not support Auto-Negotiation, the LAN ports operate at 100 Mbps, which may reduce network performance.

---

### Duplex Mode

The PORT (POE) LAN port can operate in either half- or full-duplex mode at 100Mbps, and full-duplex mode at 1G/2.5Gbps. The ports are IEEE802.3u compliant and use Auto-Negotiation to set the duplex mode. You cannot disable Auto-Negotiation on the port.

---

**Note**

The network device to which you connect the PORT (POE) LAN port should also set the duplex mode with Auto-Negotiation. If a network device does not support Auto-Negotiation, the LAN port operates at half-duplex mode. This may result in a duplex mode mismatch if the network device is operating at full duplex.

---

**Automatic MDIX Detection**

When operating at 100Mbps, the twisted-pair ports feature automatic MDIX detection. (Automatic MDIX detection does not apply to 1G/2.5Gbps.) This feature automatically configures the ports to MDI or MDI-X depending on the wiring configuration of the port on the Ethernet switch.

You cannot disable automatic MDIX detection. For automatic MDIX detection to work properly, this feature must also be present on the Ethernet switch. The LAN port defaults to MDIX if it is connected to a network device that does not support automatic MDIX detection.

**Cable Requirements**

The minimum cable requirements for the ports are listed here.

- 100 Mbps port: Standard TIA/EIA 568-B-compliant Category 3 shielded or unshielded cabling.
- 1/2.5Gbps port: Standard TIA/EIA 568-A-compliant Category 5 or TIA/EIA 568-B-compliant Enhanced Category 5 (Cat 5e) unshielded cabling.

**Maximum Distance**

The PORT (POE) LAN port has a maximum operating distance of 100 meters (328 feet).

**Port Pinouts**

See Table 8 on page 45 for port pinouts information.

**Guidelines**

Here are the guidelines to using PORT (POE):

- Use PORT (POE) to connect to your network.
- The default setting for PORT (POE) is enabled. You cannot disable it.

## LEDs

The LEDs on the top panel display status information. See Figure 6 for LEDs and Table 1 for the status definition.

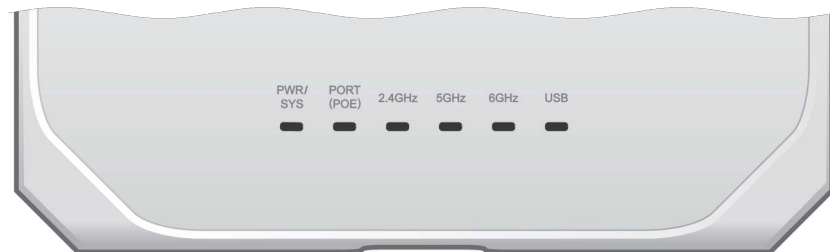


Figure 6. Top View - LEDs

Table 1. LED Status Information

LED	State	TQ3403/TQm3403
PWR/ SYS	Green	The access point is powered ON and operating normally
	Red	TQ3403 is booting up
	Blinking Red	The access point is upgrading its firmware
	Off	The access point is not receiving power
PORT (PoE)	Green	The port has established a link to a network device
	Blinking Green	The port is transmitting or receiving data
	Off	The port has not established a link to a network device
2.4GHz	Green	The 2.4GHz radio is enabled
	Off	The 2.4GHz radio is disabled
5GHz	Green	The 5GHz radio is enabled
	Off	The 5GHz radio is disabled
6GHz	Green	The 6GHz radio is enabled
	Off	The 6GHz radio is disabled
USB	Green	A USB device is plugged in
	Off	The USB feature is disabled in the GUI

## Chapter 7

# Installing the Wireless Access Point

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This chapter contains the installation procedures for the TQ3403 Access Points. The procedures are detailed in the following sections:

- ❑ “Reviewing Safety Precautions” on page 20
- ❑ “Unpacking the Shipping Box” on page 23
- ❑ “Reviewing Installation Guidelines” on page 24
- ❑ “Installing the Access Point on a Table” on page 26
- ❑ “Overview to Installing the Access Point on a Wall or Ceiling” on page 27
- ❑ “Pre-fitting the Mounting Bracket on the Access Point” on page 28
- ❑ “Installing the Mounting Bracket on a Wall or Ceiling” on page 30
- ❑ “Connecting Ethernet Cables to PORT (POE)” on page 34
- ❑ “Connecting the AC Power Adapter” on page 36
- ❑ “Attaching the Access Point to the Mounting Bracket” on page 37
- ❑ “Installing an Anti-theft Device” on page 40
- ❑ “Starting the First Management Session” on page 41

---

### **Note**

The non-US models of this product have a country code setting that must be set during the initial management session of the units. The setting ensures that the units operate in compliance with the laws and regulations of your country or region.

For the US model, the country code is preset and cannot be changed. Per FCC regulations, the country code setting for all WiFi products marketed in the US must be fixed to US operational channels only.

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## Reviewing Safety Precautions

---

Review the following safety precautions before installing the access point.

**Important:** Safety statements that have the ⚡ symbol are translated into multiple languages in the *Translated Safety Statements* document, which is available at [www.alliedtelesis.com/library](http://www.alliedtelesis.com/library).

**Warning**

To prevent electric shock, do not remove the cover. No user-serviceable parts inside. This unit contains hazardous voltages and should only be opened by a trained and qualified technician. To avoid the possibility of electric shock, disconnect electric power to the product before connecting or disconnecting the LAN cables.

⚡ E1

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**Warning**

Do not work on equipment or cables during periods of lightning activity. ⚡ E2

---

**Warning**

All Countries: Install product in accordance with local and National Electrical Codes. ⚡ E8

---

**Warning**

Only trained and qualified personnel are allowed to install or to replace this equipment. ⚡ E14

---

**Warning**

To reduce the risk of electric shock, the PoE ports on this product must not connect to cabling that is routed outside the building where this device is located. ⚡ E40

---

**Warning**

This equipment shall be installed in a Restricted Access location. ⚡ E45

---

**Warning**

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. ⚡ E80

---

**Note**

The access point must be powered by:

1. A UL listed external AC/DC power supply suitable for use at Tma 45°C, a maximum operating altitude of 3000 m or higher, and whose output meets separated extra-low voltage (SELV), limited power sources (LPSs) and is rated 12 VDC, 4.0 A,

OR

2. By Power over Ethernet through a UL listed ITE. Refer to Table 5, "External AC/DC Adapter Specifications" on page 43.

---

**Caution**

Air vents must not be blocked and must have free access to the room ambient air for cooling. ⚡ E6

---

An operational unit can be hot. Exercise caution when handling with unprotected hands.

---

**Warning**

Operating Temperature. This product is designed for a maximum ambient temperature of 45°C (122° F) ⚡ E7.

---

**Warning**

To reduce the risk of electric shock, the PoE port on this product must not connect to cabling that is routed outside the building where this device is located. ⚡ E40

---

**Warning**

This equipment is intended for indoor use only. ⚡ E95

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---

**Note**


If you are not using PoE to power to unit, use only an approved AC/DC adapter. Refer to “Power Specifications” on page 43.

---



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**Caution**

The unit does not contain serviceable components. Please return damaged units for servicing.  E42

---

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**Note**

You should verify that your PoE network adheres to the standards of a separated extra-low voltage (SELV) circuit before using the PoE feature on the wireless access point.

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## Unpacking the Shipping Box

To verify the contents of the shipping box, perform the following procedure:

1. Remove all components from the shipping box.

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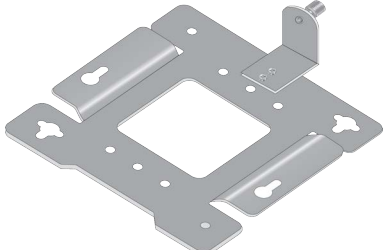

### Note

Store the packaging material in a safe location. Use the original shipping material if you need to return the device to Allied Telesis.

---

2. Verify the contents of the shipping box listed in Table 2. If any item is missing or damaged, contact your Allied Telesis sales representative for assistance.

Table 2. Shipping Box Components

Name	Component
TQ3403 Access Point	
One Mounting Bracket	
Two M5 x 4.5 mm, Pan-head Screws	

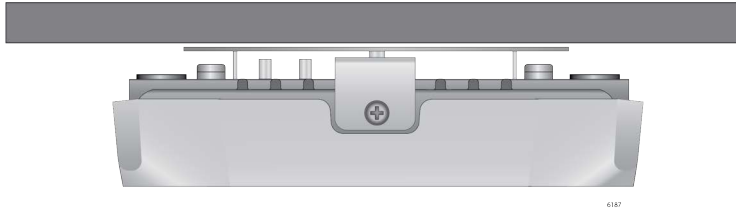
## Reviewing Installation Guidelines

---

Review the following guidelines before installing the access point:

- ❑ The ceiling or wall mounting surface must be of proper material to accommodate the screws and strong enough to support the weight of the access point and cables. (Refer to Table 3 on page 42 for the product weight.)
- ❑ You can install the access point on a wall where Cisco or Fortinet bracket has already been installed. You need a bracket converter. See “the *BRKT-CONV-AP1 Bracket Converter Installation Guide*” on [www.alliedtelesis.com/library](http://www.alliedtelesis.com/library) for more information.
- ❑ Connect the Ethernet cable(s) and power cord (if applicable) to the access point before installing the product on the ceiling or wall. Depending on the installation location, connecting or removing cables may be difficult after the device is installed.
- ❑ Verify that the Ethernet cable(s) is long enough to connect to its destination port(s) before installing the access point. Once the installation is complete, it is physically difficult to change the cables.
- ❑ If the wireless access point is powered by an AC adapter, verify that an AC power outlet is within six feet of the planned installation site. (Refer to “Power Specifications” on page 43 for the AC adapter specifications.)
- ❑ On a wall, the access point must be installed horizontally or vertically.
- ❑ Refer to Figure 7 on page 25 for approved and unapproved orientations of the wireless access point on a table, wall, or ceiling.

Ceiling Installation



Wall Installation

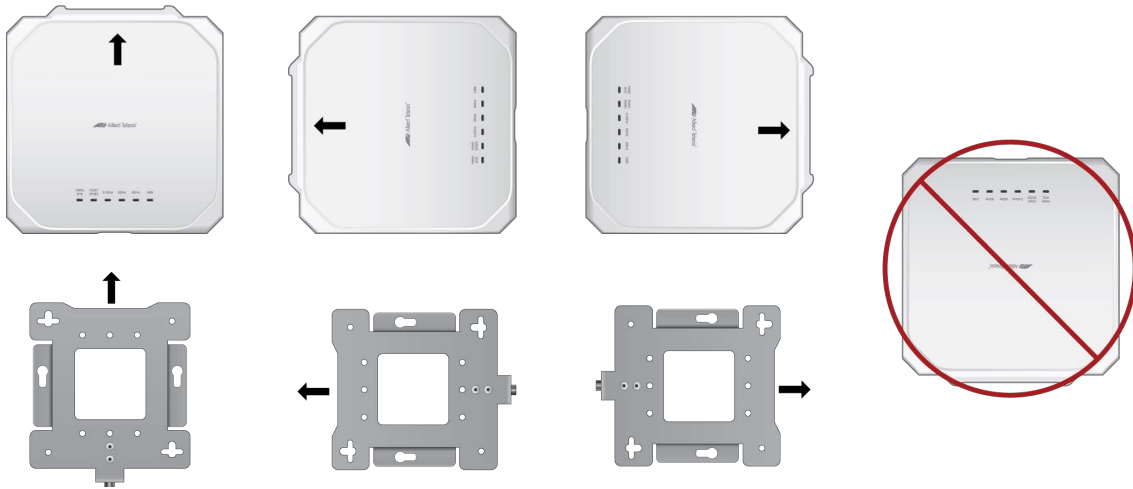


Table Installation

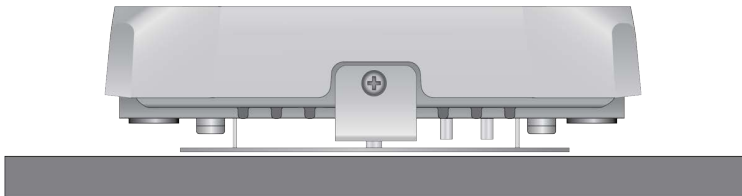


Figure 7. Approved and Unapproved Orientations on a Ceiling, Wall, or Table

## Installing the Access Point on a Table

---

You need the following items to install the access point on a table:

- TQ3403 Access Point
- An Ethernet cable
- External AC power adapter (Optional if using PoE+. Required if not using PoE+ or for redundant power.)
- Kensington lock (optional)

---

**Note**

See “Reviewing Safety Precautions” on page 20 and “Reviewing Installation Guidelines” on page 24 before installing the product.

---

Perform the following steps to install the wireless access point on a table:

1. Place the access point at the selected location on the table.
2. Connect Ethernet cable to PORT (POE) port.  
See “Connecting Ethernet Cables to PORT (POE)” on page 34.
3. To connect an AC power adapter to the access point, go to “Connecting the AC Power Adapter” on page 36.
4. To install a security cable, refer to “Installing an Anti-theft Device” on page 40.
5. To start managing the device, go to “Starting the First Management Session” on page 41.

## Overview to Installing the Access Point on a Wall or Ceiling

---

Here are the procedures for installing the wireless access point on a wall or ceiling:

- ❑ “Pre-fitting the Mounting Bracket on the Access Point” on page 28
- ❑ “Installing the Mounting Bracket on a Wall or Ceiling” on page 30
- ❑ “Connecting Ethernet Cables to PORT (POE)” on page 34
- ❑ “Connecting the AC Power Adapter” on page 36
- ❑ “Attaching the Access Point to the Mounting Bracket” on page 37
- ❑ “Installing an Anti-theft Device” on page 40

---

**Note**

See “Reviewing Safety Precautions” on page 20 and “Reviewing Installation Guidelines” on page 24 before installing the product.

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**Note**

Depending on the installation location, it may be easier to connect the network cables and optional power adapter to the wireless access point before installing it on the wall or ceiling.

---

You need the following items to install the wireless access point on a ceiling or wall:

- ❑ TQ3403 Access Point
- ❑ Two screws to attach the access point to the mounting bracket
- ❑ Mounting bracket
- ❑ Four M4x25mm flat-head wood screws and anchors (not provided) for fastening the mounting bracket
- ❑ Phillips head screwdriver (not provided)
- ❑ Pencil (not provided)
- ❑ External AC power adapter (Optional if using PoE+. Required if not using PoE+ or for redundant power.)
- ❑ Kensington lock (optional and not provided)

---

**Note**

The four Phillips head M4 screws/anchors, the Phillips head screwdriver, pencil, external AC power adapter and Kensington lock are *not* included with the product.

---

## Pre-fitting the Mounting Bracket on the Access Point

To pre-fit the mounting bracket on the access point, perform the following procedure:

1. Place the wireless access point upside down on a stable flat surface.
2. Install the two screws (provided) fully into the bottom panel of the access point. See Figure 8.

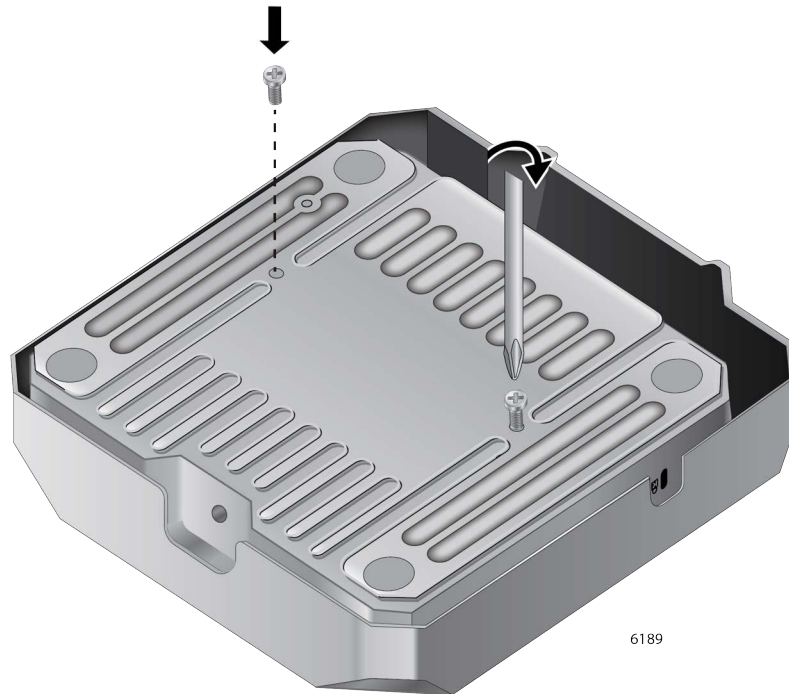


Figure 8. Attaching the Bracket Screws to the Access Point

The screw collar provides the proper spacing for the mounting bracket beneath the screw head. See Figure 9 on page 28.



Figure 9. Panel Screw

3. Make sure that the mounting bracket fits to the access point by sliding the bracket beneath the screws as shown in Figure 10.

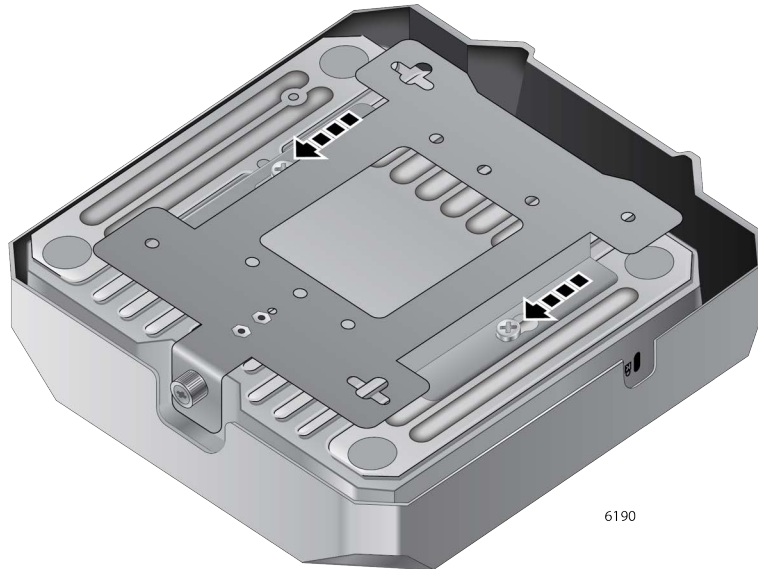


Figure 10. Attaching the Mounting Bracket on the Access Point

4. Slide the mounting bracket forward and remove it from the access point. See Figure 11.

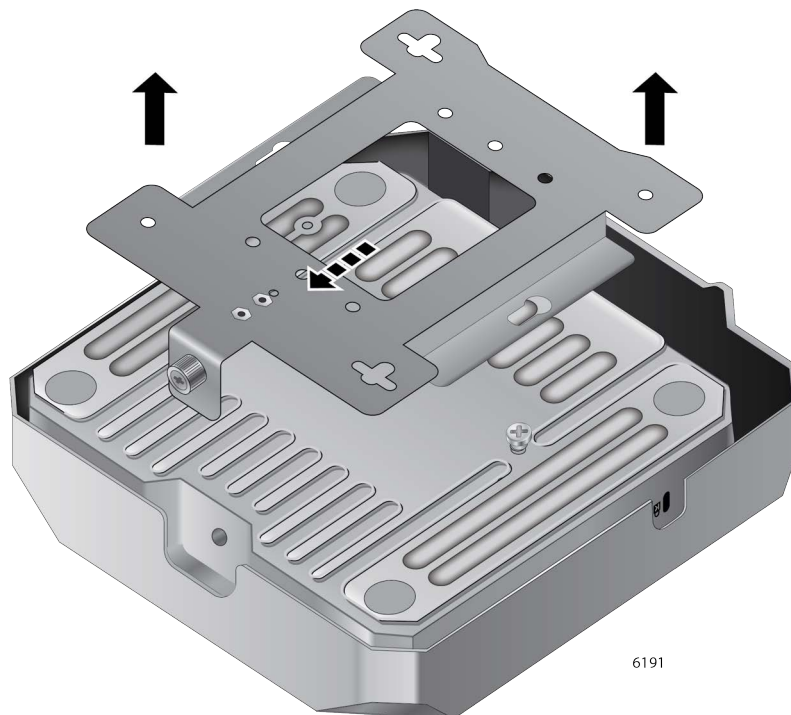


Figure 11. Removing the Mounting Bracket from the Access Point

5. Go to “Installing the Mounting Bracket on a Wall or Ceiling” on page 30.

## Installing the Mounting Bracket on a Wall or Ceiling

---

To install the mounting bracket on a wall or ceiling, perform the following procedure:

1. Choose the location and orientation for the access point on the wall or ceiling. Refer to Figure 7 on page 25.
2. Position the mounting bracket at the selected location and orientation for the access point. Consider the following guidelines.
  - ❑ The thumbscrew on the mounting bracket is where the front panel of the access point will be.
  - ❑ The ports and connectors are on the back panel, away from the thumbscrew.
3. With a pencil, mark the wall or ceiling with the two key-hole slots of the bracket. Refer to Figure 12.

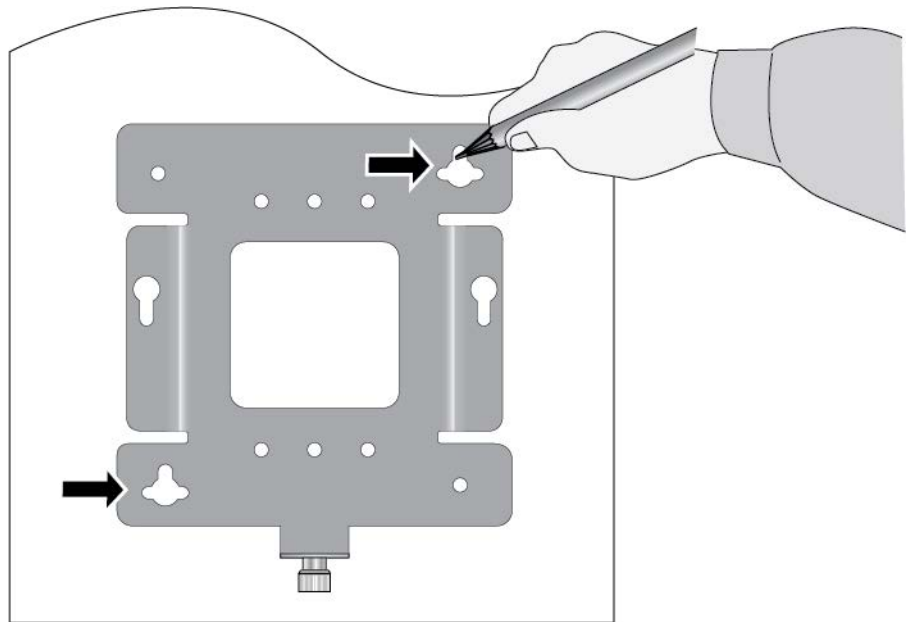


Figure 12. Marking the Holes for the Key-Hole Slots

4. Pre-drill the two marked locations for the keyhole slots on the hard-surface ceiling or wall.

5. Install two M4 screws and anchors (if required). Leave the screws loose enough so that the bracket can slide under the screw heads. Refer to Figure 13.

---

**Note**

For a wooden wall or ceiling, use M4 x 25 mm flat-head wood screws and anchors, if required. The screws and anchors are not provided.

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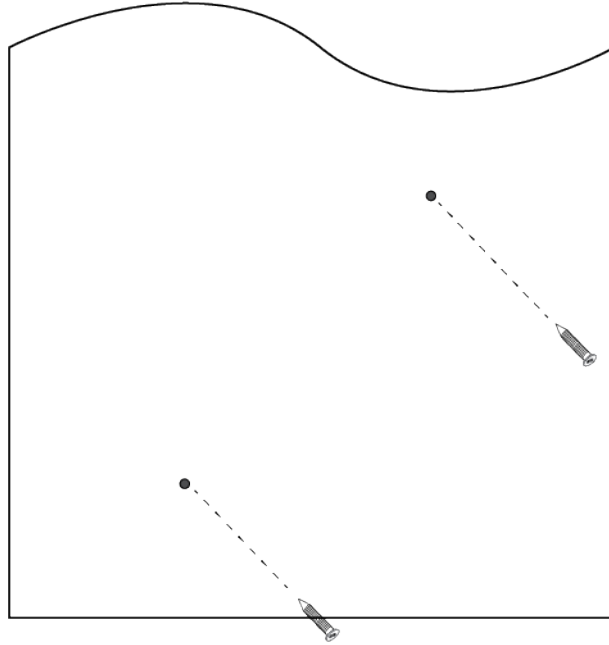


Figure 13. Installing Two Screws

6. Insert the openings of the bracket key-hole slots under the two screw heads and slide the bracket into the narrow end of the key-hole slot openings. See Figure 14.

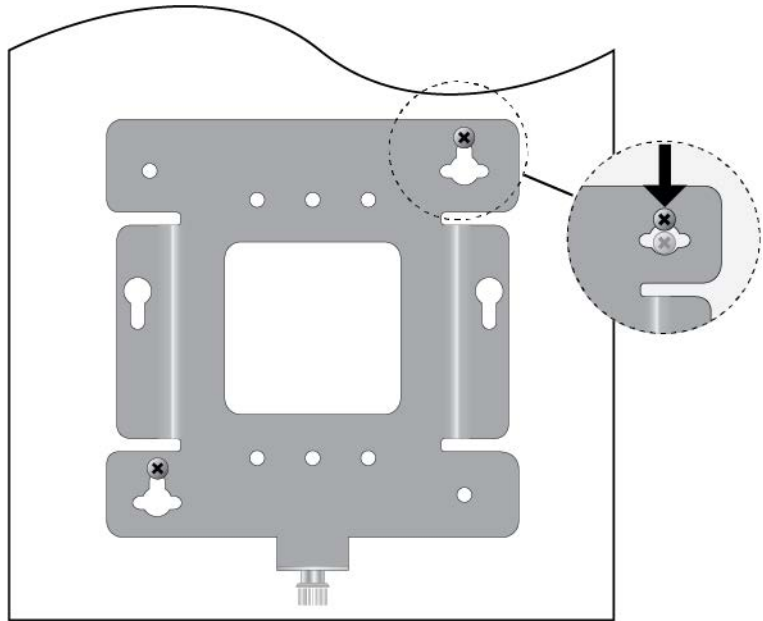


Figure 14. Installing the Mount Bracket On the Screws

7. Tighten the screws snugly onto the bracket.
8. To secure the mounting bracket, pre-drill holes through the two bracket mounting holes opposite the key-hole slots. See Figure 15.

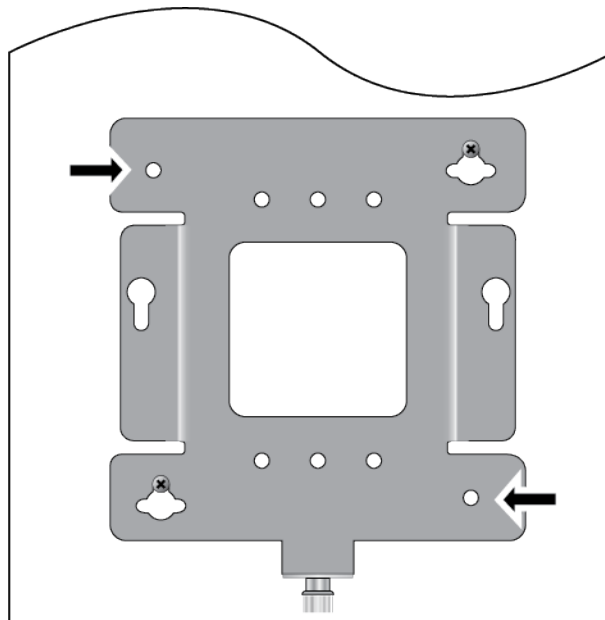


Figure 15. Pre-Drill Holes on Mounting Bracket

9. Install and tighten two M4 screws (not provided) in the holes prepared in Step 8.

The bracket installation is now complete. See Figure 16.

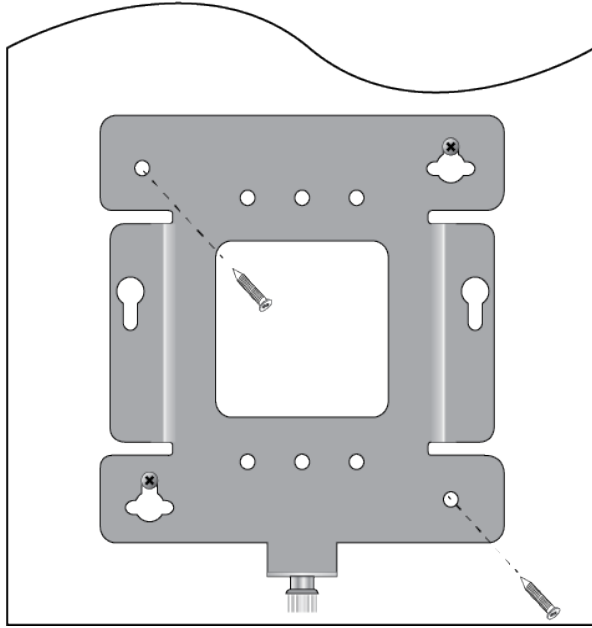


Figure 16. Securing the Mount Bracket

10. Go to “Connecting Ethernet Cables to PORT (POE)” on page 34.

## Connecting Ethernet Cables to PORT (POE)

This section describes the instructions for connecting an Ethernet cable to PORT (POE).

**Guidelines** Review the following guidelines before connecting cables to PORT (POE):

- ❑ For information on cable specifications, see “Cable Requirements” on page 17.
- ❑ If you are installing the access point on a ceiling or wall, you might find it easier to connect the cables before placing the unit on the mounting bracket.
- ❑ Use PORT(POE) to connect the access point to the network.
- ❑ To power the access point through the PoE+ LAN port, see “PoE+ Power Requirements” on page 44.
- ❑ The default setting for PORT (POE) on the wireless access point is disabled. You enable it with the on-board web browser management interface. For instructions, see the *TQ3403 Management Software User Guide*.

### Connecting the Ethernet Cable to LAN Port

To connect the network cable, perform the following procedure:

1. Connect an Ethernet cable into PORT (POE). The cable requirements are in “Cable Requirements” on page 17. Refer to Figure 17.

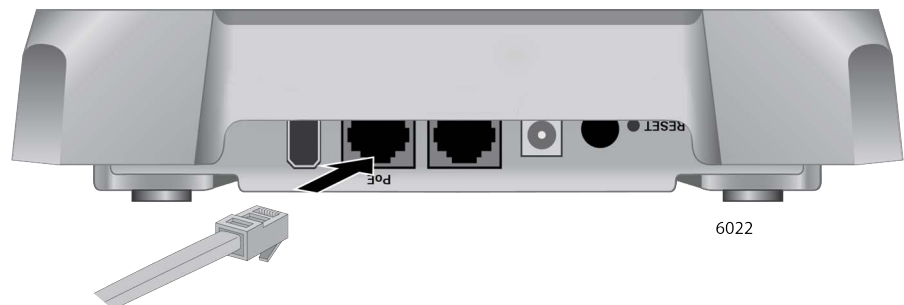


Figure 17. Connecting an Ethernet Cable to PORT (POE)

2. Connect the other end of the Ethernet cable to a network Ethernet device, such as an Ethernet switch or router.

---

#### Note

If the device is PoE+ power sourcing equipment (PSE), the access point begins to power on and initialize its management software.

---

3. Do one of the following:
  - a. If the access point is to be powered only by PoE+, without an AC power adapter, go to “Attaching the Access Point to the Mounting Bracket” on page 37.
  - b. To connect an external AC power adapter, go to “Connecting the AC Power Adapter”.

## Connecting the AC Power Adapter

---

The access point can be powered with PoE+ on PORT (POE), an AC power adapter, or both. A wireless access point that is powered by both methods uses the AC adapter as its primary power and PoE as redundant power. For an AC power adapter, Allied Telesis recommends the PWRADP-01 (DA-48Z12) Power Adapter.

If you purchased a power adapter for the wireless access point, perform the following procedure. Otherwise, go to “Attaching the Access Point to the Mounting Bracket” on page 37.

Perform the following procedure to install an AC power adapter:

1. If the AC power adapter has replaceable AC plugs, verify that the current plug on the adapter is the correct plug for your region. If it is not, install the correct AC plug by following the instructions provided with the adapter.
2. Plug the DC connector of the power adapter into the DC IN jack on the access point. Refer to Figure 18.

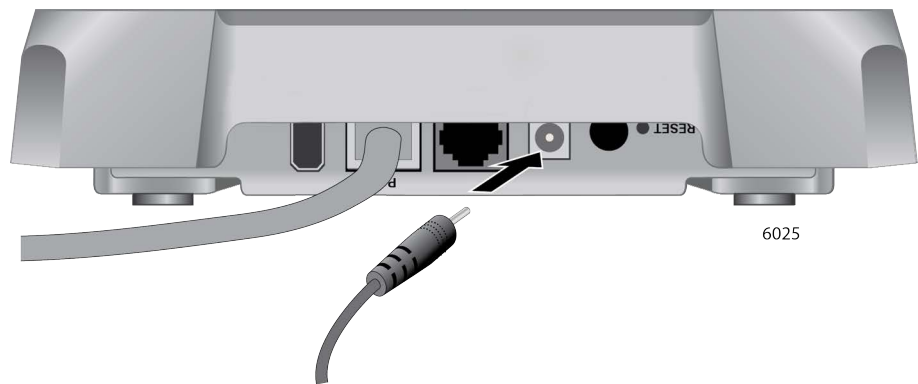


Figure 18. Connecting an AC Power Adapter to the Access Point

3. Connect the power adapter to an appropriate AC power source.
4. Turn on the Power Switch.

---

**Note**

The Power Switch controls power from the AC power supply. It does not control PoE+ on PORT (POE).

---

5. Go to “Attaching the Access Point to the Mounting Bracket” on page 37.

## Attaching the Access Point to the Mounting Bracket

To attach the wireless access point on the mounting bracket on the wall or ceiling, perform the following procedure:

1. Align the bottom of the access point over the bracket so that the two screws on the bottom of the device fit into the bracket keyholes. Refer to Figure 19. (These are the two access point chassis screws installed in “Pre-fitting the Mounting Bracket on the Access Point” on page 28.)

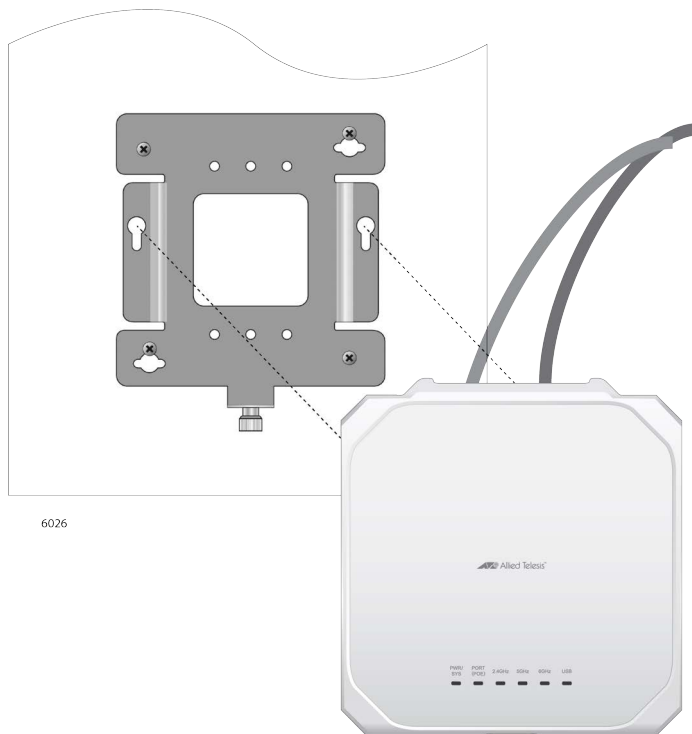


Figure 19. Installing the Access Point on the Mounting Bracket

2. Slide the access point forward until its screws are seated in the bracket keyhole slots and the bracket thumbscrew is aligned with the screw hole on the front panel.

See Figure 20 on page 38 for the access point and bracket orientations.

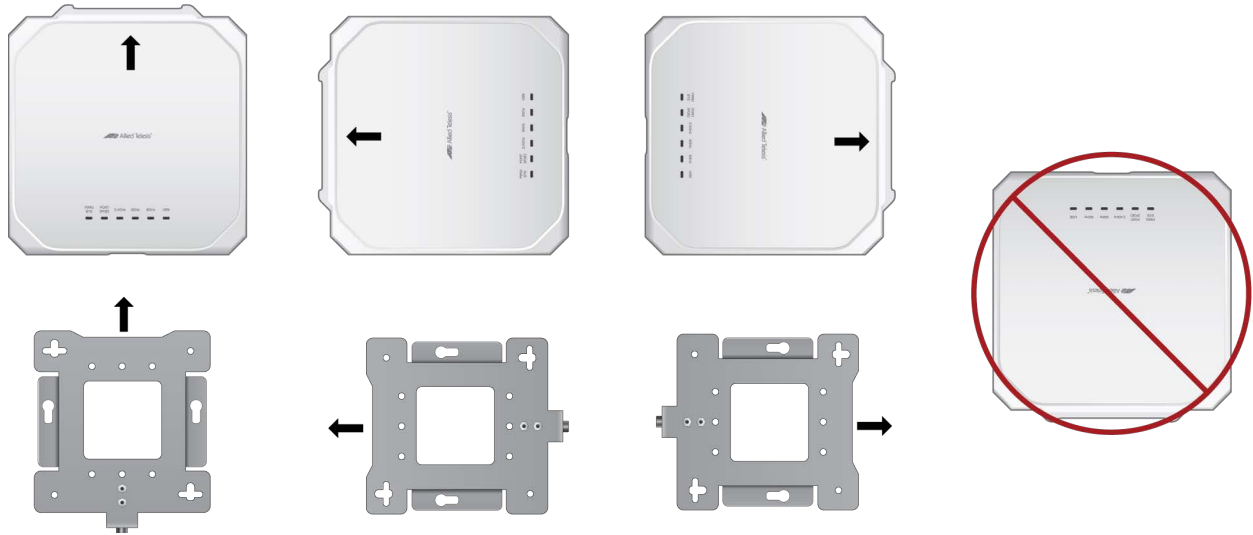


Figure 20. Seating the Access Point on the Mounting Bracket

3. Tighten the thumbscrew to secure the access point to the mounting bracket. Refer to Figure 21.

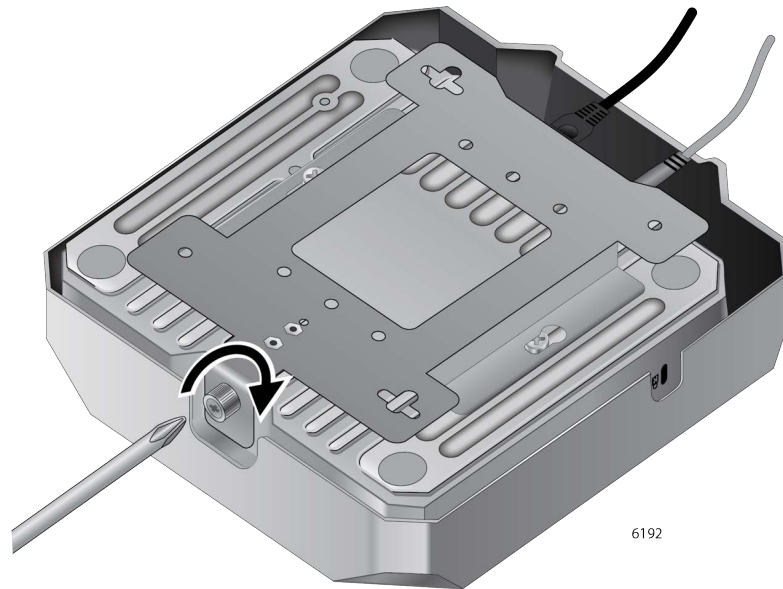


Figure 21. Tightening the Mounting Bracket Thumbscrew

4. Place the Ethernet cable(s) and power cable (if any) along the cable guides inside of the top cover in the cable hide space. See Figure 22.

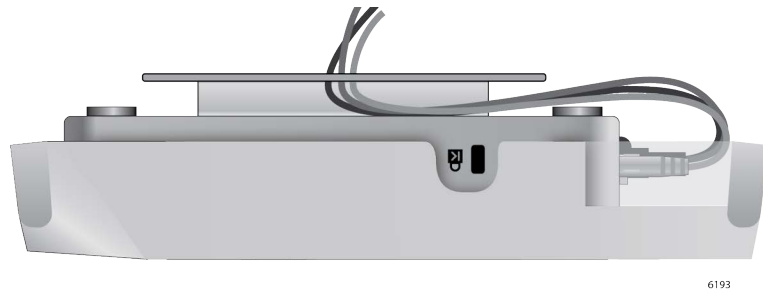


Figure 22. Fitting the Cables in the Cable Hide

5. If you install an anti-theft device, go to “Installing an Anti-theft Device” on page 40.
6. Go to “Starting the First Management Session” on page 41.

## Installing an Anti-theft Device

---

Installation of an anti-theft cable/lock is optional. The access point has a lock port that is compatible with a Kensington lock. The lock port can be used to physically secure the device to a table, wall, or a ceiling.

---

**Note**

Anti-theft devices are not available from Allied Telesis.

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1. Follow the instructions provided with the vendor's anti-theft device for the installation. See Figure 23 for the Kensington lock port location.



Figure 23. Kensington Lock Port Location

2. If you are installing the wireless access point on a wall or ceiling and have not installed in on the mounting bracket yet, go to “Attaching the Access Point to the Mounting Bracket” on page 37.

## Starting the First Management Session

---

This section contains an abbreviated version of the procedure to start the first management session. For complete instructions, refer to the *TQ3403 Management Software User Guide*.

The wireless access point firmware includes a DHCP client. The default setting for the client is enabled. When you power on the access point for the first time, it queries the subnet on PORT (POE) for a DHCP server. If a DHCP server responds to its query, the unit uses the IP address the server assigns to it. If there is no DHCP server, the access point uses the default IP address 192.168.1.230.

To start the first management session, perform the following procedure:

1. Start the web browser on your management workstation.
2. Enter the IP address of the wireless access point in the URL field of the web browser. The address is one of the following:
  - If your network does not have a DHCP server, enter the default address 192.168.1.230.
  - If your network has a DHCP server, enter the IP address the DHCP server assigned to the access point.

The wireless access point displays the login prompt. Refer to Figure 24.

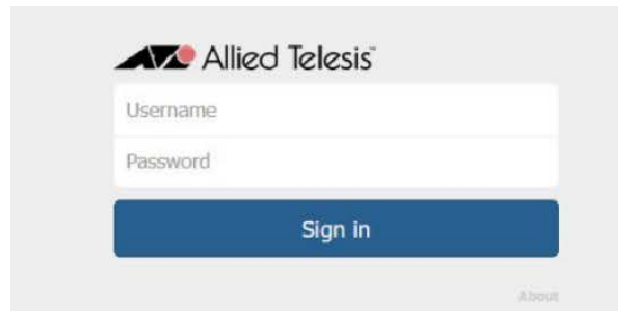


Figure 24. Login Prompt

3. Enter “manager” for the user name and “friend” for the password. The user name and password are case-sensitive.

## Appendix A

# Technical Specifications

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This appendix contains the specifications for the TQ3403 access point in the following sections:

- ❑ “Physical Specifications”
- ❑ “Environmental Specifications”
- ❑ “Power Specifications” on page 43
- ❑ “Cable Specifications” on page 44
- ❑ “LAN Port Specifications and Pinouts” on page 45

## Physical Specifications

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Table 3. Physical Specifications

Parameter	Specification
Dimensions (W x D x H)	200 mm X 210 mm X 45 mm (7.9 in. x 8.3 in. x 1.8 in.)
Weight	1.1kg (2.43 lbs)

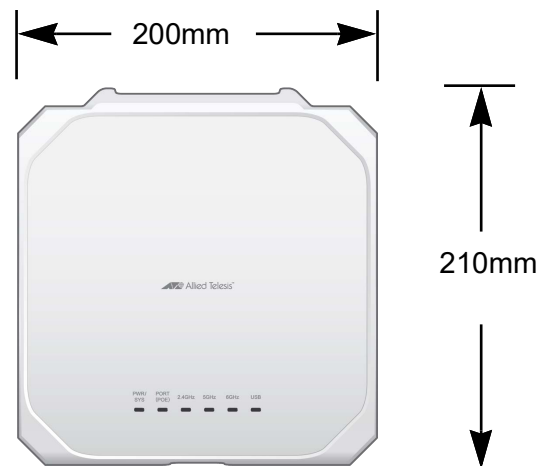


Figure 25. Dimensions

## Environmental Specifications

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Table 4. Environmental Specifications

Parameter	Specification
Operating Temperature	0° C to 45° C (32° F to 113° F)
Storage Temperature	- 25° C to 70° C (- 13° F to 158° F)
Operating Humidity	5% to 90% non-condensing
Storage Humidity	0% to 95% non-condensing
Maximum Operating Altitude	3000 m (9843 ft)

## Power Specifications

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### External AC Adapter Specifications

Table 5. External AC/DC Adapter Specifications

Parameter	Specification
Input Voltage Range	100 - 240 VAC
Input Frequency	50 - 60 Hz
Rated Output Voltage	+12 VDC
Rated Output Current	4 A
Temperature Range	0° C to 50° C (32° F to 122° F)
Maximum Operating Altitude	3000 m (9843 ft)

---

#### Note

If you decide to use an AC adapter with the access point, Allied Telesis recommends the PWRADP-01 (DA-48Z12) adapter. The adapter is a UL Listed power supply and is compatible with the above specifications while meeting the standards of a separated extra-low voltage (SELV) product.

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#### Note

The PWRADP-01 (DA-48Z12) adapter is sold separately.

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## PoE+ Power Requirements

Table 6. PoE+ Power Specifications on LAN Ports

<b>Maximum Power Consumption</b>	24.1 watts
<b>Rated Voltage</b>	DC 48V
<b>Rated Current</b>	0.67A

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### Note

Allied Telesis recommends using UL-Certified LPS (Limited Power Source) PoE injectors.

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## Cable Specifications

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The minimum cable requirements for PORT (POE) are listed here.

- 100Mbps ports: Standard TIA/EIA 568-B-compliant Category 3 shielded or unshielded cabling.
- 1G/2.5G ports: Standard TIA/EIA 568-A-compliant Category 5 or TIA/EIA 568-B-compliant Enhanced Category 5 (Cat 5e) unshielded cabling.

---

### Note

The maximum operating distance of the cables is 100 meters (328 feet).

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## LAN Port Specifications and Pinouts

### Port Specifications

The access point port specifications are shown in Table 7.

Table 7. LAN Port Specifications

Connector	Specification
PoE standard - PORT (POE)	IEEE 802.3at (class 4)

### Port Pinouts

The pin signal definitions for PORT (POE) are given here. Figure 26 illustrates the pin layout of the ports.

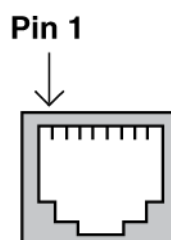


Figure 26. Pin Layout for RJ45 Connector on LAN Port

Table 8 lists the pin signals.

Table 8. Pin Signals for 100M/1G/2.5G Base-T Connectors

Pin	100 Mbps MDI Signal	100 Mbps MDI-X Signal	1G/2.5G Signal
1	TX+	RX+	Bi-directional pair A+
2	TX-	RX-	Bi-directional pair A-
3	RX+	TX+	Bi-directional pair B+
4	Not used	Not used	Bi-directional pair C+
5	Not used	Not used	Bi-directional pair C-
6	RX-	TX-	Bi-directional pair B-
7	Not used	Not used	Bi-directional pair D+
8	Not used	Not used	Bi-directional pair D-

## Appendix B

# Regulatory Statements

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This appendix contains the following regulatory statements:

- “Federal Communication Commission Interference Statement” on page 47
- “European Union Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment” on page 49
- “UK - UKCA Declaration of Conformity” on page 50

## Federal Communication Commission Interference Statement

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

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

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



### Caution

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. ⚡ E80

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Avertissement de la FCC: Tout changement ou modification non expressément approuvé par la partie responsable de la conformité pourrait annuler l'utilisateur de autorisation d'exploiter cet équipement. ⚡ E80

---



### Warning

Only trained and qualified personnel are allowed to install or to replace this equipment. ⚡ E14

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Seul le personnel qualifié et compétent est autorisé à installer ou à remplacer cet équipement. ⚡ E14

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

The device is restricted to indoor use only. Selection of other channels is disabled. The device meets all the other requirements specified in Part E, Section 15.407 of the FCC Rules.

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.

Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or Communications.

### **Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The AT-TQ3403 access point should be installed and operated with minimum distance 28 cm between the radiator and your body.

## **European Union Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment**

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This Allied Telesis RoHS-compliant product conforms to the European Union Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment. Allied Telesis ensures RoHS conformance by requiring supplier Declarations of Conformity, monitoring incoming materials, and maintaining manufacturing process controls.

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### **Note**

For additional regulatory statements, refer to “Regulatory Statements” on page 46.

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## UK - UKCA Declaration of Conformity

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Hereby, Allied Telesis declares that the radio equipment type [AT-TQ3403] is in compliance with the Radio Equipment Regulations 2017

### Operating Frequencies and Maximum Transmission Power Levels

The operating frequencies and maximum transmission power levels for wireless devices operated in the UK are listed below:

AT-TQ3403		
	Beamforming	Non-Beamforming
2412-2472MHz	19.98 dBm	19.96 dBm
5150-5250 MHz	22.98 dBm	22.81 dBm
5250-5350 MHz	22.91 dBm	22.85 dBm
5470-5725 MHz	29.98 dBm	29.71 dBm
5925-6425 MHz	22.98 dBm	22.95 dBm

#### Note

Operations in the 5.15 - 5.35GHz, and 5.925 - 6.425GHz band are restricted to indoor usage only.

### Radiation Exposure Statement

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



### Importer

Allied Telesis International BV  
11 Pine Court, Kembrey Park Swindon Wiltshire SN2 8AD,  
United Kingdom

#### Note

Contact Allied Telesis for the UK conformity statement. To contact Allied Telesis, visit our web site at [www.alliedtelesis.com/contact](http://www.alliedtelesis.com/contact).

## Appendix C

# Radiation Patterns

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This appendix contains the following sections:

- “Antenna Locations and Axes” on page 52
- “Radiation Patterns for Wi-Fi 2.4GHz” on page 53
- “Radiation Patterns for Wi-Fi 5GHz” on page 53
- “Radiation Patterns for Wi-Fi 6GHz” on page 54

## Antenna Locations and Axes

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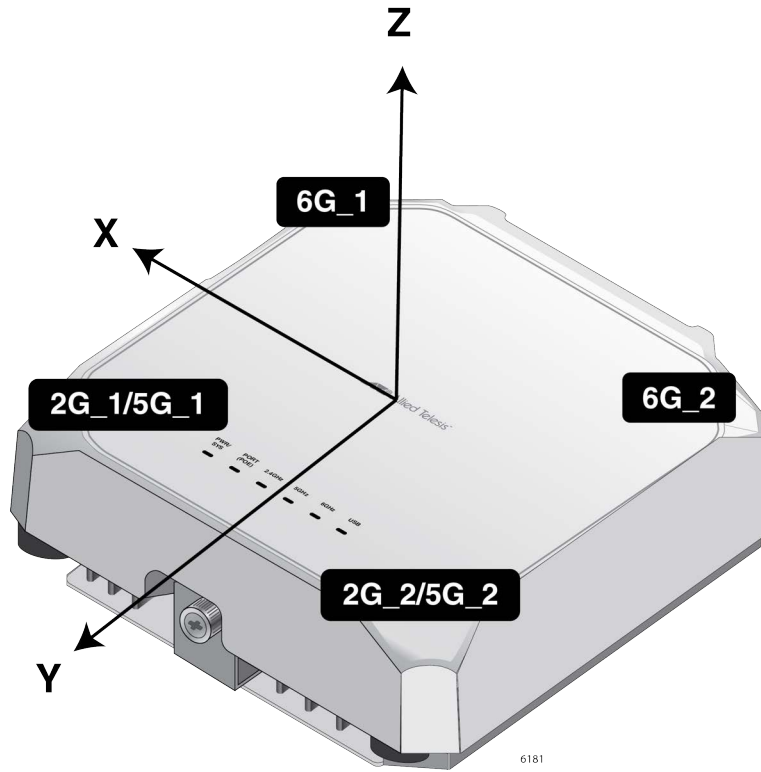
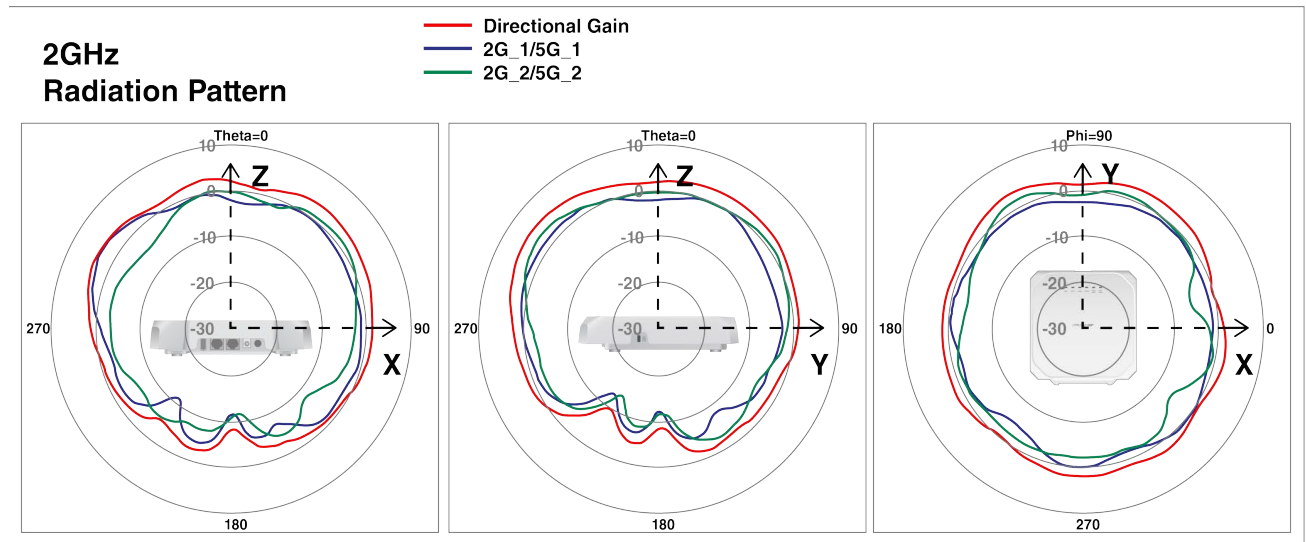
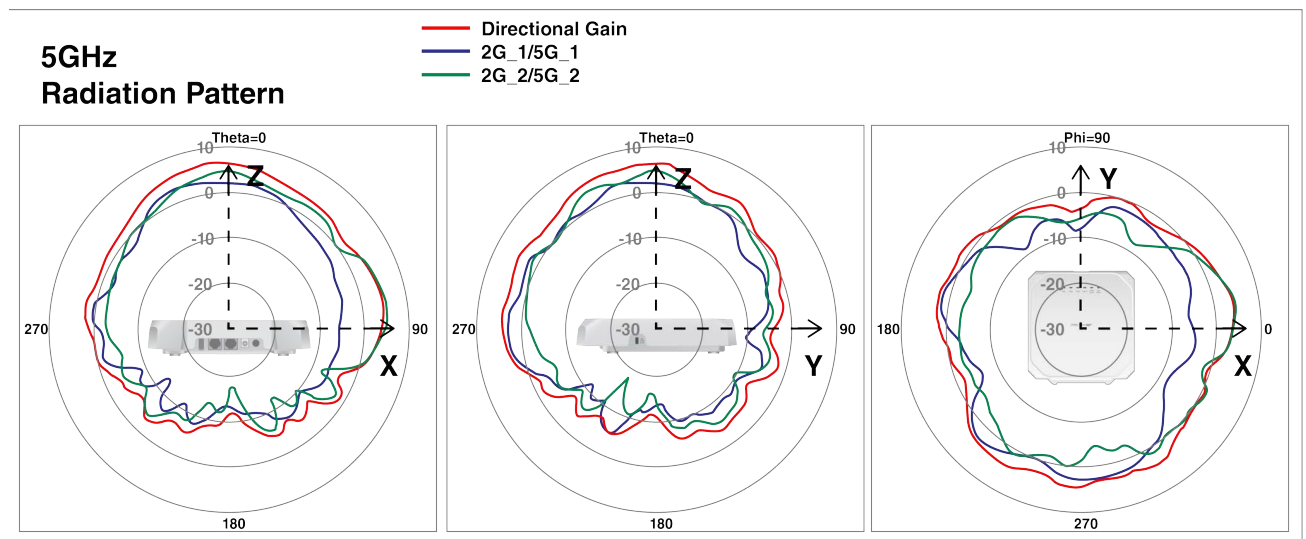


Figure 27. Antenna Locations and Axes

## Radiation Patterns for Wi-Fi 2.4GHz



## Radiation Patterns for Wi-Fi 5GHz



# Radiation Patterns for Wi-Fi 6GHz

