## Ultra<sup>™</sup> Enterprise<sup>™</sup> Caster Base Installation Guide



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### **Sun Microsystems Computer Company**

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## Preface

This guide provides configuration and installation instructions for one, two, or three chassis (the Ultra<sup>TM</sup> Enterprise<sup>TM</sup> 4000 and the SPARCstorage<sup>TM</sup> Array or the SPARCstorage Library) on the caster base unit.

These instructions include safety precautions that should be followed.

## Safety Precautions

For your protection, observe the following safety precautions when setting up your equipment:

- Follow all warnings and instructions marked on the equipment.
- Ensure that the voltage and frequency rating of the power outlet(s) you will use match the electrical rating label on the equipment.
- Use only properly grounded power outlets.
- Never push objects of any kind through openings in the equipment as they
  may touch dangerous voltage points or short out components that could
  result in a risk of fire or electric shock.
- Refer servicing of equipment to qualified personnel.

### **Symbols**

The following symbols mean:



WARNING

Hazardous voltages are present. To reduce the risk of electrical shock and danger to personal health, follow the instructions.



**WARNING** 

Risk of personal injury. To reduce the risk, follow the instructions.



**CAUTION** 

Risk of equipment damage. To reduce the risk, follow the instructions.



**SURFACE** 

CAUTION: Hot surfaces. Avoid contact. Surfaces are hot and may cause personal injury if touched.



AC

A terminal to which alternating current or voltage may be applied.

### Notes, Cautions, and Warnings



**Caution** – Improper handling by unqualified personnel can cause serious damage to this equipment. Unqualified personnel who tamper with this equipment may be held liable for any resultant damage to the equipment.

Individuals who remove any outer panels or open covers to access this equipment must observe all safety precautions and ensure compliance with skill level requirements, certification, and all applicable local and national laws.

Procedures contained in this document must be performed by qualified service-trained maintenance providers.

**Note** – Before you begin, carefully read the entire installation procedure. If you have not performed similar operations on comparable equipment, *do not attempt* to perform this procedure.

### Related Documents

The following documents contain topics that relate to the information in the *Ultra Enterprise Caster Base Installation Guide*.

Application	Title	Part Number
Ultra Enterprise Server	Ultra Enterprise Server 6000/5000/4000 Binder Set	825-3222
Installation	Ultra Enterprise 6000/5000/4000 Systems Installation Guide	802-3844
Service	Ultra Enterprise 6000/5000/4000 Systems Manual	802-3845
SPARCstorage Array 100 Series	SPARCstorage Array 100 Installation and Service Set	825-2513
	SPARCstorage Array Model 100 Series Installation Manual	801-2205
	SPARCstorage Array Model 100 Series Service Manual	801-2206
	SPARCstorage Array Regulatory Compliance Manual	801-7103
SPARCstorage Library	SPARCstorage Library Installation and User's Guide	802-2145
	SPARCstorage Library Service Manual	802-2143
Software	SMCC SPARC Hardware Platform Guide	802-5341
	Solstice SyMON User's Guide	802-5355
Options	Ultra Enterprise Board Installation Guide	802-5030
	Ultra Enterprise CPU Installation Guide	802-5031
	Ultra Enterprise SIMM Installation Guide	802-5032
	Ultra Enterprise Peripheral Power Supply Installation Guide	802-5033
	Ultra Enterprise PCM Installation Guide	802-6244

Preface

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Belgium	02-720-09-09	02-725-88-50
Luxembourg	32-2-720-09-09	32-2-725-88-50
Germany	01-30-81-61-91	01-30-81-61-92
The Netherlands	06-022-34-45	06-022-34-46
Sweden	020-79-57-26	020-79-57-27
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## Caster Base Installation



This guide describes how to install and configure a stack of one, two, or three chassis (Ultra Enterprise 4000 system and expansion enclosures) on the caster base. You should read these instructions completely before assembling the stack. The installation consists of:

- Deciding on a configuration (determine chassis stacking and cabling order)
- Assembling the host system and expansion chassis into a stack

**Note** - The following restrictions apply to all configurations:

- Do not stack more than three chassis.
- Only one Enterprise 4000 system is supported per stack.
- The Enterprise 4000 system must be at the bottom of the stack.
- If present, the SPARCstorage Library must be at the top of the stack.

The caster base contains the following:

- 1 caster base, 540-2956
- 1 locking module, 540-2958
- 4 M6 x 14 mm screws, 240-2083
- 1 right shroud, 340-3578
- 1 left shroud, 340-3579
- 4 M4 x 6 mm screws. 240-1559

These part numbers are for inventory of items received.

**Note** - Order one additional locking module for each expansion enclosure.

### Tools Required

- #2 Phillips screwdriver
- Flatblade screwdriver

### Unpacking the Caster Base



**Warning** – This installation requires two people to lift a chassis and move the caster base. Use care to avoid injury. A chassis may weigh up to 150 pounds. A completed stack of three chassis may weigh up to 400 pounds.

After you have unpacked the caster base, place the equipment in the location where the stack will be installed. Then proceed as directed in the sections that follow.

### Placing the Caster Base

There are several requirements for the placement of the caster base:

- The caster base must be placed on a level surface.
- Openings in the equipment must not be blocked or covered.
- Do not place the caster base near a radiator or heat-register.

Refer to the installation manuals shipped with the Enterprise 4000 system and expansion chassis for information on clearance requirements.

### Deciding on the Configuration

*Prior to assembly*, decide what the caster base configuration should be. This will determine the chassis stacking order as well as chassis cabling to the power outlet.

**Note** – Supported configurations include an Enterprise 4000 system and one or two additional expansion enclosures. An expansion enclosure can be either a SPARCstorage Array or a SPARCstorage Library.

### Restrictions

The following restrictions apply to all configurations:

- Do not stack more than three chassis.
- Only one Enterprise 4000 system is supported per stack.
- The Enterprise 4000 system must be placed at the bottom of the stack.
- If present, the SPARCstorage Library must be placed at the top of the stack.



Your completed caster base assembly and stack should resemble the illustration in either Figure 1 or Figure 2:

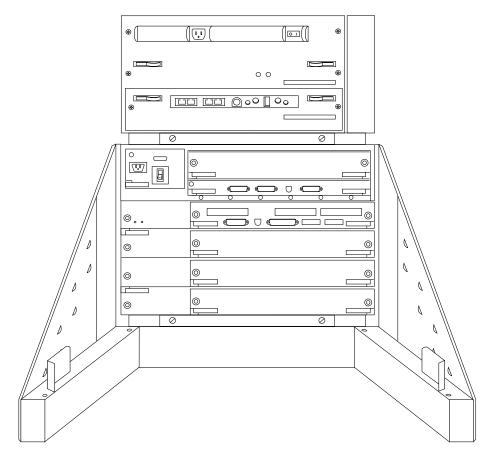


Figure 1 Caster Base with Enterprise 4000 System and SPARCstorage Array (Rear View)



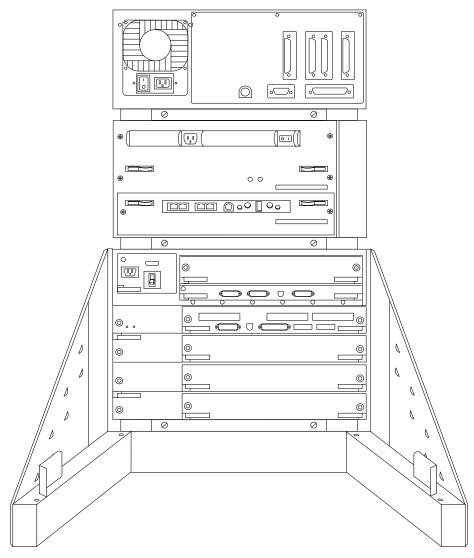


Figure 2 Caster Base with Enterprise 4000 System, SPARCstorage Array, and SPARCstorage Library (Rear View)



### Assembling the Caster Base

Assembly of the caster base is detailed in "Stacking the Chassis" and "Cabling the Chassis."

### Stacking the Chassis

If you have not done so already, determine your stacking order as explained in the section "Deciding on the Configuration." This will determine the order in which the chassis are physically stacked and cabled.

Once the chassis stacking order is determined:

- 1. Power off and remove the cables from each chassis that is to be used in the stack.
  - Instructions are provided in the installation manuals shipped with the Enterprise 4000 system and expansion chassis.
- **2.** Immobilize the caster base by locking the two front casters. Use a flat blade screwdriver to tighten each front caster locking screw.
- 3. Unpack the locking modules and place one locking module on top of the caster base (Figure 3).
  - Ensure that the rear captive screws on the locking module are positioned facing the rear of the caster base.
- 4. Install and tighten four M6 Phillips screws in the locking module foot recesses (Figure 3).
- 5. Loosen the two rear captive screws from the metal rear panel assembly on the locking module (Figure 3).
- 6. Pull the locking module metal plate toward you until it is fully extended to the end of its track (Figure 3).

The locking module rear captive screws can be used as handles.



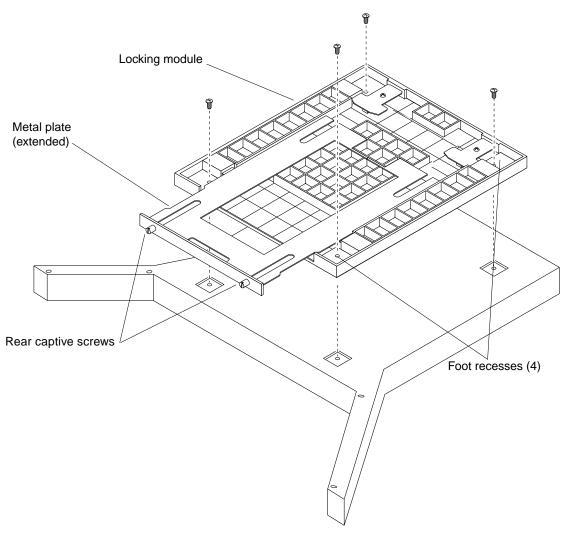


Figure 3 Installing First Locking Module (Rear View)



7. Remove the four cover plugs from the top of the first chassis to be stacked by pressing down on each plug as shown in Figure 4.

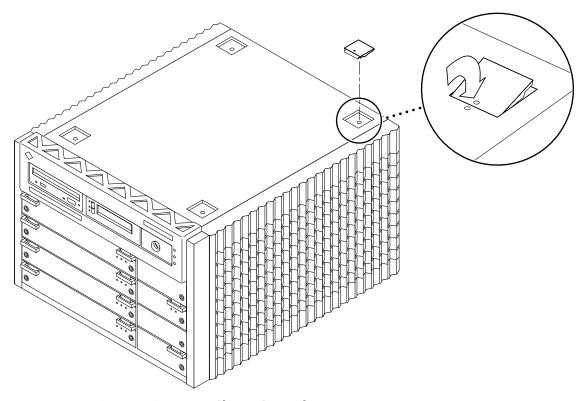


Figure 4 Removing Chassis Cover Plugs



**Warning** – Use caution when placing the chassis to avoid trapping your fingers between the chassis bottom and the lock module.

8. Ensure that the rear of the chassis is facing the rear of the caster base as shown in Figure 5, and then carefully place the first chassis onto the locking module.

The chassis feet should be securely seated in the locking module foot recesses.



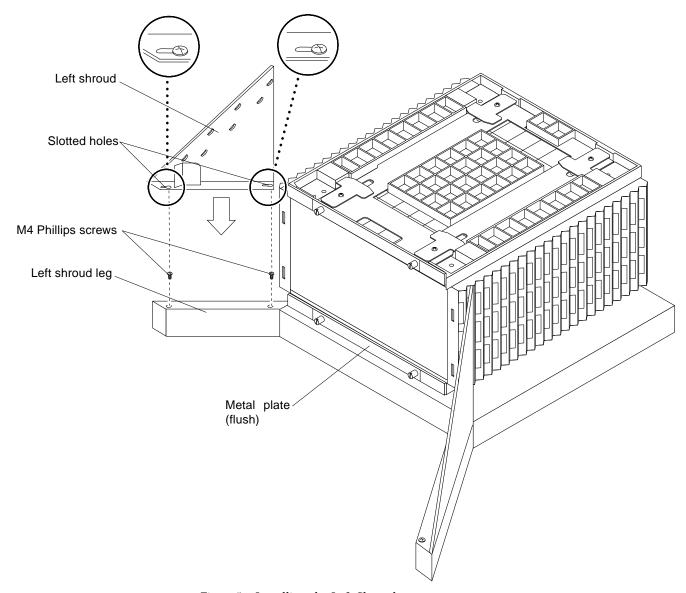


Figure 5 Installing the Left Shroud



**Note** – The feet on the Enterprise 4000 system and expansion chassis are grooved to accommodate the locking module metal plate when it is returned to its fully retracted position.

- Push the locking module metal plate in until it is flush with the rear face of the lock module.
- 10. Tighten the two locking module rear captive screws on the metal rear panel assembly.
- 11. Loosely thread M4 Phillips screws into the two holes on each shroud leg (Figure 5).
- 12. Lower the left shroud onto the left shroud leg. Slip the slotted holes in the bottom of the left shroud over the M4 Phillips screw heads installed in Step 11 (Figure 5).
- 13. Slide the left shroud toward the chassis until the shroud is tight against the chassis.
- 14. Tighten the two M4 Phillips screws to secure the left shroud.
- 15. Repeat Step 12 to Step 14 for the right shroud.
- 16. If you are adding an expansion device, place the optional second locking module on top of the first chassis you just installed (with cover plugs removed).

Make sure it is positioned with the rear of the chassis facing the shrouds as in Figure 6.



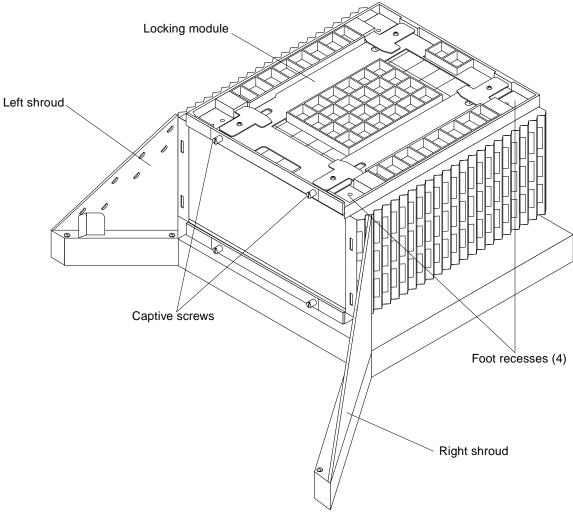


Figure 6 Installing First Chassis and Second Locking Module

# 17. Repeat Step 4 through Step 10 to install the additional locking module and chassis.



## Cabling the Chassis

♦ For all caster base configurations, route the cables through the shrouds so that all cables cascade down the side of the stack (Figure 7).

Use tie wraps to bundle the cables. Wrap excess cabling for the bottom chassis around the shrouds if necessary. This completes the installation.

Your fully assembled unit should resemble the stack in Figure 7 and Figure 8.

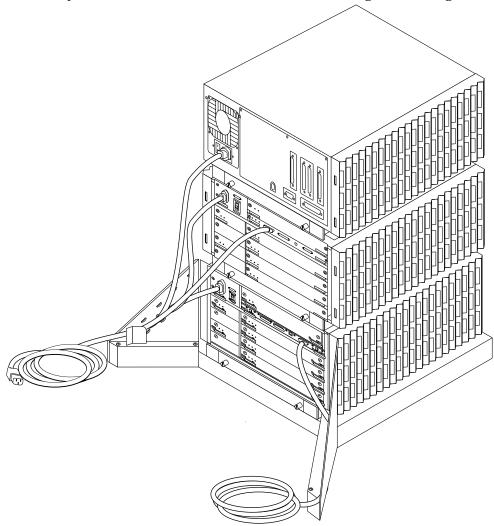


Figure 7 Completed Caster Base (Rear View)



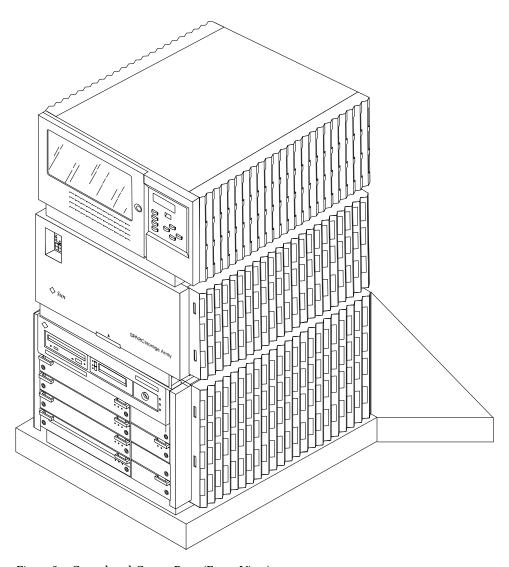


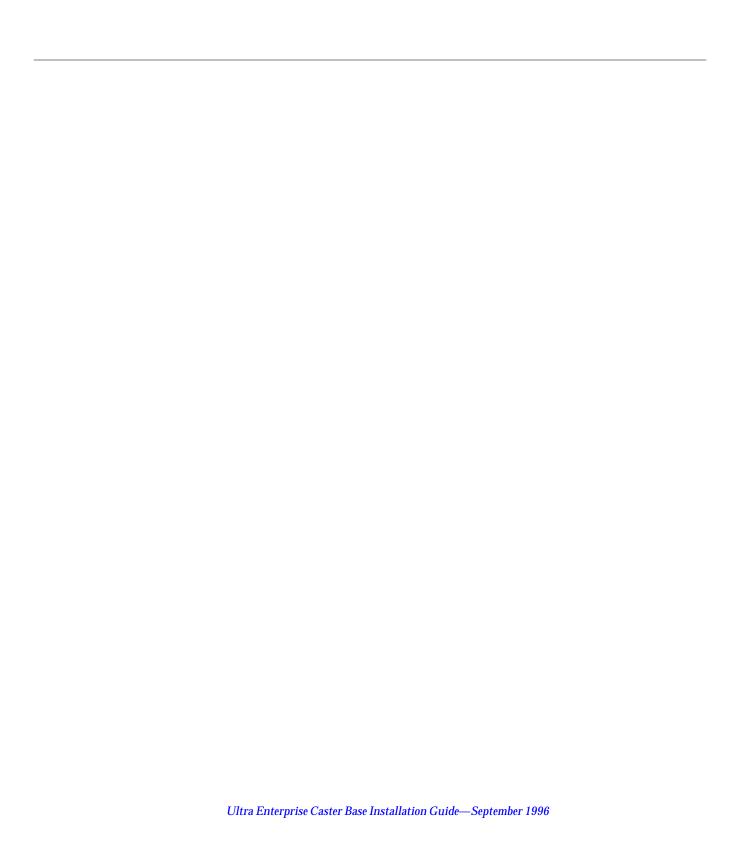
Figure 8 Completed Caster Base (Front View)

## Powering On and Off

Refer to the installation manuals shipped with the Enterprise 4000 system and expansion chassis for information on powering on and off.

# Revision History

Part Number	Revision	Date	Comments
802-5034-10	A	September 1996	



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