



Sun™ Rack 900-36N Installation Guide

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Sun Rack 900-36N Installation Guide

The *Sun Rack 900-36N Installation Guide* describes how to install the Sun Rack 900-36N and the power options. This document is written for technicians, system administrators, authorized service providers (ASPs), and users who have advanced experience troubleshooting and replacing hardware.

Permanent Floor Mounting

The Sun Rack Sun Rack 900-36N can rest on the casters or the rack can be permanently mounted to the floor using the same brackets that secures the rack to the shipping pallet. [FIGURE 1](#) shows a mounting bracket and the hole spacing required to secure the Sun Rack permanently to the floor.

The mounting bolts are not provided because different floors require different bolt types and strengths. The bolt holes in the brackets are 12.0 mm.

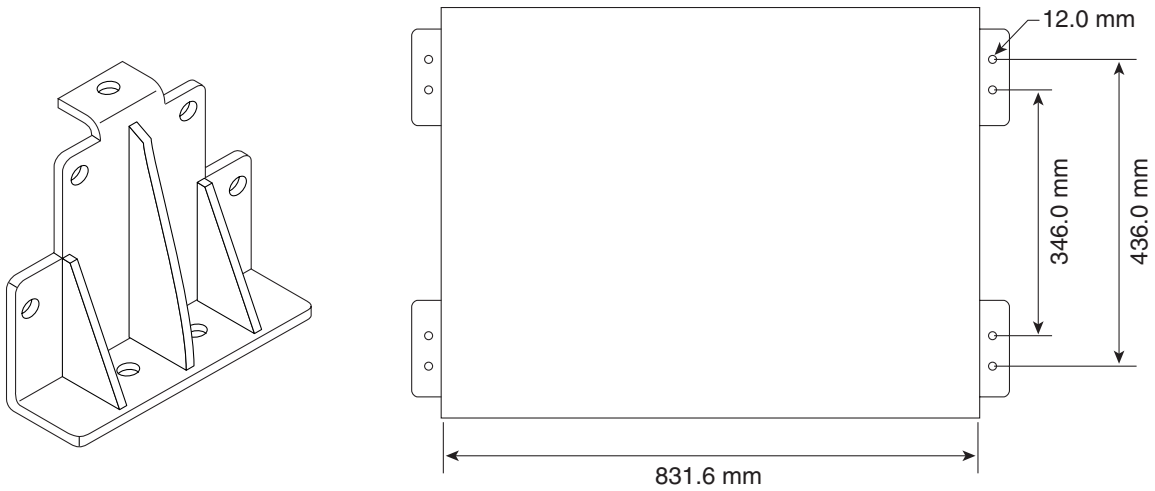


FIGURE 1 Floor Mounting Bracket for Sun Rack 900-36N

Deploying the Antitilt Bar

1. Pull the end of the antitilt bar out to its fully extended position ([FIGURE 2](#)).
2. Rotate the foot 90 degrees and adjust the height of the foot so that it rests on the floor.

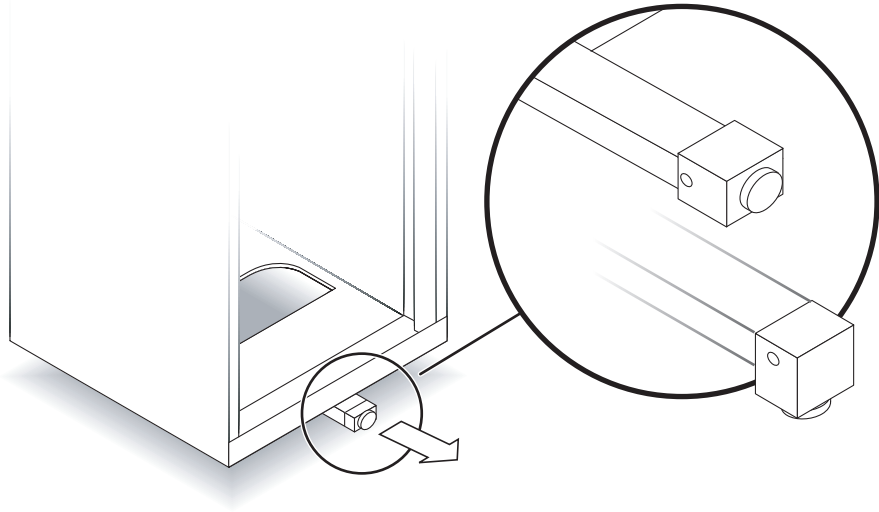


FIGURE 2 Deploying the Antitilt Bar

Power Distribution Systems

Your rack might have a power distribution system installed. There are two types of power distribution:

- Power sequencers mounted in the side of the rack
- Modular power supplies (MPS) mounted in the bottom of the rack. (Each modular power supply has two power distribution modules.)

For more information about both power systems, refer to the *Sun Rack Service Manual*, 819-6387, at this URL: <http://www.sun.com/documentation>

Select: Servers→Peripherals→Sun Rack.

Power Sequencers

The power distribution system consists of four inputs (two sets of two: AC_Grid_0 and AC_Grid_1), two power sequencers (A and B), two power strips, and connecting cables (FIGURE 3).

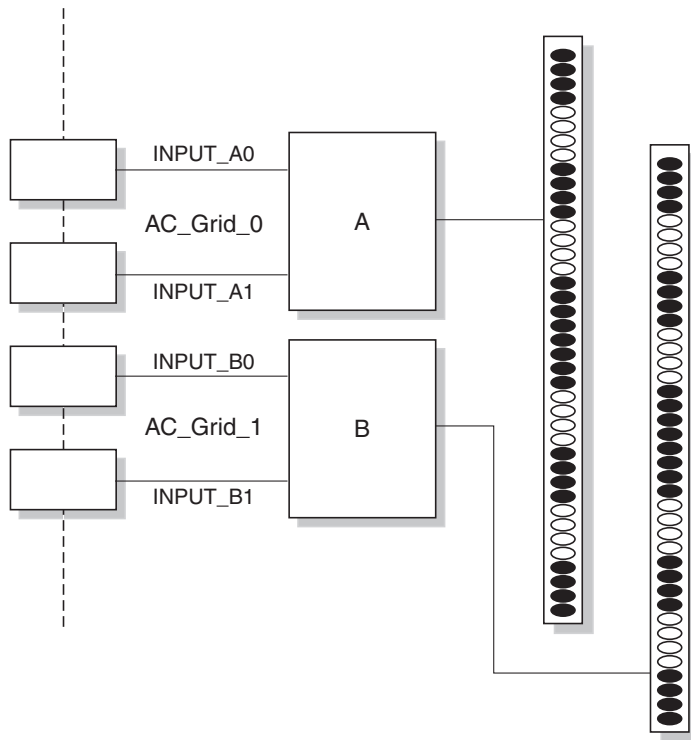


FIGURE 3 Power Distribution System

Each power input to the rack should be connected to a dedicated 20 Amp (North America) or 16 AMP (International) branch circuit. Individual outlets are grouped into sets of four. Each individual outlet has a maximum current rating of 10 Amps. Each outlet group also has a maximum current rating of 10 Amps. So, the total current for a group of four outlets cannot exceed 10 Amps.



Caution – For redundantly powered systems, each sequencer must be connected to a redundant AC power source.

FIGURE 4 shows the configuration of outlets and outlet groups for a single power strip. The outlet groups are labeled 0 through 9.

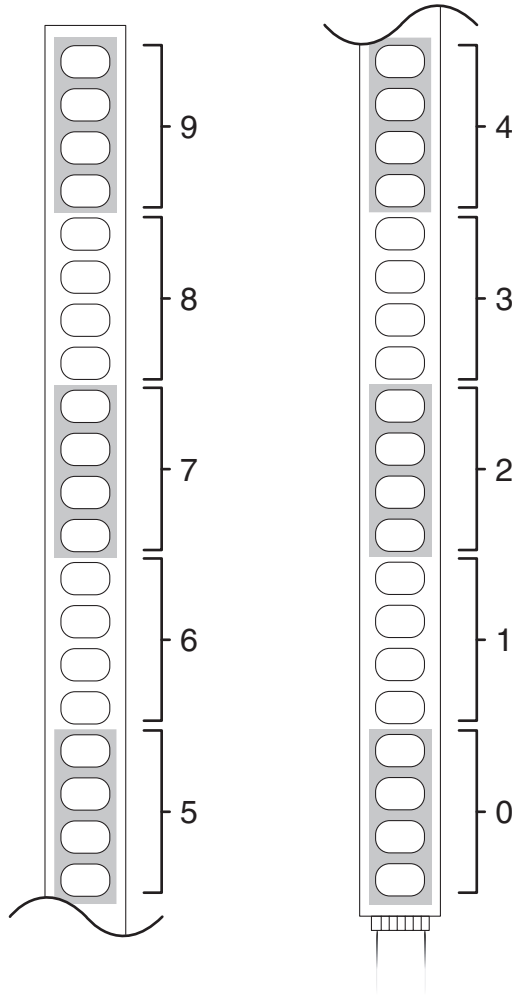


FIGURE 4 One Power Strip With Nine Outlet Groups

A 48-outlet configuration consists of two power strips with 24 outlets each. A 78-outlet configuration consists of two power strips with 39 outlets each. Only the outlet groups shaded in the illustration are included in the 48-outlet configuration. All of the outlet groups are included in the 78-outlet configuration. There is no J40 on a 39-outlet power strip.

Power sequencer INPUT_A0 provides power to outlet groups 0, 2, 4, 6, and 8. Power sequencer INPUT_A1 provides power to outlet groups 1, 3, 5, 7, and 9.

When power is applied to a power sequencer, the power is checked to ensure that it is in the proper voltage range (qualified). When the power is qualified, it is then switched to the outlet groups, one at a time at 1.5 second intervals. For example, once INPUT_A0 is qualified by the sequencer, it is applied to outlet group 0 first, then 1.5 seconds later it is applied to outlet group 2, then after another 1.5 seconds it is applied to outlet group 4, then outlet group 6, then outlet group 8. Similarly, once INPUT_A1 is qualified, power is applied to outlet groups 1, 3, 5, and 7 respectively.

Note – Outlet group 9 in each power strip is unswitched and unqualified. As soon as INPUT_A1 is applied to the power sequencers, it is applied to outlet group 9.

Physical Orientation

Power sequencer A is the top power sequencer in the rack and is connected to power strip A, the inboard strip. Power sequencer B is the lower one and is connected to power strip B, the outboard strip.

Modular Power Supplies

The modular power supplies installed in a Sun Rack 900-36N can support 68 outlets. Each modular power supply has two power distribution modules (PDM).

- Maximum current per outlet: 12A in North America, 10A in Europe
- Maximum current per power strip: 16A
- Maximum current per PDM output: 16A

TABLE 1 lists the electrical ratings for the modular power supplies.

TABLE 1 Electrical Ratings of Modular Power Supplies

Description	Max 0 and 3	Max 1 and 4	Max 2 and 5	Max/Phase	Input Power
MPS 32 Amp, 3-phase	32A	32A	32A	32A	230/400V, 32A, 3-phase
MPS 60 Amp, 3-phase	26A	26A	26A	45A	208V, 60A, 6-phase

Powering On a Rack With Power Sequencers

1. Turn off the power to the branch circuits.
2. Turn off both power sequencers.
3. Connect one end of each of the provided power cables to a branch circuit.
Inputs A0 and A1 should be on the same branch circuit. B0 and B1 should be on the same branch circuit. For redundantly powered systems, do not connect any combination of A and B to the same branch circuit.
4. Connect the other end of each power cable to the power input panel.
5. Turn on power to the rack by switching on the branch circuits.
6. Turn on the power sequencers.
The Power On indicator lights on both power sequencers should illuminate.
The Power On indicator lights on both power strips should illuminate.

Powering On a Rack With Modular Power Supplies

1. Turn off the power to the branch circuits.
2. Turn off the modular power supplies.
3. Connect one end of each of the provided power cables to a branch circuit.
4. Turn on power to the rack by switching on the branch circuits.
5. Turn on the modular power supplies.

Installing Servers and Other Equipment in the Sun Rack

For information about installing your servers or other equipment, refer to the rail or bracket documentation that came with the equipment.

For safety, equipment should always be loaded from the bottom up. That is, install equipment in the lowest part of the rack first, then install a system above that, and so on.



Caution – To prevent the rack from tipping during equipment installation, the antitilt bar must be deployed.

Accessing Sun Documentation

For more information about Sun Racks, see the documentation at this URL:
<http://www.sun.com/documentation>

Select: Servers→Peripherals→Sun Rack.