

ARISTA

Quick Start Guide **C-120 Access Point**

Arista Networks
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Chapter 1. About this Guide

This installation guide explains how to deploy the C-120 access point (AP).

 **Important:** Please read the EULA before installing C-120. You can download and read the EULA from <https://www.arista.com/en/support/product-documentation>. Installing the AP constitutes your acceptance of the terms and conditions of the EULA mentioned above in this document.

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Intended Audience

This guide can be referred by anyone who wants to install and configure the C-120 access point.

Document Overview

This guide contains the following chapters:

- [Package Content \(page 4\)](#)
- [C-120 Overview \(page 5\)](#)
- [Install the C-120 \(page 8\)](#)
- [C-120 Troubleshooting \(page 12\)](#)



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.

Chapter 2. Package Content

The C-120 package must contain the following components:



! **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 on the ceiling or at a location that is difficult to access.

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.

Chapter 3. C-120 Overview

C-120 is a 4x4 802.11a/b/g/n/ac access point with two radios.

This chapter provides an overview of the C-120 and describes:

- [Front Panel of C-120 \(page 5\)](#)
- [Rear Panel Ports on C-120 \(page 5\)](#)
- [Top Side Ports on C-120 \(page 6\)](#)

Front Panel of C-120

The front panel of the C-120 has 4 functional LEDs that indicate the working of the device.



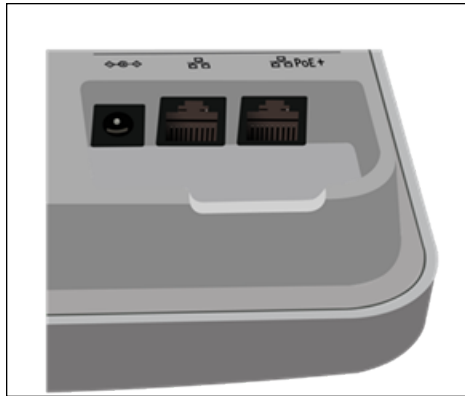
The following table indicates the device states based on the LEDs.

LED Status	Wi-Fi 2.4GHz	Wi-Fi 5GHz	What does it mean?
Power/Ethernet Solid Orange	Any	Any	The AP does not have an active ethernet link.
Fast Blink Green	Any	Any	The AP did not receive a valid IP address via DHCP.
Slow Blink Green	Any	Any	The AP is unable to connect to the Wireless Manager.
Slow Blink Orange	Any	Any	The AP is being upgraded.

For basic troubleshooting of the issues based on the LED status, refer to the [C-120 Troubleshooting \(page 12\)](#) section.

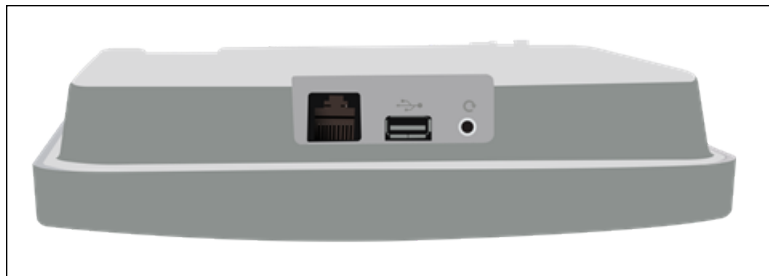
Rear Panel of C-120

The rear panel of the C-120 provides an PoE+ Ethernet port that enables you to connect the device to a wired LAN through a switch or a hub and power the device by using the 802.3af/802.3at standard.



Port	Description	Connector Type	Speed/Protocol
DC IN	Enables you to connect to and power 6.3 mm barrel on device using 12V DC power with 2.0 ampere.		--
Ethernet (LAN2)	Gigabit Ethernet port that can be used for wired extension for an SSID.	RJ45	10/100/1000 Mbps Gigabit Ethernet
Ethernet (LAN1/PoE+)	Gigabit Ethernet port used to connect to the wired LAN and communicate with the Mojo Cloud or Server. This port can also be used to power the device using the 802.3af Power over Ethernet (PoE+) standard.		<ul style="list-style-type: none"> 10/100/1000 Mbps Gigabit Ethernet 802.3af/80 Class 0 PoE/PoE+ PoE input voltage: 48V If using PoE (802.3af) some features will be disabled

Top Side Ports on C-120



Port	Description	Connector Type	Speed/Protocol
Ethernet	To establish 'Config Shell' terminal session via serial connection.	RJ45	<ul style="list-style-type: none"> RS 232 Serial Bits per second: 115200 Data Bits: 8, Stop Bits: 1 Parity: None Flow Control: None
USB	USB 2.0 port	Not in use	Not in use
Reset Pinhole	Reset to factory default settings	Pin hole push button	Hold down and power cycle the device to reset

The Reset Pin Hole and the USB port are on the top side of the device as shown in the figure above. The Reset Pinhole resets the C-120 device to factory defaults. To reset the device, press and hold the Reset Pin Hole for 10 sec until all LEDs go off which indicates that the device has rebooted. Pressing the Reset Pin Hole while the device is booting up will not have any effect. You should perform this operation only when the device is running.

When you reset the device, the following settings are reset:

- Config shell password is reset to config .
- Server discovery value is erased and changed to the default, wifi-security-server .
- All the VLAN configurations are lost.
- If static IP is configured on the device, the IP address is erased and DHCP mode is set. If DHCP fails the factory default IP address of the device is set to 169.254.11.74.

The USB port on the C-120 is currently not in use.

Chapter 4. Install the C-120

This chapter contains the step wise procedure to install the C-120 device.

Zero-Configuration of C-120 as Access Point

Zero-configuration is supported only if you meet the following prerequisites:

- The device has 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 device looks for the DNS entry `wifi-securityserver`
- The device is placed on a subnet that is DHCP enabled.



Important: If the device is placed on a network segment that is separated from the server by a firewall, you must first open port 3851 for User Datagram Protocol (UDP) and Transport Control Protocol (TCP) bidirectional traffic on that firewall. This port number is assigned to Arista Networks. If multiple devices are set up to connect to multiple servers, zero-configuration is not possible. In this case, you must manually configure the APs. See the Access Point Configuration Guide on our website at <https://www.arista.com/en/support/product-documentation>.

Take a configured C-120, that is, ensure that a static IP is assigned to the device or the settings have been changed for DHCP. Note down the MAC address and the IP address of the device in a safe place before it is installed in a hard-to-reach location. The MAC address of the device is printed on a label at the bottom of the product.

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

- [Mount the C-120 \(page 8\)](#)
- [Power on the C-120. \(page 10\)](#)
- [Connect C-120 to the network. \(page 11\)](#)

Mount the C-120

The steps to mount the C-120 involve:

- [Mounting Instructions using the Standard Package Contents \(page 8\)](#)
- [Mounting Instructions using the Silhouette/Interlude Bracket Mount \(page 9\)](#)
- [Mounting Instructions using the Wall Mount Bracket \(page 10\)](#)

It is a good practice to note down the MAC address and the IP address of the device in a safe place before mounting the device. The MAC address of the device is printed on a label at the bottom of the product.



Important: To prevent disconnection or tampering by unauthorized personnel, it is extremely important to install the device such that it is difficult to unplug the device from the network or from the power outlet.



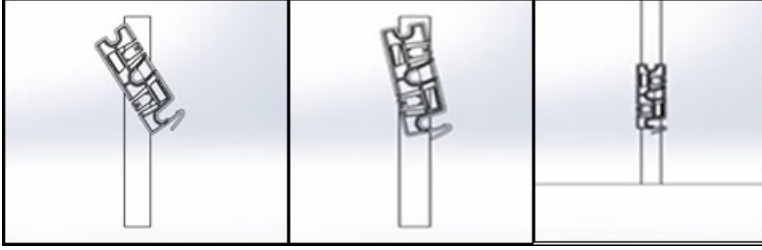
Note: You should label the devices using MAC addresses or at least your own convention. For example, use serial numbers, so that you can easily identify the devices.

Mounting Instructions using the Standard Package Contents

The mounting procedure can be divided into two parts:

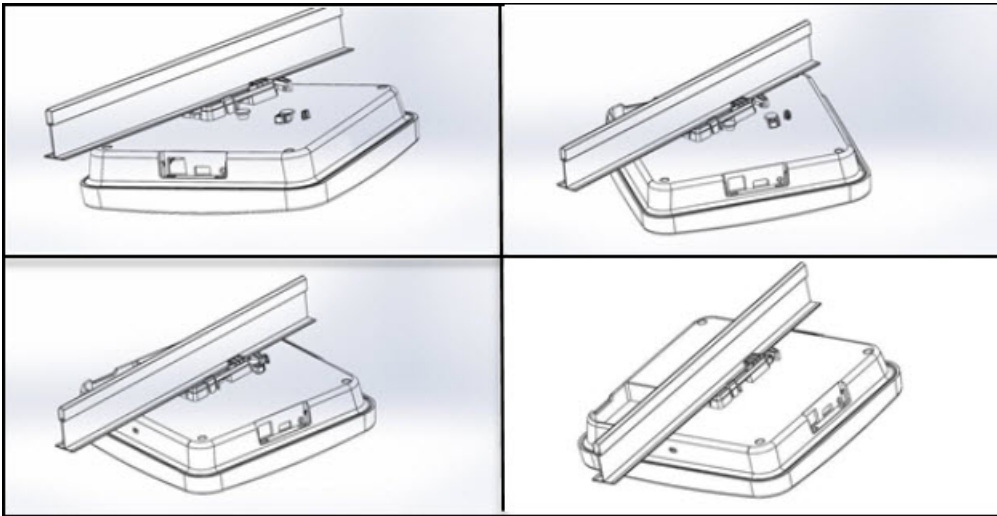
1. **Affixing the bracket to the T-grid:** Use the mounting bracket to install the C-120 on the ceiling. Fix the bracket to the T-grid and rotate the bracket so that it snaps on the T-grid.

The bracket is now parallel to an arm of the T-grid. Ensure that the bracket is properly snapped to the T-grid. Refer to the images given below.



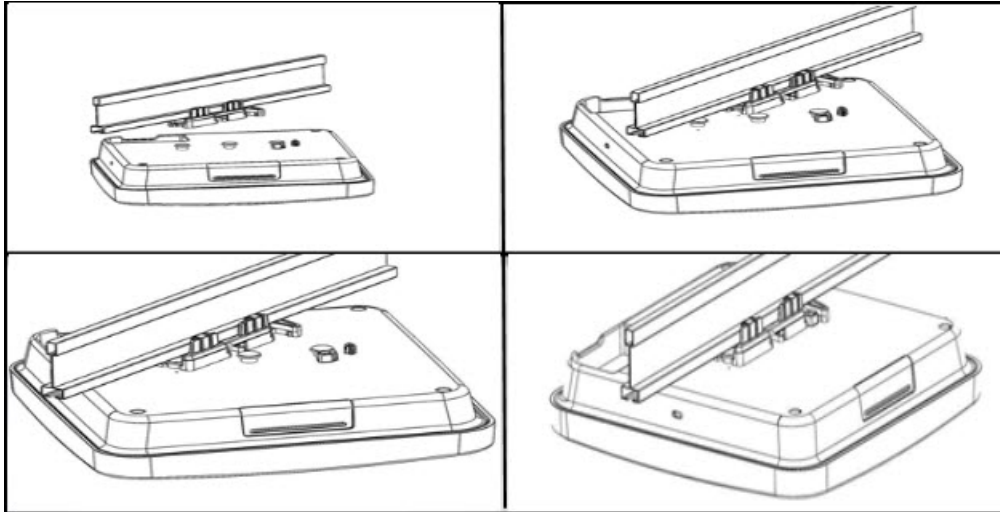
2. **Mounting C-120 on the bracket:** Place the first mounting post on the rear-side of the device on to the lower notch of the bracket. Rotate the device such that the center mounting post fits in to the center notch on the bracket. Ensure that all the mounting posts on the rear-side of the device are snapped in to the respective notches on the bracket.

The mounting posts on the rear-side of the device are now properly fit in the respective notches of the bracket and device is mounted properly.



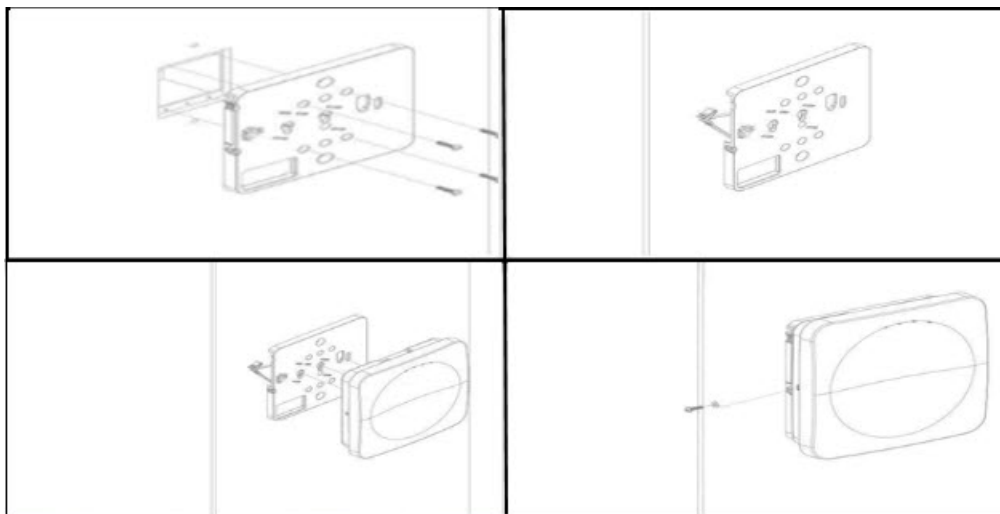
Mounting Instructions using the Silhouette/Interlude Bracket Mount

The Silhouette/Interlude mounting bracket is not a part of the standard package and must be procured separately. The mounting instructions for the Silhouette/Interlude Bracket Mount are very similar to the Standard Package Content's mounting instructions. Refer to the instructions mentioned in Mounting Instructions using the Standard Package Contents (page).



Mounting Instructions using the Wall Mount Bracket

The Wall mounting bracket is not a part of the standard package and must be procured separately. Attach the wall-mounting bracket with the help of screws on to the wall. Pull the side latch to unlock the wall mount bracket. Affix the device on the wall mount bracket by placing the device stubs in the bracket's placeholder. Lock the side latch and affix the device firmly with the screw.



Power on the C-120

The C-120 device can be powered on by plugging one end of the Ethernet cable into the PoE+ (802.3at) switch or injector and the other end into the Ethernet/PoE+ port on the C-120. Ensure the PoE+ source you are using is turned ON.



Note: You can also use regular PoE (802.3af). However, there are certain drawbacks to it:

- The USB is disabled.
- The other ethernet port is disabled.
- The 2.4 Ghz radio is downgraded to 1x1 TX/RX capability and Tx power of 15 dbm or lower, (or as set in the device template)
- The 5 Ghz radio is downgraded to 2x2 18 dbm or lower, (or as set in the device template)

As an alternative to PoE+, you can insert a compatible power adaptor plug into an AC power outlet and the other end into the power input port on the C-120.

Using C-120 with Power Adapter

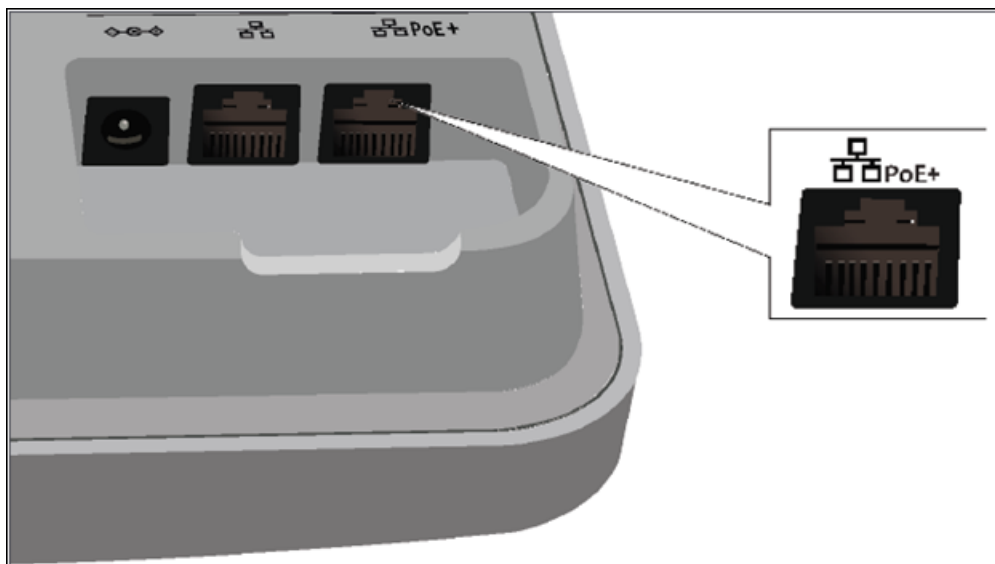
To power up the device with power adapter, perform the following steps:

1. Plug the power cable into the DC power receptacle at the rear of the device.
2. Plug the other end of the power cable into an 110V~240V 50/60 Hz AC power source.

Wait for few minutes for the device to power on. Further you can refer the LED details table to verify the functioning of the device.

Connect C-120 to the Network

The device can be connected to the network by connecting to through a LAN cable or a POE+ injector. If you are using a PoE+ injector, make sure the data connection is plugged into a suitable switch port with proper network connectivity.



To connect C-120 to the network, you should meet the following prerequisites:

- Ensure that a DHCP server is already available on the network to enable network configuration of the C-120.
- DNS should be able to resolve the server discovery primary: `redirector.online.spectraguard.net`, secondary: `wifi-security-server`.
- AP with valid IP address from DHCP server or a valid static IP address1 to communicate with Wireless Manager.
- Check the LEDs Status on the device. If all LEDs glow green, then the device is operational and connected to the server.

If the above conditions stand true, the device should be connected and ready to go operational.



Note: If the zero configuration is not successful, the device must be configured manually.



Important: If DHCP is not enabled on a subnet, the device 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 device. See the Access Point Configuration guide on our website at <https://www.arista.com/en/support/product-documentation>.

Chapter 5. C-120 Troubleshooting

Following are some of the troubleshooting guidelines for C-120.

Symptoms	Diagnosis	Solution
Ethernet: fast blink	The device 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 device is connected. If the device still fails to get a valid IP address, you can reboot it to see if the problem is resolved.
Ethernet: slow blink	The Ethernet cable is loose. The device is probably disconnected from the network. Unable to connect to the server	Ensure that the Ethernet cable is connected. Ensure that the server is running and is reachable from the network to which the device is attached. If there is a firewall or a router with ACLs enabled between the device and the server, ensure that the traffic is allowed on UDP port 3851. Use the server IP-based discovery and ensure that you have correctly entered the DNS name, <code>wifi-security-server</code> , on the DNS server. Also, ensure that the DNS server IP addresses are either correctly configured on the, or are provided by the, DHCP server. It is also possible that the AP is unable to connect to the server because it has failed to authenticate with the server. In this case, an 'Authentication failed for ' event is raised on the server. Refer to the event for recommended action.

Chapter 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. All communication between the AP and server from this point on is encrypted using the session key.

The AP and server are shipped with the same default value of the shared secret. The CLI commands are provided on both server and AP for changing 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. APs that are not connected to the server at this time must be manually set up with the same communication key to enable communication with this server.



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