

Cambium Networks cnPilot E700

Cambium Networks cnPilot e700 Outdoor Access Point User Manual

Model: cnPilot E700 (PL-E700X00A-US)

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Cambium Networks cnPilot e700 Enterprise Outdoor 802.11ac Wave 2 Gigabit Mesh Wall-Mount Access Point. The cnPilot e700 is designed for demanding high-density outdoor Wi-Fi networks, offering robust performance and resilience in various environmental conditions.

2. PRODUCT OVERVIEW

The Cambium Networks cnPilot e700 is an outdoor access point featuring 802.11ac Wave 2 technology, designed for high-performance Wi-Fi connectivity. Key capabilities include:

- **Operational Superiority:** IP67 weather-resilient design, supporting up to 512 concurrent client associations and 16 SSIDs.
- **High Performance Wi-Fi:** Utilizes standards-based beamforming on 5 GHz with a 4x4 Tx/Rx antenna array for superior performance in high-interference environments.
- **Mesh Networking:** Supports rapid setup of multi-hop mesh networks, allowing flexible backhaul configurations.
- **Wireless Backhaul Integration:** Features an auxiliary PoE Out port to power Cambium wireless backhaul devices or 802.3af cameras, simplifying deployments.
- **Resilience:** Equipped with dual on-board Active/Standby memory banks for higher availability and software fallback capabilities.

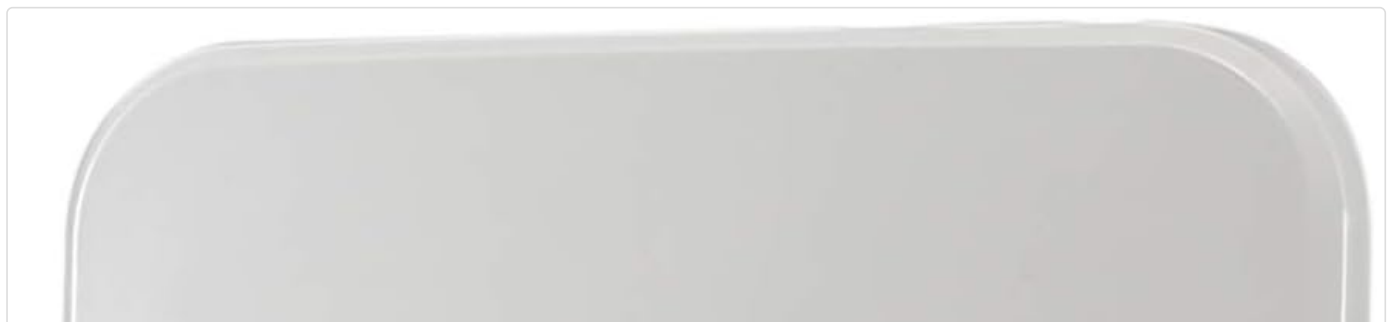




Figure 1: Front view of the Cambium Networks cnPilot e700 Access Point, unmounted.

3. PACKAGE CONTENTS

The cnPilot e700 package typically includes the following items:

- Cambium Networks cnPilot e700 Outdoor Access Point
- Wall mount brackets
- Band (for pole mounting)
- Quick Start Guide (not included in this manual)

4. SETUP AND INSTALLATION

The cnPilot e700 is designed for outdoor wall or pole mounting. Ensure the mounting location provides optimal Wi-Fi coverage and is accessible for power and network cabling.

4.1 Mounting the Access Point

The device comes with wall mount brackets and bands for pole mounting. Choose a secure location that can support the device's weight and withstand environmental conditions.



Figure 2: Cambium Networks cnPilot e700 mounted on a pole, showing the front view and cable entry.

Wall Mounting:

1. Secure the wall mount bracket to a sturdy surface using appropriate screws and anchors (not supplied).

2. Attach the cnPilot e700 to the mounted bracket.

Pole Mounting:

1. Thread the provided bands through the mounting slots on the back of the AP.
2. Securely fasten the AP to a pole using the bands, ensuring it is tight and stable.



Figure 3: Rear view of the Cambium Networks cnPilot e700, illustrating the mounting mechanism and port locations.

4.2 Power and Network Connection

The cnPilot e700 is powered via Power over Ethernet (PoE). Connect an Ethernet cable from a PoE injector or PoE-enabled switch to the primary Ethernet port on the access point. This cable will provide both power and data connectivity.

- Ensure the PoE source meets the power requirements for the e700.
- The auxiliary PoE Out port can power an external 802.3af device, such as a security camera or a Cambium wireless backhaul unit.

4.3 Initial Configuration

The cnPilot e700 can be configured using the cloud-hosted cnMaestro service or directly via a web browser. For initial setup, it is recommended to connect a computer directly to the AP or ensure it is on the same local network.

1. Connect your computer to the same network as the e700.
2. Access the AP's web interface by entering its default IP address (refer to the Quick Start Guide or Cambium Networks documentation for the default IP).
3. Follow the on-screen prompts to configure network settings, Wi-Fi SSIDs, security protocols (e.g., WPA2), and other operational parameters.
4. For centralized management, integrate the AP with the cnMaestro platform (cloud.cambiumnetworks.com).

5. OPERATING INSTRUCTIONS

Once configured, the cnPilot e700 will broadcast Wi-Fi networks according to your settings. Client devices can connect to these networks using the specified SSIDs and passwords.

- **Client Connectivity:** The AP supports up to 512 concurrent client associations across its 16 SSIDs.
- **Mesh Operation:** If configured for mesh, the AP will automatically establish wireless backhaul connections with other mesh-enabled cnPilot devices, extending network coverage without additional cabling.
- **PoE Out Functionality:** The auxiliary PoE Out port can be used to power compatible devices. Ensure the connected device's power requirements do not exceed the port's capabilities.

6. MAINTENANCE

The cnPilot e700 is designed for minimal maintenance due to its rugged, IP67-rated enclosure. However, periodic checks are recommended.

- **Physical Inspection:** Periodically inspect the enclosure for any physical damage, loose cables, or signs of wear.
- **Cleaning:** If necessary, gently clean the exterior with a soft, damp cloth. Do not use harsh chemicals or abrasive materials.
- **Firmware Updates:** Regularly check for and apply firmware updates through cnMaestro or the device's web interface to ensure optimal performance and security.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges (-40°C to +65°C, 10% to 95% humidity).

7. TROUBLESHOOTING

If you encounter issues with your cnPilot e700, consider the following troubleshooting steps:

- **No Power:** Verify the PoE injector or switch is functioning correctly and the Ethernet cable is securely connected. Check the power source.
- **No Network Connectivity:** Confirm the Ethernet cable is properly connected to the network and the AP's primary port. Check network settings and IP configuration.
- **Poor Wi-Fi Performance:**
 - Check for environmental interference.
 - Ensure optimal placement of the AP.
 - Verify channel selection and transmit power settings.
- **Device Unresponsive:** If the device becomes unresponsive, power cycle it by disconnecting and reconnecting the PoE cable. The dual memory banks provide resilience, allowing the device to fall back to a working operational software version if an update fails.
- **Configuration Issues:** If configuration changes cause issues, consider resetting the device to factory defaults (refer to Cambium Networks documentation for the reset procedure).

8. SPECIFICATIONS

Feature	Detail
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Feature	Detail
Model Name	cnPilot E700 (PL-E700X00A-US)
Brand	Cambium Networks
Wireless Standard	802.11ac Wave 2, 2.4 GHz Radio Frequency, 5 GHz Radio Frequency
Connectivity Technology	Wired, Wireless
Security Protocol	WPA2-Enterprise, WPA2-PSK
Max Concurrent Clients	512
SSIDs	16
Antenna Type	Omni, 8 dBi
Enclosure Rating	IP67 (UV rated)
Operating Temperature	-40°C to +65°C
Operating Humidity	10% to 95% (non-condensing)
Dimensions (L x W x H)	315 x 215 x 66 mm (10 x 8 x 3 inches)
Weight	1700 g (3.174 lbs)
Special Features	WPS, Electrical heater for cold start, Ruggedized, ESD protection, LTE resilience filtering

9. SAFETY INFORMATION

Please observe the following safety precautions during installation and operation:

- **Electrical Safety:** Ensure all power connections are made correctly and securely. Use only approved PoE injectors or switches. Do not operate the device with damaged cables.
- **Mounting Safety:** Mount the device securely to prevent it from falling. Ensure the mounting surface can support the device's weight.
- **Environmental Exposure:** While designed for outdoor use, avoid direct exposure to extreme conditions beyond specified limits.
- **Servicing:** Do not attempt to open or service the device yourself. Refer all servicing to qualified personnel.

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Cambium Networks website or contact your authorized Cambium Networks reseller. Keep your purchase receipt for warranty claims.

Manufacturer: Cambium Networks

Website: www.cambiumnetworks.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question