

≡ 1

Operating and Service Positions

Operating Position

The Sun Ultra 60 system must be operated in a vertical position.

Service Position

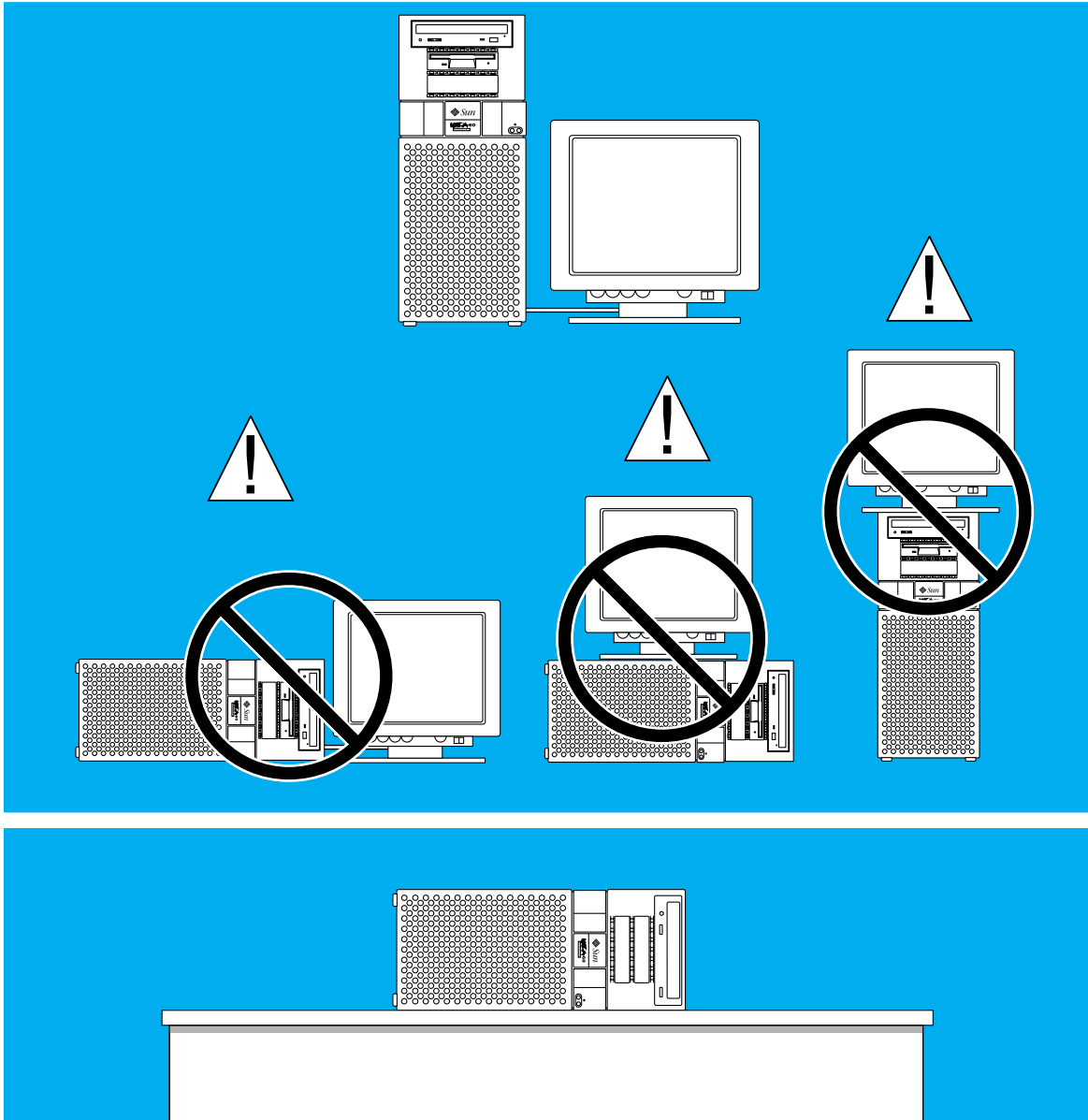
Place the system in the horizontal service position on a hard surface to perform service on the system.

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 2

Opening the System Unit

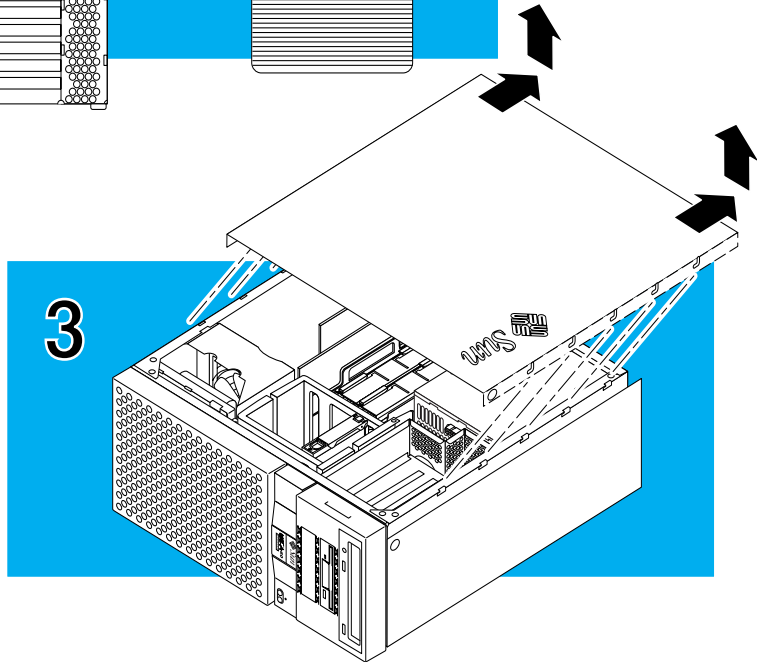
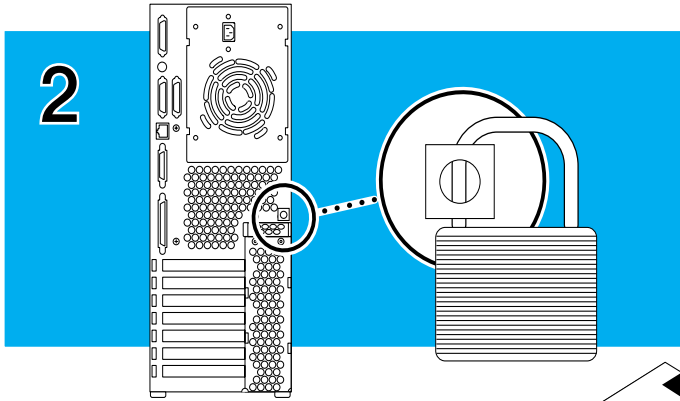
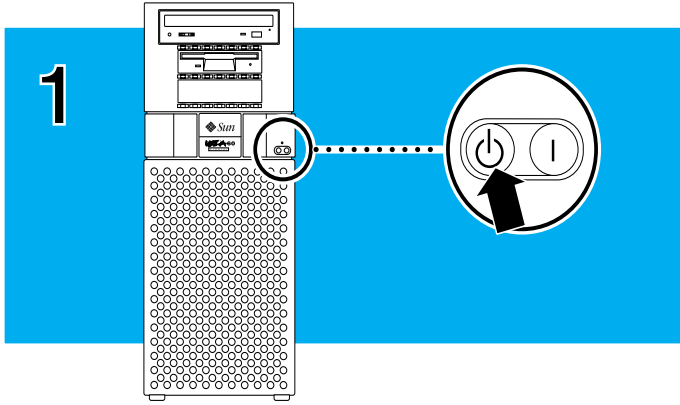
1. Press the Standby (⏻) side of the power switch.
2. Remove the lock block from the system.
3. Grasp the side panel and pull it toward the back of the system.
Lift up and remove the panel.

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 3

Installing DIMMs

Note - Use only dual in-line memory modules (DIMMs) that are specifically designed for your Sun Ultra 60 system. See (≡ 11).

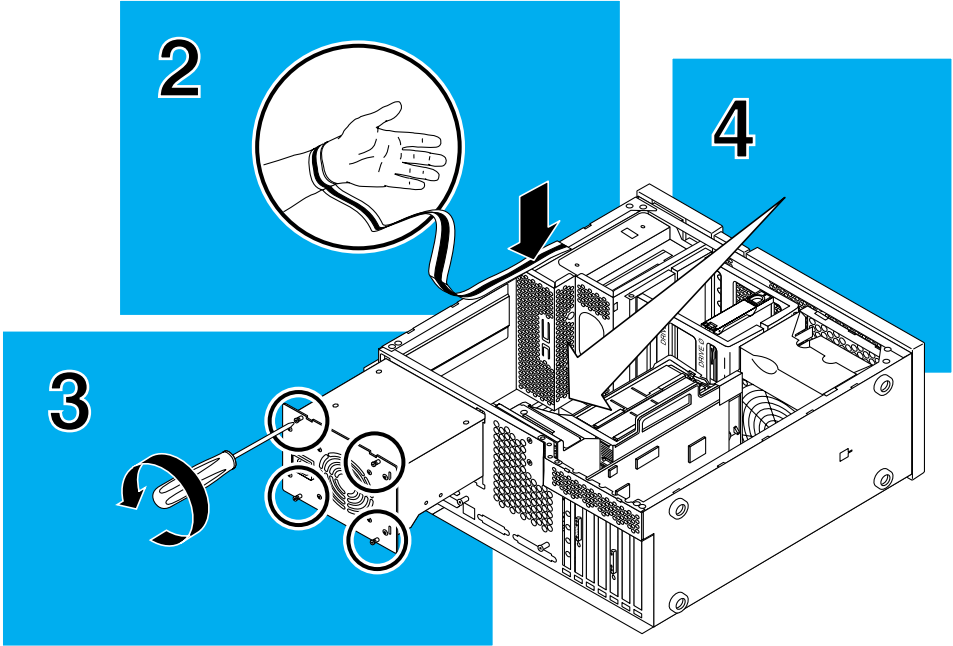
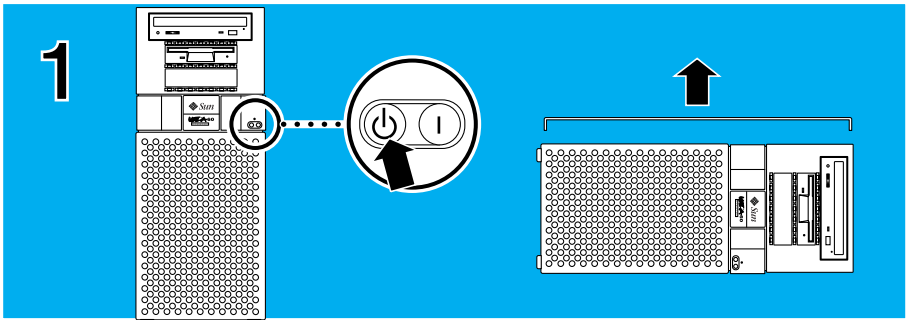
1. Power off your system and open the system unit (≡ 2).
 2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.
 3. Use a Phillips screwdriver to loosen the four screws that hold the power supply to the chassis. Disconnect the power harness plug from the connection at the motherboard. Slide the power supply partially out until it is not blocking the DIMMs.
 4. Locate and select an available bank of DIMM slots on the motherboard. See (≡ 12).
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 3

Installing DIMMs

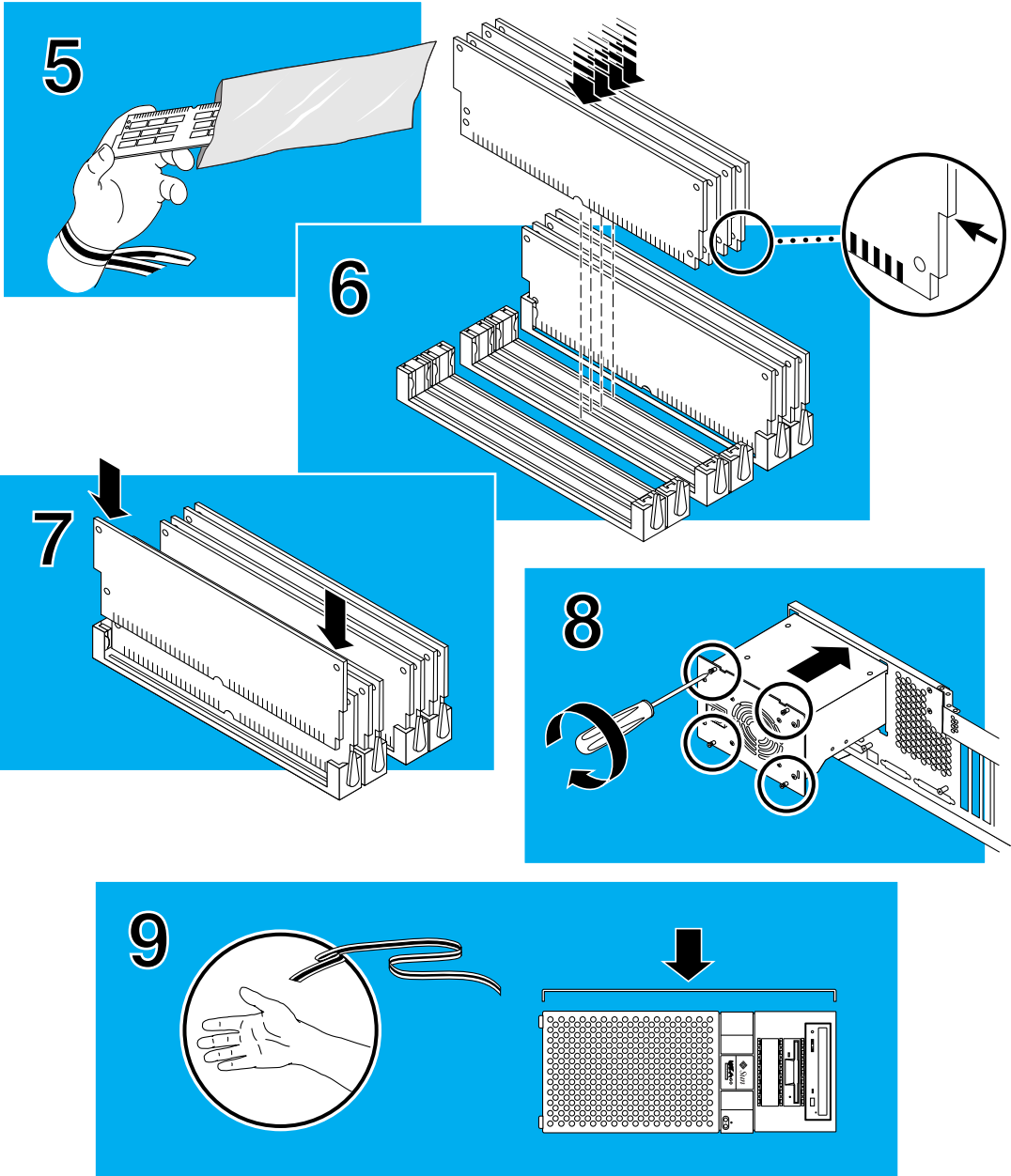
5. Unpack the DIMM, holding it only by the edges.
 6. For each DIMM, align the notch on the side of the DIMM with the ejector on the DIMM slot. Insert the DIMM into the slot.
 7. Push the DIMM firmly into its connector until you hear a “click.”
 8. Slide the power supply back into the chassis. Reconnect the power harness plug to the connection at the motherboard. Use a Phillips screwdriver to tighten the four screws that attach the power supply to the chassis.
 9. Detach the wrist strap and close the system unit (≡ 10).
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 4

Changing the RS-423/232 Jumpers

Note — If you are connecting your system to a public X.25 network, you may need to change the serial port mode jumpers from RS-423 to RS-232 mode.

1. Power off the system and open the system unit (≡ 2).
2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.

3. Use a Phillips screwdriver to loosen the four screws that hold the power supply to the chassis. Slide the power supply partially out such that it is not blocking the jumpers.

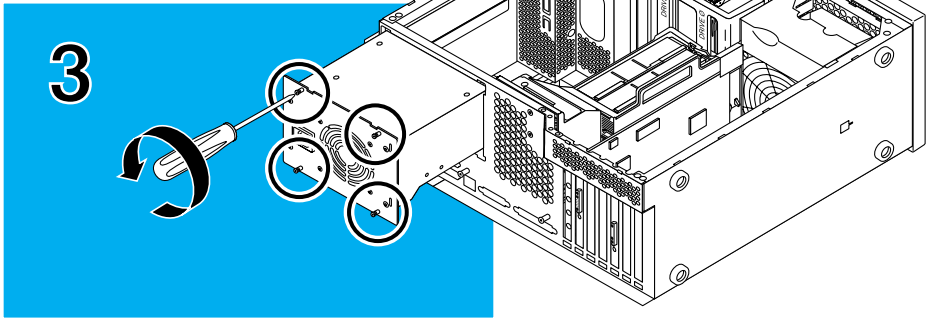
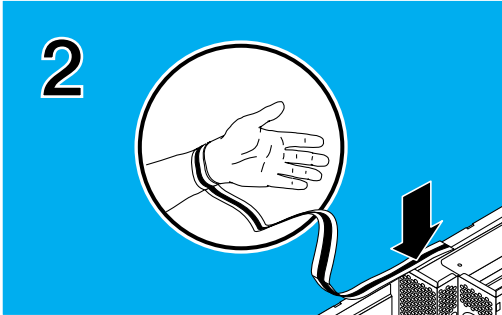
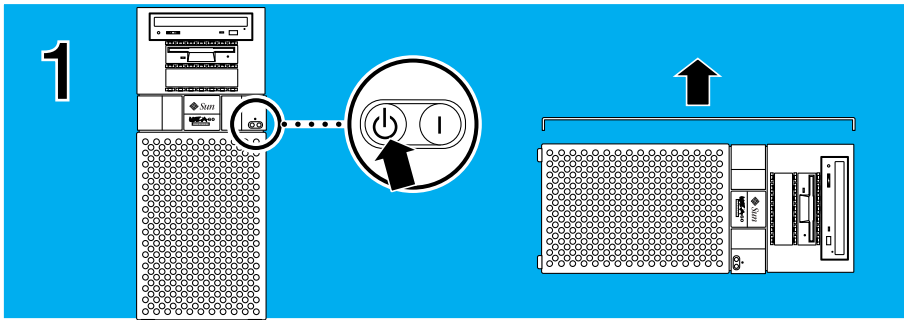
Note — The power cord must remain plugged into the power source.

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 4

Changing the RS-423/232 Jumpers

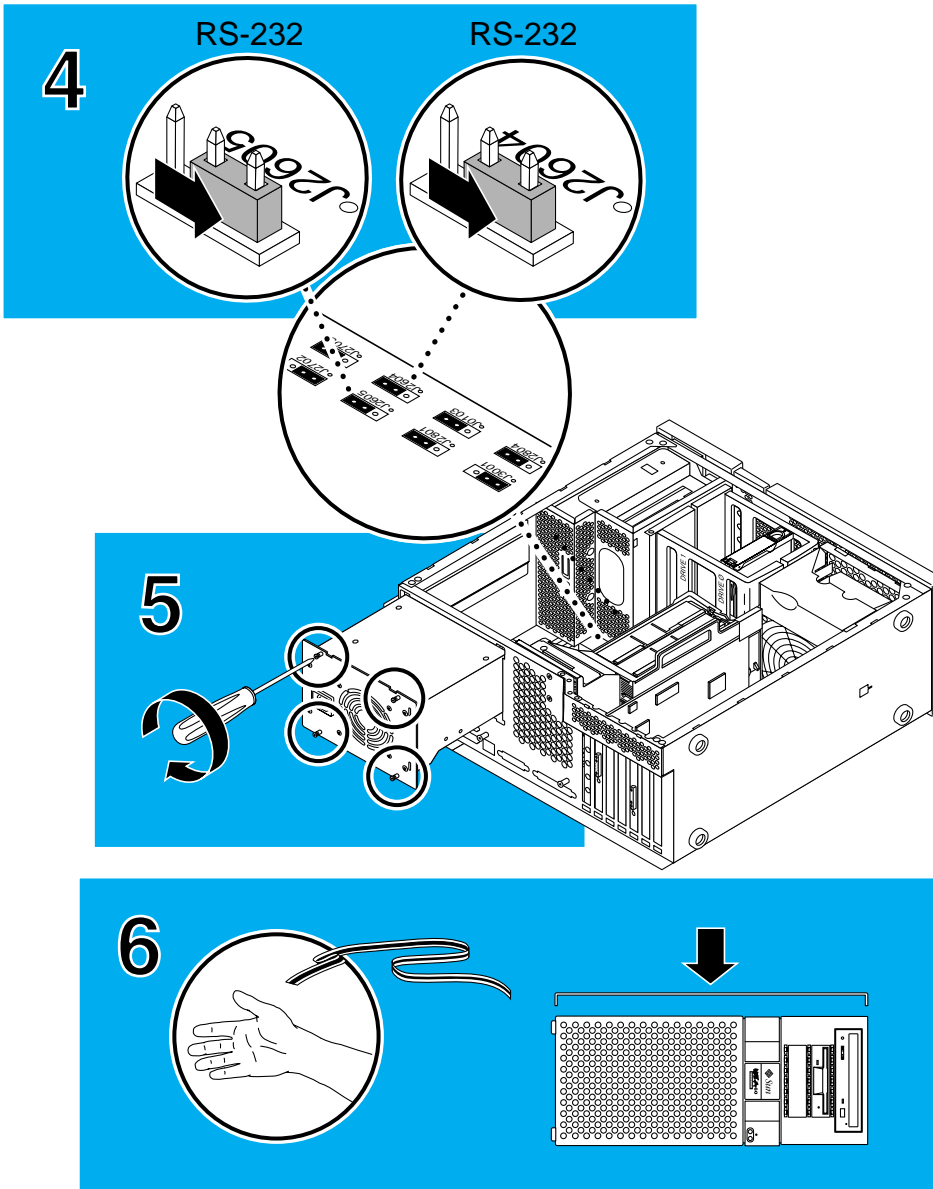
4. Locate the jumpers on the motherboard (≡ 12). Change the jumpers on J2605 and J2604 to the RS-232 position.
 5. Slide the power supply back into the chassis. Use a Phillips screwdriver to tighten the four screws that attach the power supply to the chassis.
 6. Detach the wrist strap and close the system unit (≡ 10).
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 5

Installing the Hard Disk Drive

Note — Use only hard disk drives that are specifically designed for a Sun Ultra 60 system.

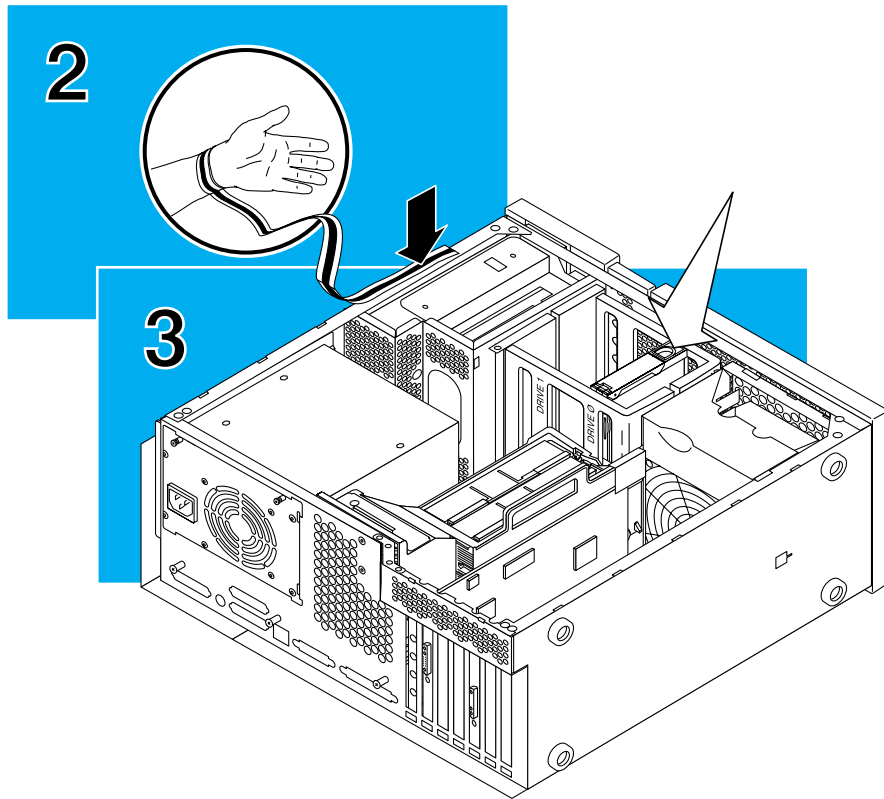
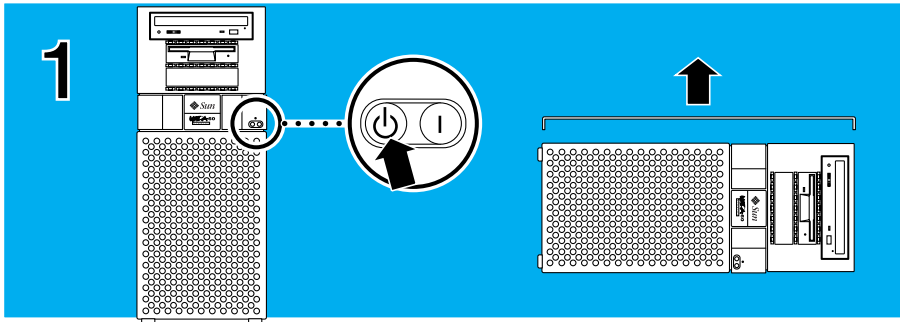
1. Power off the system and open the system unit (≡ 2).
 2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.
 3. Locate the hard drive bay.
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 5

Installing the Hard Disk Drive

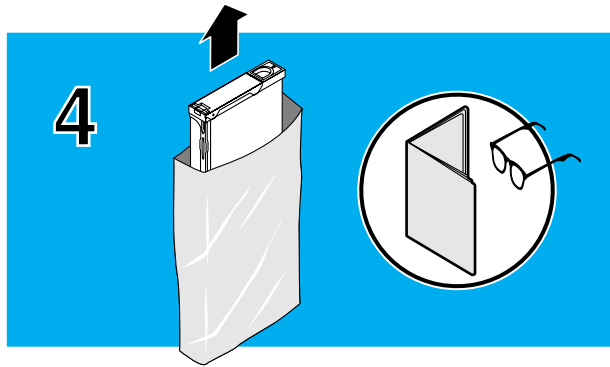
4. Remove the hard disk drive from the antistatic bag. Read the hard disk drive product guide for information about jumper switch settings or other installation tasks.

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 5

Installing the Hard Disk Drive

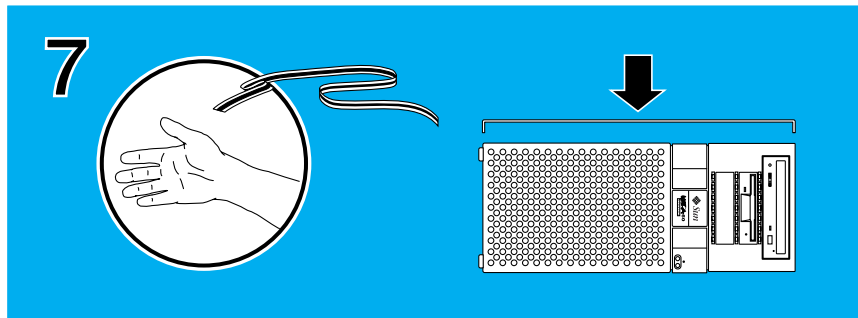
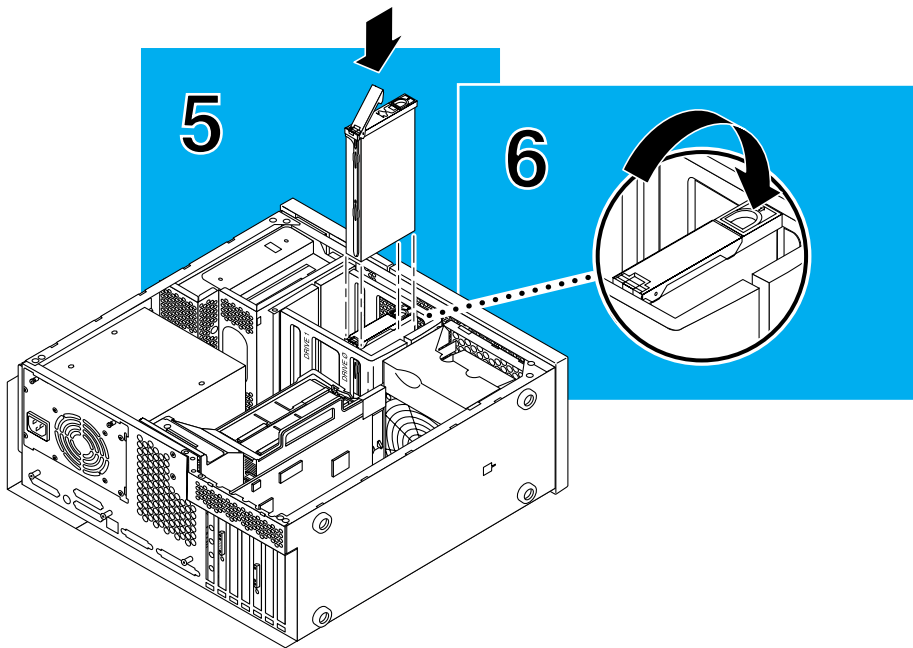
5. Open the drive handle and slide the drive completely into the drive bay. Press the drive to connect it to the SCSI port in the system.
 6. Close the drive handle. The handle will not latch if the drive is not properly attached or closed.
 7. Detach the wrist strap and close the system unit (≡ 10).
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JP tasks

KR tasks

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PRC tasks



≡ 6

Installing the Diskette Drive or Accessory Device

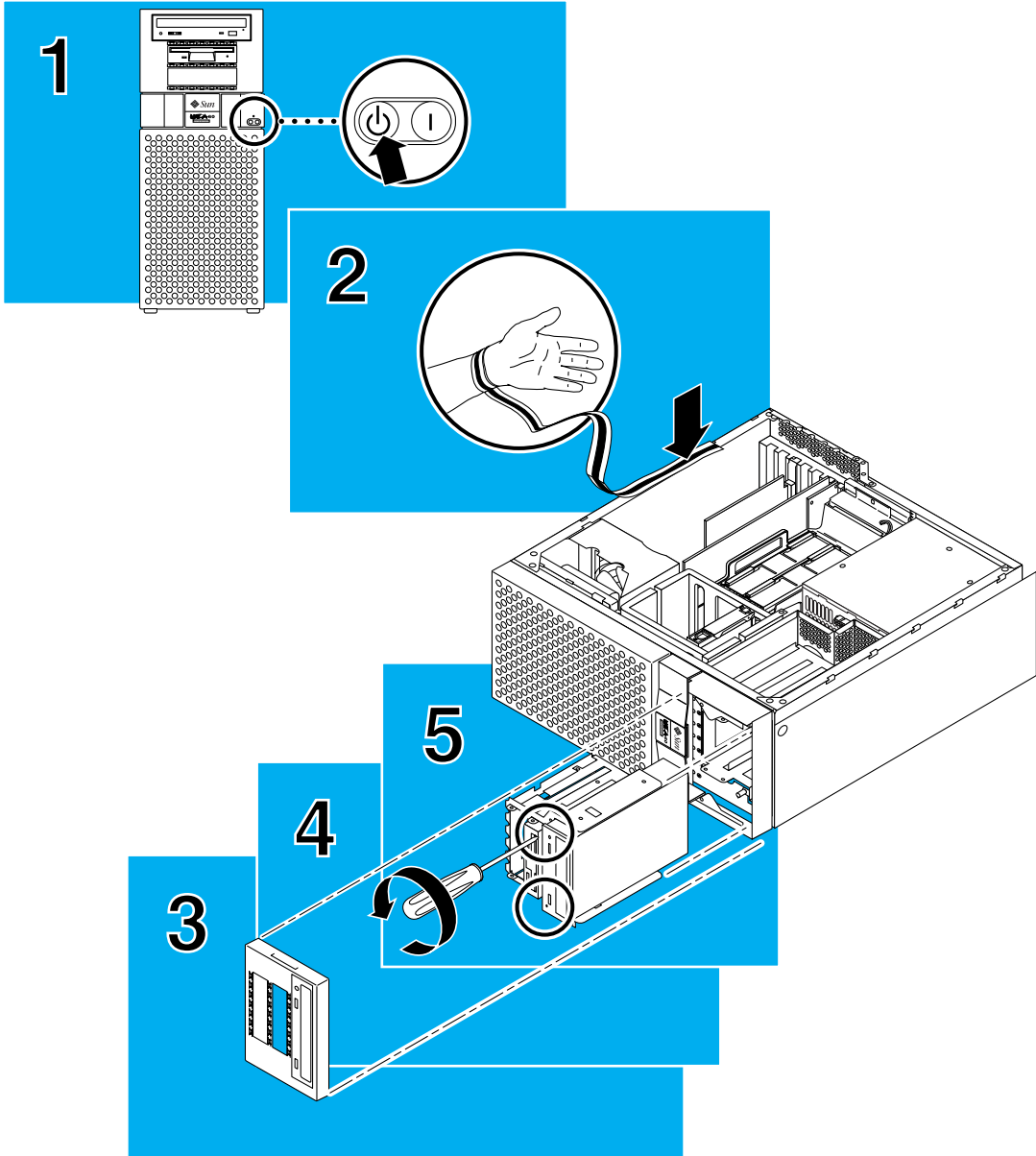
1. Power off the system and open the system unit (≡ 2).
 2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.
 3. Remove the peripheral bezel from the front of the system unit.
 4. Use a Phillips screwdriver to loosen the two screws holding the removable media assembly (RMA) to the system chassis.
 5. Slide the RMA out of the system chassis.
-

JP tasks

KR tasks

TW tasks

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≡ 6

Installing the Diskette Drive or Accessory Device

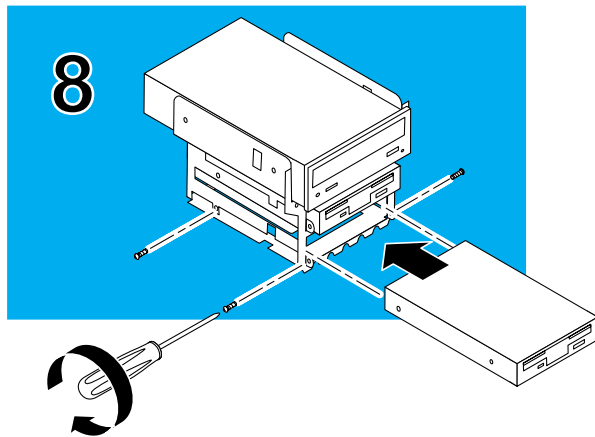
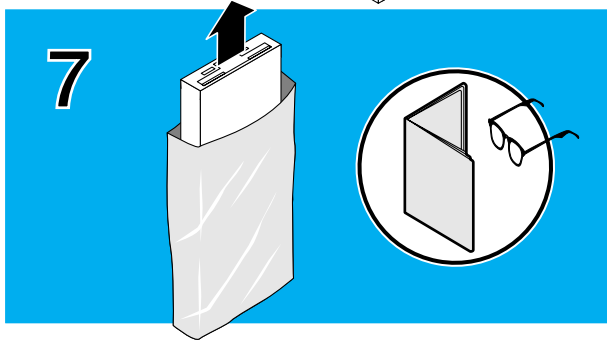
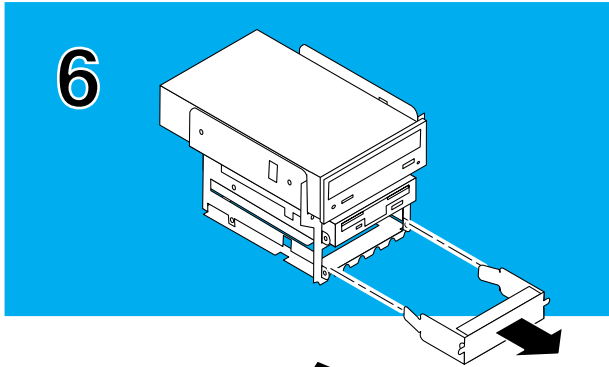
6. Remove the metal filler panel from the RMA.
 7. Remove the diskette drive or accessory device from the antistatic bag. Read the diskette drive or accessory device product guide for information about jumper switch settings, or any other installation tasks.
 8. Use a Phillips screwdriver to attach the diskette drive or accessory device to the RMA using the four screws provided.
-

JP tasks

KR tasks

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≡ 6

Installing the Diskette Drive or Accessory Device

Note — Steps 9 and 10 apply only to a diskette drive. If you are installing an accessory device, see its product guide for specific installation instructions.

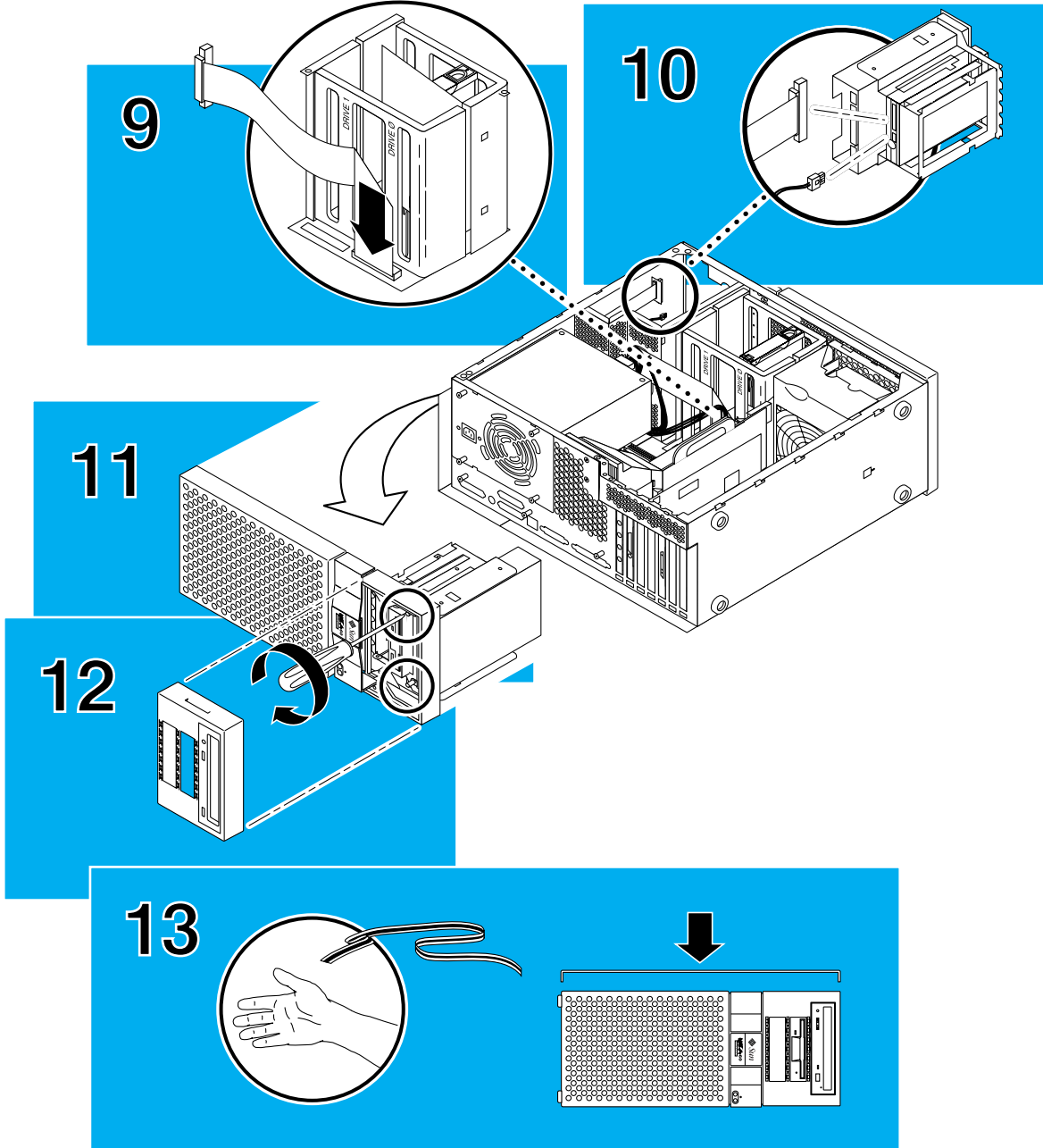
9. Remove the diskette data cable from the kit and connect one end into the drive backplane marked **J0103**. Connect the other end to the diskette drive. Clip the cable behind the SCSI cable.
10. Attach the power connector labeled **P2** to the drive.
11. Slide the RMA into the chassis. Tighten the two screws holding the RMA to the system.
12. Replace the peripheral bezel on the front of the system.
13. Detach the wrist strap and close the system unit (≡ **10**).

JP tasks

KR tasks

TW tasks

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≡ 7

Installing the CD-ROM Drive or Tape Drive

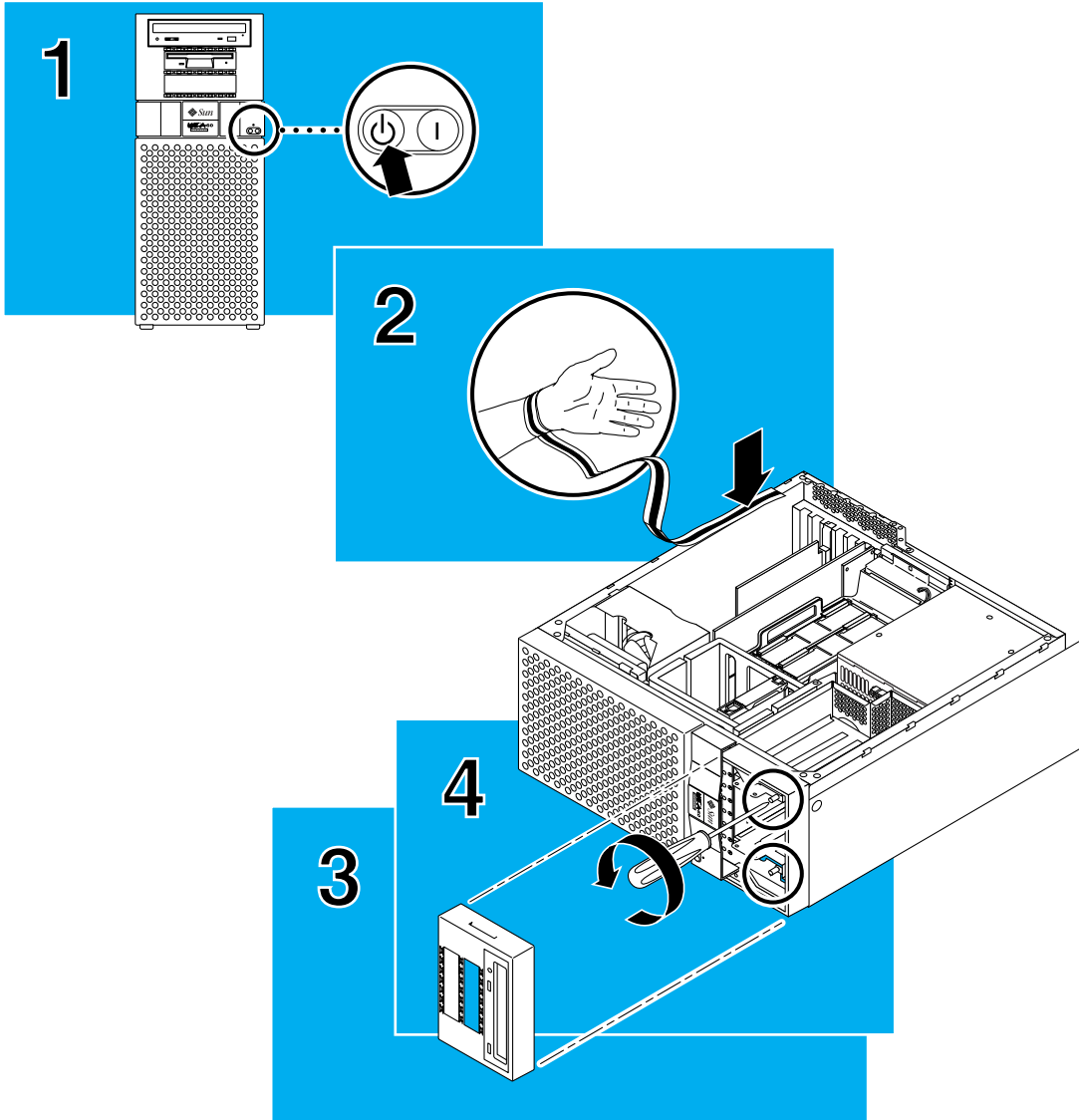
1. Power off the system and open the system unit (≡ 2).
 2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.
 3. Remove the peripheral bezel from the front of the system unit.
 4. Use a Phillips screwdriver to loosen the two screws holding the removable media assembly (RMA) to the system chassis.
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 7

Installing the CD-ROM Drive or Tape Drive

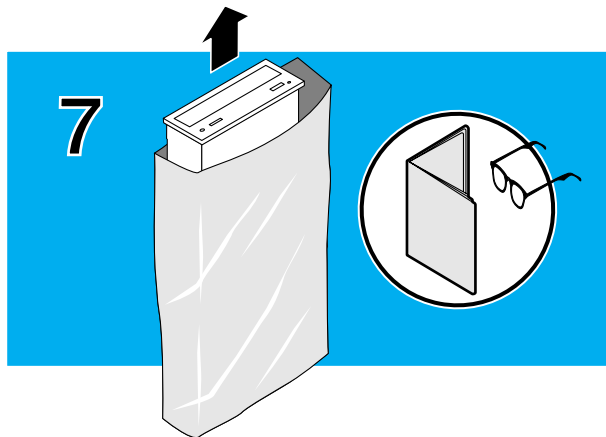
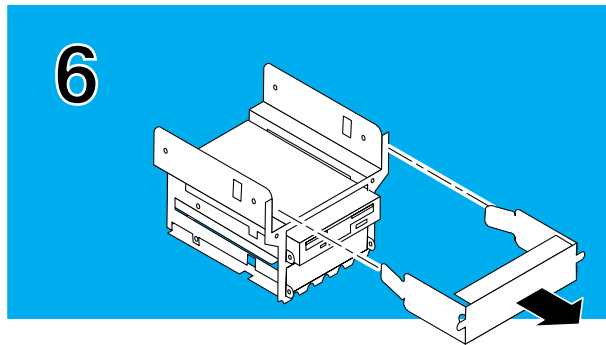
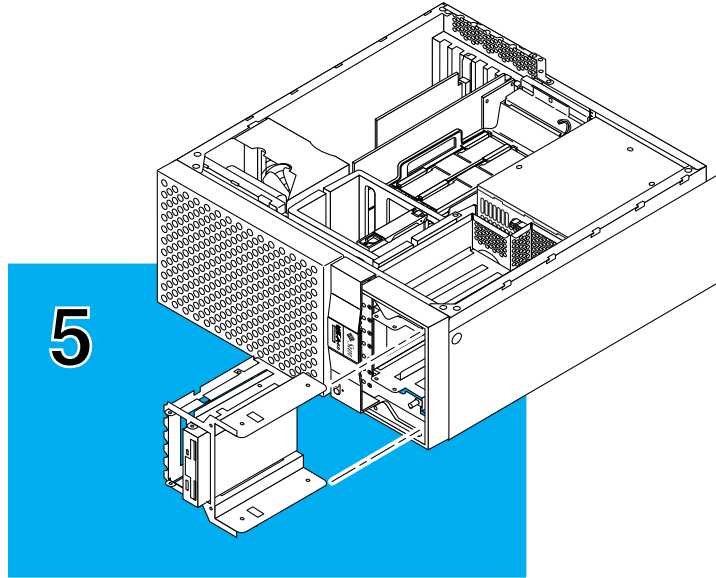
5. Slide the RMA out of the system.
6. Remove the metal filler panel from the RMA.
7. Remove the drive from the antistatic bag. Read the drive product guide for information about jumper switch settings or any other installation tasks.

JP tasks

KR tasks

TW tasks

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≡ 7

Installing the CD-ROM Drive or Tape Drive

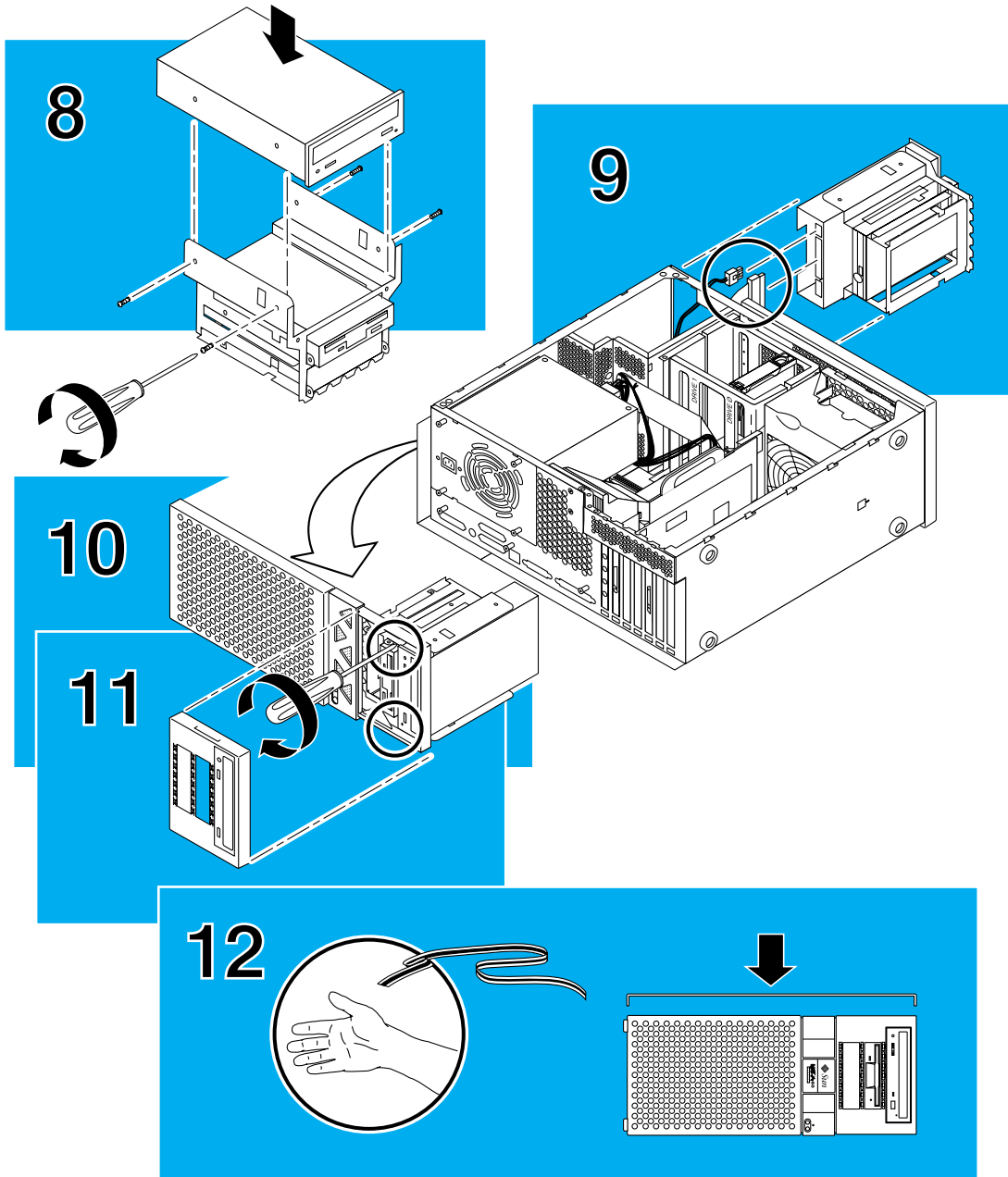
8. Use a Phillips screwdriver to attach the drive to the RMA using the four screws provided.
 9. Partially slide the RMA into the chassis and attach the cables to the drive:
 - SCSI cable: **J0300**
 - Power cable: **P3**
 10. Complete sliding the RMA into the chassis. Tighten the two screws holding the RMA to the system chassis.
 11. Replace the peripheral bezel on the front of the system.
 12. Detach the wrist strap and close the system unit (≡ **10**).
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 8

Installing UPA Graphics Cards or PCI Cards

Note — If you are installing a PCI card, first see (≡ 13).

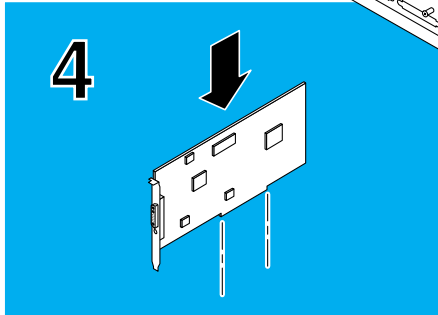
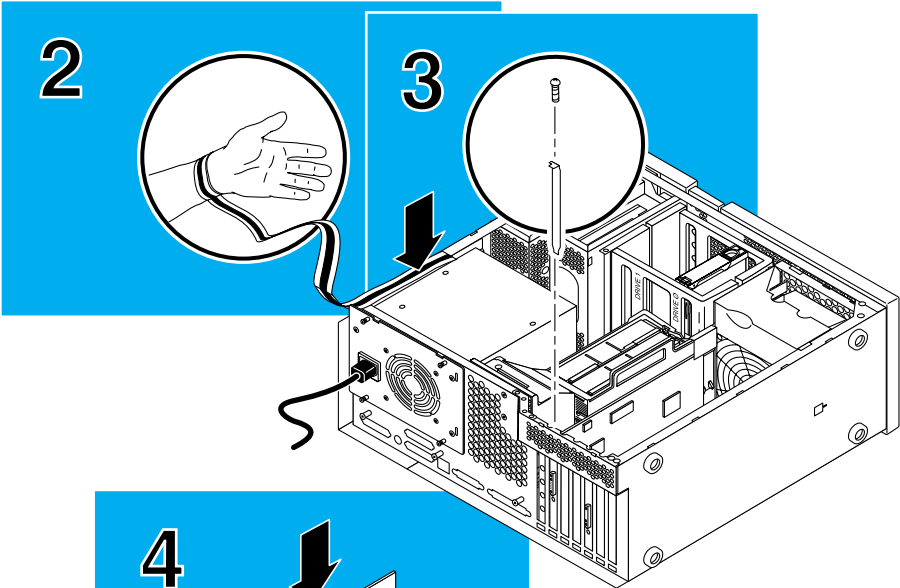
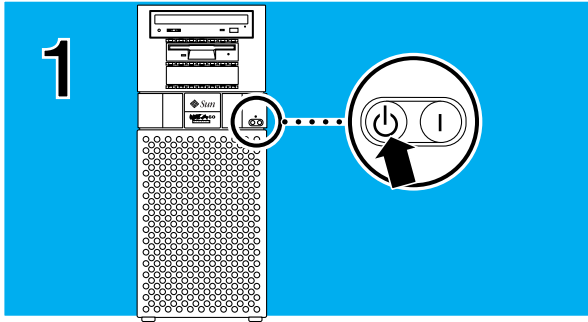
1. Power off the system and open the system unit (≡ 2).
 2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.
 3. Remove the filler panel from the back panel of the system chassis.
 4. Fit the card back panel into one of the system chassis card slots. Lower the card connector so that it touches its associated card slot on the motherboard.
-

JP tasks

KR tasks

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PRC tasks



≡ 8

Installing UPA Graphics Cards or PCI Cards

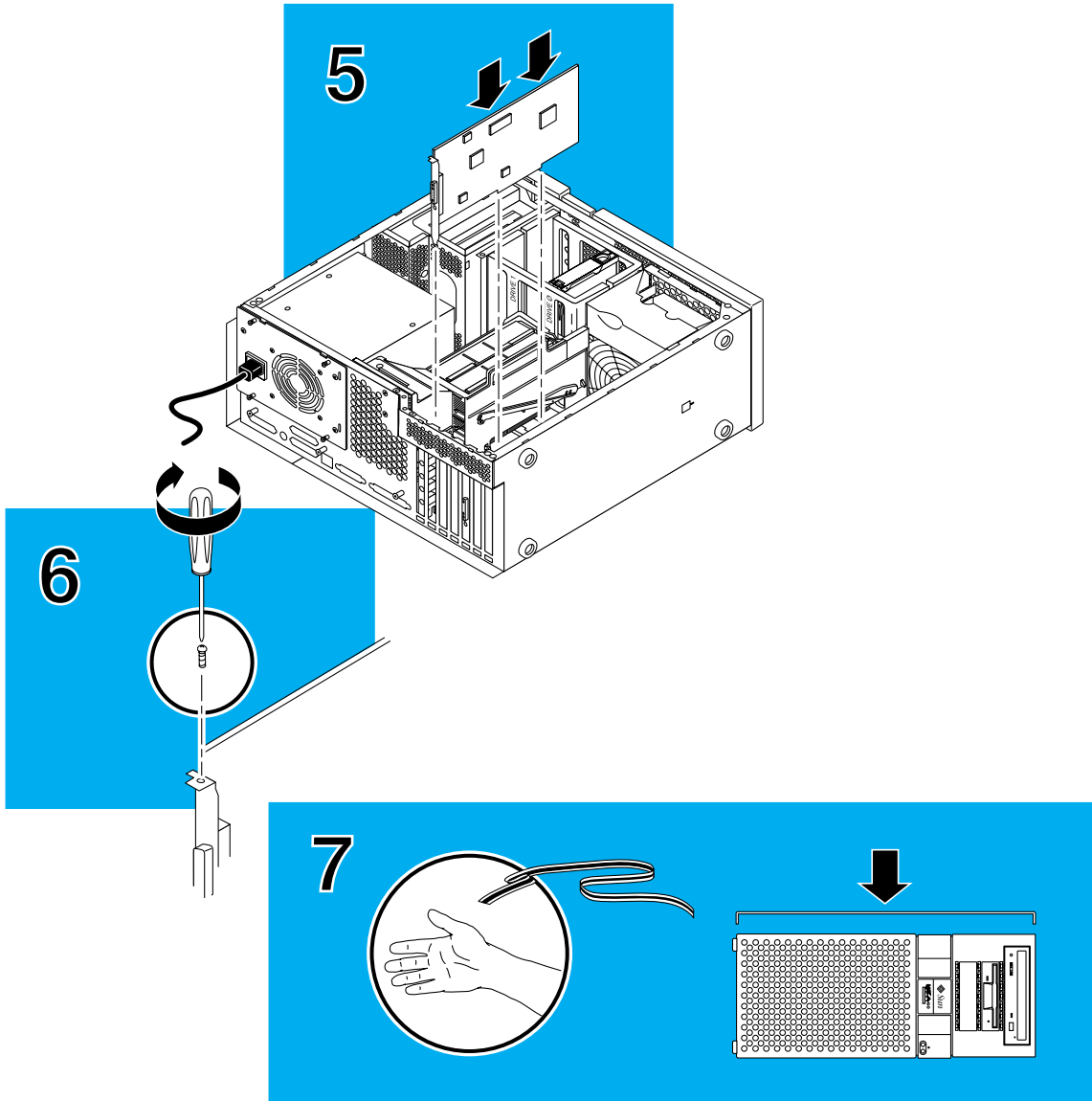
5. Push the card by its corners straight down into the slot until the card is fully seated. You should hear two “clicks.”
 6. Use a magnetized Phillips screwdriver to attach the card bracket tab to the system chassis.
 7. Detach the wrist strap and close the system unit (≡ 10).
-

JP tasks

KR tasks

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≡ 9

Installing CPU Modules

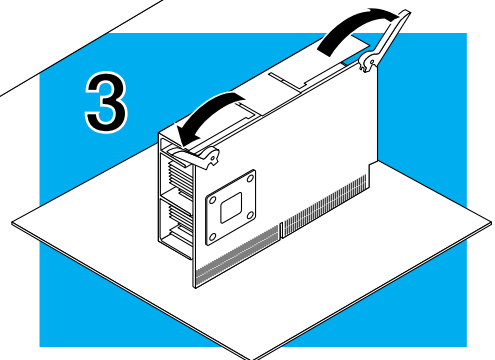
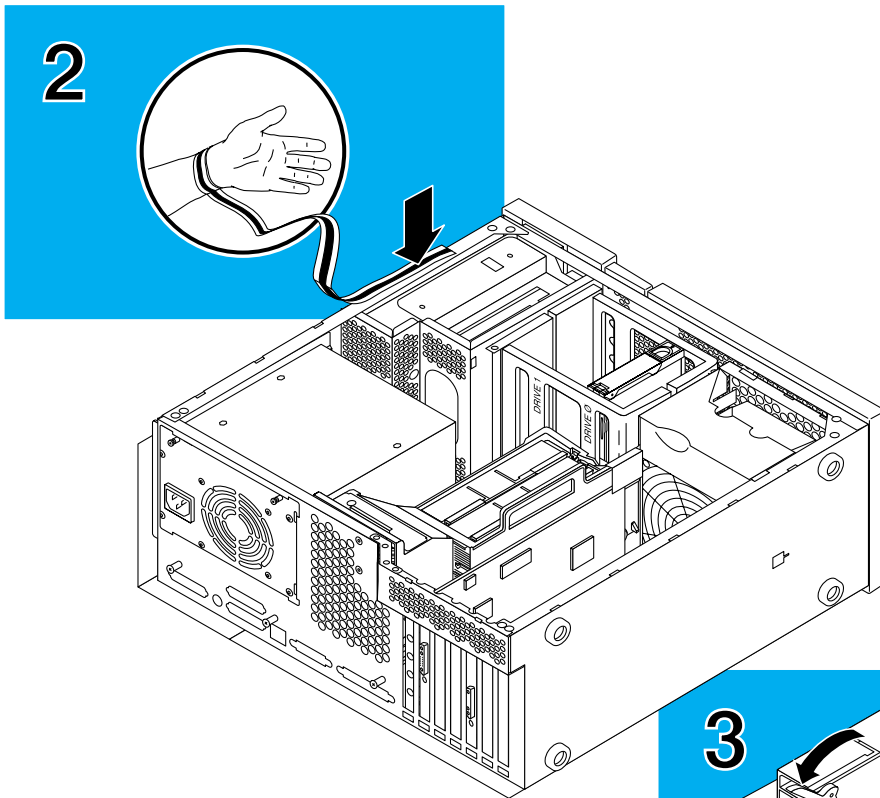
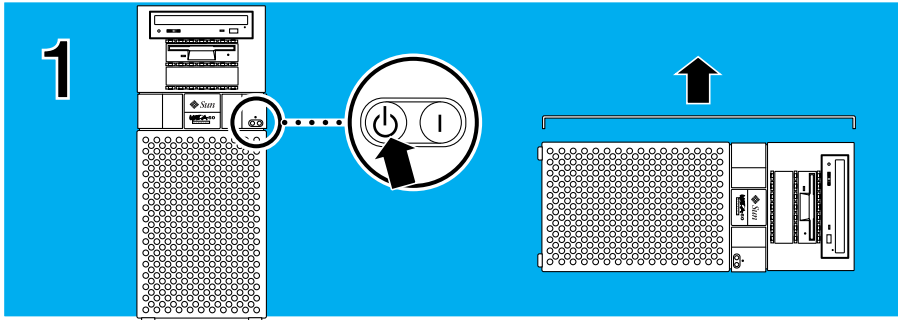
1. Power off the system and open the system unit (≡ 2).
 2. Locate the wrist strap, and attach its adhesive copper strip to the chassis back panel. Wrap the other end twice around your wrist, with the adhesive side against your skin.
 3. On an antistatic mat, hold the CPU module in an upright position and move the levers to a 135-degree position (unlocked).
-

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 9

Installing CPU Modules

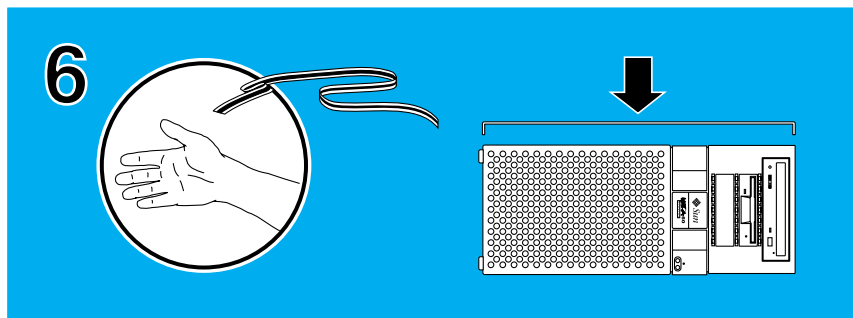
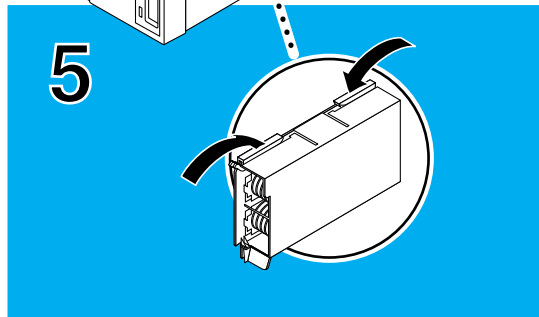
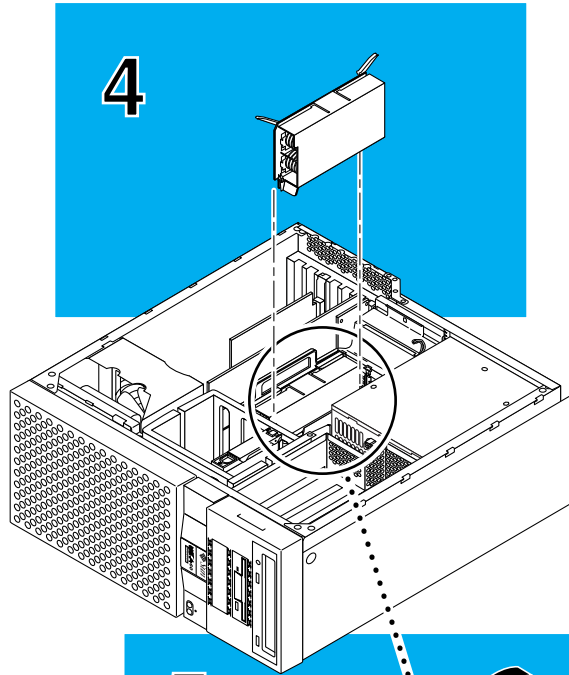
4. Lower the CPU module along the vertical plastic guides until the module touches the motherboard slot socket.
 5. With both hands, simultaneously turn and press the levers downward to the fully horizontal position. Firmly press the module downward into the socket until it is fully seated and the levers are fully locked.
 6. Detach the wrist strap and close the system unit (≡ 10).
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JP tasks

KR tasks

TW tasks

PRC tasks



≡ 10

Closing the System Unit

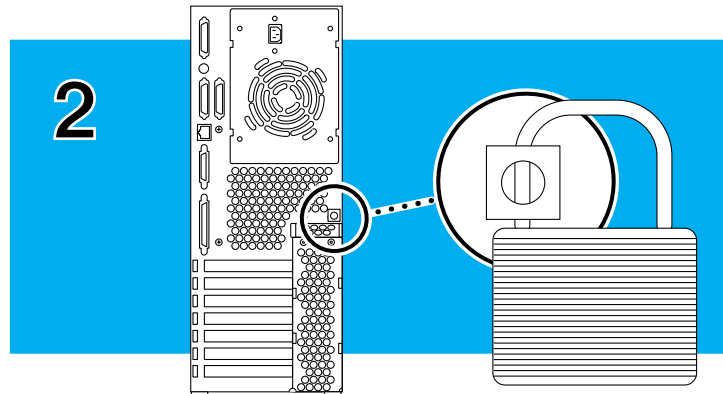
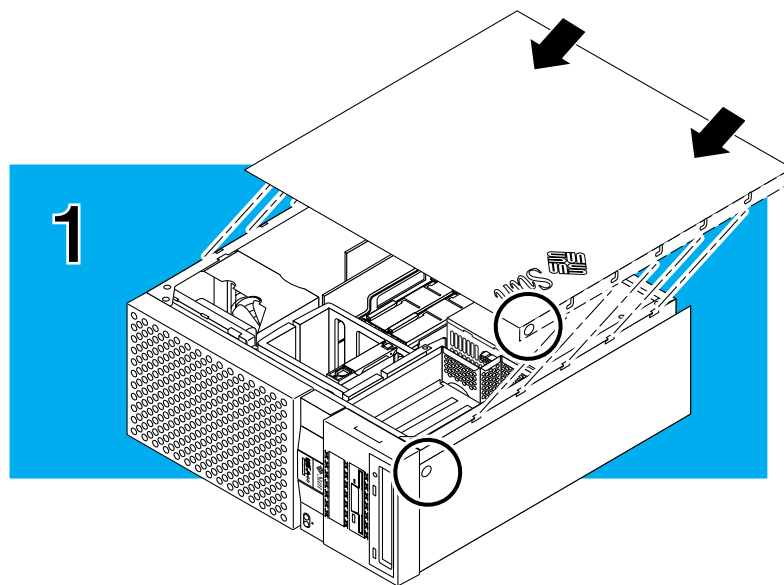
1. Holding the side panel in both hands, guide it so that the hooks align with the channels on the system unit chassis. Align the alignment dots on the cover and system top before sliding the cover forward.
 2. Install the lock block.
-

JP tasks

KR tasks

TW tasks

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≡ 11

DIMM Installation Guidelines

- Ultra 60 DIMMs are installed in banks of four.
- Each bank of four DIMMs must be of the same memory size and speed.
- To boot, the system must have a minimum of four DIMMs in a bank of mapped slots.
- DIMM sizes of 16-, 32-, 64-, and 128-megabytes are supported.

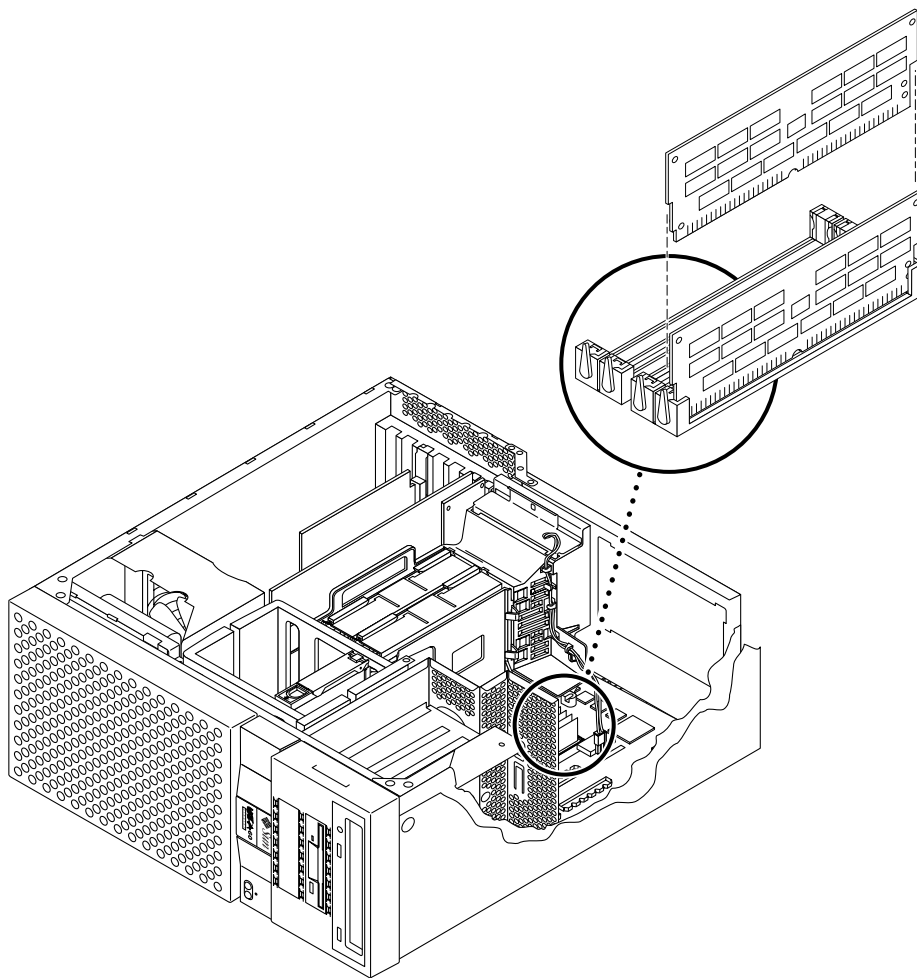
Note — See (≡ 12) for additional DIMM installation information.

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 12

DIMM Banks and Slots

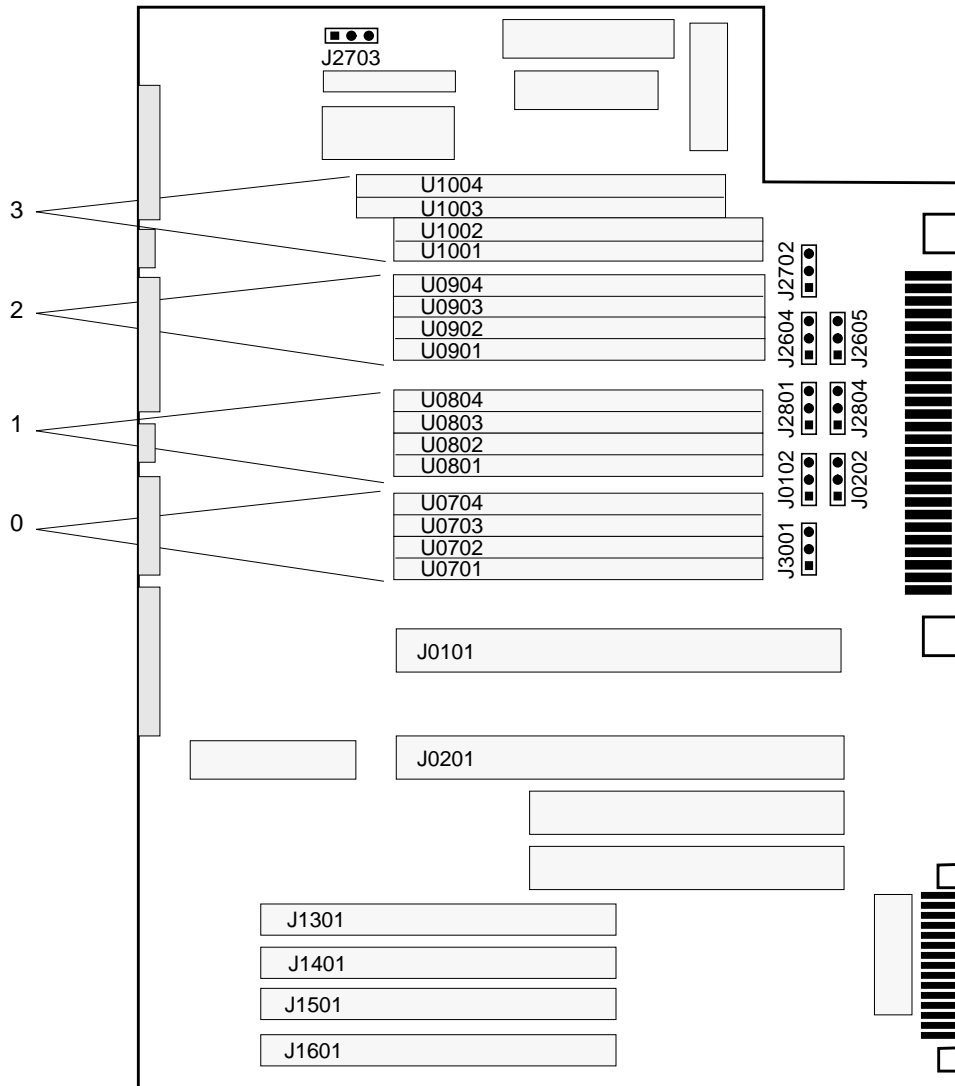
Bank:	Slots:
3	U1001, U1002, U1003, U1004
2	U0901, U0902, U0903, U0904
1	U0801, U0802, U0803, U0804
0	U0701, U0702, U0703, U0704

JP tasks

KR tasks

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≡ 13

PCI Card Slot Operating Frequencies

PCI Card Slot:	Operating Frequency:	Input/Output Signaling Level:
Slot 1 J1301	33 MHz or 66 MHz	3.3 volts
Slot 2 J1401	33 MHz	5.0 volts
Slot 3 J1501	33 MHz	5.0 volts
Slot 4 J1601	33 MHz	5.0 volts

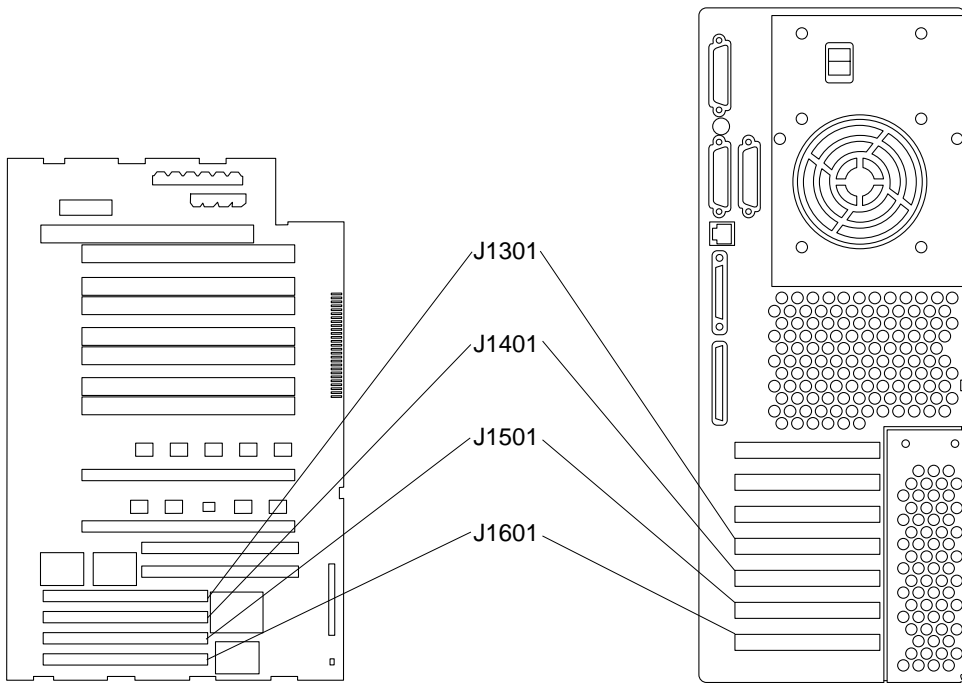
- All Sun Ultra 60 system PCI card slots operate at 32-bit or 64-bit bus widths.
- Most PCI cards operate at 33 MHz.
- Cards designed to operate at 66 MHz must be installed in PCI card slot 1.

JP tasks

KR tasks

TW tasks

PRC tasks



≡ 14

What's Next

After you have installed all internal options and made modifications to the system, you are ready to have a system administrator install the Solaris software. Refer to the *SMCC SPARC Hardware Platform Guide*.

After the software is installed (including the *Solaris on Sun Hardware AnswerBook*), install the *Sun Ultra 60 Hardware AnswerBook*.

For more information, refer to:

Sun Ultra 60 Hardware Setup Instructions

Sun Ultra 60 Product Notes

Sun Ultra 60 Hardware AnswerBook Installation

SMCC SPARC Hardware Platform Guide

Solaris Handbook for SMCC Peripherals

JP tasks

KR tasks

TW tasks

PRC tasks

