

Dell™ Systems

# Cabling Instructions for the -48 VDC



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# Notes, Notices, and Cautions



**NOTE:** A NOTE indicates important information that helps you make better use of your computer.



**NOTICE:** A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



**CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.**

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**April 2002**

**P/N 9R972      Rev. A00**


This document describes the requirements and instructions for connecting the safety ground wire for systems equipped with a –48 VDC power supply.

 **CAUTION:** A qualified electrician must perform all connections to DC power and safety grounds. The system must be safety grounded at the cabinet frame. All electrical wiring must comply with applicable local or national codes and practices.

 **CAUTION:** The *System Information* document provides important safety and regulatory information. Read and follow all safety instructions prior to setup, operation, and service of your system.

 **CAUTION:** The system chassis must be positively grounded to the rack cabinet frame. Do not attempt to connect power to the system until grounding cables are connected.

 **CAUTION:** An energy hazard will exist if the safety ground cable is omitted or disconnected.


 **CAUTION:** Before connecting safety ground or power cables to the connector, ensure that the power is removed from the DC circuit. To ensure that the power is off, locate the circuit breaker on the DC source circuit. Switch the circuit breaker to the off position and, if available, install an approved safety locking device to the circuit breaker or switch to prevent against another person from energizing the circuit.


## Precaution Statements

This system is intended for restricted access locations (dedicated equipment rooms, equipment closet, or the like) in accordance with Articles 110-5, 110-6, 110-11, 110-14, and 110-17 of the National Electrical Code, American National Standards Institute (ANSI)/National Fire Protection Association (NFPA) 70.

Protect the system with a 7.2-ampere (A) minimum to 20-A maximum protective device or a 25-A maximum protective device when used with 90°C wire.

Connect the system to a –48 VDC supply source that is electrically isolated from the AC source. Ensure that the –48 VDC source is efficiently secured to earth (ground).

 **CAUTION:** When installing the unit, the ground connection must always be made first and disconnected last to prevent an energy hazard.


 **CAUTION:** Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain whether suitable grounding is available.

## Input Requirements

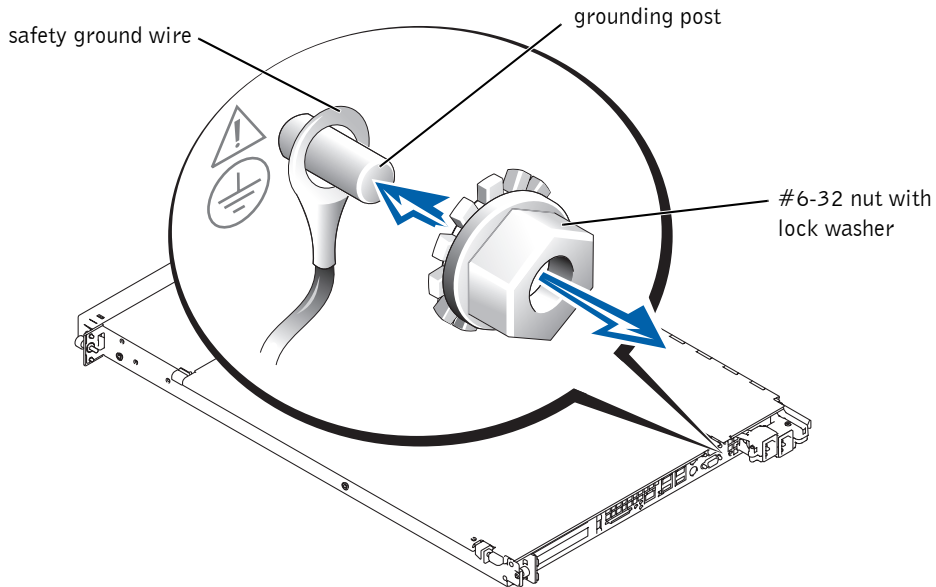
- Supply voltage:  $-(38-60)$  VDC
- Current consumption: 7.5 A

## Connecting the $-48$ VDC Power Cable and Safety Ground

- 1 Remove the #6-32 nut equipped with a lock washer from the grounding post on the back of the system.
- 2 Connect the safety ground (green/yellow wire) to the grounding post on the back of the system using the #6-32 nut equipped with a lock washer that you removed in step 1 (see Figure 1-1).

 **NOTE:** If your system is equipped with redundant  $-48$  VDC power supplies, you must connect both safety ground wires to the grounding post on the back of the system.

**Figure 1-1. Safety Ground**

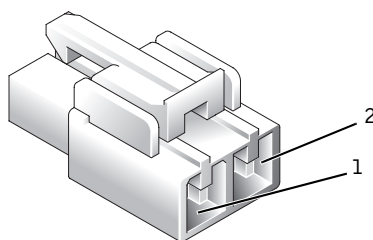


- 3 Plug the DC power cable into the system.

Figure 1-2 and Table 1-1 indicate the DC input power cable connector's pin orientation and descriptions.

See your *Rack Installation Guide* for information on routing cables.

**Figure 1-2. DC Input Power Cable Connector's Pin Orientation**



**Table 1-1. Connector Housing Pin Assignments**

Pin	Description	Wire Color and Size
1	-48 VDC	Black 14 AWG
2	-48 VDC return	Red 14 AWG