

ARISTA

Quick Start Guide

O-105E Access Point

Arista Networks

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1 About This Guide

This installation guide explains how to deploy the O-105E access point (AP).

 **Important:** Please read the EULA before installing O-105E. You can download and read the EULA from <https://www.arista.com/en/support/product-documentation>.

Installation constitutes your acceptance of the terms and conditions of the EULA.


Intended Audience

This guide can be referred to by anyone who wants to install and configure the O-105E outdoor access point.

Document Overview

This guide contains the following chapters:

- [Package Content](#)
- [Access Point Overview](#)
- [Install the Access Point](#)
- [Access Point Troubleshooting](#)

 **Note:** All instances of the term 'server' in this document refer to the Wireless Manager, unless the server name or type is explicitly stated.

Product and Documentation Updates

To receive important news on product updates, please visit our website at <https://www.arista.com/en/support/product-documentation>. We continuously enhance our product documentation based on customer feedback.

CE Statement

1. Frequency range and power:

Frequency range (MHz)	Max. Transmit Power (W)
Bluetooth	0.00794
WLAN Wi-Fi 802.11x; 2, 4 GHz	0.09977
WLAN Wi-Fi 802.11x; 5 GHz	0.19907

2. This equipment should be installed and operated with minimum distance 32cm between the radiator and your body.
3. Hereby, Arista declares that the radio equipment type O-105/O-105E is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: <http://www.arista.com/en/support/product-documentation>

2 Package Content

The access point (AP) package must contain the components shown in the following figure.




Figure 1: Package Components

Table 1: Labels: Package Components

Label	Description
1	O-105E Access Point
2	Mounting Bracket
3	4 screws for fixing bracket on the wall

Label	Description
4	4 screws for fixing bracket on the wall
5	2 black sealing pins
6	4 screws for fixing device in the bracket
7	4 screws for earthing
8	2 metal clamps

 **Important:** The MAC address of the device is printed on a label at the bottom of the product and the packaging box. Note down the MAC address, before mounting the device.

If the package is not complete, please contact Arista Networks Technical Support Team at support-wifi@arista.com or return the package to the vendor or dealer where you purchased the product.

3 Access Point Overview

The O-105E is a dual radio 802.11ac wave 2 access point.

This chapter provides an overview of the O-105E and describes:

- [Side Panel of O-105E](#)
- [Bottom Panel of O-105E](#)

3.1 Side Panel of O-105E

The side panel of the O-105E has LEDs that indicate the working of the device.

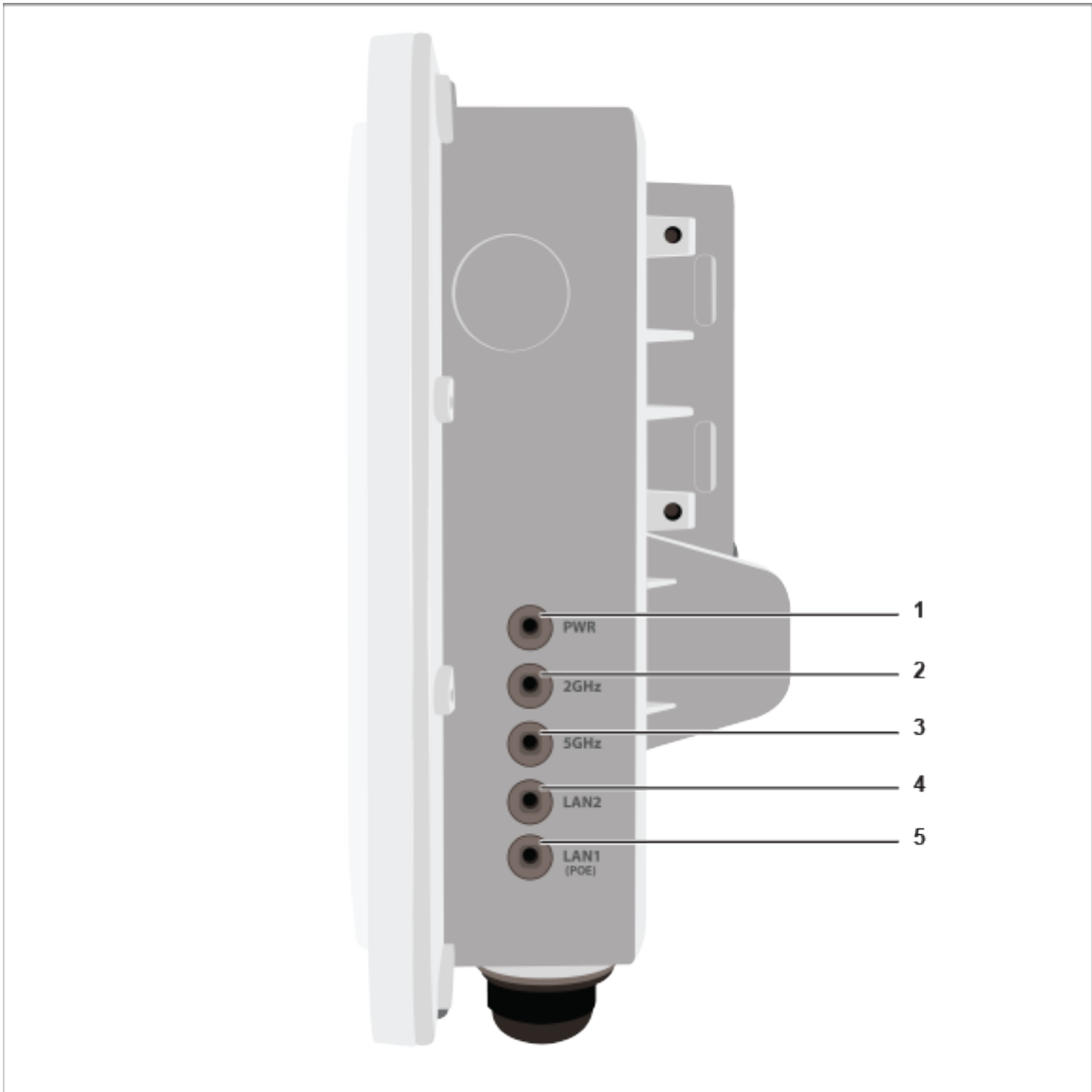


Figure 2: O-105E Side Panel

Table 2: Labels: Side Panel LEDs

Label	Description
1	Power
2	2.4 GHz Radio
3	5 GHz Radio
4	LAN2
5	LAN1 (PoE)

Power LED: The following table describes the Power LED states.

Table 3: Power LED States Description

	Green	Orange
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Solid	Running at full capability	Running at reduced capability
Blinking	Received IP address, but not connected to the server	Did not receive an IP address

Reduced capability indicates that the AP is getting lower than the required maximum power from the PoE switch, i.e., 802.3af instead of 802.3at.

LAN1 LED: ON when the corresponding interface is up.

LAN2 LED: ON when the corresponding interface is up and either wired guest or link aggregation is configured.

Radio LEDs: ON when the corresponding radio is operational.

3.2 Bottom Panel of O-105E

The bottom panel of the O-105E has LAN or PoE connectors that enable you to connect the device to a wired LAN through a switch or a hub. The ports provide power for the device by using the 802.3at standard.

Figure 3: O-105E Bottom Panel

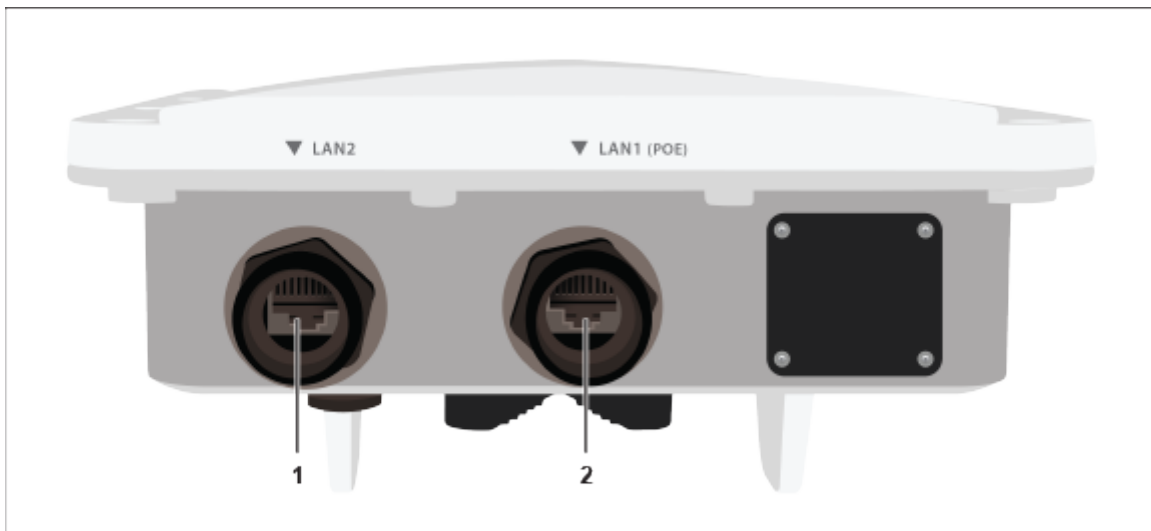


Table 4: Labels: Ports

Label	Description
1	LAN2
2	LAN1 (PoE)

Table 5: O-105E Port Details

Port/Button	Description	Connector Type	Speed/Protocol
LAN1	1 Gigabit Ethernet with 802.3at compliant PoE	RJ-45	10/100/1000 Mbps Ethernet
LAN2	1 Gigabit Ethernet with 802.3at compliant PoE	RJ-45	10/100/1000 Mbps Ethernet

Reset	Enables you to reset the O-105E	--	--
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4 Install the Access Point

This chapter contains the stepwise procedure to install the access point (AP).

Zero-Configuration of O-105E as Access Point

Zero-configuration is supported under the following conditions:

- The device is in AP mode with background scanning on and no SSID configured.
- A DNS entry **wifi-security-server** is set up on all the DNS servers. This entry should point to the IP address of the server. By default, the AP looks for the DNS entry **wifi-security-server**.
- The AP is on a subnet that is DHCP enabled.

 **Important:** If the AP is on a network segment that is separated from the server by a firewall, you must first open port 3851 for bidirectional User Datagram Protocol (UDP) and Transport Control Protocol (TCP) traffic on that firewall. This port number is assigned to Arista Networks. Zero-configuration cannot work if multiple APs are set up to connect to multiple servers. In this case, the APs must be configured manually. For details on how to configure an AP manually, see the Access Point Configuration Guide on our website at <https://www.arista.com/en/support/product-documentation>.

Take a configured AP; that is, ensure that a static IP is assigned to the AP or the settings have been changed for DHCP. Note the MAC address and the IP address of the AP in a safe place before it is installed in a hard-to-reach location. The MAC address of the AP is printed on a label at the bottom of the product.

The steps to install the AP with no configuration (zero-configuration) are as follows:

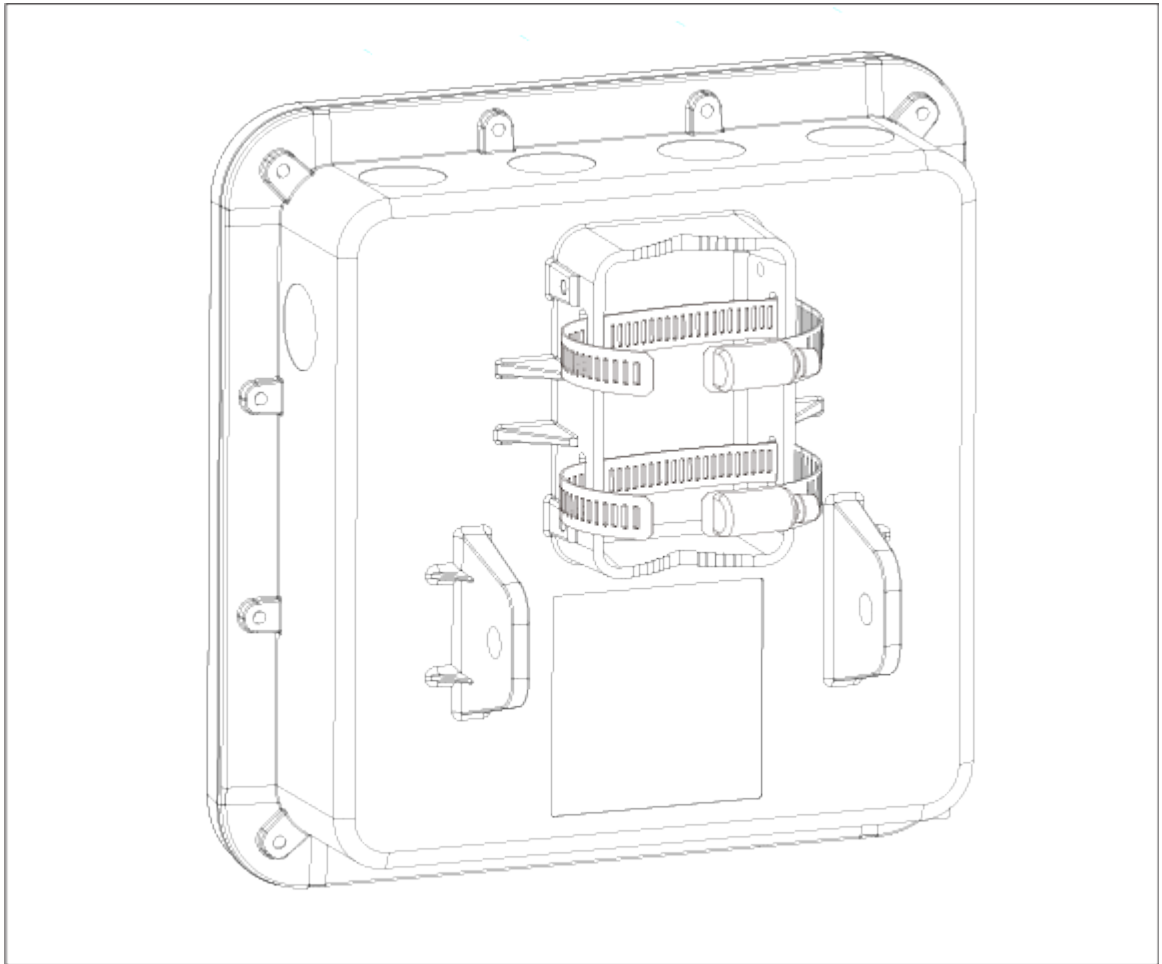
1. [Wall Mount the O-105E](#) or [Pole Mount the O-105E](#)
2. [Power On the O-105E](#)
3. [Connect the O-105E to the Network](#)

4.1 Pole Mount the O-105E

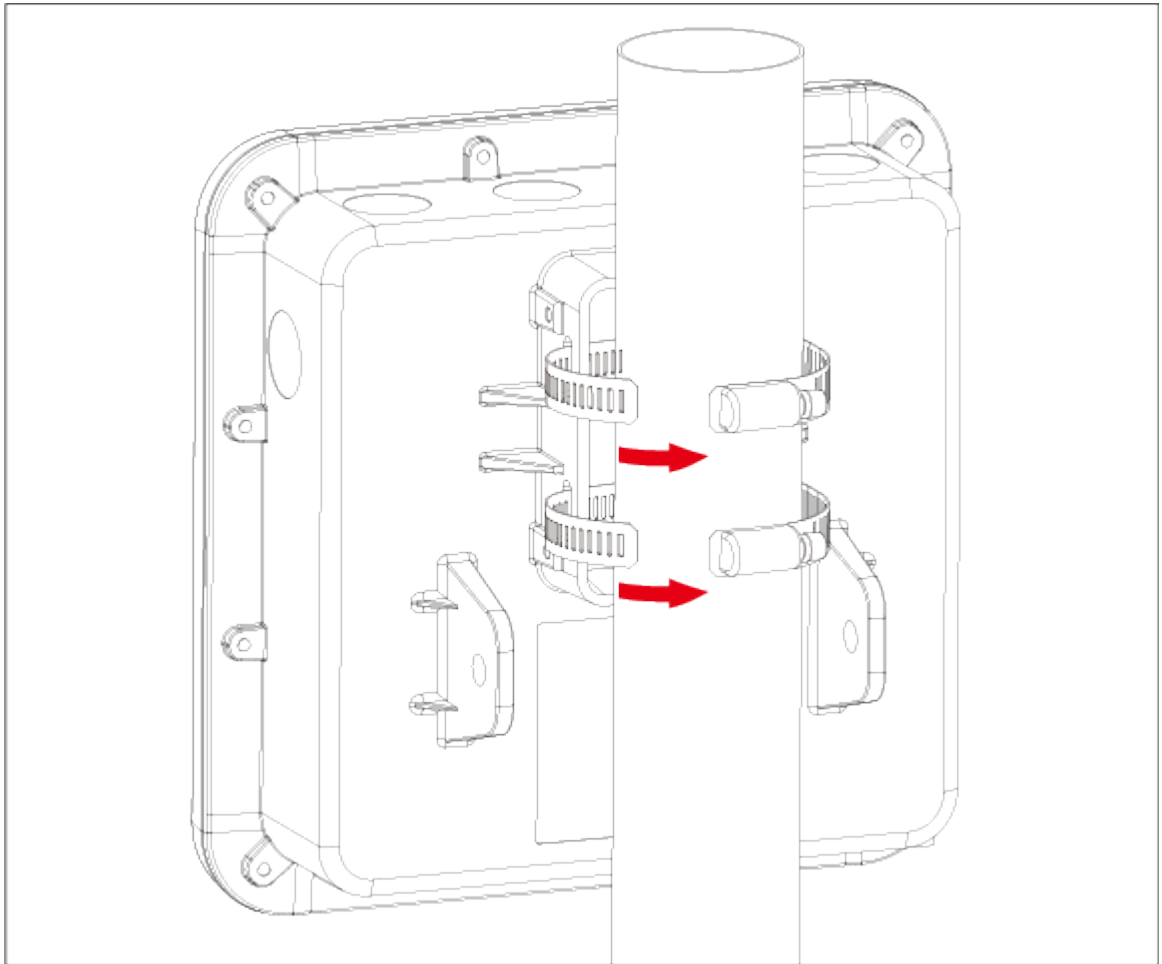
Use the pole-mount bracket and pole strap to install the O-105E device on a pole. Standard accessories include two metal clamps.:

Use the mounting base to install the O-105E device on the wall. To mount the device:

1. Attach the device to the mounting base.



2. Attach the pole-mount bracket to the mounting base. You can position the pole-mount bracket for use on a vertical or horizontal pole. Insert the pole strap in to the pole-mount bracket.



3. Mount the device securely to the pole by using the pole strap and a Philips #2 screwdriver.

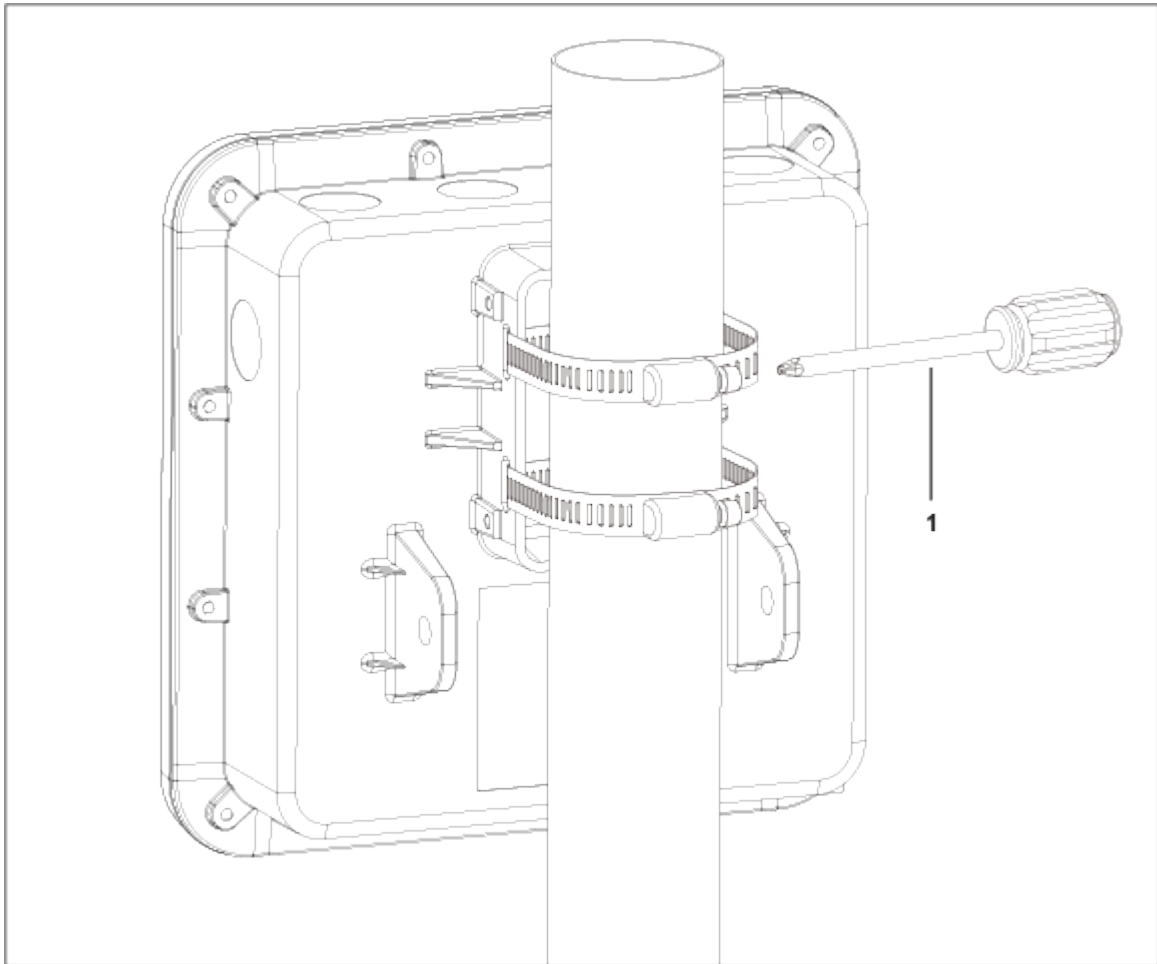


Table 6: Labels: Parts

Label	Description
1	Philips #2 screwdriver.

4.2 Wall Mount the O-105E

Mounting the access point (AP) on the wall consists of the following steps:

1. Affix the expansion bolts on the wall such that the holes on the mounting base can be perfectly placed over them.

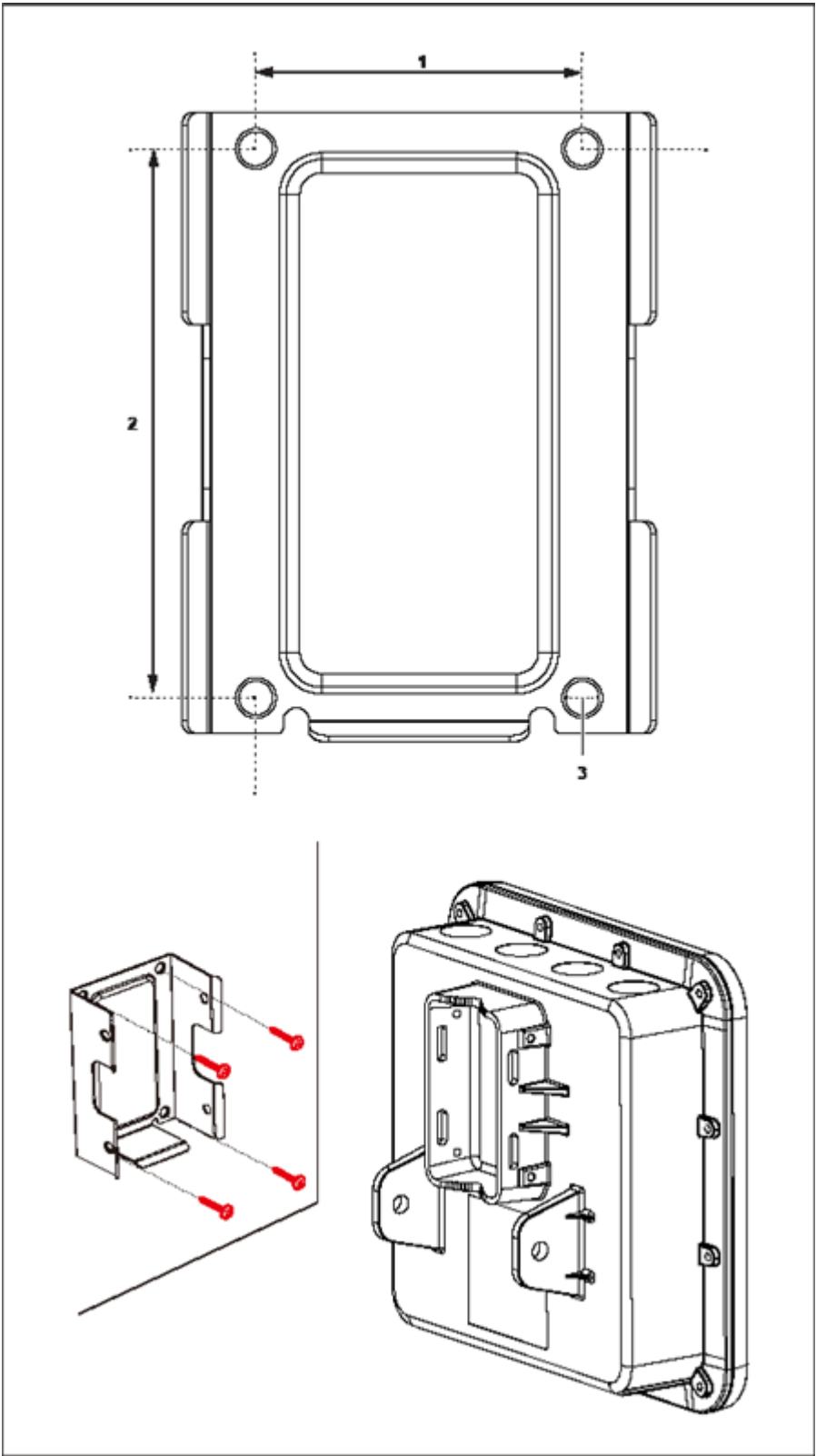
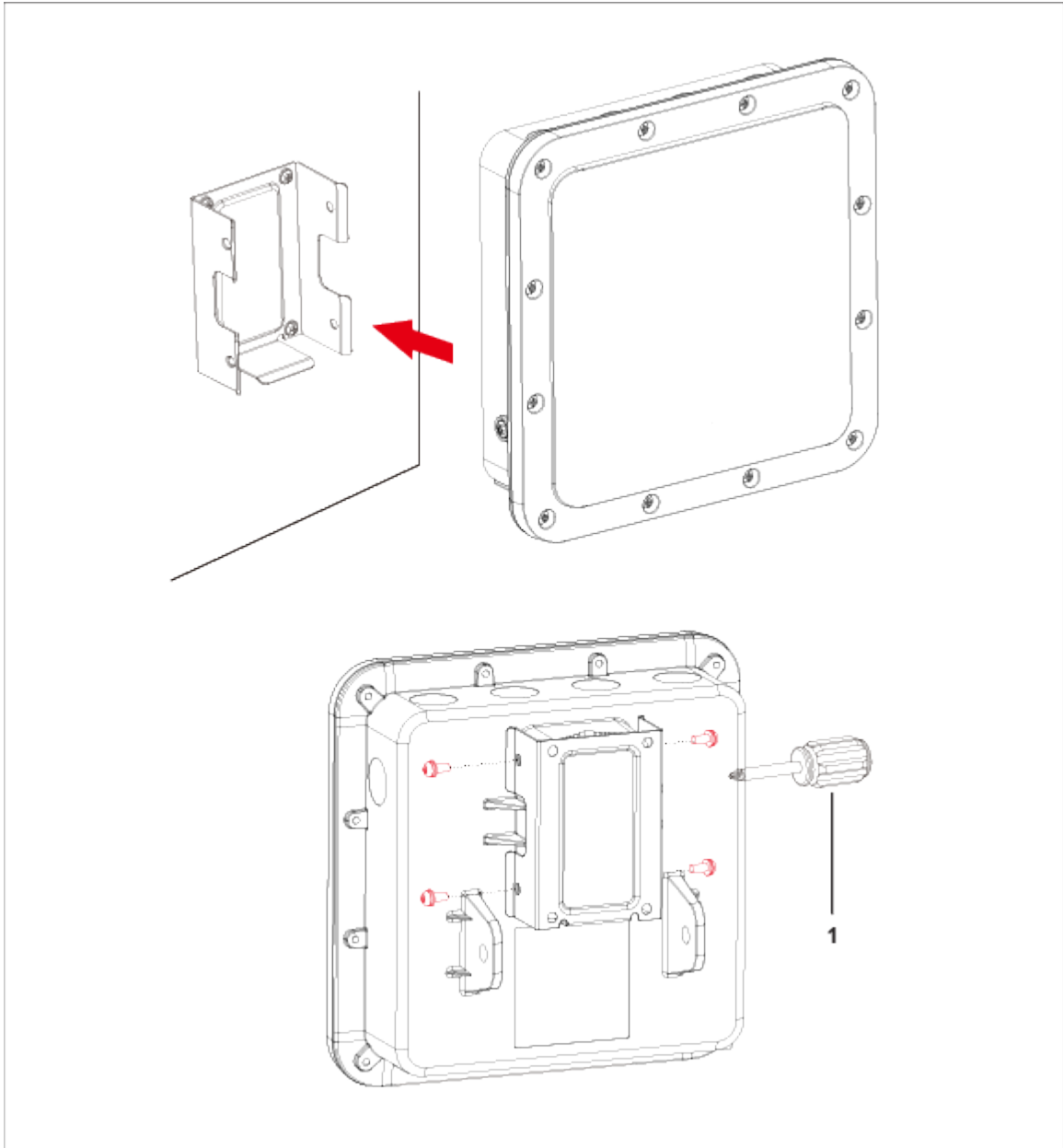


Table 7: Labels: Dimensions

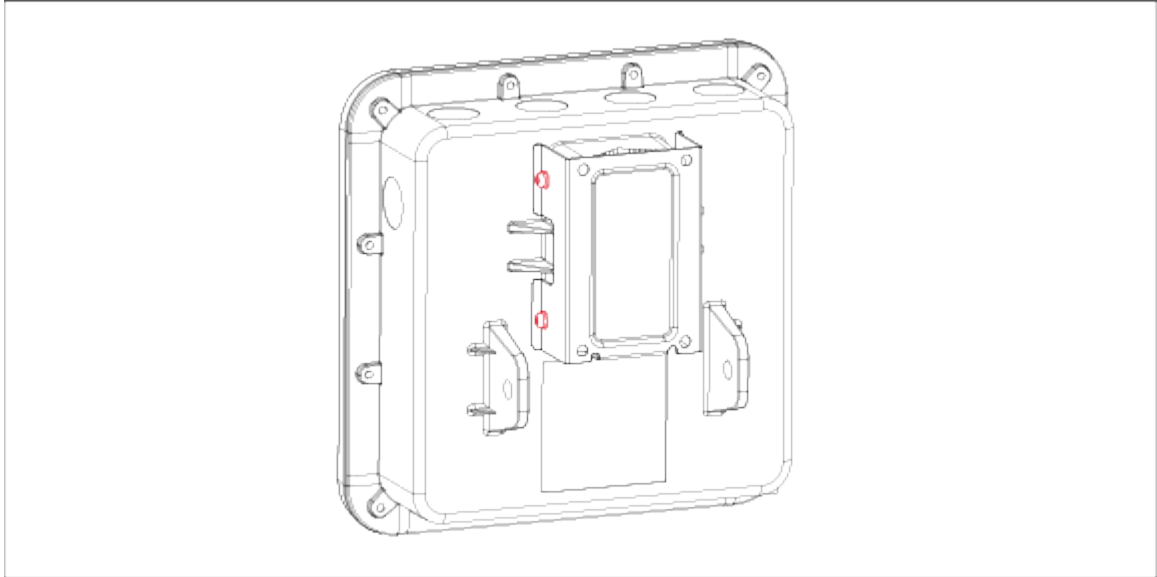
Label	Description
1	Horizontal distance between holes: 50mm
2	Vertical distance between holes: 84mm
3	Diameter of the hole: 6.5mm, depth 30mm

2. Attach the mounting base to the bottom cover of the O-105E device.

**Table 8: Labels: Parts**


Label	Description
1	Philips #2 screwdriver. Length \geq 100mm

3. Mount the device on the expansion bolts.



4.3 Power On the O-105E

An O-105E device can be powered on by plugging one end of the Ethernet cable into the 802.3at Power Over Ethernet+ (PoE+) switch or injector and the other end into the PoE port on O-105E of nominal input voltage 48V DC.

 **Note:** If you are not using PoE, ensure that you use only an AC power adaptor supported by the O-105E access point (AP).


4.4 Connect the O-105E to the Network


To connect the access point (AP) to the network, perform the following steps:

1. Ensure that a DHCP server is available on the network to enable network configuration of the AP.
2. Add the DNS entry **wifi-security-server** on all DNS servers. This entry must point to the IP address of the server.
3. Ensure that DHCP is running on the subnet to which the AP is connected.
4. Check the LEDs on the AP to ensure that it is connected to the server.
5. Log on to the server using ssh and run the `get sensor list` command.

You will see a list of all Arista devices that are recognized by the server. Single Sign-On users can go to the **Monitor** tab in CloudVision WiFi and check whether the device is visible under the **Monitor** tab.

The AP is connected and operational.

 **Note:** If zero configuration fails, the AP must be configured manually.

 **Important:** If DHCP is not enabled on a subnet, the AP cannot connect to that subnet with zero-configuration. If the DNS entry is not present on the DNS servers, or if you do not have the DHCP server running on the subnet, you must manually configure the AP. For details on configuring an AP manually, see the Access Point Configuration guide on our website at <https://www.arista.com/en/support/product-documentation> .

4.5 Connect the O-105E using PoE

If you are using a PoE injector, make sure the data connection is plugged into a suitable switch port with proper network connectivity.

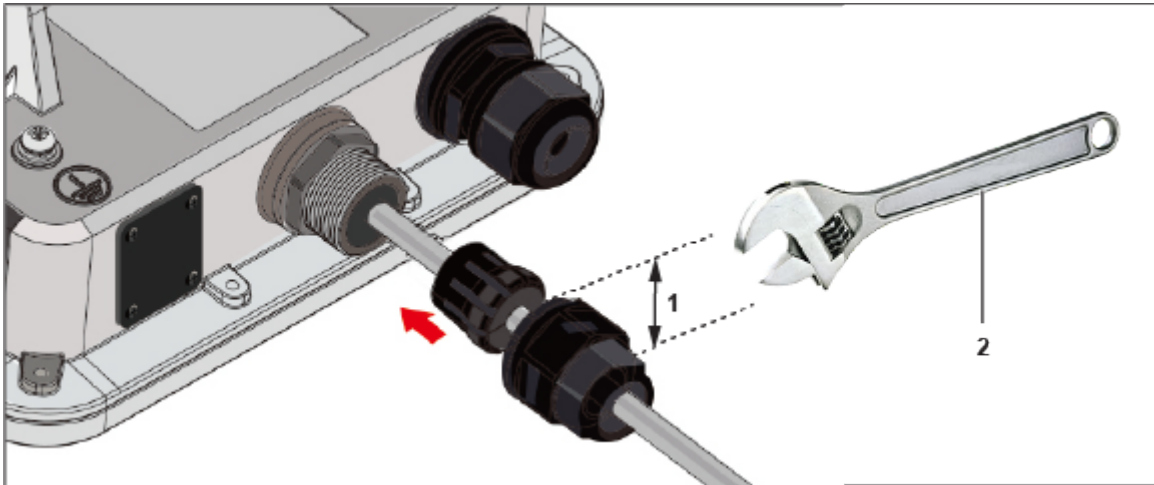


Table 9: Labels: Parts

Label	Description
1	Width of the LAN cap is 29mm
2	Wrench to open the LAN cap

4.6 Connect External Antennas to O-105E

Connect the external antennas to their respective ports using "N Type" connectors.

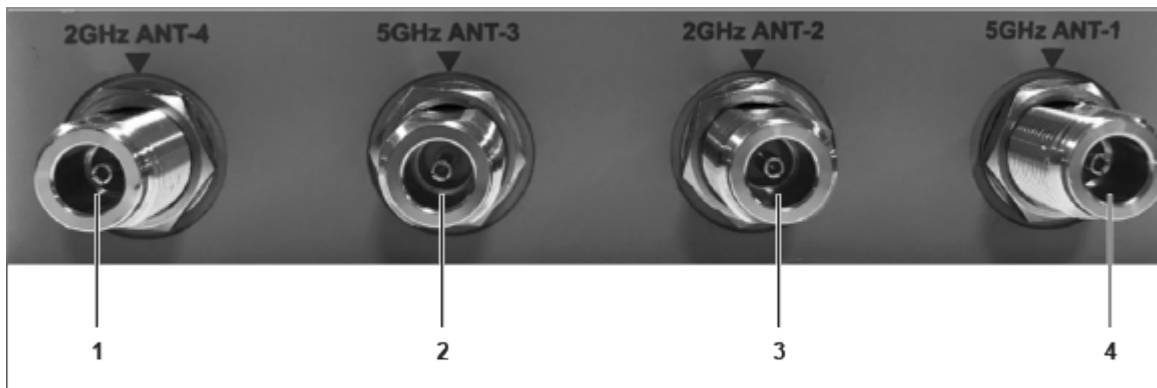


Table 10: Labels: Antenna Ports

Label	Description
1	Antenna 4, 2.4 GHz
2	Antenna 3, 5 GHz
3	Antenna 2, 2.4 GHz

Label	Description
4	Antenna 1, 5 GHz

5 Access Point Troubleshooting

The table below lists some of the troubleshooting guidelines for the access point (AP).

Problem	Solution
The AP did not receive a valid IP address via the DHCP.	Ensure that the DHCP server is on and available on the VLAN/subnet to which the AP is connected. If the AP still fails to get a valid IP address, you can reboot it to see if the problem is resolved.
Unable to connect to the server.	<ul style="list-style-type: none"> • Ensure that the server is running and is reachable from the network to which the AP is connected. If a firewall or a router has Access Control Lists (ACLs) enabled between the AP and the server, ensure that traffic on UDP port 3851 is allowed. • Use the IP-based server discovery method and ensure that you have correctly entered the DNS name, wifi-security-server, on the DNS server. • Ensure that the DNS server IP addresses are either correctly configured, or are provided by the DHCP server. • The AP might fail to authenticate with the server. In this case, an 'Authentication failed' event is raised on the server. Refer to the event for recommended action.
The AP has encountered a problem.	<ul style="list-style-type: none"> • If you are using Arista Cloud Services, then open the TCP port 443 (SSL). If you have an on-premises installation, then open UDP port 3851 and port 80. • If you are using a Proxy, Web Accelerator, or URL Content Filter between the AP and the Internet, ensure that the settings allow communication between the AP and Arista Cloud Services. • If your configuration requires you to specify an exact IP address or IP range for Arista Cloud Services, please contact support-wifi@arista.com.

6 Appendix A: AP-Server Mutual Authentication

The AP-server communication begins with a mutual authentication step in which the AP and server authenticate each other using a shared secret. The AP-server communication takes place only if this authentication succeeds.

After the authentication succeeds, a session key is generated. From this point on, all communication between the AP and server is encrypted using the session key.

The AP and server are shipped with the same default value of the shared secret. Both the server and the AP have CLI commands to change the shared secret.



Note: After the shared secret (communication key) is changed on the server, all APs connected to the server will automatically be set up to use the new communication key. You must manually configure the new communication key on an AP if it is not connected to the server when the key is changed on the server.



Note: Although the server is backward compatible—that is, older version APs can connect to a newer version server—this is not recommended.

7 Appendix B: Product Compliance

Número IFETEL: RCPARO121-3471

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

