



Installing Power Boards in Cisco Ethernet Switch Network Modules

Product Numbers: PPWR-DCARD-16ESW, PPWR-DCARD-36ESW

This document describes how to install the optional power board for the Cisco Ethernet switch network module if external -48V power for IP telephones is required.

Network module installation documents provide detailed instructions for network module installation and cabling. You can access these documents at: **Cisco Product Documentation > Access Servers and Access Routers > Modular Access Routers > Cisco platform you are using > Hardware installation documents for Cisco platform you are using > Network module (netmod) installation**

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Safety Information

For safety information you need to know before working on your Cisco router, see the *Regulatory Compliance and Safety Information* document that accompanied this device.



Only trained and qualified personnel should be allowed to install or replace this equipment. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.



Electrostatic discharge (ESD) can damage equipment and impair electrical circuitry. Always follow ESD prevention procedures when removing and replacing cards.



**Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA**

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Tools and Equipment Needed

You need the following tools and equipment to remove and install Compact Flash memory cards:

- ESD-preventive wrist strap
- Antistatic bag or mat
- Number 2 Phillips screwdriver or flat-blade screwdriver

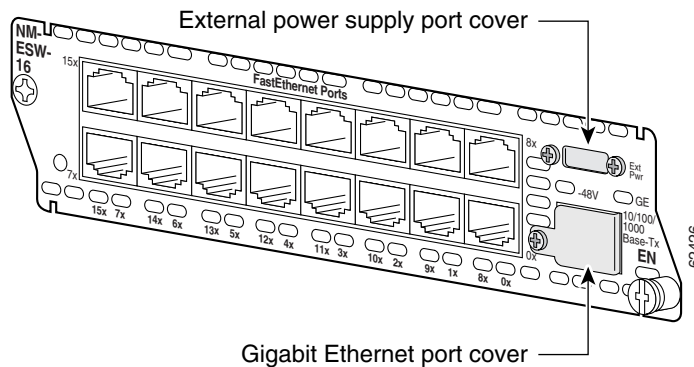
Adding an Optional Power Board

An optional power board can be used if the Ethernet switch network module requires external -48V power for IP telephones. Installation and configuration of the external power supply system is described in the *Cisco External Power Supply for Cisco Ethernet Switch Network Modules Installation Guide*. Use the *Cisco Network Modules Hardware Installation Guide* and platform hardware installation guide for more information.

Follow this procedure to install power boards:

- Step 1** Use a Philips screwdriver to remove the cover on the external power board port, as shown in [Figure 1](#).

Figure 1 Power Board Port Cover on the Ethernet Switch Network Module



- Step 2** Remove the thumbscrews on either side of the power board port. Put these in a safe place as they will be replaced once the power board is installed.
- Step 3** Guide the external connector through the power board port opening on the card faceplate.
- Step 4** Insert the connector on the power board into the connector on the network module. See [Figure 2](#) for 16-port Ethernet switch network modules and [Figure 3](#) for 36-port Ethernet switch network modules.



Note Be sure to press firmly on the power board until the board seats onto the connector.

- Step 5** Insert the screws from the board installation kit through the power board into the standoffs on the network module.
- Step 6** Replace the thumbscrews on either side of the power board port. Make sure the thumbscrews are tightened firmly.

Warning

Do not connect the external power supply cable to the power connector on the front of the network module until the network module has been inserted into the router chassis. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.

Step 7 After installing the network module into the chassis, connect the power cable to the power module connector on the front of the network module. See the *Cisco External Power Supply for Cisco Ethernet Switch Network Modules Installation Guide* for more information.

Figure 2 Installing a Power Board in a 16-Port Ethernet Switch Network Module

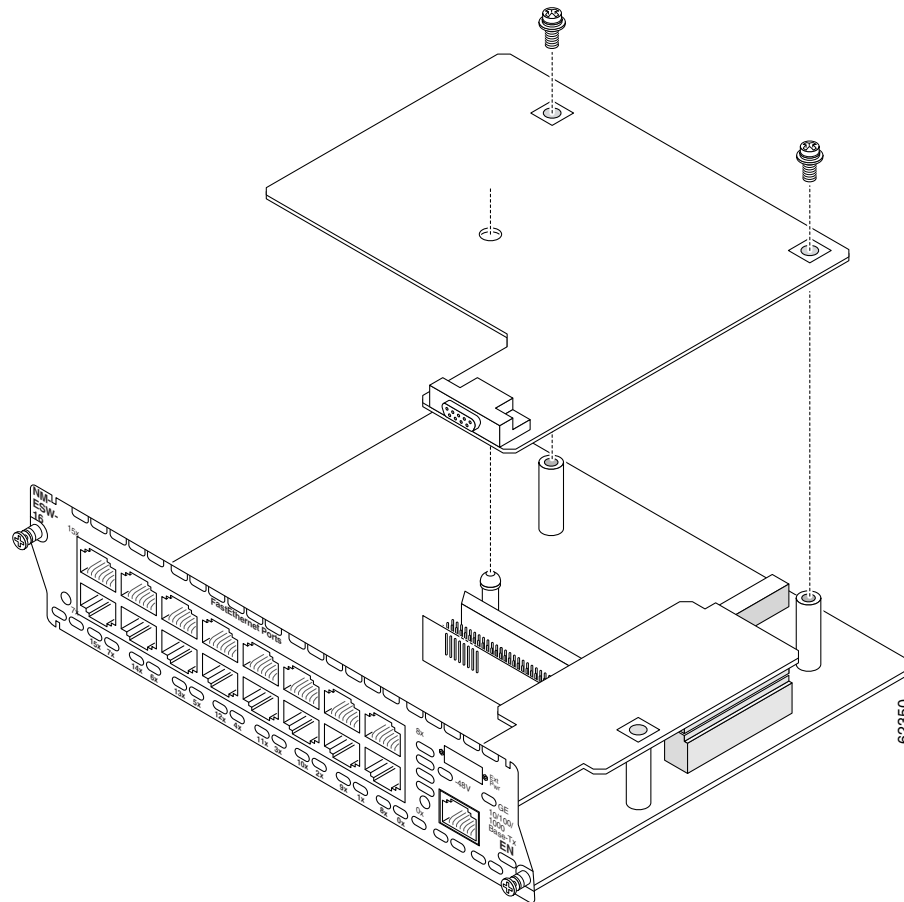
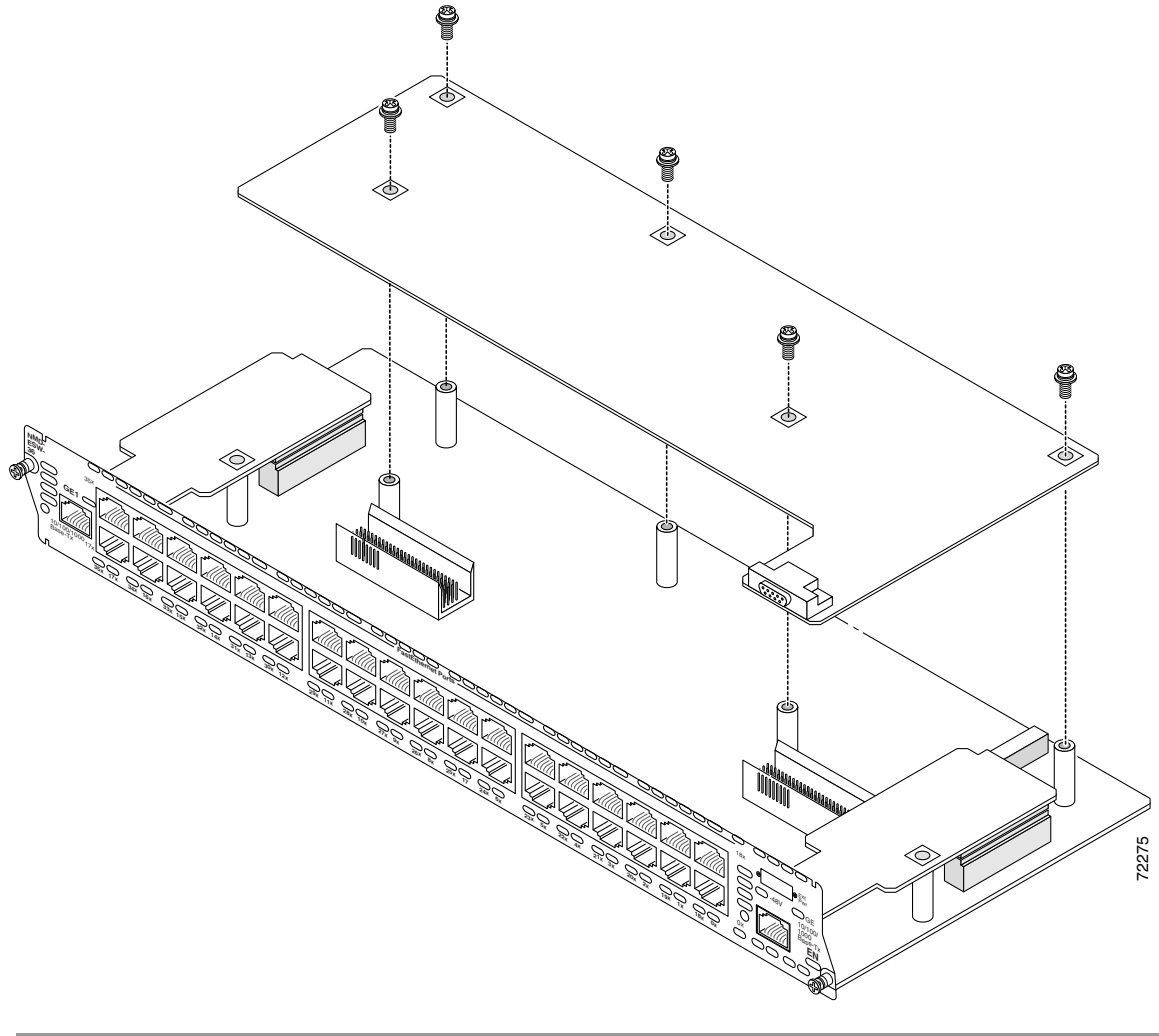


Figure 3 *Installing a Power Board in a 36-Port Ethernet Switch Network Module*



Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or as an annual subscription.

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Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco Product documentation from the Networking Products MarketPlace:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

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To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

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Cisco.com

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<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

<http://www.cisco.com/tac>

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

<http://www.cisco.com/register/>

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

<http://www.cisco.com/tac/caseopen>

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.

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