

Cisco Power Injector CW-INJ-8 Quick Start Guide

First Published: 2024-12-13

Cisco Power Injector CW-INJ-8 Installation Guide

This document describes the Cisco power injector CW-INJ-8 (referred to as the power injector in this document) and provides instructions for mounting it.

Product Overview

The Cisco power injector CW-INJ-8 increases wireless LAN deployment flexibility of supported Cisco Wireless Wi-Fi 7 access points by providing an alternative powering option to local power, inline power-capable multiport switches, and multiport power patch panels.

The single-port PoE injector provides up to 60 Watts and is compliant with IEEE 802.3bt (60 W, Type 3, Class 6) and IEEE 802.3at (30 W) systems. This power injector is for use with Cisco access points requiring 802.3bt power input.



Note The Cisco power injector CW-INJ-8 is not weatherproof and hence is not meant to be used outdoors.

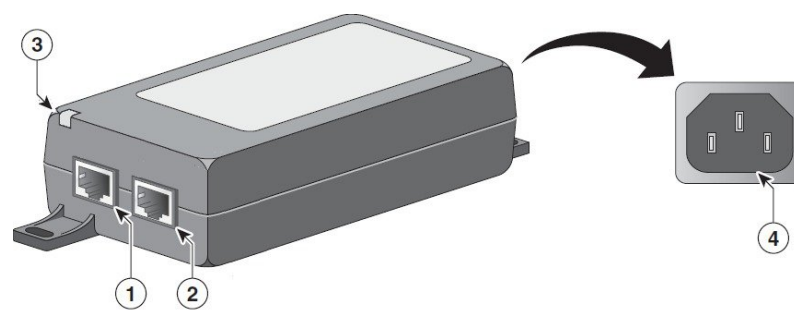
A Category 6 or better Ethernet cable connects the injector to a 10M/100M/1G/2.5G/5G/10G Ethernet switch, hub, or network, and another cable carries power and data to the access point's WAN Ethernet port. The power injector's built-in power supply has a C13 connector that connects to a wall outlet or power strip.



Caution To avoid overheating and possible failure, do not stack or tie together (bundle) the power injector and its AC power cable.

[Figure 1: Cisco Power Injector \(CW-INJ-8\) Features](#) shows the key features of the power injector.

Figure 1: Cisco Power Injector (CW-INJ-8) Features



1	AP Connector Port (Data + Power Out)	3	Status LED ¹
2	Switch Connector Port (Data In)	4	Power input

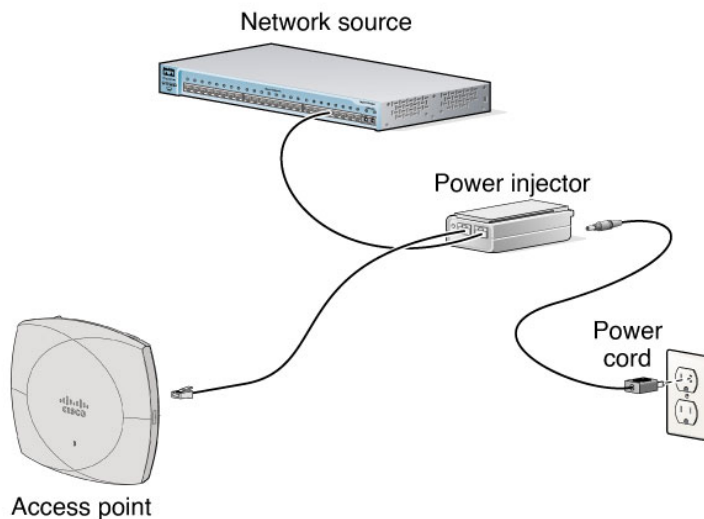
¹ There are two CW-INJ-8 models, each provided by different suppliers. They are functionally identical even though they have minor cosmetic differences. The position (right or left) of the status LED varies with the model type.

Table 1: System Status Events Indicated by the Status LED

System Status Event	LED State	Description
AC Power	Amber or blinks green (varies with supplier model)	Indicates that the power injector is powered ON and ready for connection
AP Power	Solid green	Indicates that a valid IEEE 802.3bt or 802.3at load (AP) is detected and powered ON The LED remains green indicating that the AP is receiving power from the power injector even if the uplink is not connected.

Figure 2: Cisco Power Injector (CW-INJ-8) Installation Scenario shows a typical installation scenario.

Figure 2: Cisco Power Injector (CW-INJ-8) Installation Scenario



Additional Requirements

Use the power cord that is shipped with your power injector to supply power to the injector. If you install the access point in an environmental air space such as above a suspended ceiling, check national and local safety codes to make sure that the Ethernet cable you connect to the unit meets applicable standards.

**Note**

- The CW-INJ-8 should not be installed in the plenum airspace.
- The total length of the ethernet cable from the network source to the power injector and from the power injector to the AP should not exceed 328 ft. (100m).

Disable PoE on the Connected Switchport

Sometimes, when the AP is connected to the CW-INJ-8 that is cabled to a 802.3af PoE-enabled switchport, the AP might not function properly. To resolve this issue, disable PoE on the switchport connected to the CW-INJ-8 injector.

Failure to do so results in the injector not supplying full power to the AP and might cause issues such as disabled radios because the AP intermittently receives only 15.4W of power.

To disable PoE on the connected switchport, execute the **power inline never** command at the CLI prompt of the Cisco switch when it is in the *interface config* mode.

Connecting the Power Injector

Procedure

Step 1 Plug a Category 6 Ethernet cable into the port on the power injector labeled AP.

Step 2 Plug the other end of the Ethernet cable into the WAN uplink Ethernet port of the access point.

Step 3 Plug a Category 6 Ethernet cable into the port on the power injector labeled Switch.

Note

Ensure that PoE is disabled on this switchport before it is connected to the CW-INJ-8. For more information, see [Disable PoE on the Connected Switchport, on page 3](#).

Step 4 Plug the other end of the Ethernet cable into your 10M/100M/1G/2.5G/5G/10G Ethernet switch, hub, or network.

Step 5 When power is applied, the Status LED is amber. When the AP is detected, the Status LED glows solid green.

Step 6 Secure the power injector by mounting it to a vertical or horizontal surface using the mounting keyholes on the bottom of the unit.

Mounting Instructions

You can mount the power injector to most vertical or horizontal surfaces using the mounting tabs on the top right and bottom left of the unit.

Using the Mounting Tabs

You can mount the power injector to most vertical or horizontal surfaces using the mounting tabs on the top right and bottom left of the unit.

Before you begin

To mount the power injector to a vertical or horizontal surface using the mounting tabs, you will need these parts and tools:

- Two #6 plastic wall anchors if mounting to a drywall surface
- Two #6 x 1-in. (2.5 cm) sheet-metal screws
- A drill and a 3/16-in (0.48-cm) drill bit
- A Phillips head screw driver
- A small hammer

Procedure

-
- Step 1** Using the holes in the power injector mounting tabs as a template, mark the locations on the surface where you will drill the holes for the wall anchors or screws.
- Step 2** Drill a $\frac{3}{16}$ inch (4.7 mm) hole at each marked location.
- Step 3** If you are using #6 wall anchors, use a hammer to install them in the holes.
- Step 4** Hold the power injector to the wall and align the mounting tabs on the power injector with the screw holes.
- Step 5** Insert the #6 screws through the mounting tabs and into the holes in the wall or surface.
- Step 6** Use a Phillips head screwdriver to drive the screws into the surface.

Note

If the power injector is not securely fastened, continue making small adjustments until you are satisfied.

Specifications

This table lists specifications for the power injectors:



Note CW-INJ8 is provided by two suppliers and have minor cosmetic differences even though they are functionally identical.

Table 2: CW-INJ8 Specifications

Item	Description
Dimensions (W, H, L)	67 mm x 38 mm x 140 mm (2.64 in x 1.5 in x 5.5 in) (excluding the mounting tabs)
Data Rates	10/100/1000/2500/5000/10000 Mbps

Item	Description
PoE Output	Pin Assignment and Polarity: IEEE 802.3bt compliant Output Power Voltage: 56V DC
User Port Power	60 Watts
Input Power Requirements	<ul style="list-style-type: none"> • AC Input Voltage: 100 to 240V AC • AC Input Current: 1.5 A @ 90 to 264 V AC • AC Frequency: 50 to 60 Hz
Weight	<ul style="list-style-type: none"> • Model 1: 0.6 lbs (270 g) • Model 2: 0.62 lbs (282 g)
Connectors	Shielded RJ-45, EIA 568A and 568B
Environmental Conditions	<p>Operating Ambient Temperature: -4°F to 104°F (-20°C to 40°C) at 30 W -4°F to 122°F (-20°C to 50°C) at 25 W</p> <p>Operating Humidity: Maximum 90%, Non-condensing</p> <p>Storage Temperature: -13°F to 149°F (-25°C to 65°C)</p>
Reliability	MTBF: 100,000 hrs @ 25°C
Thermal Rating	20 BTU/Hr @ 240 V AC
Regulatory Compliance	IEEE 802.3 at (PoE), China RoHS Compliant, WEEE Compliant, CE Compliant
Electromagnetic Emission and Immunity	FCC Part 15, Class B EN 55022 Class B (Emissions) EN 55024 (Immunity) VCCI
Safety	UL 60950-1 IEC/EN 60950-1
Stacking restrictions	Do not stack. Do not bundle the power injector and AC power cable.

Regulatory Information

The following information is for FCC compliance of Class B devices:

The equipment described in this manual generates and may radiate radio-frequency energy. If it is not installed in accordance with Cisco's installation instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in part 15 of the FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

Modifying the equipment without Cisco's written authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the Cisco equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the equipment to one side or the other of the television or radio.
- Move the equipment farther away from the television or radio.
- Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

Modifications to this product not authorized by Cisco Systems, Inc. could void the FCC approval and negate your authority to operate the product.

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies of this document are considered uncontrolled. See the current online version for the latest version.

Cisco has more than 200 offices worldwide. Addresses and phone numbers are listed on the Cisco website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <https://www.cisco.com/c/en/us/about/legal/trademarks.html>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1721R)

© 2024 Cisco Systems, Inc. All rights reserved.