



Sun Blade™ 100 CD-ROM or DVD-ROM and Hard Disk Drive Installation Guide

Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054 U.S.A.
650-960-1300

Part No. 806-6637-12
January 2002, Revision A

Send comments about this document to: docfeedback@sun.com

Copyright 2002 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

This product or document is distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this product or document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any. Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, docs.sun.com, Sun Blade, Solstice DiskSuite, and Solaris are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc. The Energy Star logo is a registered trademark of EPA.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Federal Acquisitions: Commercial Software—Government Users Subject to Standard License Terms and Conditions.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2002 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, CA 95054 Etats-Unis. Tous droits réservés.

Ce produit ou document est distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a. Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, docs.sun.com, Sun Blade, Solstice DiskSuite, et Solaris sont des marques de fabrique ou des marques déposées, ou marques de service, de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

Achats fédéraux : logiciel commercial - Les utilisateurs gouvernementaux doivent respecter les conditions du contrat de licence standard.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Contents

Sun Blade 100 CD-ROM or DVD-ROM and Hard Disk Drive Installation	1
Preparing for Installation	2
Powering Off the System	2
Removing the System Cover	4
Attaching an Antistatic Wrist Strap	4
CD-ROM or DVD-ROM Drive	5
Removing a CD-ROM or DVD-ROM Drive	5
Replacing a CD-ROM or DVD-ROM Drive	6
Hard Drives	6
Removing a Primary Hard Drive	6
Replacing the Hard Drive Tray Latch Clip	8
Replacing a Primary Hard Drive	9
Installing a Secondary Hard Drive	10
Finishing Component Installation	14
Powering On the System	14
Hard Drive Mirroring	14
Hard Drive Mirroring Configuration	15
Required Software and Patches	15
CD or DVD Handling and Use	15

Inserting a CD Into the Drive 15

Ejecting a CD 16

Cleaning a CD 16

Handling and Storing CDs 16

Sun Blade 100 CD-ROM or DVD-ROM and Hard Disk Drive Installation

This document gives instructions for preparing the Sun Blade 100 system for installation, and for installing a CD-ROM drive, DVD-ROM drive, and hard drives in the Sun Blade 100 system. For more detail, refer to the *Sun Blade 100 Service Manual*, part number 806-3416, on the *Sun Blade 100 Hardware Documentation CD* or find the documentation at the <http://docs.sun.com> web site.

Preparing for Installation

To prepare for installation of optional components, you must power off the system, remove the cover, and attach an antistatic wrist strap.

Powering Off the System

Power off the system as follows:

1. **Exit from any applications that are running.**
2. **Choose one of the two power-off methods, orderly or immediate:**
 - **To perform an orderly power-off:**
 - a. **Press the power switch and immediately release it (see FIGURE 1).**
The system shutdown menu is displayed.
 - b. **Select Shutdown.**
The system performs internal shutdown procedures.
 - **To perform an immediate power-off,** press and hold the power switch for *four seconds* before releasing it.



Caution – The immediate power-off method does not perform an orderly shutdown of the operating system and data might be lost.

3. **Verify that the power-indicator LED on the power switch turns off.**
4. **Turn off power to the monitor and to all external devices.**

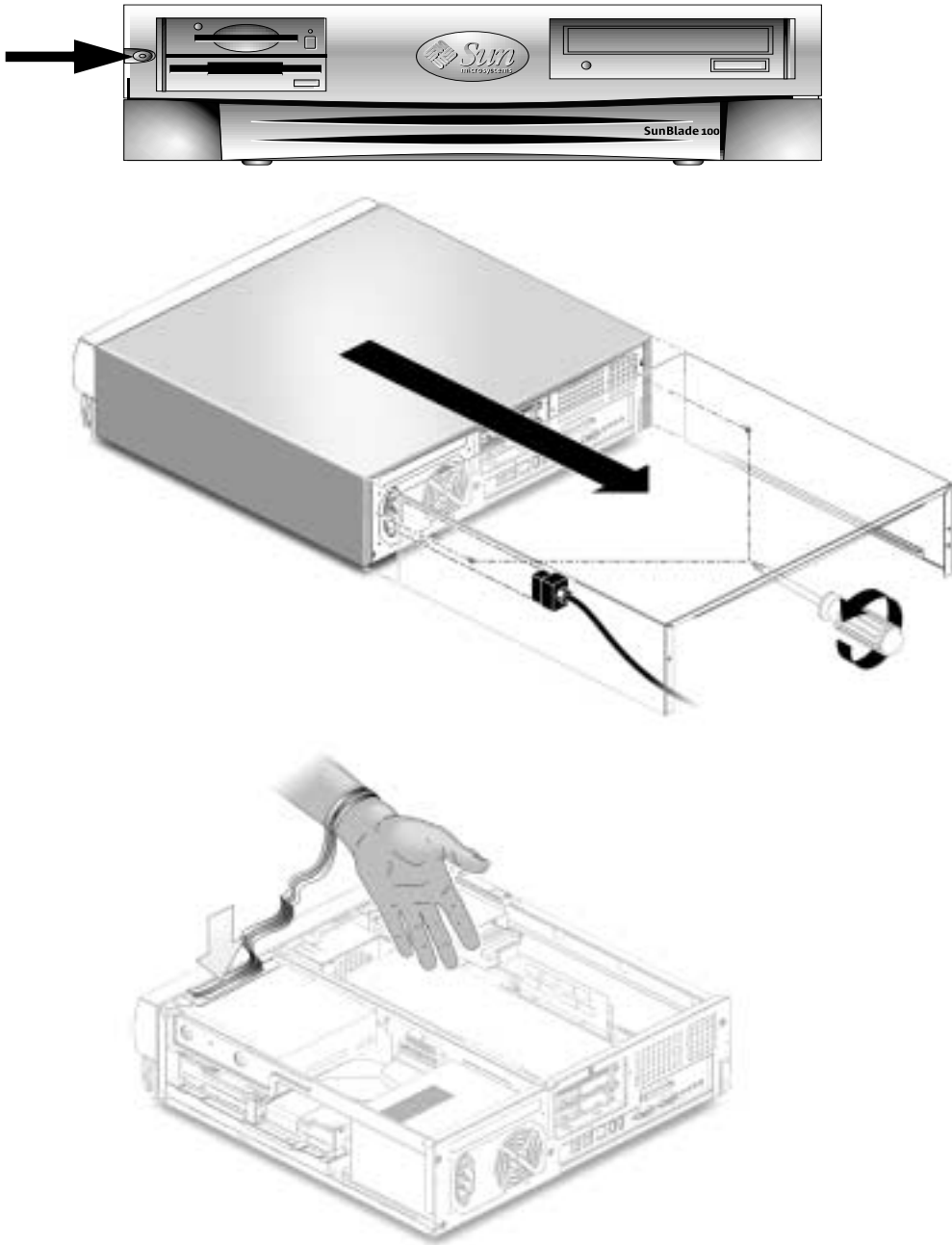


FIGURE 1 Preparing for Component Installation

Removing the System Cover

Remove the system cover as follows:

1. **Disconnect from the system any cables that are attached to external devices, such as the monitor, keyboard, and mouse (see FIGURE 1).**



Caution – Pressing the power switch does not remove all power from the system; a small voltage remains in the power supply. To remove all power from the system, you must disconnect the system power cord.

2. **Disconnect the system power cord to ensure all power is removed from the system.**
3. **At the system back panel, remove the two screws that secure the cover.**
4. **Slide the cover back to the end of the system chassis and lift the cover off.**

Attaching an Antistatic Wrist Strap



Caution – Always wear an antistatic wrist strap when handling internal components to equalize all electrical potentials within the system.

Attach an antistatic wrist strap as follows:

1. **Unwrap the first two folds of the wrist strap and wrap the adhesive side firmly against your wrist.**
2. **Peel the liner from the copper foil at the opposite end of the wrist strap.**
3. **Attach the copper foil end of the wrist strap to the system chassis to provide ground for electrostatic discharge (see FIGURE 1).**

CD-ROM or DVD-ROM Drive

To remove and replace a CD-ROM or DVD-ROM drive, proceed as follows.

Removing a CD-ROM or DVD-ROM Drive

1. Remove any CD or DVD from the drive.
2. Power off the system, remove the system cover, and attach an antistatic wrist strap as described in “Preparing for Installation” on page 2.



Caution – Use proper ESD grounding techniques when handling components. Wear an antistatic wrist strap and use an ESD-protected mat. Store ESD-sensitive components in antistatic bags before placing them on any surface.

3. Remove the following from the back of the CD-ROM or DVD-ROM drive (see FIGURE 2):
 - CD-ROM or DVD-ROM drive IDE cable connector
 - Power cable connector

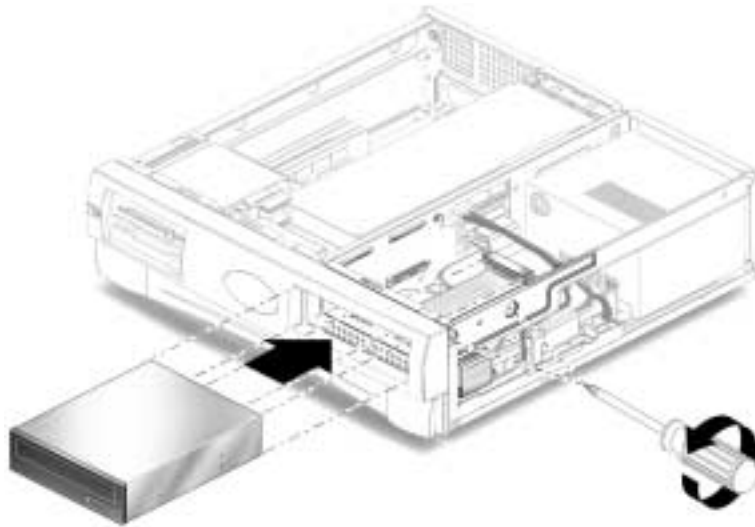


FIGURE 2 Removing and Replacing a CD-ROM or DVD-ROM Drive

4. Using a No. 2 Phillips screwdriver, remove the two screws securing the CD-ROM or DVD-ROM drive to the chassis.
5. Place your fingers on the back of the CD-ROM or DVD-ROM drive. Push the CD-ROM or DVD-ROM drive toward the chassis front and remove it.
6. Place the CD-ROM or DVD-ROM drive on an antistatic mat.

Replacing a CD-ROM or DVD-ROM Drive

Note – Before you replace the CD-ROM or DVD-ROM drive, verify that the drive mode-select jumper is set to “CS,” “Enable Cable Select,” or “Cable Select.”

1. Position the CD-ROM or DVD-ROM drive in the chassis (see FIGURE 2).
2. Push the CD-ROM or DVD-ROM drive toward the back of the chassis.
3. Connect the following to the back of the CD-ROM or DVD-ROM drive:
 - CD-ROM or DVD-ROM drive cable connector
 - Power cable connector (see FIGURE 3).

Note – Ensure that the cable assembly connectors are properly oriented by aligning the connector keys.

4. Using a No. 2 Phillips screwdriver, replace the two screws securing the CD-ROM or DVD-ROM drive to the chassis.
5. Detach the wrist strap, replace the system cover, and power on the system as described in “Finishing Component Installation” on page 14.

Hard Drives

To remove and replace a primary hard drive, proceed as follows.

Removing a Primary Hard Drive

1. Power off the system, remove the system cover, and attach an antistatic wrist strap as described in “Preparing for Installation” on page 2.



Caution – Use proper ESD grounding techniques when handling components. Wear an antistatic wrist strap and use an ESD-protected mat. Store ESD-sensitive components in antistatic bags before placing them on any surface.

2. Lift the spring-loaded latch upward to release the hard drive tray from the chassis (see FIGURE 3).
3. Pull the hard drive tray ejection lever away from the chassis.

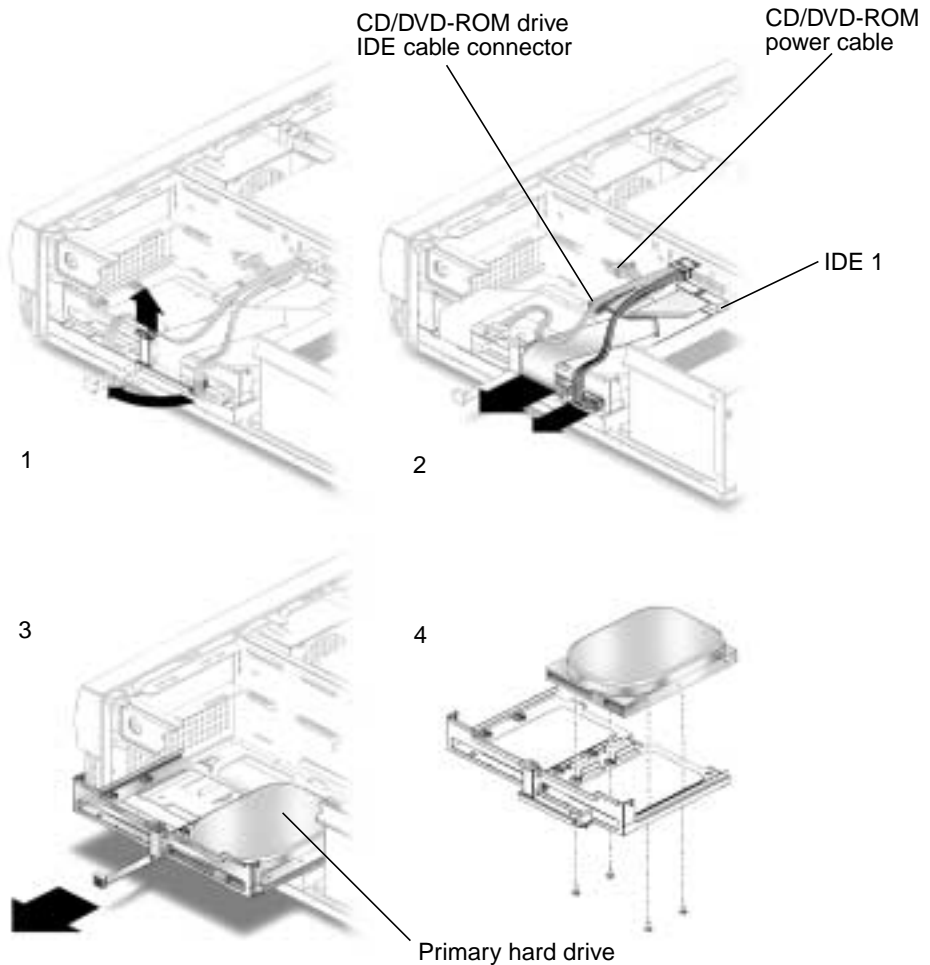


FIGURE 3 Removing and Replacing a Primary Hard Drive

4. Disconnect the hard drive IDE cable and the power cable connectors from both hard drives (if two drives are installed). Move the cables out of the way (see FIGURE 3).
5. Slide the hard drive tray out of the chassis.
6. Turn the hard drive tray over and place it on an antistatic mat.
7. Using a No. 2 Phillips screwdriver, remove the four screws securing the hard drive to the hard drive tray.
8. Lift the hard drive tray from the hard drive.

Replacing the Hard Drive Tray Latch Clip

New hard drives have a slightly larger case which presses against the original latch clip. Replacing the latch clip allows the hard drive to fit better. FIGURE 4 shows the old and new clips.

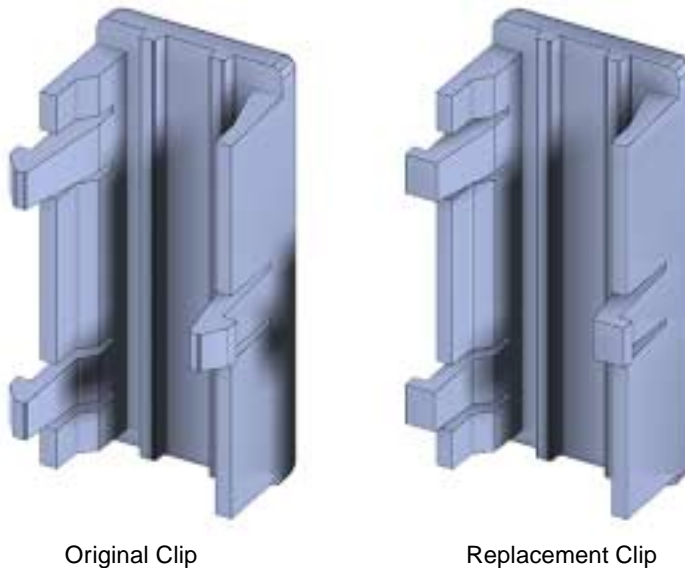


FIGURE 4 Hard Drive Tray Latch Clips

1. Pinch the edge of the clip and remove the clip. See FIGURE 5.

Note – It is easier to remove the left side of the clip first because it only has one tang on the left side. The right side of the clip has two tangs.

2. **Insert the new clip:**
 - a. **Align the right side tangs into their respective slots.**
 - b. **Press the left side tang into the slot.**
3. **Ensure that the clip is secure.**

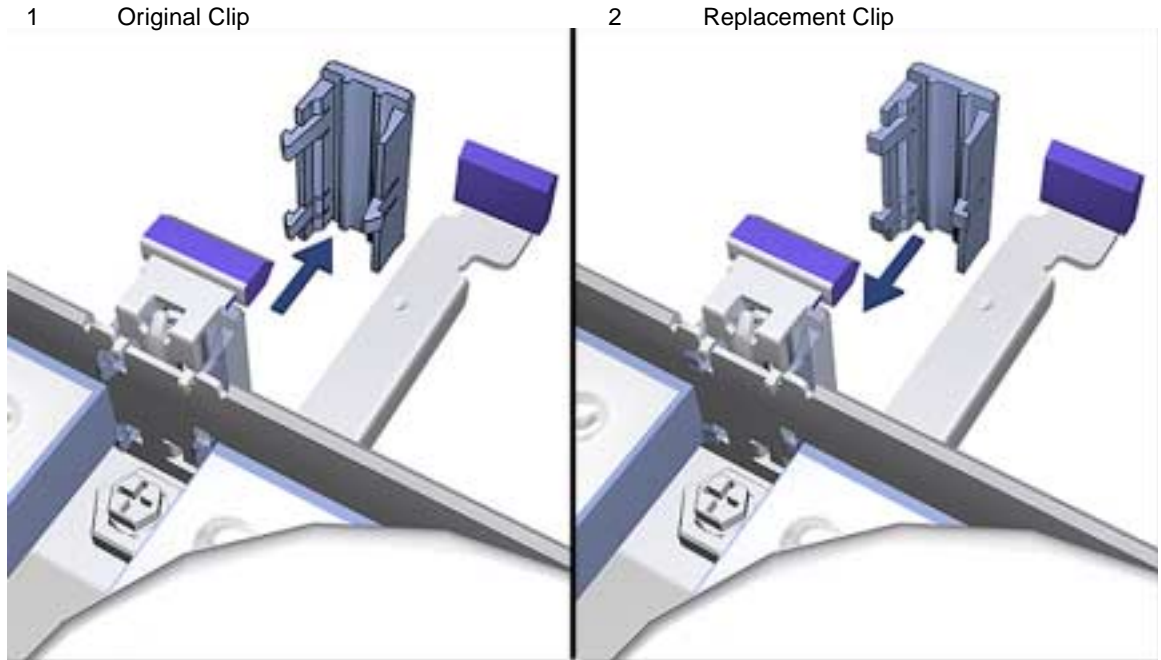


FIGURE 5 Replacing the Hard Drive Tray Latch Clip

Replacing a Primary Hard Drive

Note – Read the hard drive product guide for information about jumpers, switch settings, or other installation tasks.

Note – Before you replace any hard drive, verify that the hard drive mode-select jumper is set to “CS,” “Enable Cable Select,” or “Cable Select.”

1. **Position the hard drive into the hard drive tray (see FIGURE 3).**

2. Turn the tray upside down on an antistatic mat.
3. Using a No. 2 Phillips screwdriver, replace the four screws securing the hard drive to the hard drive tray.
4. Position the hard drive tray into the chassis.

Note – When you slide the hard drive tray back in, do not push against the ejection lever or the tray will not properly latch. Push against the hard drive tray.

5. While ensuring that the cables are not damaged, slide the hard drive tray into the chassis until the spring-loaded latch clicks into place.
6. Connect the hard drive IDE cable connector labeled Primary HDD to the primary hard drive.

Note – Ensure that the cables are properly oriented by aligning the connector keys.

7. Connect the power cable to the hard drive.
8. Ensure that the cables will not be damaged when you replace the system cover.
9. Detach the wrist strap, replace the system cover, and power on the system as described in “Finishing Component Installation” on page 14.

Installing a Secondary Hard Drive

The secondary hard drive option for the Sun Blade 100 system mounts next to the primary hard drive on the hard drive tray (see FIGURE 6). The secondary IDE cable assembly is used with the secondary hard drive. Use the following procedure to install the optional secondary hard drive.

1. Power off the system, remove the system cover, and attach an antistatic wrist strap as described in “Preparing for Installation” on page 2.



Caution – Use proper ESD grounding techniques when handling components. Wear an antistatic wrist strap and use an ESD-protected mat. Store ESD-sensitive components in antistatic bags before placing them on any surface.

2. Lift the spring-loaded latch upward to release the hard drive tray from the chassis (see FIGURE 6).
3. Pull the hard drive tray ejection lever away from the chassis.

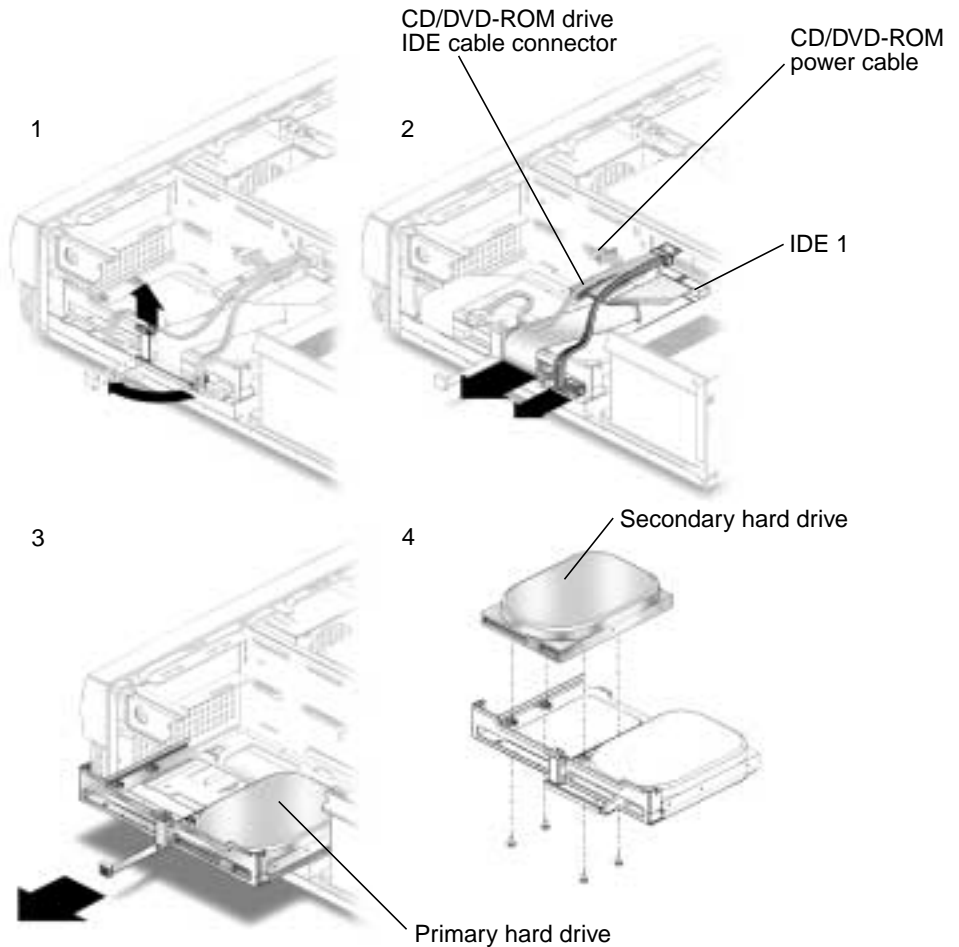


FIGURE 6 Installing a Secondary Hard Drive

- 4. Disconnect the existing hard drive IDE and power cables from the primary hard drive.**
- 5. Slide the hard drive tray out of the chassis.**
- 6. Install the new hard drive tray latch clip.**
The new clip will allow the secondary hard drive to fit better in the hard drive tray. Follow the instructions in “Replacing the Hard Drive Tray Latch Clip” on page 8.
- 7. Place the new secondary hard drive onto the hard drive tray.**
- 8. Turn the tray upside down on an antistatic mat.**

Note – Before installing the hard drive into the system, verify that the hard drive mode-select jumper is set to “CS,” “Enable Cable Select,” or “Cable Select.”

9. Using a No. 2 Phillips screwdriver, install the four screws that secure the drive to the hard drive tray.

Note – When you slide the hard drive tray back in, do not push against the ejection lever or the tray will not properly latch. Push against the hard drive tray.

10. While ensuring that the cables are not damaged, slide the hard drive tray into the chassis until the spring-loaded latch clicks into place.
11. Connect the secondary IDE cable connector to riser board connector IDE2 (J503). See FIGURE 7 and FIGURE 8.

Note – Be sure that you use the cable labeled “Sun Blade 100” which is included in your new hard drive kit. The kit may contain another cable which you do not need.

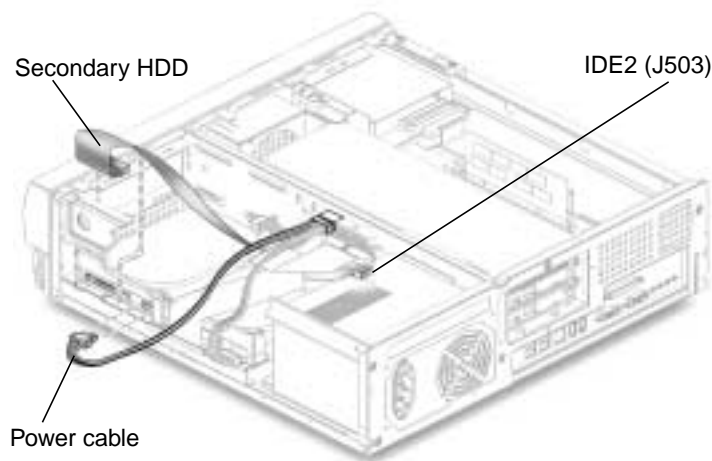


FIGURE 7 Secondary Hard Drive Cabling Configuration

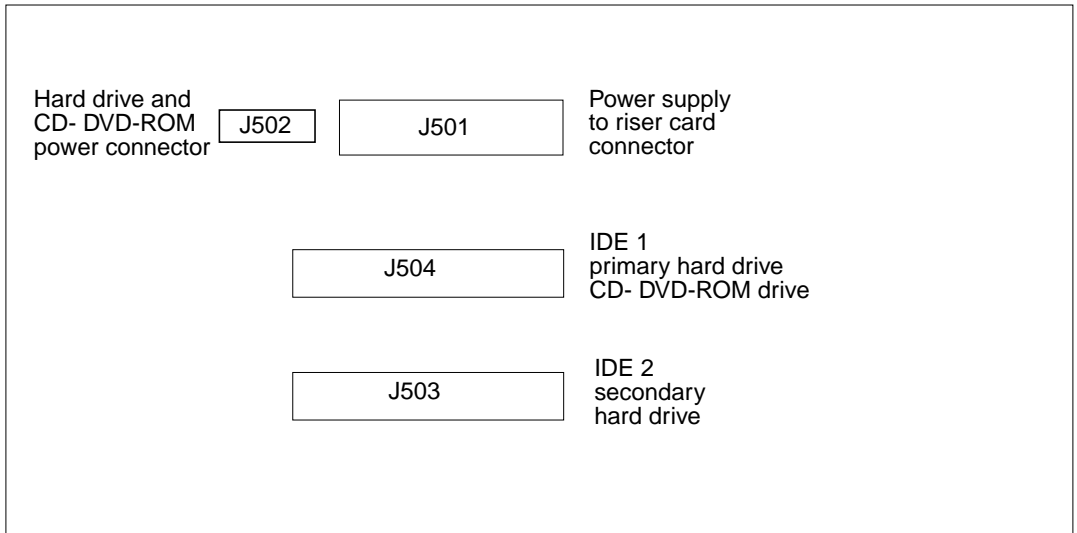


FIGURE 8 Sun Blade 100 Riser Card

Note – Ensure that the cables are properly oriented by aligning the connector keys.

12. Verify that the CD-ROM or DVD-ROM is connected to both the power cable and the cable connector labeled CD/DVD (see FIGURE 6).
13. Connect the hard drive IDE cable connector labeled Primary HDD to the primary hard drive.
14. Connect the power cable to the secondary hard drive (see FIGURE 7).
15. Connect the power cable to the primary hard drive.
16. Connect the secondary hard drive to the cable connector labeled Secondary HDD.
17. Ensure that the cables will not be damaged when you replace the system cover.
18. Detach the wrist strap, replace the system cover, and power on the system as described in “Finishing Component Installation” on page 14.

Finishing Component Installation

1. **Remove your antistatic wrist strap from the chassis.**
2. **Reconnect the system power cord.**
3. **Replace the system cover onto the system chassis.**

Align the cover tabs with the slots on the system chassis, then slide the cover toward the front of the system until the front cover tabs lock.
4. **Replace the two screws that secure the rear of the cover to the system chassis.**
5. **Reconnect to the system the monitor cable and cables from any other external devices.**
6. **To power on the system, see “Powering On the System” on page 14.**

Powering On the System

1. **Turn on power to the monitor and to all external devices.**
2. **Press the system power switch on the front panel and release it.**
3. **After several seconds, verify that the power-indicator LED on the power switch is lit and listen to verify that the system fans are spinning.**

The power-indicator LED on the power switch will light after the system begins the internal booting process.

If you experience problems during power on, refer to the *Sun Blade 100 Getting Started Guide*, part number 806-3415.

Hard Drive Mirroring

This section describes the requirements and constraints of a hard drive mirroring solution that uses Solstice DiskSuite™ software.

Hard Drive Mirroring Configuration

The IDE subsystem of the Sun Blade 100 system has two independent channels designated “primary” and “secondary.” The system riser board has a connector for each IDE Channel, labelled IDE1 (J504) and IDE 2 (J503).

When mirroring hard drives in a Sun Blade 100 system, both hard drives should be jumpered as “CS,” “Cable Select” or “Enable Cable Select” to allow for automatic configuration.

Two IDE cables are required for this configuration. Each cable is connected to the riser board at one end and to a hard drive connector at the other end. FIGURE 9 shows this hardware configuration (with an optional CD-ROM or DVD-ROM drive).

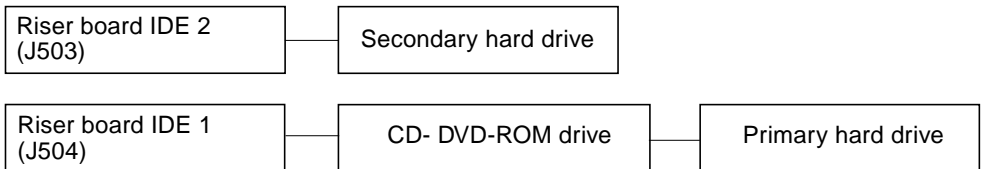


FIGURE 9 Hard Drive Mirroring Configuration

Required Software and Patches

The supported software is Solstice DiskSuite 4.2. For detailed instructions on configuring hard drives refer to see the *Solstice DiskSuite User's Guide*, part number 805-5961 at the <http://docs.sun.com> web site.

CD or DVD Handling and Use

Inserting a CD Into the Drive

- 1. After the system is powered on, push the eject button to open the drive tray.**
- 2. Place the CD (label side up) into the tray.**

Ensure that the CD is properly set into the recessed area of the tray.
- 3. Push the CD tray to close it.**

Ejecting a CD

You may need to unmount the CD before manually ejecting it.

There are three ways to eject a CD:

- Press the eject button on the front of the CD-ROM drive.
- Use software commands to eject the CD. Refer to the peripherals handbook that corresponds with your operating system.
- If the motorized eject mechanism does not operate, insert a thin, stiff wire (such as a paper clip) into the hole next to the eject button.

Cleaning a CD

If your CD-ROM drive cannot read a CD, the cause may be a dirty CD. Follow these guidelines to clean a CD:

- Use a soft, clean, lint-free, dry cloth.
- Clean the *non-labeled* side of the CD.
- Wipe the CD *radially* from the center to the outside.
- Use professional cleaning kits.



Caution – Do not use solvents such as benzene, paint thinner, antistatic aerosol spray, or abrasive cleaners to clean CDs.

Handling and Storing CDs

Follow these guidelines when handling and storing CDs:

- Handle CDs only by their edges; avoid touching CD surfaces.
- Do not write on CDs with permanent marking pens.
- Do not use CDs in high-dust environments.
- Keep CDs out of direct sunlight, extreme sources of heat or cold, and away from dust and moisture.
- Make sure CDs are at room temperature before using them.
- Store CDs in storage boxes so that they remain clean and free of dust.