



# Installation, Maintenance, and Upgrade

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## Power the Unit via the AC Power Supply

### Safety Warnings

Take note of the following warning:



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**Warning**

Ensure the unit's power source(s) have been turned OFF before servicing.

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**Note**

This unit is designed for Common Bonding Network (CBN) installations only.

This unit is suitable for installation in network telecommunication facilities and where the National Electrical Code (NEC) applies.

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To power the unit:

### Before you begin

- Make sure that the chassis ground is connected on the chassis before you begin installing the AC power supply. See [Ground the Chassis](#) for the procedure.



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**Note**

Powering Options are ordered separately.

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**Step 1** Connect the AC plug(s) to the AC appliance coupler.

**Step 2** Plug the power cord into a suitable power outlet.

**Step 3** Secure the power cord through the retainer clip.

**Warning** The AC plug must be connected to a properly grounded AC outlet.

## Power the Unit via the DC Power Supply

### Safety Warnings

Take note of the following warnings:



**Warning** Ensure the unit's power source(s) have been turned OFF before servicing.

An approved external power supply switch or circuit breaker must be installed in the supply lines and be readily accessible to act as a disconnect device. The switch or circuit breaker must disconnect all poles simultaneously and be rated 20 A max.

Connect the protective earthing terminal(s) on the power supply(ies) to the same protective earthing point as used to ground the unit.

DC PSU must be connected to ES2 power source only (maximum voltage of 72 V DC).

The DC Battery Return (BR) input terminal(s) of the unit are not connected to the equipment frame or grounding means of the equipment and must be configured as isolated DC Return (DC-I) in compliance with GR-1089-CORE requirements.



**Note** This unit is designed for Common Bonding Network (CBN) installations only.

This unit is suitable for installation in network telecommunication facilities and where the National Electrical Code (NEC) applies.

To power the unit:

### Before you begin

- Make sure that the chassis ground is connected on the chassis before you begin installing the DC power supply. See [Ground the Chassis](#) for the procedure.

**Step 1** Establish the proper connections between the wires and the power sources.

**Step 2** Connect wires to the terminal block connector of the power supply.

**Note** Applicable wire range: 0.75 to 2.5 mm<sup>2</sup> (18 to 14 AWG).

# Connect to the Network

Establish the Ethernet connections to the unit by plugging the appropriate media types to the proper ports of the unit (see the numbered diagram of the front panel).



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**Note** For more information, refer to the Cisco Provider Connectivity Assurance Sensor F100 User Material.

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# Remove and Replace the Fan

This Method of Procedure describes how to replace a fan in the event of a fan failure.

If a fan failure is reported, it is recommended to plan for its replacement within seven (7) days. Moreover, as a preventative measure, it is recommended to replace **all** fans in the event of a failure.

The alarm must be ignored while the fan is being replaced. It is therefore recommended this procedure be performed during a proper maintenance window.



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**Caution** Removing both dual fan modules exposes the chassis to no airflow. The chassis operates for 30 seconds after either one or both modules are removed. All modules must be reinserted within 30 seconds to avoid overheating the chassis. If you wait longer than 30 seconds, the chassis may power off automatically to prevent damage to components. The chassis does not power up and boot properly if the dual fan modules are missing.

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**Caution** The fans must be replaced one at a time.

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**Note** The replacement of the fans should be carefully planned, as the procedure must be completed within 15 minutes to reduce the thermal impact on the unit.

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## Safety Warnings

The following are safety guidelines that you must follow for personal safety and to operate the units correctly. All personnel working directly on the units must be trained, authorized and qualified to perform the tasks described herein. You must read and follow these guidelines before you begin.

- Power to the unit remains on throughout this process.
- To avoid personal injury, equipment damage and/or service interruptions, keep your fingers away from the fan's moving parts.
- This equipment is sensitive to electrostatic discharge (ESD). When handling, ensure you wear a properly functioning heel grounder and/or an anti-static wrist strap or another personal-grounding device.
- Incorrect handling may void warranty.

Take note of the following warnings:



**Warning Statement 1073**—No User-Serviceable Parts

There are no serviceable parts inside. To avoid risk of electric shock, do not open.



**Warning Statement 1093**—Avoid Sharp Edges

Risk of personal injury. Avoid sharp edges when installing or removing replaceable units.

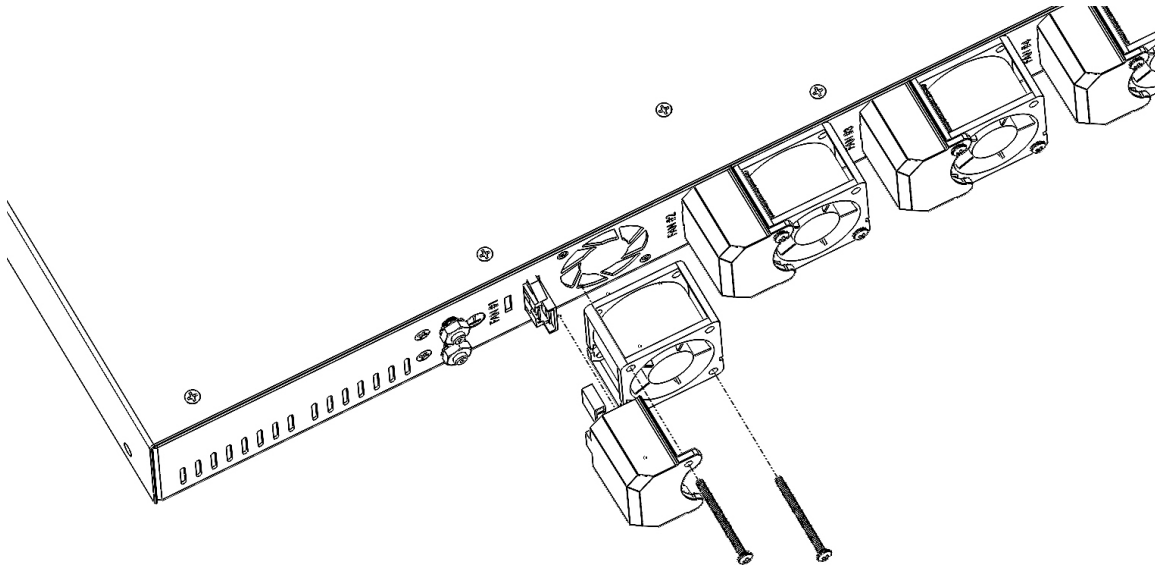


## Replace the Fan

To replace the fan:

- Step 1** Identify which fan on the unit has malfunctioned.
- Step 2** Remove the screw that holds the fan cable cover in place, then remove the fan cable cover.
- Step 3** Depress the connector latch and disconnect the fan cable.
- Step 4** Remove the second screw that is holding the fan to the unit's chassis and remove the fan.

*Figure 1: Remove the Fan*



- Step 5** Put the new fan in place by keeping the same orientation as the original one.
  - Step 6** Secure the new fan to the chassis by replacing the second screw.
  - Step 7** Reconnect the fan cable. Ensure that connectors are properly latched together.
  - Step 8** Reinstall the fan cable cover and secure it in place by using the first screw.
  - Step 9** Ensure that the fan assembly is fully functional.
  - Step 10** (Optional) To replace the other fans as a preventative measure, continue with [Optional Preventative Maintenance Fan Replacement](#) , on page 5.
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## Optional Preventative Maintenance Fan Replacement

To perform an optional fan preventive maintenance:

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- Step 1** Remove the screw that holds the fan cable cover in place, then remove the fan cable cover.
  - Step 2** Depress the connector latch and disconnect the fan cable.
  - Step 3** Remove the second screw that is holding the fan to the unit's chassis and remove the fan.
  - Step 4** Put the new fan in place by keeping the same orientation as the original one.
  - Step 5** Secure the new fan to the chassis by replacing the second screw.
  - Step 6** Reconnect the fan cable. Ensure that connectors are properly latched together.
  - Step 7** Reinstall the fan cable cover and secure it in place by using the first screw.
  - Step 8** Ensure that the fan assembly is fully functional.
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