



Sun Ultra 60 Product Note

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Sun Ultra 60 Product Note

This product note contains information about new Sun™ Ultra™ 60 systems that became known after the manual set was published.

- “Special Considerations for Systems With 450 MHz CPU Modules” on page 5
- “Special Considerations for Systems With 450 MHz CPU Modules” on page 5
- “Removing the DC Switch Assembly” on page 6
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Special Considerations for Systems With 450 MHz CPU Modules

If you plan on installing either the Solaris™ 2.5.1 or Solaris 2.6 operating environment, you must install it using the *Operating Environment Installation* CD included with your new system. During the installation process, this CD installs certain software upgrade patches that support these Solaris releases running at the 450 MHz CPU speed.

These patches are not required if you are using Solaris 7 or later software.

For installation instructions, refer to the CD insert included with the CD.

Energy Star Software Support

Energy Star® power management software is supported on the Ultra 60 system when used with version 2.6 and later of the Solaris operating environment.

Removing the DC Switch Assembly

This procedure revises the DC switch assembly removal procedure found in the *Sun Ultra 60 Service Manual*, part number 805-1709.



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.



Caution - The DC switch assembly removal procedure is a complex procedure. It is recommended that a qualified field service representative perform this procedure.

1. **Power off the system unit:**
 - a. **Back up system files and data.**
 - b. **Halt the system.**
-



Caution - Pressing the front panel power switch does not remove all power from the system unit; a trickle voltage remains in the power supply. To remove all power from the system unit, disconnect the AC power cord.

- c. **Set the front panel power switch to the Off position (Figure 1-1).**

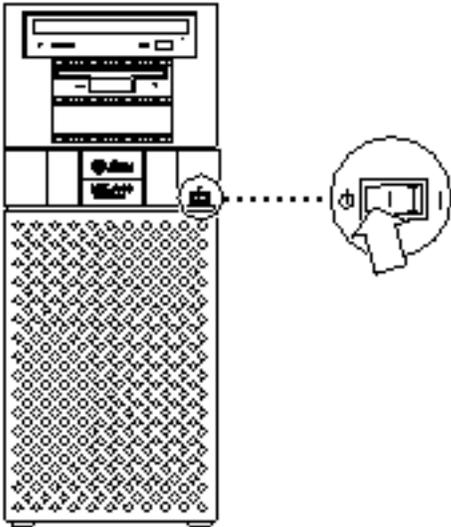


Figure 1-1 System Unit Power-Off (Front Panel)

- d. **Verify the following:**
 - i. **The front panel LED is off.**
 - ii. **The system fans are not spinning.**



Caution - Disconnect the AC power cord prior to servicing system components.

- a. **Turn off the power to the monitor.**
 - b. **Disconnect cables to any peripheral equipment.**
2. **Disconnect the lock block (Figure 1-2).**

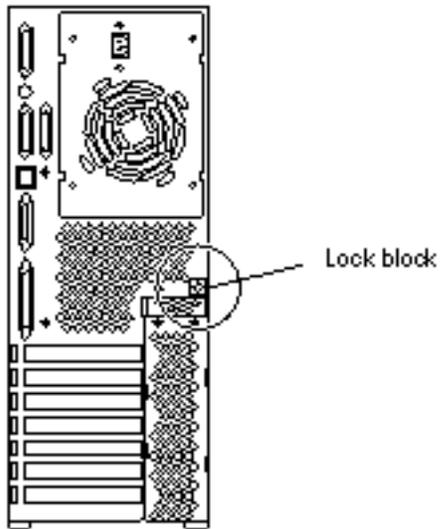


Figure 1-2 Lock Block Location

- 3. Remove the side access cover (Figure 1-3):**
 - a. Lay the system in the service position.**
 - b. Grasp the side panel and pull it toward the back of the system.**
 - c. Disengage the side access cover from the chassis hooks.**
 - d. Grasping the access cover sides, lift the side access cover upward and remove.**

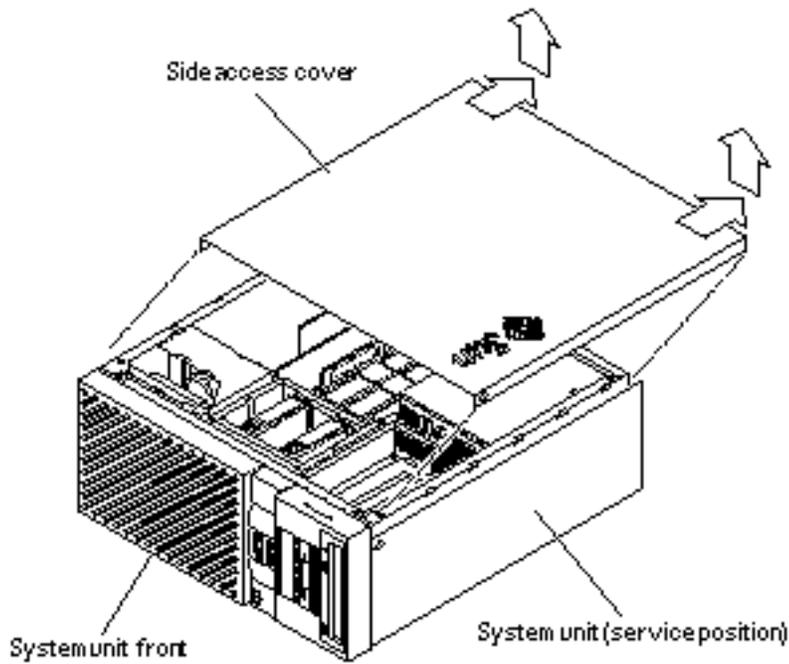


Figure 1-3 Removing the Side Access Cover

4. Attach the wrist strap (Figure 1-4):



Caution - Wear an antistatic wrist strap and use an ESD-protected mat when handling components. When servicing or removing system unit components, attach an ESD strap to your wrist, then to a metal area on the chassis, and then disconnect the power cord from the system unit and the wall receptacle. Following this caution equalizes all electrical potentials with the system unit.

- a. Unwrap the first two folds of the wrist strap; wrap the adhesive side firmly against the wrist.
- b. Peel the liner from the copper foil at the opposite end of the wrist strap.
- c. Attach the copper end of the wrist strap to the chassis.
- d. Disconnect the AC power cord.

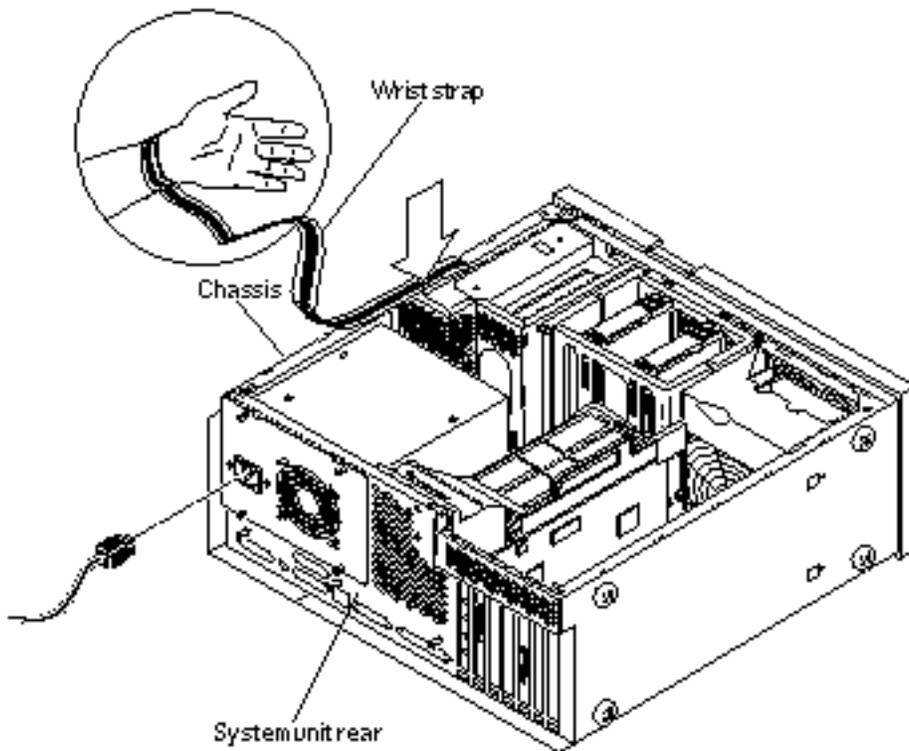


Figure 1-4 Attaching the Wrist Strap to the Chassis

5. Remove any long PCI cards and UPA graphics cards (Figure 1-5 and Figure 1-6):
 - a. Using a number 2 Phillips-head screwdriver, remove the screw securing the card bracket tab to the system unit chassis.



Caution - Avoid damaging the connector by not applying force to one end or one side of the board.

- b. Grasping the two upper corners of the card, pull the card straight up from the slot.
 - c. Remove the card and place it on an antistatic mat.

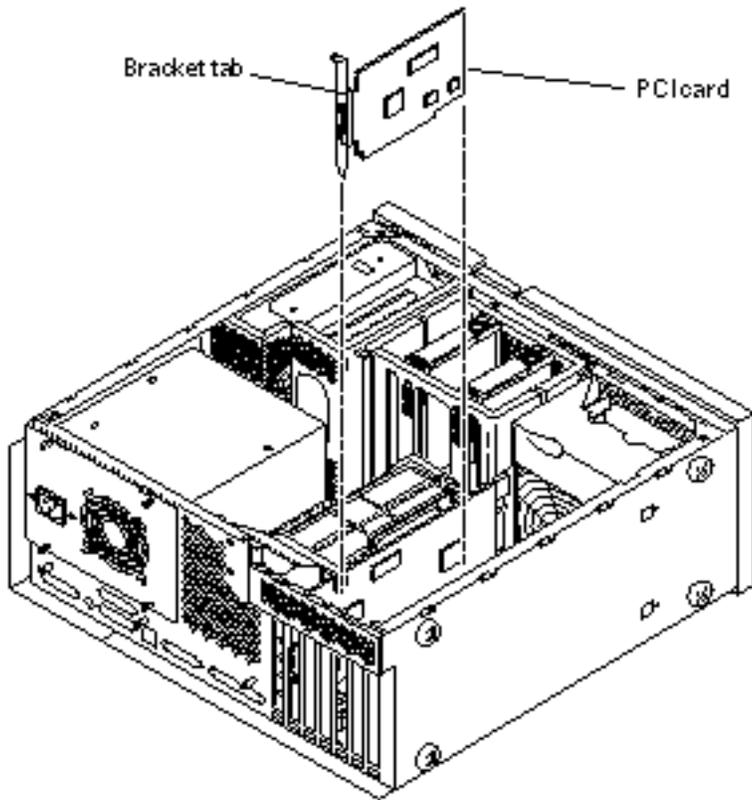


Figure 1-5 Removing and Replacing a PCI Card

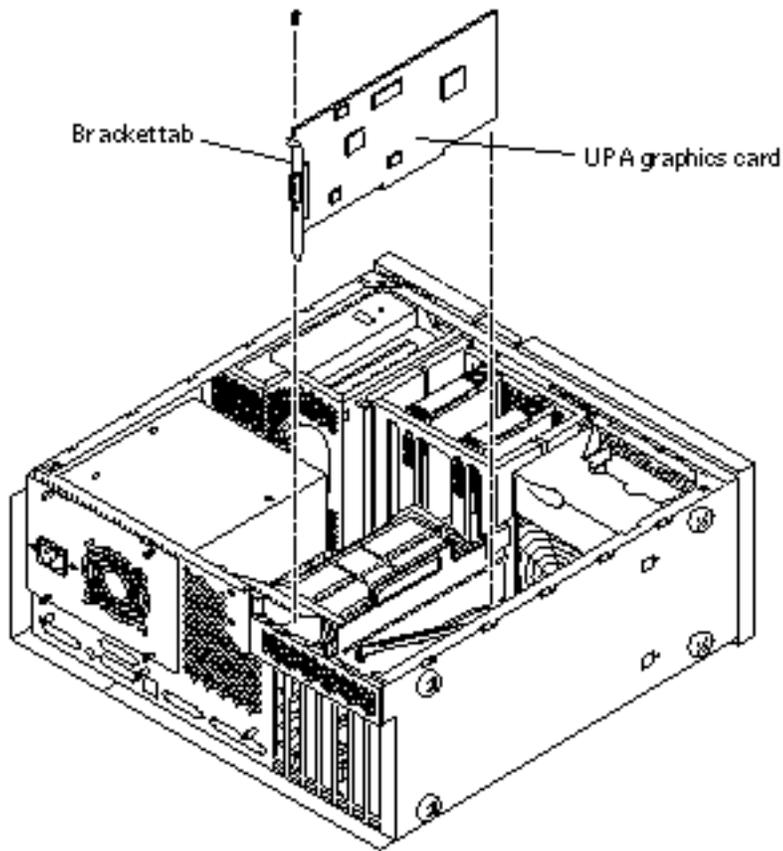


Figure 1-6 Removing and Replacing a UPA Graphics Card

- 6. Remove the PCI fan assembly (Figure 1-7):**
 - a. Disconnect the PCI fan power harness from the motherboard.**
 - b. Lift the locking tab.**
 - c. Press the locking snap to disengage the locking snap from the chassis.**
 - d. Disengage the studs from the chassis slots.**
 - e. Remove the PCI fan assembly by moving it toward the chassis back, over, and lifting up.**

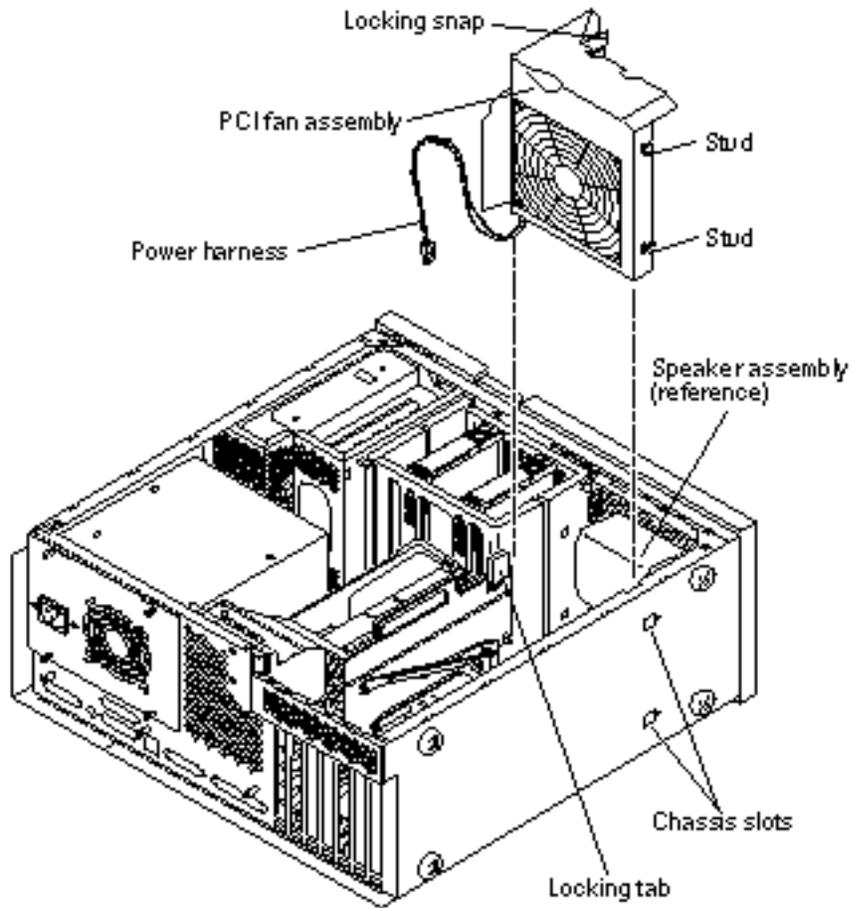


Figure 1-7 Removing and Replacing the PCI Fan Assembly

7. Remove the hard drive(s) (Figure 1-8):
 - a. Push the handle latch to release the hard drive handle.
 - b. Extend the hard drive handle to release the hard drive from the system unit.
 - c. Holding the drive handle, lift the hard drive from the drive bay.
 - d. Place the hard drive on an antistatic mat.

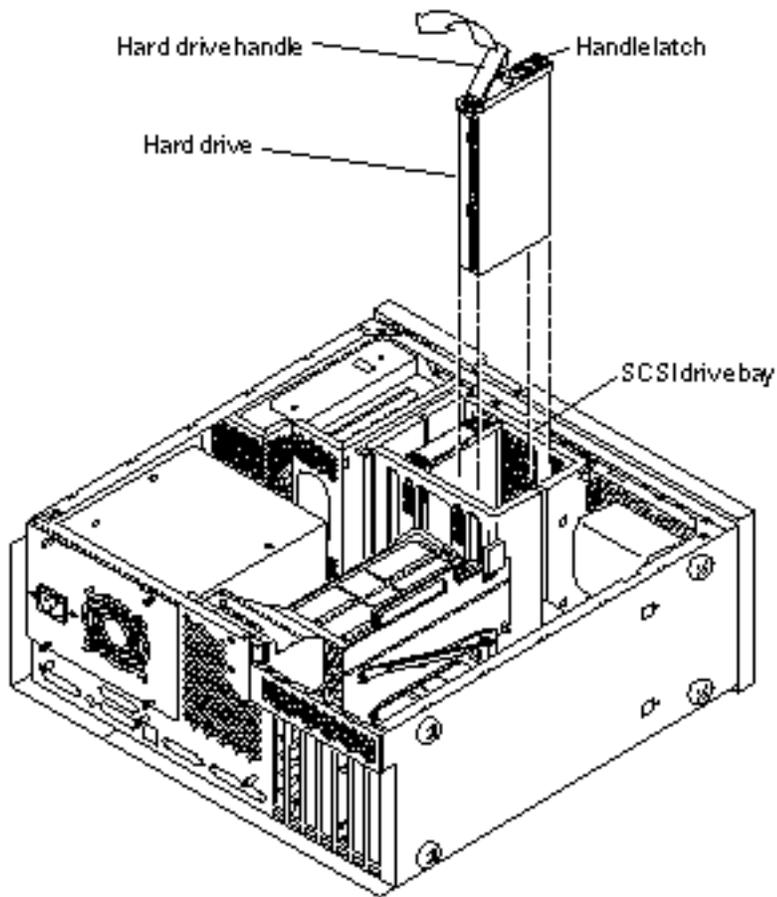


Figure 1-8 Removing and Replacing a Hard Drive



Caution - Prior to removing the SCSI drive bay, ensure that all necessary cables have been removed and that all cables are clear of the chassis area surrounding the drive bay area.

8. Remove the SCSI drive bay (Figure 1-9):
 - a. Disconnect the SCSI cables.

Note - For better access to the SCSI cable terminator board connector, partially remove the RMA (removal media assembly). To partially remove the RMA, refer to *Section 9.2* in the *Sun Ultra 60 Service Manual*.

- b. **Disconnect the peripheral power cable.**
- c. **Remove the peripheral power cable from the cable routing clips.**
- d. **Remove the diskette drive cable from the plastic spring clips installed adjacent to the drive bay.**
- e. **Feed the peripheral power cable through the chassis opening.**
- f. **Using a number 2 Phillips-head screwdriver, remove the screws securing the SCSI drive bay to the chassis.**
- g. **Lift the SCSI drive bay out of the chassis.**

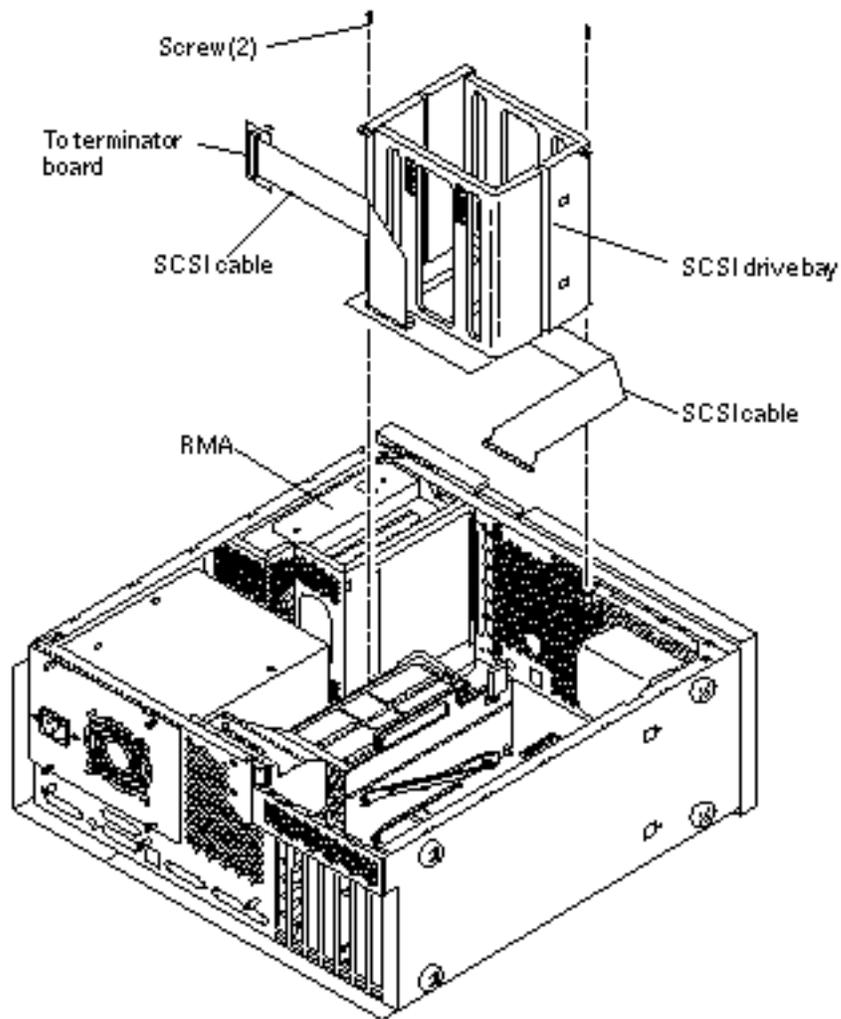


Figure 1-9 Removing and Replacing the SCSI Drive Bay

9. Disconnect the DC switch assembly power connector from motherboard connector J3504 (Figure 1-10).

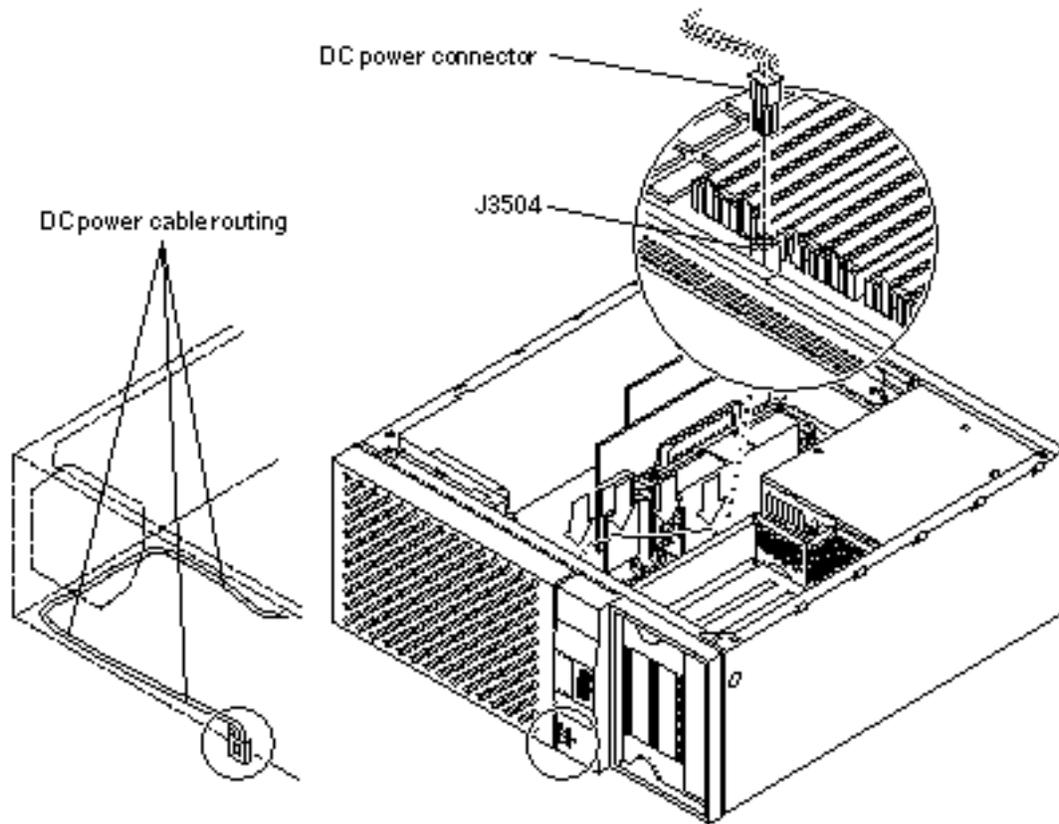


Figure 1-10 DC Switch Assembly Cable Routing

10. Remove the DC switch assembly power cable from the cable routing clips.
11. Remove the front panel (Figure 1-11):
 - a. Remove the front panel bezel.
 - b. Remove the front panel nameplate and light pipe.
 - c. Using a number 2 Phillips-head screwdriver, remove the four screws securing the front panel to the chassis.
 - d. Remove the front panel from the chassis.

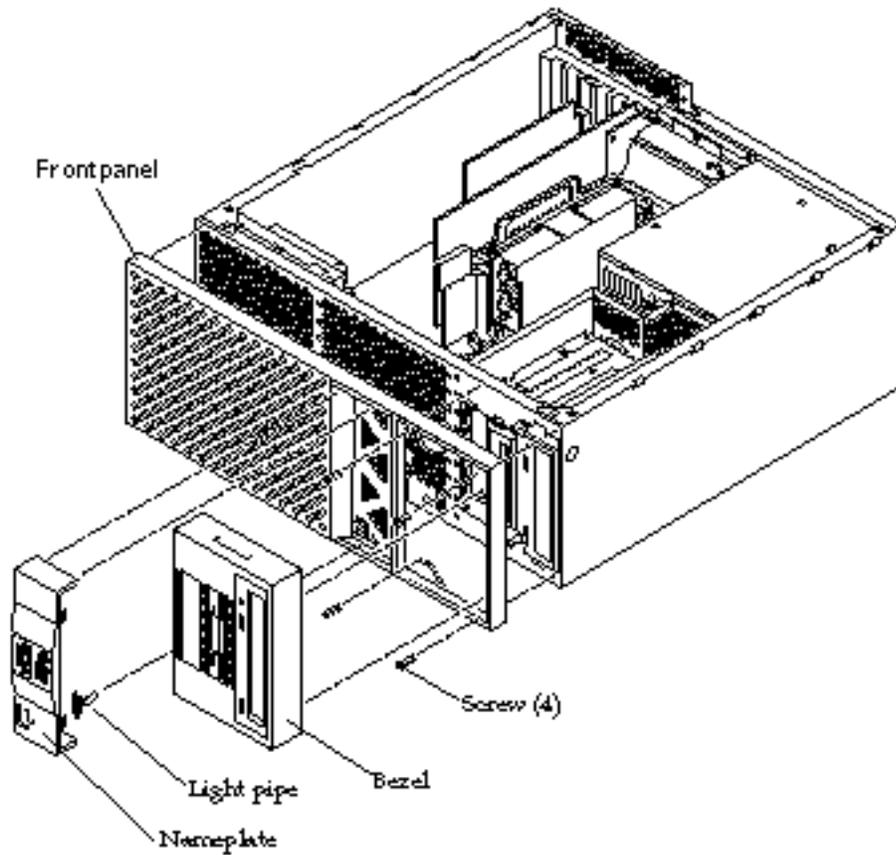


Figure 1-11 Removing and Replacing the Front Panel

12. Remove the DC switch assembly from the front panel (Figure 1-12):
 - a. Accessing the rear of the front panel and using a small flat-blade screwdriver, press the detent tab on one side of the DC switch assembly while pushing the switch toward the front of the front panel.
 - b. Repeat Step a for the other side of the DC switch assembly.
 - c. Continue pressing the detent tab on alternate sides and pushing the DC switch assembly toward the front until the DC switch assembly can be removed from the housing.
 - d. Remove the DC switch assembly from the front panel.

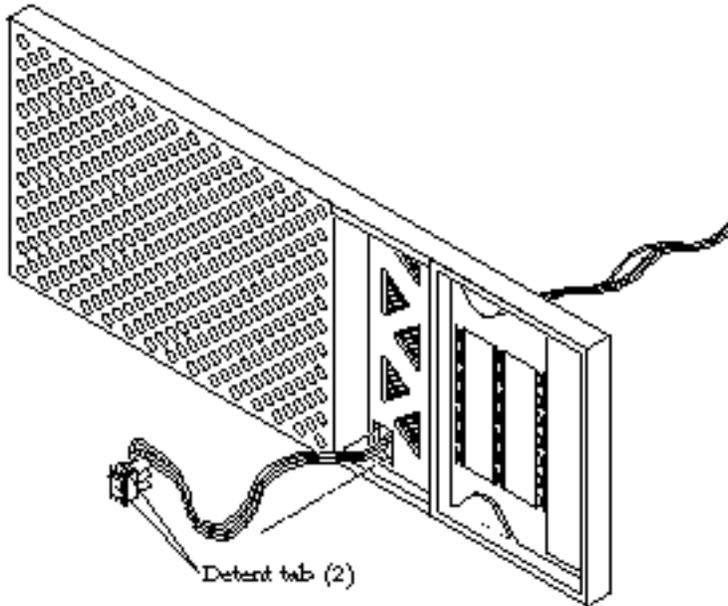


Figure 1-12 Removing and Replacing the Front Panel DC Switch Assembly

Replacing the DC Switch Assembly

This procedure revises the DC switch assembly replacement procedure found in the *Sun Ultra 60 Service Manual*, part number 805-1709.



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.



Caution - The DC switch assembly replacement procedure is a complex procedure. It is recommended that a qualified field service representative perform this procedure.



Caution - When replacing the DC switch assembly, ensure that the DC switch spade connectors are pointed towards the bottom of the case.

1. Replace the DC switch assembly through the front of the front panel (Figure 1-12):

- a. Feed the DC switch assembly power cable through the front of the front panel.
 - b. Using a small flat-blade screwdriver, press the detent tab on one side of the DC switch assembly while pushing the switch into the front panel from the front.
 - c. Repeat Step b for the other side of the DC switch assembly.
 - d. Continue pressing the detent tab on alternate sides and pushing the DC switch assembly into the front panel until the DC switch assembly locks into the front panel housing.
2. Replace the front panel (Figure 1-11):
- a. Replace the nameplate onto the front panel, ensuring that the light pipe tabs are oriented with the nameplate cutouts.
 - b. Feed the DC switch assembly power cable through the chassis front (Figure 1-10).
 - c. Position the front panel onto the chassis. Using a number 2 Phillips-head screwdriver, replace the four screws securing the front panel to the chassis.
 - d. Replace the front panel bezel (not illustrated).
3. Route the DC power cable along the chassis front and side. Secure the power cable in place using the cable routing clips (Figure 1-10).
4. Connect the DC switch assembly power connector to motherboard connector J3504 (Figure 1-10).
5. Replace the SCSI drive bay (Figure 1-9):



Caution - Prior to replacing the SCSI drive bay, ensure that all cables are clear of the drive bay area in the chassis.

Note - Hooks at the drive bay base must lock into the bottom slots of the chassis.

- a. Slide the SCSI drive bay into the chassis.



Caution - When replacing the screws that secure the SCSI drive bay to the chassis, pay particular attention not to allow a screw to fall into the chassis.

- b. Using a number 2 Phillips-head screwdriver, replace the screws securing the SCSI drive bay to the chassis.
- c. Connect the SCSI cables.
- d. If necessary, replace the RMA (refer to *Section 9.2* in the *Sun Ultra 60 Service Manual*).
- e. Feed the peripheral power cable through the chassis opening.
- f. Route the diskette drive cable through the plastic spring clips installed adjacent to the drive bay.
- g. Route the peripheral power cable through the cable routing clips.
- h. Connect the peripheral power cable.

6. Replace the hard drive(s) (Figure 1-8):



Caution - Ensure that the hard drive is firmly seated into the system unit SCSI connector.

- a. Holding the drive handle, slide the hard drive into the drive bay.
 - b. Close the hard drive handle.
- 7. Replace the PCI fan assembly (Figure 1-7):**
- a. Lower the PCI fan assembly into the chassis and move it over and toward the chassis front.
 - b. Align the PCI fan assembly studs with the chassis slots and engage.
 - c. Press the locking snap and engage to lock the fan assembly in place.
 - d. Connect the PCI fan power harness connector to the motherboard.

- 8. Replace any long PCI cards or UPA graphics cards (Figure 1-5 and Figure 1-6).**
 - a. Position the card into the chassis.**
 - b. Lower the card connector so that it touches its associated card slot on the motherboard.**
 - c. Grasping the two upper corners of the card, push the card straight down into the slot until the card is fully seated.**
 - d. Using a number 2 Phillips-head screwdriver, replace the screw securing the card bracket tab to the system unit chassis (not illustrated).**

- 9. Connect the AC power cord.**

- 10. Detach the wrist strap.**

- 11. Replace the side access cover (Figure 1-13).**
 - a. Position the side access cover.**
 - b. Engage the side access cover and the chassis hooks. Push the access cover towards the system unit front.**

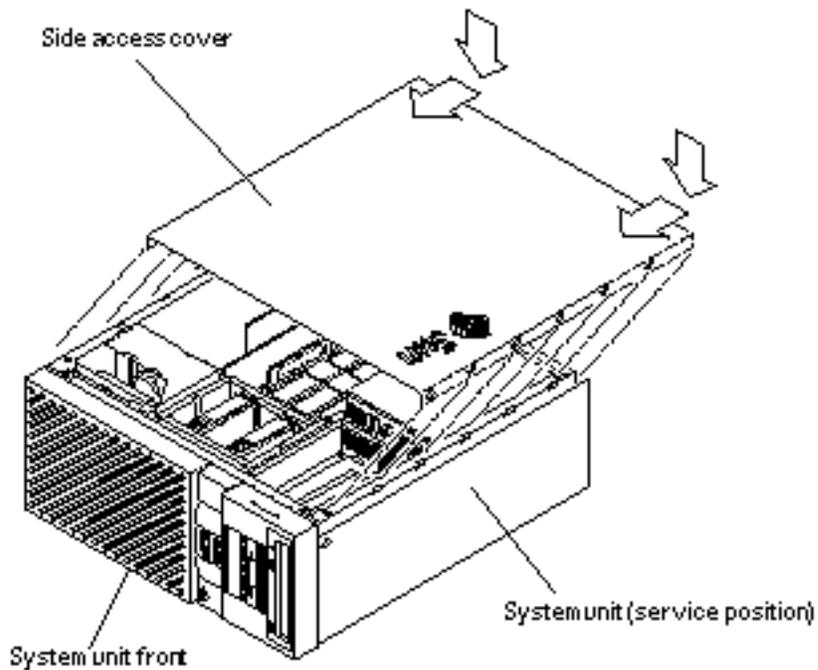


Figure 1-13 Replacing the Side Access Cover

12. Connect the lock block (Figure 1-2).
13. Position the system unit in the operating position.
14. Reconnect cables to any peripheral equipment.
15. Turn on the power to the monitor.
16. Power on the system unit.
 - a. Turn on power to all connected peripherals.
 - b. Set the front panel power switch to the On position (Figure 1-14) or press the Sun Type-5 keyboard power on key (Figure 1-15).
 - c. Verify the following:
 - i. The front panel LED is on.

ii. The system fans are spinning.

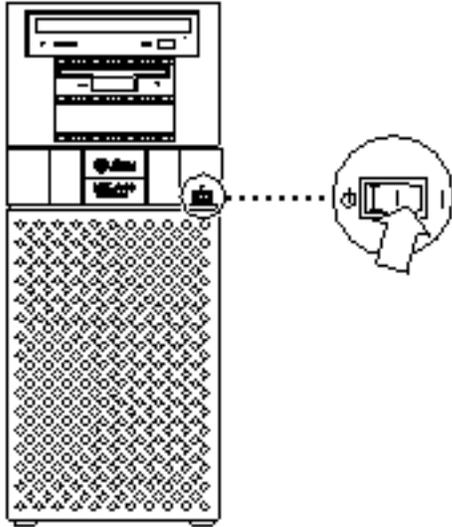


Figure 1-14 System Unit Power-On (Front Panel)

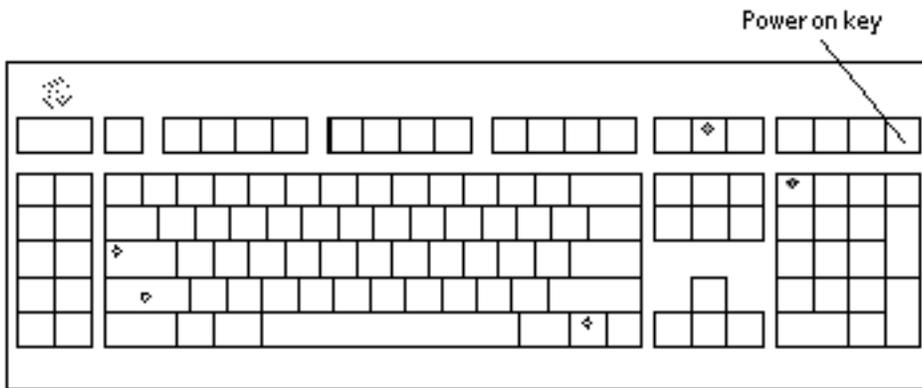


Figure 1-15 Sun Type-5 Keyboard