



Cisco Aironet Lightning Arrestor (AIR-ACC245LA-N) Mounting Instructions

This document describes the lightning arrester kit and provides instructions for mounting the arrester.

Introduction

Overvoltage transients can be created through lightning static discharges, switch processes, direct contact with power lines, or through earth currents. The Cisco Aironet AIR-ACC245LA-N Lightning Arrestor limits the amplitude and duration of disturbing interference voltages and improves the overvoltage resistance of in-line equipment, systems, and components. A lightning arrester installed according to these mounting instructions balances the voltage potential, thus preventing inductive interference to parallel signal lines within the protected system.

The Cisco Aironet AIR-ACC245LA-N Lightning Arrestor is designed for use with Cisco Aironet access points and bridges but can be used with any Cisco Aironet radio device that utilizes an N connector.

Warnings



Warning

Disconnect or switch off in-line equipment when installing or inspecting lightning arrestors during an electrical storm.



Warning

When connecting lightning arrestors, make sure that the succeeding equipment and components are disconnected or turned off.



Warning

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.



**Warning**

Do not work on the system or connect or disconnect cables during periods of lightning activity.

Installation Considerations

The importance of obtaining a good ground and bonding connection cannot be overstressed. Consider these points when grounding the lightning arrester:

- Connect the lightning arrester components directly to the grounding point.
- The contact points of the ground connection must be clean and free of dust and moisture.
- Tighten threaded contacts to the torque specified by the manufacturer.

Installation Notes

This lightning arrester is designed to be installed between the antenna cable that is attached to an outdoor antenna and the Cisco Aironet wireless device. You can install the lightning arrester either indoors or outdoors. It can be connected directly to a wireless device having an external N connector. It can also be mounted inline or as a feed-through. Feed-through installations require 5/8 in. (16 mm) hole to accommodate the lightning arrester. See [Figure 1](#).

**Note**

This lightning arrester is part of a lightning arrester kit. The kit contains a lightning arrester, a grounding lug, and this instruction sheet.

**Note**

When you install the lightning arrester, follow the regulations or best practices applicable to lightning protection installation in your local area.

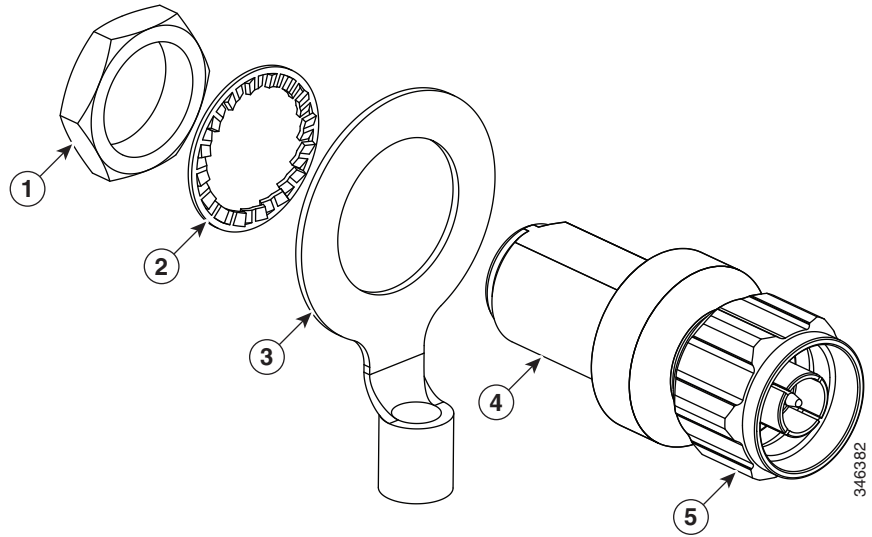
Installing the Lightning Arrester Outdoors

If you install the lightning arrester outdoors, use the supplied ground lug and a heavy wire (#6 solid copper) to connect it to a good earth ground, such as a ground rod. The connection should be as short as possible.

Installing the Lightning Arrester Indoors

If you install the lightning arrester indoors, place the wireless LAN device near a good source of ground, such as structural steel or the ground on an electrical panel. Ground the lightning arrester by using a heavy wire (#6 solid copper) and connect the ground wire to a good ground on the structural steel or electrical panel. The connection should be as short as possible.

Figure 1 **Lightning Arrestor Details**



1	Nut	4	Unprotected side (to antenna)
2	Lockwasher	5	Protected side (to wireless device)
3	Ground lug		

Suggested Cable

Coaxial cable loses efficiency as the frequency increases, resulting in signal loss. The cable should be kept as short as possible because cable length also determines the amount of signal loss (the longer the run, the greater the loss).

Cisco recommends a high-quality, low-loss cable for use with the lightning arrestor.

Technical Specifications

Main path connectors	Unprotected side: N (female) Protected side: N (male)
Impedance	50 ohms
Frequency range	0–6000 MHz
Return loss	≥ 15 dB
Insertion loss	≤0.3 dB
RF CW power	≤50 W
Surge current handling capability	10 single / 5 multiple kA (test pulse 8/20 μs)
Residual pulse energy	250 μJ nominal (test pulse 4 kV 1.2/50 μs; 2kA 8/20 μs)
Weight	3.6 oz. (0.1 kg) (for the assembly shown in Figure 1)
Operating temperature range	–40°F to 185°F (–40°C to 85°C)

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