

# Hardware Upgrades

# SunUpgrades Product Overview

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Sun's upgrade program offers:

- Upgrade opportunities for customers with Sun systems.
  - Protection of current investment in Sun products.
  - Migration paths for systems and selected options.
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### Solaris Software for Upgrades

Read the Solaris licensing information (page 7-1) before ordering a system upgrade.

See the "Solaris Version Upgrade" section to order upgrade media and documentation. A frame buffer upgrade requires a separate purchase of an upgrade license. Follow the ordering instructions for each upgrade.

Customers upgrading systems may need new binaries for their unbundled software. Unbundled software may be ordered as a software upgrade. Service contract customers may order new binaries at no additional charge. (Orders must indicate a valid software support contract covering the specific unbundled products.)

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### Replaced Parts

Unless otherwise specified:

- All system and other specified parts must have been in the possession of, owned and used by the customer at least 90 days prior to upgrading.
  - All specified parts must be returned to Sun within 30 days of shipment and become Sun's property.
  - Return instructions are provided.
  - The Reseller who purchases an upgrade from Sun is responsible for returning replaced components to Sun within 30 days of shipment. If installed by Sun, the installing Sun field engineer will return the replaced parts to Sun.
  - Replaced parts not returned will be invoiced at their list price. Please use the yellow return address label containing the Return Materials Authorization number to ensure proper tracking.
  - Only Sun parts (memory, etc.) can be returned.
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### Returns and Conditions

- TERMS AND CONDITIONS OF UPGRADE SALE REQUIRES THAT RESIDUALS BE RETURNED TO SUN MICROSYSTEMS WITHIN 30 DAYS OF RECEIPT OF PRODUCT, OTHERWISE YOU WILL BE BILLED FOR THE NON-RETURNS.
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### Limitations

- Support of upgraded configurations is limited to options previously supported on the upgraded system unless specified elsewhere in this price list.
  - Sun cannot assure the functionality of options not sold or supported by Sun.
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### Installation

- When upgrading to a new CPU architecture, the Ethernet address and hostid will change. The appropriate system administration support must be obtained to change networking information and applications that are licensed to a system.
- Upgrade installation by Sun for servers (except Workgroup Servers) and other specified hardware upgrades is provided for the direct end-user customers located within 50 miles of a Sun Field Office (unless otherwise specified) and may be scheduled at a time mutually convenient for Sun and the customer by calling 1-800-USA-4SUN.

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# SunUpgrades Product Overview *(continued)*

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### Service Pricing

SunSpectrum Silver Price is based only on the equipment shipped with each individual upgrade.

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### Service Contract Customers

Contact your local Sun sales office to update hardware support contracts.

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### Warranty Policy

- The standard warranty is one year, parts only, return to Sun.
- Warranty applies to purchased upgrades only.
- Contract customers receive on-site or customer-assisted return service.
- To ensure prompt response to warranty claims, customers must complete and return the “Upgrade Customer Warranty Information Form” included with each upgrade.

# **Enterprise Appliances**

# Sun Ray Enterprise Server Upgrades

Description	Order Number
Upgrade 25 early SPARCstations to Sun Enterprise 450 server tower; includes 400MHz CPU with 4MB cache 3 open module slots, 1GB memory, 10 PCI I/O slots, 32x CDROM, 1.44MB floppy drive, 10/100 ether- net, two power supplies, 4 hot swap UltraSCSI disk bays, one with 18GB 10,000 rpm drive and Solaris server license Customer Returns: Qty 10 early SPARCstation chassis with mother- board, CPU, memory, graphics and disk.	UG10ES-A25-BAEX0 <sup>1</sup>
UPGRADE FROM 50 EARLY SPARCstations to Sun E3500 enclosure, one CPU/Memory Board, two 400-MHz/8-MB UltraSPARC modules, 1-GB memory, one SBus I/O Board with two empty FC-AL sockets, 32x CDROM, one Power/Cooling Module, Solaris Server License. Customer must return: Qty 50 early SPARCstation chassis with mother- board, CPU, memory, graphics and disks. Must order 50 Corona Enterprise App	UG15ES-E3501-BAEX0 <sup>2</sup>
UPGRADE FROM 50 EARLY SPARCstations to Sun E3500 enclosure, one CPU/Memory Board, two 400-MHz/8-MB UltraSPARC modules, 1-GB memory, one SBus I/O Board with two empty FC-AL sockets, 32x CDROM, two Power/Cooling Modules, Solaris Server License. Customer must return: Qty 50 early SPARCstation chassis with mother- board, CPU, memory, graphics and disks. Must order 50 Corona Enterprise App	UG15ES-E3502-BAEX0

### Ordering Note

- *The server upgrades can only be ordered when ordering a required number of Sun Ray 1 enterprise appliances, the Sun Ray enterprise server software, and the Return Material Authorization (RMA) Kit.*

### Footnote

1. *When ordering UG10ES-A25-BAEX0, the following items must also be ordered: 25 Sun Ray 1 enterprise appliances, BAE-100-xx (where xx is the appropriate country kit designation, see part numbers above), 1 Sun Ray enterprise server software 1.0 for Workgroup servers, CECMS-100WW99M, and 1 UG-RMA.*
2. *When ordering UG15ES-E3501-BAEX0, the following items must also be ordered: 50 Sun Ray 1 enterprise appliances, BAE-100-xx (where xx is the appropriate country kit designation, see part numbers above), 1 Sun Ray enterprise server software 1.0 for Enterprise servers, CECMS-100WE99M, and 1 UG-RMA.*

# Workstations

# Sun Ultra 5 Upgrade Configurations

### Country Kit

Unlike traditional Sun systems, the Ultra 5 has the Country Kit physically included within the System Ship Kit. The choice of Country Kit is specified by adding an additional character to the Ultra 5 Upgrade Marketing Part Number. The tenth or eleventh character of the Ultra 5 Upgrade Marketing Part Number specifies the choice of Country Kit. The single character Country Kit Codes are listed in the table below.

Code	Country Kit
A	North American UNIX
D	German Language
E	United Kingdom
G	Swedish Language
Y	Universal UNIX
Z	No Included Country Kit

To order a Country Kit that is not shown on the table, specify the code "Z" and order the Country Kit as a separate line item. Ultra 5 Upgrade systems ordered with the "Z" code will be shipped to the customer in a separate box; in other words, the customer will receive the CPU system in one box and the Country Kit in a separate box. Customers who order Country Kit codes: A, B, D, E, G, and Y will receive the CPU system and Country Kit in a single box.

This only applies to Ultra 5 Upgrades coming from SLC, ELC, IPC, 1/1+, SPARCclassic, LX, IPX or SPARCstation 2 platforms. The Marketing partnumbers will start with UGSS2

## Upgrades to Sun Ultra 5

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Description	Order Number
<b>Upgrades to Sun Ultra 5 Model 360</b>	
<b>From SPARCstation 1, 1+, and 2, SPARCstation LX, IPX, IPC, SLC, ELC or SPARCclassic Systems</b>	
Upgrade from Early SPARCstations to Sun Ultra 5 System with 360-MHz UltraSPARC-IIi, 64-Mbyte DRAM, 256-KB L2 cache, 8Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, No Country Kit included Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-1UGE1Z9P-C64AR <sup>2</sup>
Upgrade from Early SPARCstations to Sun Ultra 5 System with 360-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 256-KB L2 cache, 8Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-1UGE1Z9PC128CR <sup>1,2</sup>

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### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook. See page 8-202.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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### Footnotes

1. *Please specify the required country kit by replacing the tenth or eleventh character of the upgrade part number with the respective country code. See page 6-141.*
2. *Standard Configurations are Sun's recommended configurations.*

### Upgrades to Sun Ultra 5 *(continued)*

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Description	Order Number
<b>Upgrades to Sun Ultra 5 Model 360</b>	
<b>From SPARCstation 4 or 5 Systems</b>	
Upgrade from S4 and S5 workstations to Sun Ultra 5 System with 360-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 256-KB L2 cache, 8Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-1UGE1Z9PC256CR

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook. See page 8-202.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Sun Ultra 5 *(continued)*

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Description	Order Number
<b>Upgrades to Sun Ultra 5 Model 400 with on board PGX24 Graphics, 128-Mbyte RAM and Floppy Drive</b>	
<b>From any early SPARCstation</b>	
Upgrade from early SPARCstations to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No. American UNIX Country Kit Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	UES-1UJC1A9PC128CP
Upgrade from early SPARCstations to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No Country Kit included Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	UES-1UJC1Z9PC128CP

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook. See page 8-202.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Sun Ultra 5 *(continued)*

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Description	Order Number
<b>Upgrades to Sun Ultra 5 Model 400 with on board PGX24 Graphics, 128-Mbyte RAM and Floppy Drive</b>	
<b>From SPARCstation 4 or 5 Systems</b>	
Upgrade from SPARCstation 4 or 5 to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, North American UNIX Country Kit Included, Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	US5-1UJC1A9PC128CP
Upgrade from SPARCstation 4 or 5 to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No country kit included Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	US5-1UJC1Z9PC128CP

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook. See page 8-202.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Sun Ultra 5 *(continued)*

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Description	Order Number
<b>Upgrades to Sun Ultra 5 Model 400 with on board PGX24 Graphics, 256-Mbyte RAM and Floppy Drive</b>	
<b>From any early SPARCstation</b>	
Upgrade from early SPARCstations to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No. American UNIX Country Kit Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	UES-1UJC1A9PC256CP
Upgrade from early SPARCstations to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No Country Kit included Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	UES-1UJC1Z9PC256CP

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook. See page 8-202.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Sun Ultra 5 *(continued)*

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Description	Order Number
<b>Upgrades to Sun Ultra 5 Model 400 with on board PGX24 Graphics, 256-Mbyte RAM and Floppy Drive</b>	
<b>From SPARCstation 4 or 5 Systems</b>	
Upgrade from SPARCstation 4 or 5 to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No. American UNIX country kit Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	US5-1UJC1A9PC256CP
Upgrade from SPARCstation 4 or 5 to Sun Ultra 5 System with 400-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB Level II cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, 32X CD-ROM, No country kit included Pre-installed Solaris 7 & 8 Customer returns: System chassis including CPU board, primary memory, graphics and internal disk	US5-1UJC1Z9PC256CP

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook. See page 8-202.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

# Sun Ultra 10 Upgrade Configurations

### Country Kit

Unlike traditional Sun systems, the Ultra 10 has the Country Kit physically included within the System Ship Kit. The choice of Country Kit is specified by adding an additional character to the Ultra 10 Upgrade Marketing Part Number. The tenth or eleventh character of the Ultra 10 Upgrade Marketing Part Number specifies the choice of Country Kit. The single character Country Kit Codes are listed in the table below.

Code	Country Kit
A	North American UNIX
D	German Language
E	United Kingdom
G	Swedish Language
Y	Universal UNIX
Z	No Included Country Kit

To order a Country Kit that is not shown on the table, specify the code "Z" and order the Country Kit as a separate line item. Ultra 10 Upgrade systems ordered with the "Z" code will be shipped to the customer in a separate box; in other words, the customer will receive the CPU system in one box and the Country Kit in a separate box. Customers who order Country Kit codes: A, B, D, E, G, and Y will receive the CPU system and Country Kit in a single box.

This only applies to Ultra 10 Upgrades coming from SLC, ELC, IPC, 1/1+, SPARCclassic, LX, IPX or SPARCstation 2 platforms. The Marketing partnumbers will start with UGSS2 or USS2.

## Upgrades to Sun Ultra 10

Description	Order Number
<b>From SPARCstation 1 and 1+, 2, LX, IPX, IPC, SLC, ELC or SPARCclassic Systems</b>	
Upgrade from Early SPARCstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-2UKC1Z9PC128CP <sup>1</sup> 2
Upgrade from Early SPARCstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-2UKC1Z9PC512CP <sup>1</sup>
Upgrade from Early SPARCstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-2UKC1Z9LC128CP <sup>1</sup>
Upgrade from Early SPARCstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-2UKC1Z9LC512CP <sup>1</sup>
Upgrade from Early SPARCstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-2UKC1Z9YC256CP <sup>1</sup>
Upgrade from Early SPARCstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m6 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UES-2UKC1Z9ZC256CP <sup>1</sup>

### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Footnotes

1. *Please specify the required country kit by replacing the tenth or eleventh character of the upgrade part number with the respective country code. See page 6-141.*
2. *Standard Configurations are Sun's recommended configurations.*

### Upgrades to Sun Ultra 10 *(continued)*

Description	Order Number
<b>From SPARCstation 4 or 5 Systems</b>	
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9PC128CP <sup>1</sup>
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9PC512CP <sup>1</sup>
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9LC128CP <sup>1</sup>
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9LC512CP <sup>1</sup>
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9YC128CP <sup>1</sup>
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9YC256CP <sup>1</sup>
Upgrade from S4 and S5 workstations to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m6 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	US5-2UKC1Z9ZC256CP <sup>1</sup>

#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

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## Upgrades to Sun Ultra 10 *(continued)*

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Description

Order Number

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**Footnote**

1. *Please specify the required country kit by replacing the tenth or eleventh character of the upgrade part number with the respective country code. See page 6-141.*

## Upgrades to Sun Ultra 10 *(continued)*

Description	Order Number
<b>From SPARCstation 10 or 20 Systems</b>	
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9PC128CP <sup>1</sup>
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9PC512CP <sup>1</sup>
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9LC128CP <sup>1</sup>
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9LC512CP <sup>1</sup>
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9YC256CP <sup>1</sup>
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9YC512CP <sup>1</sup>

**General Note**

- *Maximum discount may apply; contact your local Sun sales representative for details.*

**Footnote**

1. *Please specify the required country kit by replacing the tenth or eleventh character of the upgrade part number with the respective country code. See page 6-141.*

## Upgrades to Sun Ultra 10 *(continued)*

Description	Order Number
<b>From SPARCstation 10 or 20 Systems <i>(continued)</i></b>	
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m6 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9ZC256CP <sup>1</sup>
Upgrade from SPARCstations 10 or 20 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m6 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	USS-2UKC1Z9ZC512CP <sup>1</sup>
<b>From Ultra 1 or Ultra 30 Systems</b>	
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9YC256CP <sup>1</sup>
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m3 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9YC512CP <sup>1</sup>
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 256-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m6 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9ZC256CP <sup>1</sup>
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Elite3D m6 Series 2 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9ZC512CP <sup>1</sup>

### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Footnote

1. *Please specify the required country kit by replacing the tenth or eleventh character of the upgrade part number with the respective country code. See page 6-141.*

### Upgrades to Sun Ultra 10 *(continued)*

Description	Order Number
<b>From Ultra 1 or Ultra 30 Systems <i>(continued)</i></b>	
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9PC128CP <sup>1</sup>
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, PGX24 Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9PC512CP <sup>1</sup>
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 128-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9LC128CP <sup>1</sup>
Upgrade from Ultra 1 and 30 to Sun Ultra 10 System with 440-MHz UltraSPARC-IIi, 512-Mbyte DRAM, 2MB L2 cache, 9Gbyte disk 1.44-Mbyte floppy drive, Creator3D Graphics, CD-ROM, No Country Kit Included, Pre-installed Solaris 7 Customer returns: System chassis including CPU board, primary memory, frame buffer and internal disk	UG1-2UKC1Z9LC512CP <sup>1</sup>

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
- *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
- *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
- *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
- *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook.*
- *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
- *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
- *No disks, memory, or CD Roms migrate to Ultra 5/10.*

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#### Footnote

1. *Please specify the required country kit by replacing the tenth or eleventh character of the upgrade part number with the respective country code. See page 6-141.*

### Upgrades to Sun Ultra 10 *(continued)*

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Description	Order Number
<b>From Ultra 10 Systems</b>	
CPU upgrade from any Ultra 10 CPU module to the 440MHz UltraSPARC-IIi CPU module Customer returns: Any previous generation Ultra 10 CPU module	UG-MXXX-M440 <sup>1</sup>

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
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#### Ordering Notes

- *Monitors are not included with any Ultra 5/10 upgrades.*
  - *Sun-branded 17" and 20" monitors migrate from previous generation Sun systems.*
  - *For some monitors, a video adapter may be required. Please order correct adapter (i.e. 21-inch color monitor with on-board 8-bit graphics requires X470A).*
  - *Adapter choices are: X3872A - HD15F to 13W3 Video Adapter and X470A - 13W3F to HD15M Video Adapter (10" cable).*
  - *If monitor is needed, order X-option or refer to monitor upgrade section of pricebook.*
  - *Country kits are not provided with upgrades from SPARCstation 4/5/10/20.*
  - *Type 4 and 5 keyboards can migrate to Ultra 5/10.*
  - *No disks, memory, or CD Roms migrate to Ultra 5/10.*
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#### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

### Upgrades to Sun Ultra 10 *(continued)*

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Description	Order Number
<b>Memory upgrade</b>	
<b>From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules) to 512-Mbyte (4 x 128-Mbyte DIMM modules)</b>	
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations *** Customer returns: * 128MB (Any combination) of Sun	UG-MEM128-MEM512 <sup>1,2</sup>

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#### Footnotes

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Standard Configurations are Sun's recommended configurations.*

# Upgrades to Sun Ultra 60

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Description	Order Number
<b>From Any SPARCstation System</b>	
Chassis upgrade from UltraSPARC Early SPARCstations to Sun Ultra 60 1 x 450MHz, Creator3D graphics, 256-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	USS2-3ULD19L-256AQ
Chassis upgrade from Sun Early SPARCstations to Sun Ultra 60, 2 x 450MHz, Expert3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UGES-3ULD19V-512AQ
Chassis upgrade from Sun Early SPARCstations to Sun Ultra 60, 2 x 450MHz, Expert3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UGES-3ULD29V-512AQ
Chassis upgrade from UltraSPARC Early SPARCstations to Sun Ultra 60 450MHz, Elite3Dm3 Ser 2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UGES-3ULD19Y-512AQ
Chassis upgrade from UltraSPARC Early SPARCstations to Sun Ultra 60 450MHz, Elite3Dm6 Ser 2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UGES-3ULD19Z-512AQ
Chassis upgrade from Sun Early SPARCstations to Sun Ultra 60 2x450MHz, Elite3Dm3 Ser 2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UGES-3ULD29Y-512AQ
Chassis upgrade from Sun Early SPARCstations to Sun Ultra 60, 2x450MHz, Elite3Dm6 Ser2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UGES-3ULD29Z-512AQ
Chassis system upgrade from Early SPARCstations to Sun Ultra 60, 1 x 360MHz, Creator3D Graphics, 512MB Memory, 18.2GB disk drive Customer returns: System chassis including CPU board, memory, frame buffer and disk drive	UGES-3UGD19L-512AQ
Chassis upgrade from UltraSPARC Early SPARCstations to Sun Ultra 60 1 x 450MHz, Creator3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, memory and disk drive	UGES-3ULD19L-512AQ

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Short, predictable Leadtime (SPL) - 2 weeks.*

### Upgrades to Sun Ultra 60 *(continued)*

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Description	Order Number
<b>From SPARCstation 10 or 20 Systems</b>	
Chassis upgrade from UltraSPARC SS4, 5, 10, or 20 to Sun Ultra 60, 1 x 450MHz, Creator3D graphics, 256-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG20-3ULD19L-256AQ

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#### **General Note**

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Upgrades to Sun Ultra 60 *(continued)*

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Description	Order Number
<b>From SPARCstation 4, 5, 10, or 20 Systems</b>	
Chassis upgrade from SuperSPARC SS4, 5, 10, or 20 to Sun Ultra 60, 1 x 450MHz, Expert3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG20-3ULD19V-512AQ
Chassis upgrade from SuperSPARC SS4, 5, 10, or 20 to Sun Ultra 60, 2 x 450MHz, Expert3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG20-3ULD29V-512AQ
Chassis upgrade from UltraSPARC SS4, 5, 10 or 20 to Sun Ultra 60, 450MHz, Elite3Dm3 Ser2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG20-3ULD19Y-512AQ
Chassis upgrade from UltraSPARC SS4, 5, 10, or 20 to Sun Ultra 60, 450MHz, Elite3Dm6 Ser 2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG20-3ULD19Z-512AQ
Chassis upgrade from UltraSPARC SS4, 5, 10 or 20 to Sun Ultra 60 2x450MHz, Elite3Dm3 Ser 2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG20-3ULD29Y-512AQ
Chassis upgrade from SuperSPARC SS4, 5, 10, or 20 to Sun Ultra 60, 2x450MHz, Elite3Dm6 Ser 2 graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG20-3ULD29Z-512AQ
Chassis upgrade from SPARCstation 4, 5, 10 or 20 to Sun Ultra 60 1 X 360MHz, Creator3D Series 3, 512MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, memory, frame buffer and internal disk	UG20-3UGD19L-512AQ
Chassis upgrade from Sun SS4, 5, 10, or 20 to Sun Ultra 60, 1 x 450MHz, Creator3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, memory and disk drive	UG20-3ULD19L-512AQ

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Upgrades to Sun Ultra 60 *(continued)*

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Description	Order Number
<b>From Ultra 1 or 2 Systems</b>	
Chassis upgrade from UltraSPARC A11, A12 or A14 to Sun Ultra 60, 1 x 360MHz, Creator3D Series 3, no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG14-3UGD19L-000AQ
Chassis upgrade from UltraSPARC A11, A12, A14, A16 to Sun Ultra 60, 1 x 450MHz, Creator3D Series 3, no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG16-3ULD19L-000AQ
Chassis upgrade from UltraSPARC A11, A12, A14, A16 to Sun Ultra 60, 2x450MHz, Elite3Dm6 Ser. 2 graphics no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG16-3ULD29Z-000AQ
Chassis upgrade from UltraSPARC A11, 12, 14 or 16 to Sun Ultra 60, 450MHz, Expert3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG16-3ULD19V-512AQ
Chassis upgrade from UltraSPARC A11, 12, 14 or 16 to Sun Ultra 60, 2x450MHz, Expert3D graphics, 512-MB memory, 18.2-GB disk drive Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG16-3ULD29V-512AQ

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Upgrades to Sun Ultra 60 *(continued)*

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Description	Order Number
<b>From Ultra 1 or 2 Systems <i>(continued)</i></b>	
Chassis upgrade from UltraSPARC A11, A12, A14, A16 to Sun Ultra 60, 450MHz, Elite3Dm3 Series 2 graphic no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG16-3ULD19Y-000AQ
Chassis upgrade from UltraSPARC A11, A12, A14, A16 to Sun Ultra 60, 450MHz, Elite3Dm6 Ser 2 graphics, no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG16-3ULD19Z-000AQ
Chassis upgrade from UltraSPARC A11, A12, A14, A16 to Sun Ultra 60, 2x450MHz, Elite3Dm3 Ser. 2 graphics no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG16-3ULD29Y-000AQ
Chassis upgrade from UltraSPARC A11, A12, A14, A16 to Sun Ultra 60, 2x450MHz, Elite3Dm6 Ser. 2 graphics no memory, 18.2-GB hard disk drive Customer returns: System chassis including CPU board, frame buffer and internal disk	UG16-3ULD29Z-000AQ
Chassis upgrade from UltraSPARC A11, A12 or A14 to Sun Ultra 60, 1 x 360MHz, Creator3D Series 3, 512MB memory, 18.2-GB hard disk Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG16-3UGD19L-512AQ
Chassis upgrade from UltraSPARC A11, A12 or A14 to Sun Ultra 60, 1 x 450MHz, Creator3D Series 3, 52MB memory, 18.2-GB hard disk Customer returns: System chassis including CPU board, frame buffer, internal disk and memory	UG16-3ULD19L-512AQ

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

# Upgrades to Sun Ultra 60 - Modules

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Description	Order Number
<b>Upgrade to 450MHz UltraSPARC-II Module for Ultra 60</b>	
<b>From Sun SPARC or UltraSPARC Module</b>	
Module upgrade from 360MHz & below to 450MHz CPU Customer returns: One 360MHz or below UltraSPARC CPU module	UG-MXXX-M450 <sup>2</sup>

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<b>Upgrade to 360MHz UltraSPARC-II Module for Ultra 60</b>	
<b>From Sun Ultra 300MHz Module</b>	
Module upgrade from Ultra 60 Model 300 to Model 360 Customer returns: One 300MHz UltraSPARC processor module	UG-M300-M360-U60

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<b>Memory upgrade</b>	
<b>From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules) to 512-Mbyte (4 x 128-Mbyte DIMM modules)</b>	
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations *** Customer returns: * 128MB (Any combination) of Sun	UG-MEM128-MEM512 1,2

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<b>General Note</b>	
<ul style="list-style-type: none"><li>• <i>Maximum discount may apply; contact your local Sun sales representative for details.</i></li></ul>	

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<b>Ordering Notes</b>	
<ul style="list-style-type: none"><li>• <i>Sun Ultra modules are supported only in Sun Ultra 2 series systems.</i></li><li>• <i>Requires Solaris 2.5 or later Solaris 2.x release.</i></li><li>• <i>Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.</i></li></ul>	

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<b>Footnotes</b>	
<ol style="list-style-type: none"><li>1. <i>This upgrade cannot be configured at the factory. It is a field installed upgrade.</i></li><li>2. <i>Standard Configurations are Sun's recommended configurations.</i></li></ol>	

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# Upgrades to Sun Ultra 80

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Description	Order Number
<b>From Early SPARCstations</b>	
<b>To Ultra 80 Model 1450</b>	
Chassis upgr fr early SPARCstations to Sun Ultra 80 Model 1450 with 450MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 PCI graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SS1/1+, SLC, ELC, Classic, IPC, IPX, LX, SS2 chassis with motherboard, CPU, memory, graphics and disk	UGES-7ULD19T1024AQ 1
Chassis upgrade fr Sun Early SPARCstations to Sun Ultra 80 w/1x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Expert3D graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: Sun Early SPARCstation chassis w/motherboard CPU, memory, graphics and disk	UGES-7ULD19V1024AQ
Chassis upgr fr early SPARCstations to Sun Ultra 80 Model 1450 w/ 450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 Series 2 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SS1/1+, SLC, ELC, Classic, IPC, IPX, LX, SS2 chassis with motherboard, CPU, memory, graphics and disk	UGES-7ULD19Z1024AQ

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Short, predictable Leadtime (SPL) - 2 weeks.*
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### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

## Upgrades to Sun Ultra 80

Description	Order Number
<b>From Early SPARCstations (continued)</b>	
<b>To Ultra 80 Model 2450</b>	
Chassis upgr fr early SPARCstations to Sun Ultra 80 Model 2450 w/2x 450MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 PCI graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SS1/1+, SLC, ELC, Classic, IPC, IPX, LX, SS2 chassis with motherboard, CPU, memory, graphics and disk	UGES-7ULD29T1024AQ
Chassis upgr fr early SPARCstations to Sun Ultra 80 Model 2450 w/2x 450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SS1/1+, SLC, ELC, Classic, IPC, IPX, LX, SS2 chassis with motherboard, CPU, memory, graphics and disk	UGES-7ULD29M1024AQ
Chassis upgr fr early SPARCstations to Sun Ultra 80 Model 2450 w/2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 Series 2 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SS1/1+, SLC, ELC, Classic, IPC, IPX, LX, SS2 chassis with motherboard, CPU, memory, graphics and disk	UGES-7ULD29Z1024AQ

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Short, predictable Leadtime (SPL) - 2 weeks.*

### Upgrades to Sun Ultra 80 *(continued)*

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Description	Order Number
<b>From SPARCstation 10 or SPARCstation 20</b>	
<b>To Ultra 80 Model 1450</b>	
Chassis upgrade fr SPARCstation 10 or 20 to Sun Ultra 80 Model 1450 with 450MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 PCI graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SPARCstation 10 or 20 chassis with motherboard, CPU, memory, graphics and disk	UG20-7ULD19T1024AQ
Chassis upgrade fr SPARCstation 10 or 20 to Sun Ultra 80 Model 1450 with 450MHz UltraSPARC-II Processor w/ 4-MB Cache, Expert3D graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SPARCstation 10 or 20 chassis with motherboard, CPU, memory, graphics and disk	UG20-7ULD19V1024AQ
Chassis upgrade fr SPARCstation 10 or 20 to Sun Ultra 80 Model 1450 with 450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 Series 2 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SPARCstation 10 or 20 chassis with motherboard, CPU, memory, graphics and disk	UG20-7ULD19Z1024AQ

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Short, predictable Leadtime (SPL) - 2 weeks.*

## Upgrades to Sun Ultra 80 *(continued)*

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Description	Order Number
<b>From SPARCstation 10 or SPARCstation 20 <i>(continued)</i></b>	
<b>To Ultra 80 Model 2450</b>	
Chassis upgrade fr SPARCstation 10 or 20 to Sun Ultra 80 Model 2450 w/ 2x450MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 PCI graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SPARCstation 10 or 20 chassis with motherboard, CPU, memory, graphics and disk	UG20-7ULD29T1024AQ
Chassis upgrade fr SPARCstation 10 or 20 to Sun Ultra 80 Model 2450 w/2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Expert3D graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SPARCstation 10 or 20 chassis with motherboard, CPU, memory, graphics and disk	UG20-7ULD29V1024AQ
Chassis upgrade fr SPARCstation 10 or 20 to Sun Ultra 80 Model 2450 w/2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 Series 2 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: A SPARCstation 10 or 20 chassis with motherboard, CPU, memory, graphics and disk	UG20-7ULD29Z1024AQ

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Short, predictable Leadtime (SPL) - 2 weeks.*

## Upgrades to Sun Ultra 80 *(continued)*

Description	Order Number
<b>From Ultra 2 or Ultra 60</b>	
<b>To Ultra 80 Model 1450</b>	
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 1450, 450-MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 PCI Graphics, No memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, graphics and internal disk	UG23-7ULD19T-000AQ
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 1450, 450-MHz UltraSPARC-II Processor with 4-MB Cache, No Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory and disk drive	UG23-7ULD19N1024AQ
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 1450, 450-MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory, graphics and disk drive	UG23-7ULD19T1024AQ
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 1450, 450-MHz UltraSPARC-II Processor with 4-MB Cache, Expert3D Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory, graphics and disk drive	UG23-7ULD19V1024AQ
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 1450, 450-MHz UltraSPARC-II Processor with 4-MB Cache, Elite3D m6 Series 2 Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory, graphics and disk drive	UG23-7ULD19Z1024AQ

### Upgrades to Sun Ultra 80 *(continued)*

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Description	Order Number
<b>From Ultra 2 or Ultra 60 <i>(continued)</i></b>	
<b>To Ultra 80 Model 2450</b>	
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 2450, 2x450-MHz UltraSPARC-II Processors with 4-MB Cache, No Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory and disk drive	UG23-7ULD29N1024AQ
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 2450, 2x450-MHz UltraSPARC-II Processors with 4-MB Cache, PGX32 Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory, graphics and disk drive	UG23-7ULD29T1024AQ 1
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Mod 2450, 2x450-MHz UltraSPARC-II Processor with 4-MB Cache, Expert3D Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory, graphics and disk drive	UG23-7ULD29V1024AQ
Chassis upgrade from Ultra 2 or Ultra 60 to Sun Ultra 80 Model 2450, 2x450-MHz UltraSPARC-II Processor with 4-MB Cache, Elite3D m6 Series 2 Graphics, 1GB Memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100-Mbit Ethernet. Customer returns: Ultra 2 or Ultra 60 chassis with motherboard, CPU, memory, graphics and disk drive	UG23-7ULD29Z1024AQ

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Short, predictable Leadtime (SPL) - 2 weeks.*
  - *Creator graphics are not supported.*
  - *Memory x-options X7003A and X7004A are not supported.*
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#### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

### Upgrades to Sun Ultra 80 *(continued)*

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Description	Order Number
<b>From Ultra 1 or Ultra 30</b>	
<b>To Ultra 80 Model 2450</b>	
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 1450 with 450MHz UltraSPARC-II Processor with 4-MB Cache, PGX32 PCI graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD19T1024AQ
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 2450 w/ 2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, PGX32 graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD29T1024AQ
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 2450 w/ 2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Expert3D graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD29V1024AQ
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 2450 w/2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 Series 2 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD29Z1024AQ

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Short, predictable Leadtime (SPL) - 2 weeks.*

### Upgrades to Sun Ultra 80 *(continued)*

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Description	Order Number
<b>From Ultra 1 or Ultra 30 <i>(continued)</i></b>	
<b>To Ultra 80 Model 2450</b>	
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 2450 w/ 2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, PGX32 graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD29T1024AQ
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 2450 w/ 2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Expert3D graphics 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD29V1024AQ
Chassis upgrade from Ultra 1 or Ultra 30 to Sun Ultra 80 Model 2450 w/2x450MHz UltraSPARC-II Processor w/ 4-MB Cache, Elite3D m6 Series 2 1024-MB memory, 18-GB 10000-RPM UltraSCSI Internal Disk, 10/100 Mbit Ethernet. Customer returns: An Ultra 1 or Ultra 30 chassis with motherboard, CPU, memory, graphics and disk	UG16-7ULD29Z1024AQ

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Short, predictable Leadtime (SPL) - 2 weeks.*

# **Network and Telco Servers**

# Sun Netra t 1120/ 1125 ATO Upgrade Ordering Flow Chart

Each step represents a line item on a Sales Order.

## Step 1 - required

**Order a base Upgrade configuration**

Choose between AC or DC system.



## Step 1a- required

**Order UG-RMA**

Must be part of shipset.



## Step 2 - required

**Add 1 or 2 processors**

Add 300MHz processor module(s) (Max 2)



## Step 3 - required

**Add 2 to 8 pairs of Memory**

Netra t 1120 supports up to 2-Gbyte of memory.  
Install in groups of 4 DIMMs.  
(Max 16 SIMMs - 8 pairs)



## Step 4 - 9 optional

**Refer to Sun Netra 1120 or 1125 ATO Ordering Flow Chart.**

**Either:**

UG10-N03-AA- *Netra t 1125 upgrade (AC)*

UG14-N03-AA- *Netra t 1125 upgrade (AC)*

UG26-N03-AA- *Netra t 1125 upgrade (AC)*

UG10-N04-AA - *Netra t 1120 upgrade (DC)*

UG14-N04-AA - *Netra t 1120 upgrade (DC)*

UG26-N04-AA - *Netra t 1120 upgrade (DC)*

UG-RMA - Return Material Authorization Kit

1191A - 300MHz UltraSPARC-II with 2MB L2 cache

7003A - 128-Mbyte Memory (2 x 64MB DIMMs)

7004A -256-Mbyte Memory (2 x 128MB DIMMs)

OR

UGFA-MEM128-MEM512 - 512 MByte memory

(4 x 128 MB DIMMS)

## Upgrades to Netra t 1120 and Netra t 1125

Description	Order Number
<b>Netra t 1120</b>	
<b>From SPARCserver 4, 5, 10, or older systems</b>	
SPARCserver 20, 10, 4, 5 or older to Netra t 1120 zero base system Rackmountable, Telco Alarm Card; minor,major,critical DC Internal Power Supply NEBS compliant for Central Office, 4 PCI Slot, No graphics, no audio. Includes two 19inch rackmount flanges with handles. OEM ready Customer Returns: Complete SPARC server 20,10, 4, 5 or older server including CPU, memory and drive	UG10-N04-AA
<b>From SPARCserver 20, Ultra Enterprise 1, 2, or Netra t 1100</b>	
Upgrade Enterprise 1 or 2, or Netra 1100 to Netra t 1120 zero base system Rackmountable, Telco Alarm Card; minor,major,critical DC Internal Power Supply NEBS compliant for Central Office, 4 PCI Slot, No graphics, no audio. Includes two 19inch rackmount flanges with handles. OEM ready Customer Returns: Complete server Enterprise 1 or 2 or Netra 1100 including CPU, memory and drive	UG14-N04-AA
<b>From Ultra Enterprise 250 rack</b>	
Enterprise 250 rack upgrade to Netra t 1120 zero base system Rackmountable, Telco Alarm Card; minor,major,critical DC Internal Power Supply NEBS compliant for Central Office, 4 PCI Slot, No graphics, no audio. Includes two 19inch rackmount flanges with handles. OEM ready Customer Returns: Complete Enterprise 250 system including CPU, memory and drive	UG26-N04-AA
<b>Netra t 1125</b>	
<b>From SPARCserver 4, 5, 10, or older systems</b>	
SPARCserver 20, 10, 4, 5 or older to Netra t 1125 zero base system Rackmountable, Telco Alarm Card; minor,major,critical AC Internal Power Supply NEBS compliant for Central Office, 4 PCI Slot, No graphics, no audio. Includes two 19inch rackmount flanges with handles. OEM ready Customer Returns: Complete SPARC server 20, 10, 4, 5 or older server including CPU, memory and drive	UG10-N03-AA
<b>From SPARCserver 20, Ultra Enterprise 1, 2, or Netra t 1100</b>	
Upgrade Enterprise 1 or 2 or Netra 1100 to Netra t 1125 zero base system Rackmountable, Telco Alarm Card; minor,major,critical AC Internal Power Supply NEBS compliant for Central Office, 4 PCI Slot, No graphics, no audio. Includes two 19inch rackmount flanges with handles. OEM ready Customer Returns: Complete server Enterprise 1 or 2 or Netra 1100 including CPU, memory and drive	UG14-N03-AA

## Upgrades to Netra t 1120 and Netra t 1125 *(continued)*

Description	Order Number
<b>Netra t 1125 <i>(continued)</i></b>	
<b>From Ultra Enterprise 250 rack</b>	
Enterprise 250 rack upgrade to Netra t 1125 zero base system Rackmountable, Telco Alarm Card; minor,major,critical AC Internal Power Supply NEBS compliant for Central Office, 4 PCI Slot, No graphics, no audio. Includes two 19inch rackmount flanges with handles. OEM ready Customer Returns: Complete Enterprise 250 system including CPU, memory and drive	UG26-N03-AA
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup and Netra servers and Ultra Workstation FACTORY INSTALLED Customer returns: * 128MB (Any combination) of Sun memory SIMMS	UGFA-MEM128-MEM512 <sup>1</sup>

### Modules

#### Field Installed

Upgrade CPU to 440MHz UltraSPARC- II/4MB ecache CPU module installed in the Netra t 1120, 1125, 1400 or 1405. Field Installed Customer Returns: CPU module

UG-MXXX-M1197 <sup>2</sup>

#### Factory Installed

Upgrade CPU to 440MHz UltraSPARC- II/4MB ecache CPU module installed in the Netra t 1120, 1125, 1400 or 1405. Factory Installed Customer Returns: CPU module

UGFA-MXXX-M1197

### Footnotes

1. Only Sun memory may be traded in for 512MB memory upgrade.
2. Standard Configurations are Sun's recommended configurations.

# Upgrades to Netra t 1400

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Description	Order Number
<b>Netra t 1400</b>	
<b>From SPARCserver 4, 5, 10, or older systems</b>	
Upgrade SPARCserver 20,10,5 or 4 to Netra t 1400 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) DC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG20-N15-AA
<b>From Ultra Enterprise 1, 2, or Netra t 1100</b>	
Upgrade Enterprise 1 or 2 or Netra t 1100 to Netra t 1400 zero base (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) DC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG14-N15-AA
<b>From Ultra Enterprise 250 deskside or rack</b>	
Upgrade Enterprise 250 server to Netra t 1400 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) DC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG26-N15-AA
<b>From Ultra Enterprise 450</b>	
Upgrade Enterprise 450 server to Netra t 1400 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) DC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG25-N15-AA

# Upgrades to Netra t 1405

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Description	Order Number
<b>Netra t 1405</b>	
<b>From SPARCserver 4, 5, 10, or older systems</b>	
Upgrade from SS20, 10, 5 or 4 Netra t 1405 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) AC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG20-N14-AA
<b>From Ultra Enterprise 1, 2, or Netra t 1100</b>	
Upgrade Enterprise 1 or 2 or Netra 1100 to Netra t 1405 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) AC internal power supply NEBS compliant for Central Office 4 PCI slots, no graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG14-N14-AA
<b>From Ultra Enterprise 250 deskside or rack</b>	
Upgrade from Enterprise 250 Netra t 1405 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) AC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG26-N14-AA
<b>From Ultra Enterprise 450</b>	
Upgrade from Enterprise 450 Netra t 1405 base enclosure (chassis/motherboard/alarms/PSU) plus DOCS, rack kit (4 flanges/ 2 handles/screws) AC internal power supply NEBS compliant for Central Office, 4 PCI slots No graphics, no audio. Customer Returns: Complete system chassis with CPU, memory and drives	UG25-N14-AA

## Upgrades to Netra t 1400 and Netra t 1405 Modules

Description	Order Number
<b>Module upgrade</b>	
<b>Field Installed</b>	
Upgrade CPU to 440MHz UltraSPARC- II/4MB ecache CPU module installed in the Netra t 1120, 1125, 1400 or 1405. Field Installed Customer Returns: CPU module	UG-MXXX-M1197
<b>Factory Installed</b>	
Upgrade CPU to 440MHz UltraSPARC- II/4MB ecache CPU module installed in the Netra t 1120, 1125, 1400 or 1405. Factory Installed Customer Returns: CPU module	UGFA-MXXX-M1197
<b>Memory upgrade</b>	
<b>From 256-Mbytes Sun memory (any combination of 64-MB, or 128-MB of Sun SIMMs)</b>	
Upgrade from 256-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FIELD INSTALLED Customer returns: * 256MB (Any combination) of Sun memory SIMMS	UG-MEM256MB-MEM1GB <sup>1,2</sup>
Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers- FACTORY INSTALL Customer returns: one 256MB (7022A) Memory Module	UGFA-MEM256-MEM1GB <sup>1</sup>
Upgrade from 512-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FIELD INSTALLED Customer returns: * 512MB (Any combination) of Sun memory SIMMS	UG-MEM512-MEM1GB <sup>1,2</sup>

### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Footnote

1. *Only for field-installed, X7005A-compatible Workgroup Servers or Workstations.*
2. *Standard Configurations are Sun's recommended configurations.*

## Upgrades to Netra t1 Model 105

Description	Order Number
<b>Netra t1 Model 105, 440MHz, AC</b>	
<b>From SPARCserver 4, 5, 10, or 20</b>	
Upgrade SPARCserver 20,10,5, or 4 to Netra t 1 105 server with 440MHz, 2MB e-cache, 512MB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete SPARC server chassis with CPU, memory and drive	U20-N6-UKC1-512AT
Upgrade SPARCserver 20,10,5, or 4 to Netra t 1 105 server with 440MHz, 2MB e-cache, 1-GB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete SPARC server 20, 10, 5, or 4 with CPU memory and drive	U20-N6-UKC1-100AT 1
<b>From Ultra Enterprise 1</b>	
Upgrade Enterprise 1 server to Netra t 1 105 server with 440MHz, 2MB e-cache, 512MB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete SPARC server chassis with CPU, memory and drive	U11-N6-UKC1-512AT
Upgrade Enterprise 1 server to Netra t 1 105 server with 440MHz, 2MB e-cache, 1-GB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete Enterprise 2 server with CPU, memory and drive.	U11-N6-UKC1-100AT 1
<b>From Ultra Enterprise 2 or Netra 1100</b>	
Upgrade Enterprise 2 or Netra 1100 to Netra t 1 105 server with 440MHz, 2MB e-cache, 512MB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete Sun server chassis with CPU, memory and drive	U14-N6-UKC1-512AT
Upgrade Enterprise 2 or Netra 1100 to Netra t 1 105 server with 440MHz, 2MB e-cache, 1-GB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete Sun Enterprise 2 or Netra 1100 server with CPUs, memory and drives	U14-N6-UKC1-100AT 1
<b>From Ultra Enterprise 5 or 10</b>	

# Upgrades to Netra t1 Model 105

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Description	Order Number
Upgrade Ultra 5s or 10s server to Netra t 1 105 server with 440MHz, 2MB e-cache, 512MB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete Sun server chassis with CPU, memory and drive	U22-N6-UKC1-512AT
Upgrade Ultra 5s or 10s server to Netra t 1 105 server with 440MHz, 2MB e-cache, 1-GB memory, one 18-GB 10,000rpm drive, 2 Ethernet 10/100 ports, Internal AC Power Supply, 1 PCI slot. No keyboard or mouse port, no audio or graphics. Includes 19-inch rackmount kit. Customer Returns: Complete Sun Ultra 5 or 10 server or workstation with CPU, memory and drives	U22-N6-UKC1-100AT 1

### Upgrades to Netra t1 Model 100

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Description	Order Number
<b>Netra t1 Model 100, 440MHz, DC</b>	
<b>From SPARCserver 4, 5, 10, or 20</b>	
Upgrade SPARCserver 20,10,5, or 4 to Netra t1 100 server 440MHz, 2MB e-cache, 512MB memory one 18GB 10,000rpm drive 1 ethernet 10/100 ports Internal DC power supply 1 PCI slot No keyboard or mouse port no graphics, no audio. Includes 19inch rackmount kit Customer returns: Comoplete Sun server chassis with CPU memory and drives	U20-N7-UKC1-512AT
<b>From Ultra Enterprise 1</b>	
Upgrade Enterprise 1 server to Netra t1 100 server 440MHz, 2MB e-cache, 512MB memory one 18GB 10,000rpm drive 1 ethernet 10/100 ports Internal DC power supply 1 PCI slot No keyboard or mouse port no graphics, no audio. Includes 19inch rackmount kit Customer returns: Comoplete Sun server chassis with CPU memory and drives	U11-N7-UKC1-512AT
<b>From Ultra Enterprise 2 or Netra 1100</b>	
Upgrade Enterprise 2 or Netra 1100 to Netra t1 100 server 440MHz, 2MB e-cache, 512MB memory one 18GB 10,000rpm drive 1 ethernet 10/100 ports Internal DC power supply 1 PCI slot No keyboard or mouse port no graphics, no audio. Includes 19inch rackmount kit Customer returns: Comoplete Sun server chassis with CPU memory and drives	U14-N7-UKC1-512AT
<b>From Ultra Enterprise 5 or 10</b>	
Upgrade Ultra 5s or 10s server to Netra t1 100 server 440MHz, 2MB e-cache, 512MB memory one 18GB 10,000rpm drive 1 ethernet 10/100 ports Internal DC power supply 1 PCI slot No keyboard or mouse port no graphics, no audio. Includes 19inch rackmount kit Customer returns: Comoplete Sun server chassis with CPU memory and drives	U22-N7-UKC1-512AT

### Upgrades to Netra st D130

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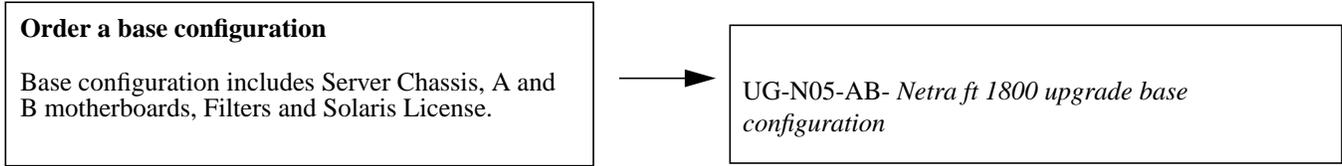
Description	Order Number
<b>Netra st D130, rack mount ready, AC</b>	
Upgrade to Netra st D130, AC, Rackable thin storage, 2x18GB, 10Krpm UltraSCSI drives, redundant fans, rackmount ready, AC power, Telcordia NEBS level 3 certified. Customer Returns: One Sun MultiPack with minimum 18GB storage OR Two Sun UniPacks with 9GB storage each.	UG-XDSKD130-36GAC
<b>Netra st D130 Disk Upgrade</b>	
Upgrade to NEBS certified disk Netra st array, Internal 18.2GB 10K-rpm UltraSCSI disk drive, 1-inch with barrier plater Customer Returns: Minimum 4GB of Sun storage (1.05GB minimum)	UG-X5239A

## Sun Netra ft 1800 Upgrades Ordering Flow Chart

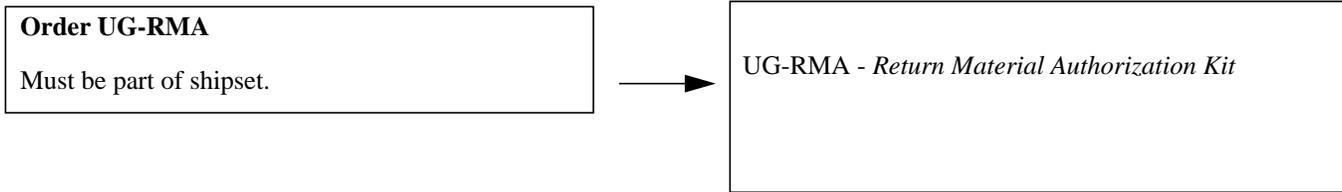
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Each step represents a line item on a Sales Order.

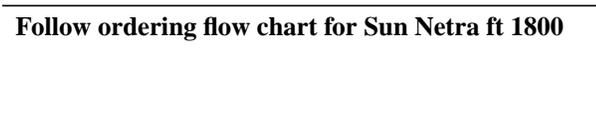
### Step 1 - required



### Step 1a- required



### Step 2 - 11 required



# Sun Netra ft 1800 Telco Server Upgrades

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Description	Order Number
<b>Base Package Netra ft 1800</b>	
Upgrade from FT SPARC 1500 or 1600 to Netra ft 1800 telecommunications server chassis (APR. 57x22x17 in.) A&B motherboards, filter kit, Solaris RTU license, Veritas RTU license, unpacking tools, intall & compliance manual. 2 disk drive chassis trays & 2 CAF modules Included. Customer returns: Complete FT SPARC 1500 or 1600 systeme chassis, boards, CPUs, storage and memory	UG-N05-AB <sup>1</sup>

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### Footnotes

- 1. Sales of the product will be restricted to qualified customers. All sales orders must be approved through the Mission-Critical Sales Process before they will be accepted and scheduled. This is the same approval process that applies to the Sun Enterprise 10000, clusters, and high-end storage. For further information, please contact your local Sun sales representative.*

# WorkGroup Servers

## Upgrades to Ultra Enterprise 2 Servers - Modules

Description	Order Number
<b>Upgrade to 400MHz UltraSPARC-II Module with 2MB e-cache for Ultra Enterprise 2</b>	
<b>From Sun Ultra 300-MHz Module</b>	
Upgrade from 300MHz/2MB UltraSPARC CPU to UltraSPARC-II 400MHz CPU module with 2MB e-cache for Sun Enterprise 2 server and Sun Ultra 2 Desktop Customer Returns: 300MHz/2MB UltraSPARC-II CPU from either the Sun Enterprise 2 server or Sun Ultra 2 workstation	UG-M300-M400 <sup>1</sup>
<b>Upgrade to Model 1300 Module for Ultra Enterprise 2</b>	
<b>From Sun Ultra 2 Model 1170 or 1200 Module</b>	
Module upgrade from Ultra 2 Models 1170, 1200 or similar to Ultra 2 Model 1300 - CPU only Customer returns: * U2 Model 1170, 1200 or similar CPU	UG-M1XXX-M1300

### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

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## Upgrades to Ultra Enterprise 2 Servers - Modules

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Description

Order Number

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### Ordering Notes

- *Sun Ultra modules are supported only in Sun Ultra 2 series systems.*
  - *Requires Solaris 2.5 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Footnote

1. *Requires motherboard with part number 501-3132-13 or later. No 400MHz CPU upgrade available for systems with 501-3132-12 or earlier motherboard part numbers.*

# Upgrades to Sun Enterprise Ultra 5S Servers

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Description	Order Number
<b>From All SPARCserver Systems</b>	
Upgrade from any Sun server to a Sun Ultra 5 server with 360MHz UltraSPARC IIi Processor with 256KB cache, 100MB Ethernet, 256-Mbytes memory, 8 GB internal disk, 32x CD-ROM drive, 1.44-MB floppy, PGx24 on-board graphics, Solaris 7 3/99 license, no country kit Customer Returns: Complete Sun server with CPU, memory and drive	U21-UGE1Z9S-C256CR 1

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *SunSpectrum Silver Price is based on the resulting system.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
- 

### Ordering Notes

- *Order appropriate Country Kit as a separate line item.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
  - *For NT interoperability order Solaris PC NetLink (SLSIX-110-W999) at no charge when purchasing a new or upgrading to Sun Enterprise Ultra 5S.*
- 

### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

# Upgrades to Sun Enterprise Ultra 10S Servers

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Description	Order Number
<b>From All SPARCserver Systems</b>	
Upgrade from any Sun server to a Sun Ultra 10 server with 440-MHz UltraSPARC Iii Processor and 2MB cache, 100Mb Ethernet Ethernet, 4 PCI slots, 128-Mbytes memory, 9GB IDE Internal disk drive, 32xCD-ROM, 1.44-MB floppy PGx24 on-board graphics, Solaris 7 3/99 license, no country Kit. Customer Returns: Complete Sun server with CPU, memory and drive	U22-UKC1Z9S-C128CP <sup>1</sup>
Upgrade from any Sun server to a Sun Ultra 10 server with 440MHz UltraSPARC Iii Processor and 2MB cache, 100Mb Ethernet, 4 PCI slots, 512MB memory, 9GB internal disk, 32xCD-ROM, 1.44-MB floppy, PGx24 on-board graphics, Solaris 7 3/99 license, No country kit Customer Returns: Complete Sun server with CPU, memory and drive	U22-UKC1Z9S-C512CP <sup>1</sup>

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *SunSpectrum Silver Price is based on the resulting system.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
- 

### Ordering Notes

- *Order appropriate Country Kit as a separate line item.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
  - *For NT interoperability order Solaris PC NetLink (SLSIX-110-W999) at no charge when purchasing a new or upgrading to Sun Enterprise Ultra 10S.*
- 

### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

# Ordering Flow Chart for Upgrades to Enterprise 250

Each step represents a **required/recommended** line item on a Sales Order

## Step 1 - required

Enter Family Part Number



UG-A26 - Ultra Enterprise 250 Server Upgrades



## Step 2 - required

Order Base Package



**Choose from:**  
 UG10-A26-AA - E250 zero base  
 UG10-A26-AA-R - E250 zero base rackmount  
 UG14-6UNC-9S-000NK - E250 chassis only  
 UG14-A26-9S-000NK - E250 (migrate memory,drive)  
 UG14-A26-9S-000-AA - E250 zero base deskside (migrate memory)



## Step 2a - required

Order UG-RMA



UG-RMA - Return Material Authorization Kit  
 (Configure to order systems only)



## Step 3 - required

**Order CPU**  
 Minimum of one, maximum of 2 per system; all must be identical. See configuration rules.  
 Exception: UG14-6UNC-9S-000NK



**Choose from:**  
 1191A - 300 MHz, 2-Mbytes external cache  
 1194A - 400 MHz, 2-Mbytes external cache  
 UGFA-M11XX-M1194 - 400MHz, 2MB external cache upgrade from 300MHz CPU (factory installed)  
 UGFA-MXXXX-M1194 - 400MHz, 2MB external cache upgrade from 167MHz, 200MHz or 250MHz CPU (factory installed)



## Step 4 - required

**Order Memory**  
 Memory options must be added two at a time. Minimum of 2 options, maximum of 8 options may be added. See configuration rules.  
 Exception: UG14-6UNC-9S-000NK, UG14-A26-9S-000NK, UG14-A26-9S-000-AA



**Choose from:**  
 7003A - 128-Mbyte ECC memory (2 x 64MB DIMMs)  
 7004A - 256-Mbyte ECC memory (2 x 128MB DIMMs)  
 UGFA-MEM128-MEM512 - 512-Mbyte ECC memory (2 x 7004A or 4 x 128MB DIMMs) upgrade (factory installed).



## Step 5 - required

**Order E250 Software Supplement CD**  
 Must order either Foot Glide option (NC) or Floor Caster option.



250M9-100-W999 - Supplement CD  
 9605A - Foot Glide Option  
 (X)9604A - Floor Caster Option



## Step 6 - required

**Internal Disk Drives**  
 Order minimum of one, maximum of twenty per system (see config rules).  
 Exception: UG14-6UNC-9S-000NK, UG14-A26-9S-000-AA



5229A - 9.1-GB 7200rpm UltraSCSI disk drive  
 5232A - 18-GB 7200rpm UltraSCSI disk drive  
 5237A - 19-GB 10000rpm UltraSCSI disk drive

# Ordering Flow Chart for Upgrades to Enterprise 250 (cont.)

Each step represents a **required/recommended** line item on a Sales Order

## Step 7 - optional

**Add Internal Tape Drive Option**  
Maximum of one per system.



6286A - Internal 4mm 12-24 GB DDS-3 Tape Drive  
6213A - Internal 7-14 GB 8mm Tape Drive  
6120A - Internal 25/50 GB MLR3 Tape Drive



## Step 8 - optional

**Add PCI Interfaces and Host Adapters**  
Maximum of four per system.

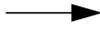


Goto Step 8 on See page 3-51.



## Step 9 - optional/required

**Add additional Power Supply**  
Maximum of one additional power supplies per system for N+1 redundancy.



9683A - 360W Power Supply



## Step 10 - required

**Specify Power Cord/Country Kit**  
Order one kit at no charge. Order a Power Cord Kit when the server does not require a local graphics console. Order a Type 5 Country Kit when server includes a local graphics console. Order a Power Cord Kit for each external peripheral if required.



**Choose one:**  
*X311L - North American/Asian Power Cord*  
*X386L - Australian*  
**or:**  
*X3508A - North American Type-5 Country Kit*  
*X3579A - Canadian-Bilingual*



## Step 11 - optional

**Add External Disk Storage Options**  
See Configuration Rules.  
Other options are available.



Goto Step 11 on See page 3-51.



## Step 12 - optional

**Add External Tape Storage Options**  
See configuration rules.  
Other options are available.



Goto Step 12 on See page 3-51.

## Step 13 - optional

**Solaris PC NetLink**  
Order Solaris PC NetLink



For NT interoperability order Solaris PC NetLink (SLSIX-110-W999) at no charge when purchasing a new or upgrading to E250.

# Sun Enterprise 250 Upgrade Product Ordering Notes

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### General Comments

- Existing 300-MHz/2MB Ecache or 400MHz/2MB Ecache CPU modules from Enterprise 2 migrate. (See Workgroup Server Component Upgrades for other CPU upgrade options.)
- 32-MB or larger memory DIMMs, 7200-rpm/1-inch high 2.1/4.2/9.1GB and 10,000-rpm/1-inch high 9.1/18.2GB drives migrate to Enterprise 250 server.
- Memory upgrades are available to replace 16/32/64-MB SUN DIMMs totalling 128-MB of memory to 512-MB of memory. (See Workgroup Server Component Upgrades.)
- Memory is required to be installed in sets of four.
- 360MHz CPUs from Ultra 60 are not supported and do not migrate.
- External SCSI devices (i.e. tape, disk and disk packs) remain compatible with the purchase of the appropriate PCI card. Solaris Server license is included with all E250 upgrades.
- Part number UG-RMA, the Return Material Authorization (RMA) Kit, must be ordered as a separate, no charge line item with every build-to-configure upgrade. It must be in the same ship-set as the upgrade.
- Solaris Server license is included with all E250 upgrades.
- Zero base upgrade must be ordered with a minimum of 1 CPU, 4 memory modules, 1 internal UltraSCSI disk drive, power cord kit or country kit.
- Standard configurations require return of complete system.
- Standard configurations ship with a fixed number of CPUs and memory pre-installed at the factory. To add CPUs, memory or drives order the appropriate x-option.

## Upgrades to Ultra Enterprise 250 Servers

Description	Order Number
<b>Base Systems</b>	
<b>From SPARCstation 10 or earlier server</b>	
Upgrade from any SPARCstation 10, or earlier server to an Enterprise 250 desktower, two CPU slots, 32x CD-ROM, no CPU, memory or disk, Solaris server license. Customer returns: Complete SPARCstation 10 or earlier Sun server including chassis, CPU, disk and CD-ROM	UG10-A26-AA
Upgrade from any SPARCstation 1 or earlier server to Enterprise 250 Server rack w/2 open module slots, 32x CD-ROM, one power supply, UltraSCSI internal disk interface, no CPU, no disk, no memory, no foot glides no side panels, rack mounting kit included. Solaris server license	UG10-A26-AA-R

### Standard Configurations

<b>From SPARCstation 20 or earlier server</b>	
Upgrade SPARCserver 20 or earlier to Sun Enterprise 250 Server includes two 400MHz CPUs, each with 2-MB cache, 2GB memory; four 18GB 10,000 rpm drives and 2 power supplies STANDARD CONFIGURATION Customer Returns: Complete Sun server - SPARC 20, 10, 5, 4 or earlier including CPUs, memory and drives.	US20A26UJC29S002FA <sup>1</sup>
Upgrade SPARCserver 20 to Sun Enterprise 250 Server includes two 400MHz CPUs, each with 2-MB cache, 1GB memory; two 18GB 10,000 rpm drives and 2 power supplies STANDARD CONFIGURATION Customer Returns: Complete Sun server - SPARC 20, 10, 5, 4 or earlier with all CPUs, memory and drives.	US20A26UJC29S001EJ <sup>1</sup>
<b>From Enterprise 1 or 2</b>	
Upgrade Enterprise 2 or 1 to Sun Enterprise 250 Server includes two 400MHz CPUs, each with 2-MB cache, 2GB memory; four 18GB 10,000 rpm drives and 2 power supplies STANDARD CONFIGURATION Customer Returns: Complete Sun server - SPARC 20, 10, 5, 4 or earlier including CPUs, memory and drives.	U14A26UJC29S-002FA <sup>1</sup>
Upgrade Sun Enterprise 1 or 2 server to Enterprise 250 Server includes two 400MHz CPUs, each with 2-MB cache, 1GB memory; two 18GB 10,000 rpm drives and 2 power supplies STANDARD CONFIGURATION Customer Returns: Complete UltraSPARC Enterprise 1 or 2 server including CPUs, memory, and drives.	U14A26UJC29S-001EJ <sup>1</sup>

### Footnote

1. Standard Configurations are Sun's recommended configurations.

# Upgrades to Ultra Enterprise 250 Servers *(continued)*

Description	Order Number
<b>Base Systems</b>	
<b>From Enterprise 2</b>	
Upgrade from any Enterprise 2 Model 1300 or 2300 to Enterprise 250 Server Chassis w/2 open module slots, 32x CD-ROM, one power supply, 4 disk brackets, UltraSCSI internal disk interface Solaris server license Customer Returns: * UE 2 Model 1300 or 2300 chassis and CD-ROM	UG14-6UNC-9S-000NK
Upgrade from any Enterprise 1 or 2 server with a minimum of one 7200 RPM 1" high disk and four 32MB or greater Memory DIMMS to a Sun E250 chassis with two open module slots, 32X CD-ROM, no CPU, no memory, no disk, one power supply, four disk brackets, UltraSCSI internal disk interface, Solaris Server License Note:CPU module required	UG14-A26-9S-000NK
Upgrade from any Enterprise 1 or SPARCserver 20 with a minimum of four 32MB or greater Memory DIMMS to a Sun E250 server chassis with two open module slots, 32x CD-ROM, no CPU, no disk, no memory, one power supply, UltraSCSI internal disk interface, Solaris server Lic. Note: CPU Module and disk required on CTO basis	UG14-A26-9S-000-AA

# Upgrades to Ultra Enterprise 250 Servers *(continued)*

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Description

Order Number

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### Upgrade to 400MHz UltraSPARC-II Module with 2MB e-cache for E250 Only

#### From Sun Ultra 167-MHz, 200MHz or 250MHz Module

Upgrade any 167/200/250 MHz UltraSPARC CPU module to a 400 MHz with 2MB e-cache UltraSPARC II CPU module for Enterprise 250 FIELD INSTALLED Customer returns: \*One UltraSPARC 167/200/250 MHz or SPARC CPU module UG-MXXXX-M1194 <sup>1</sup>

Upgrade from 167/200/250MHz UltraSPARC CPU module to 400MHz 2MB ecache UltraSPARC II CPU module for the Enterprise 250. FACTORY INSTALLED Customer Returns: \*One UltraSPARC 300MHz CPU module UGFA-MXXXX-M1194

#### From Sun Ultra 300-MHz Module

Upgrade from any 300MHz 2MB cache UltraSPARC II module to a 400MHz UltraSPARC II module with 2MB E-cache for the Enterprise 250 FIELD INSTALLED Customer Returns: \* One UltraSPARC 300MHz CPU module UG-M11XX-M1194 <sup>1</sup>

#### From Sun Ultra 300-MHz with 2MB ecache Module

Upgrade from 300MHz 2MB ecache UltraSPARC CPU module to 400MHz 2MB ecache UltraSPARC II CPU module for the Enterprise 250. FACTORY INSTALLED Customer Returns: \*One UltraSPARC 300MHz UltraSPARCII CPU module UGFA-M11XX-M1194

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### Memory upgrade

#### From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules) to 512-Mbyte (4 x 128-Mbyte DIMM modules)

Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. \*\*\*NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations \*\*\* Customer returns: \* 128MB (Any combination) of Sun UG-MEM128-MEM512 <sup>1</sup>

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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- 

#### Ordering Notes

- *Sun Ultra modules are supported only in Sun Ultra 2 series systems.*
  - *Requires Solaris 2.5 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

#### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

# Upgrades to Ultra Enterprise 250 Servers *(continued)*

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Description	Order Number
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### Upgrade to 512-Mbyte (4 x 128-Mbyte DIMM modules)

**From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules)**

Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations *** Customer returns: * 128MB (Any combination) of Sun	UG-MEM128-MEM512 <sup>1,2</sup>
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### Memory Upgrades for E250

**From 256-Mbytes Sun memory (any combination of 16-MB, 32-MB, 64-MB, or 128-MB of Sun SIMMs)**

Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup and Netra servers and Ultra Workstation FACTORY INSTALLED Customer returns: * 128MB (Any combination) of Sun memory SIMMS	UGFA-MEM128-MEM512 <sup>1</sup>
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#### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- 

#### Footnotes

1. *Only for factory-installed, X7004A-compatible Workgroup Servers or Netra Servers Workstations.*
2. *Standard Configurations are Sun's recommended configurations.*

# Ordering Flow Chart for Upgrades to Enterprise 450

Each step represents a **required/recommended** line item on a Sales Order

## Step 1 - required

Enter Family Part Number

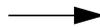


UG-A25 - Ultra Enterprise 450 Server Upgrades



## Step 2 - required

Order Base Package



### Choose from:

UG10-A25-BA - E450 zero base  
UG14-5UNC-9S-000NK - E450 chassis only  
UG14-A25-9S-000NK - E450 chassis, CPU  
UG14-A25-9S-000-BA - E450 chassis, CPU, disk



## Step 2a - required

Order UG-RMA when ordering E450 system upgrade



UG-RMA - Return Material Authorization Kit  
(Configure to order systems only)



## Step 3 - optional/required

**Order CPU**  
1, 2, 3, or 4 CPUs can be installed in a system. All CPUs for one system must be the same speed and must match any CPU migrated to or in the base system. See configuration rules.



### Choose from:

2240A - 300-MHz UltraSPARC-II CPU w/2MB E-cache  
2244A - 400-MHz UltraSPARC-II CPU w/4MB E-cache  
UGFA-M22XX-M2244 - 400-MHz 4MB E-cache upgrade from 300-MHz CPU (factory installed)  
UGFA-MXXXX-M2244 - 400-MHz 4MB E-cache upgrade from 167-MHz, 200-MHz or 250-MHz CPU (factory installed)



## Step 4 - optional/required

**Order Memory**  
Order 2, 4, or 8 DIMMs. Sixteen memory expansions DIMM slots are available. Min. memory configuration 4, Max. 16 DIMMs (4 groups of 4). DIMMs must be added in matched groups of four.



### Choose from:

7003A - 128-Mbyte ECC memory (2 x 64MB DIMMs)  
7004A - 256-Mbyte ECC memory (2 x 128MB DIMMs)  
7005A - 512-Mbyte ECC memory (2 x 256MB DIMMs)  
UGFA-MEM128-MEM512 - 512-Mbyte ECC memory (2 x 7004A or 4 x 128MB DIMMs) upgrade (factory installed)  
UGFA-MEM256M-MEM1G - 1Gbyte ECC memory (2 x 7005A or 4 x 256MB DIMMs) upgrade (factory installed)



## Step 5 - optional

**Order Internal Storage Expansion Option**  
Maximum of two per system. One required to support 5-12 internal disks. Two required to support 13-20 internal disks.



6601A - 8-bay Storage Expansion Option

## Ordering Flow Chart for Upgrades to Enterprise 450 (cont.)

Each step represents a **required/recommended** line item on a Sales Order



### Step 6 - optional/required

**Order Internal Disks**  
Order minimum of one, maximum of twenty per system.



5229A - 9.1-Gbyte 7200rpm USCSI disk drive  
5234A - 9.1-Gbyte, 10000rpm USCSI disk drive  
5237A - 18-GB 10000rpm USCSI disk drive



### Step 7 - optional

**Order Additional system Options**  
The ordering procedures for additional Options are identical with new system orders and be viewed there.



Go to Step 7 on See page 3-60.



### Step 8 - optional

**Solaris PC NetLink**  
Order Solaris PC NetLink



For NT interoperability order Solaris PC NetLink (SLSIX-110-W999) at no charge when purchasing a new or upgrading to E450.

# Sun Enterprise 450 Upgrade Product Ordering Notes

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### General Comments

- 300-MHz CPU modules from Enterprise 2 or 250 migrate. 400MHz from Enterprise 2 or 250 DO NOT migrate.(See Workgroup Server Component Upgrades for other options.)
- 32-MB or larger memory DIMMs, 7200-rpm/1-inch high 2.1/4.2/9.1GB and 10,000-rpm/1-inch high 9.1/18.2GB drives migrate to Enterprise 450 server.
- Memory upgrades are available to replace 16/32/64-MB SUN DIMMs totalling 128-MB to 512-MB of memory and 256MB or 512MB memory to 1GB memory. (See Workgroup Server Component Upgrades.) Memory must be installed in sets of four.
- 360MHz CPUs from Ultra 60 and 400MHz/2MB e-cache CPU from Enterprise 2 and 250 are not supported and do not migrate. (See Workgroup Server Component Upgrades for other CPU upgrade options.)
- External SCSI devices (i.e. tape, disk and disk packs) remain compatible with the purchase of the appropriate PCI card. Solaris Server license is included with all E450 upgrades.
- Part number UG-RMA, the Return Material Authorization (RMA) Kit, must be ordered as a separate, no charge line item with every build-to-configure upgrade. It must be in the same ship-set as the upgrade.
- Solaris Server license is included with all E450 upgrades.
- Zero base upgrade must be ordered with a minimum of 1 CPU, 4 memory modules, 1 internal UltraSCSI disk drive, power cord kit or country kit.
- Standard configurations available with minimum CPU and memory. Customer returns functioning system with CPU and memory.
- To add additional CPUs, memory or drives to standard configurations, order appropriate x-options.

# Upgrades to Ultra Enterprise 450 Servers

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Description	Order Number
<b>Base Systems</b>	
<b>From Any UltraSPARC server</b>	
Upgrade from any UltraSPARC server with 7200RPM 1-inch high 2.1-GB or 4.2-GB disk drive to E450 400MHz enabled base Chassis, 32x CD-ROM, floppy drive, 4 disk brackets, Solaris server license, REQUIRED to order min. 1 CPU, 1 Disk. Customer Returns: * UltraSPARC server chassis, CPU and CD-ROM	UG14-A25-9S-000NK
<b>From Enterprise 2</b>	
Upgrade from any Enterprise 2 Model 1300 or 2300 to E450 400MHz enabled Chassis w/4 open module slots, 32x CD-ROM, floppy drive, one power supply, 2 DC/DC Conv, 4 disk brackets, Solaris server license Customer Returns: * UE 2 Model 1300 or 2300 chassis and CD-ROM	UG14-5UNC-9S-000NK
<hr/>	
<b>Standard Configurations</b>	
<b>From Enterprise 1 or SPARCserver</b>	
Upgrade Enterprise 1 or SPARCserver to Sun Enterprise 450 Server in deskside tower; includes four 400MHz CPUs, each with 4-MB cache 4GB memory, 10 PCI I/O slots, 32X CDROM; 1.44MB floppy drive, 10/100 Ethernet, two power supplies; Solaris server license; 4 hot swap UltraSCSI disk bays, four 18GB 10,000 rpm drives. STANDARD CONFIGURATION Customer Returns: Complete Sun server - SPARC 20, 10, 5, 4 or earlier and Enterprise 1 with all CPU, memory and drives	U11A25UJD49S-004CX 1
<b>From Enterprise 1 and 2 or SPARCserver 1000</b>	
Upgrade Enterprise 2 or SPARCserver 1000 server to Enterprise 450 server with two 400MHz UltraSPARC-II processor, 4MB E-cache, 2GB memory, 2X18GB Drives 10,000-rpm 1-inch UltraSCSI drive 32X CD-ROM STANDARD CONFIGURATION Customer Returns: Complete Enterprise 2 or SPARCserver 1000 server	U14A25UJD29S-002EJ
<b>From Enterprise 2</b>	
Upgrade Enterprise 2 server to Sun Enterprise 450 Server in deskside tower; includes four 400MHz CPUs, each with 4-MB cache 4GB memory, 10 PCI I/O slots, 32X CDROM; 1.44MB floppy drive, 10/100 Ethernet, two power supplies; Solaris server license; 4 hot swap UltraSCSI disk bays, four 18GB 10,000 rpm drives. STANDARD CONFIGURATION Customer Returns: Complete Sun UltraSPARC Enterprise 2 server including all CPUs, memory and drives.	U14A25UJD49S-004CX 1

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### Footnote

1. Standard Configurations are Sun's recommended configurations.

## Upgrades to Ultra Enterprise 450 Servers *(continued)*

Description	Order Number
<b>Base Systems</b>	
<b>From UltraSPARC or SPARCserver 20 Systems</b>	
Upgrade from any UltraSPARC server or SPARCserver 20 with 4x32mb memory SIMMs to an Enterprise 450 400MHz enabled zero base chassis with 32x CD-ROM, floppy drive and Solaris Server license. REQUIRED to order min. 1 CPU module, 1 disk Customer returns: UltraSPARC or SPARCserver 20 incl. chassis, CPU	UG14-A25-9S-000-BA
<b>From SPARCstation 10 or earlier Sun Server Systems (including 6X0MP and SS1000)</b>	
Upgrade from any SPARCstation 10, or earlier server to an Enterprise 450 Zero Base (400MHz enabled), Solaris Svr license, no CPU, memory or disk included, REQUIRED to order min. 1 CPU module, memory and 1 disk Customer Returns: *SPARCstation 10 system or earlier server including memory, disk, cpu	UG10-A25-BA
<b>Standard Configurations</b>	
<b>From SPARCstation 20 or earlier Sun Server</b>	
Upgrade SPARCserver 20 or earlier Sun server to Enterprise 450 server with TWO 400MHz UltraSPARC-II processor, 4MB E-cache, 2GB memory, 2x18GB drives 10,000-rpm 1-inch UltraSCSI drive 32X CD-ROM STANDARD CONFIGURATION Customer Returns: Complete SPARCserver 20 or earlier Sun server	US20A25UJD29S002EJ
<b>From Enterprise Server 250</b>	
Upgrade Enterprise 250 server to Sun Enterprise 450 Server in deskside tower; includes four 400MHz CPUs, each with 4-MB cache 4GB memory, 10 PCI I/O slots, 32X CDROM; 1.44MB floppy drive, 10/100 Ethernet, two power supplies; Solaris server license; 4 hot swap UltraSCSI disk bays, four 18GB 10,000 rpm drives. STANDARD CONFIGURATION Customer Returns: Complete Sun UltraSPARC Enterprise 250 server including all CPUs, memory and drives.	U26A25UJD49S-004CX 1

**Footnote**

1. *Standard Configurations are Sun's recommended configurations.*

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## Upgrades to Ultra Enterprise 450 Servers *(continued)*

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Description	Order Number
<b>Upgrade to 400MHz UltraSPARC-II Module for E450 Only</b>	
<b>From Sun Ultra 300MHz Module</b>	
Upgrade from any E450 300MHz UltraSPARC-2 module to a 400MHz UltraSPARC-2 module with 4-Mbyte E-cache & DC/DC conv FIELD INSTALLED This CPU requires a 400MHz ready E450 motherboard. E450 purchased prior to 1/1/99 may require a new board #501-5270. Order board UGMB-A25AA-A25BA. Customer Returns: One UltraSPARC 300MHz/2MB e-cache module	UG-M22XX-M2244 <sup>1,3</sup>
Upgrade from 300MHz UltraSPARC to 400MHz UltraSPARC II CPU with 4-Mbyte e-cache. FACTORY INSTALLED Customer returns: One UltraSPARC 300MHz CPU module	UGFA-M22XX-M2244 <sup>2</sup>
<b>From Sun Ultra 167-MHz, 200-MHz or 250-MHz Module</b>	
Upgrade from any 167/200/250MHz UltraSPARC-1 module to a 400MHz UltraSPARC-2 module with 4-Mbyte E-cache & DC/DC conv FIELD INSTALLED CPU requires a 400MHz ready E450 motherboard. E450 purchased prior to 1/1/99 may require a new board 501-5270. Order UGMB-A25AA-A25BA. Customer Returns: One UltraSPARC 147MHz, 167MHz, 200MHz or 250MHz CPU module.	UG-MXXXX-M2244 <sup>1,3</sup>
Upgrade from any 167/200/250MHz UltraSPARC CPU to a 400MHz UltraSPARC II CPU with 4-Mbyte e-cache. FACTORY INSTALLED. Customer Returns: One UltraSPARC 167MHz, 200MHz, or 250MHz CPU module	UGFA-MXXXX-M2244 <sup>2</sup>

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### Upgrade to 300MHz UltraSPARC-II Module for E450 Only

#### From Sun Ultra 167-MHz, 200-MHz or 250-MHz Module

Upgrade from any 143-MHz, 200-MHz, or 250MHz UltraSPARC module to a 300MHz UltraSPARC-II module with 2-Mbyte E-cache & DC/DC conv Customer returns: * One UltraSPARC CPU Module	UG-MXXX-M300 <sup>1</sup>
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### Upgrade to 400-MHz Sun Enterprise 450 motherboard

#### From 250/300-MHz Sun Enterprise 450 motherboard to 400-MHz Sun Enterprise 450 motherboard

Upgrade from any E450 250MHz or 300MHz Motherboard to 400MHz enabled E450 Motherboard. Customer Returns: E450 250/300MHz Motherboard	UGMB-A25AA-A25BA
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#### General Note

- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

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#### Footnotes

1. *The 400MHz CPU requires a 400MHz ready E450 motherboard part number 501-5270. Systems purchased prior to 1/1/99 may require a new motherboard. Order UGMB-A25AA-A25BA.*
2. *Configured in factory. Upgraded module must be returned with upgraded system chassis.*
3. *Standard Configurations are Sun's recommended configurations.*

## Upgrades to Ultra Enterprise 450 Servers *(continued)*

Description	Order Number
<b>Memory Upgrades for E450</b>	
<b>From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules)</b>	
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations *** Customer returns: * 128MB (Any combination) of Sun	UG-MEM128-MEM512 <sup>4</sup>
<b>From 512-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules)</b>	
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup and Netra servers and Ultra Workstation FACTORY INSTALLED Customer returns: * 128MB (Any combination) of Sun memory SIMMS	UGFA-MEM128-MEM512 <sup>2</sup>
<b>From 256-Mbytes Sun memory (any combination of 64-MB or 128-MB of Sun SIMMS)</b>	
Upgrade from 256-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FIELD INSTALLED Customer returns: * 256MB (Any combination) of Sun memory SIMMS	UG-MEM256MB-MEM1GB <sup>1,4</sup>
Upgrade from 256-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FACTORY INSTALLED Customer returns: * 256MB (Any combination) of Sun memory SIMMS	UGFA-MEM256M-MEM1GB <sup>1</sup>
Upgrade from 512-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FIELD INSTALLED Customer returns: * 512MB (Any combination) of Sun memory SIMMS	UG-MEM512-MEM1GB <sup>1,4</sup>

### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

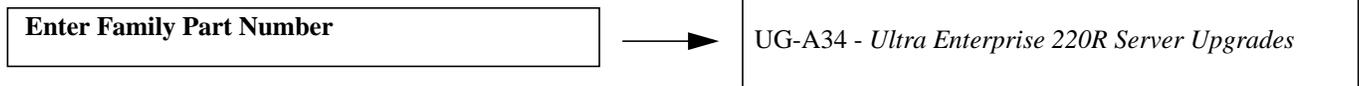
### Footnotes

1. *Only for field-installed, X7005A-compatible Workgroup Servers or Workstations.*
2. *Only for factory-installed, 7005A-compatible Workgroup Servers or Workstations.*
3. *Only for factory-installed, X7004A-compatible Workgroup Servers or Netra Servers Workstations.*
4. *Standard Configurations are Sun's recommended configurations.*

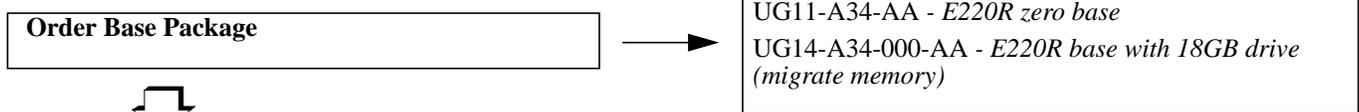
# Ordering Flow Chart for Upgrades to Enterprise 220R

Each step represents a **required/recommended** line item on a Sales Order

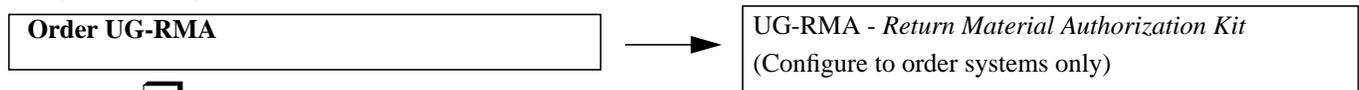
## Step 1 - required



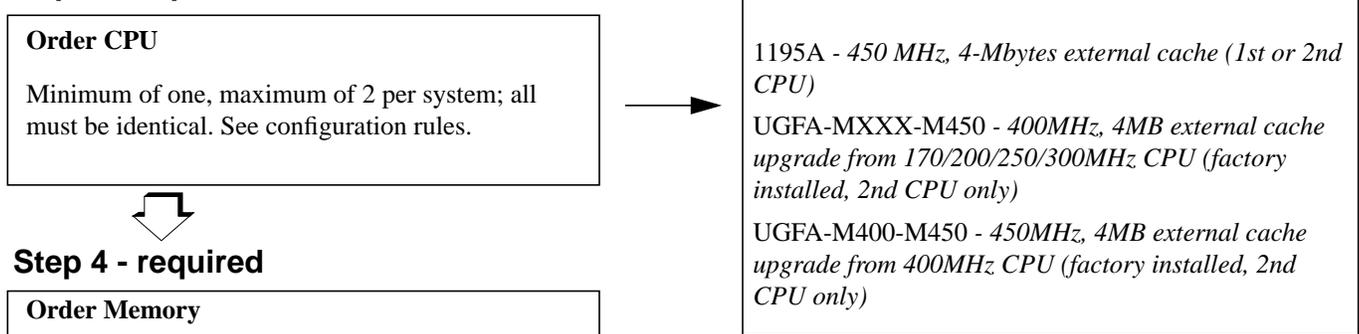
## Step 2 - required



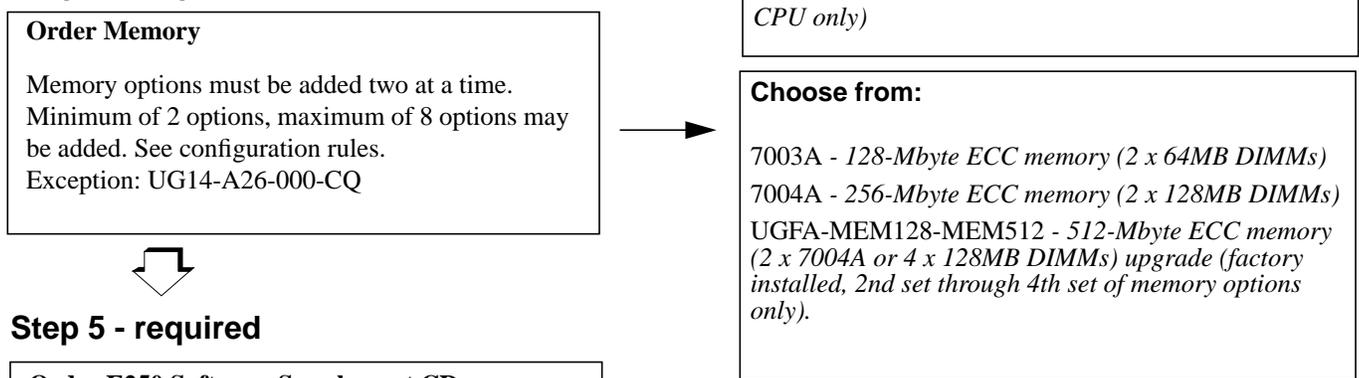
## Step 2a - required



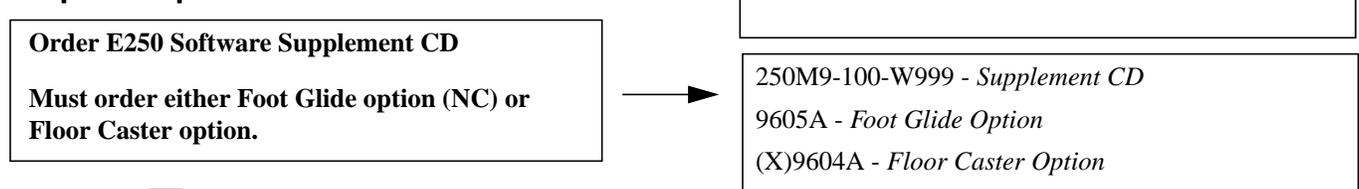
## Step 3 - required



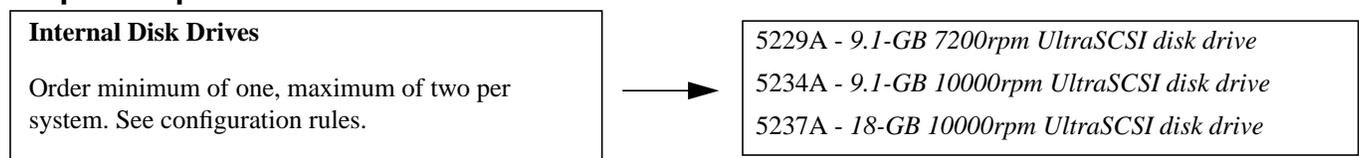
## Step 4 - required



## Step 5 - required



## Step 6 - required



# Ordering Flow Chart for Upgrades to Enterprise 220R *(cont.)*

Each step represents a **required/recommended** line item on a Sales Order

## Step 7 - optional

**Add PCI Interfaces and Host Adapters**  
Maximum of four per system.



Goto Step 6 on page 4-71.



## Step 8 - optional

**Add additional Power Supply**  
Maximum of one additional power supplies per system for N+1 redundancy.



9683A - 360W Power Supply



## Step 9 - required

**Specify Power Cord/Country Kit**  
Order one kit at no charge. Order a Power Cord Kit when the server does not require a local graphics console. Order a Type 5 Country Kit when server includes a local graphics console. Order a Power Cord Kit for each external peripheral if required.



**Choose one:**  
*X311L - North American/Asian Power Cord*  
*X386L - Australian*  
**or:**  
*X3508A - North American Type-5 Country Kit*  
*X3579A - Canadian-Bilingual*



## Step 10 - optional

**Add External Disk Storage Options**  
See Configuration Rules.  
Other options are available.

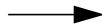


Goto Step 9 on page 4-71.



## Step 11 - optional

**Add External Tape Storage Options**  
See configuration rules.  
Other options are available.



Goto Step 10 on page 4-71.



## Step 12 - optional

**Add Hardware RAID Controller**  
Maximum of 3  
See configuration rules



*X6542A - SRC/P Intelligent SCSI RAID Controller*  
*X3832A - 2 meter SCSI data cable*



## Step 13 - optional

**Select Other Options**  
Other options are available.  
See configuration rules.

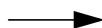


Goto Step 12 on page 4-71.



## Step 14 - optional

**Solaris PC NetLink**  
Order Solaris PC NetLink



For NT interoperability order Solaris PC NetLink (SLSIX-110-W999) at no charge when purchasing a new or upgrading to E250.

# Upgrades to Ultra Enterprise 220R Servers

Description	Order Number
<b>Base Systems</b>	
<b>From SPARCserver 4, 5, 10, or 20</b>	
Upgrade SPARCserver 4, 5, 10 or 20 server to Enterprise 220R server base with one power supply and 32x CD-ROM Customer Returns: Complete chassis including CPU, memory and disks	UG20-A34-AA
<b>From Enterprise 1 or 150</b>	
Upgrade Enterprise 1 or 150 server to Enterprise 220R server base with one power supply and 32x CD-ROM Customer Returns: Complete chassis including CPU, memory and disks	UG11-A34-AA
<b>Standard Configurations</b>	
<b>From SPARCserver 4, 5, 10, or 20</b>	
Upgrade SPARCserver 20 or lower to Enterprise 220R server, two 450MHz UltraSPARC-II processors and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI drives, internal SunCD (tm) 32, two power supplies STANDARD CONFIGURATION Customer Returns: Complete SPARCserver chassis with CPUs, memory and drives.	US20A34ULD29S002EJ 1
Upgrade SPARCserver20 or lower to Enterprise 220R server, one 450MHz UltraSPARC-II processors and 4MB E-cache, 1GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI drives, internal SunCD (tm) 32, one power supplies STANDARD CONFIGURATION Customer Returns: SPARCserver 20 or lower with all CPUs, memory and drives.	US20A34ULD19S001EJ 1
<b>From Enterprise 1 or 2</b>	
Upgrade Enterprise 2 server to Enterprise 220R server, two 450MHz UltraSPARC-II processors and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI drives, internal SunCD (tm) 32, two power supplies STANDARD CONFIGURATION Customer Returns: Complete Enterprise 2 chassis with CPUs, memory and drives.	U14A34ULD29S-002EJ 1
Upgrade Enterprise 2 server to Enterprise 220R server, one 450MHz UltraSPARC-II processors and 4MB E-cache, 1GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI drives, internal SunCD (tm) 32, one power supplies STANDARD CONFIGURATION Customer Returns: Enterprise 2 with one CPU, 4 memory DIMMs and one drive.	U14A34ULD19S-001EJ 1

### Footnote

1. Standard Configurations are Sun's recommended configurations.

# Upgrades to Ultra Enterprise 220R Servers *(continued)*

---

Description	Order Number
<b>Base Systems</b>	
<b>From Enterprise 2 to E220R CTO</b>	
Upgrade Ent 2 to Ent 220R server base with power supply and 32x CD-ROM. Must order CPU and drive. Customer Returns: Enterprise 2 server chassis with CPU and drive. 32MB/64MB/128MB memory DIMMs migrate	UG14-A34-000-AA
<b>From Enterprise 250</b>	
Upgrade Enterprise 250 server to Enterprise 220R server, two 450MHz UltraSPARC-II processors and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI drives, internal SunCD (tm) 32, two power supplies STANDARD CONFIGURATION Customer Returns: Complete Enterprise 250 server with CPUs, memory and drives.	U26A34ULD29S002EJ <sup>1</sup>

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### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

# Upgrades to Ultra Enterprise 220R Servers *(continued)*

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Description	Order Number
<b>Upgrade to 450MHz UltraSPARC-II Module with 4MB e-cache for E220R Only</b>	
<b>From Sun Ultra 167-MHz, 200MHz, 250MHz, or 300MHz Module</b>	
Module upgrade from 360MHz & below to 450MHz CPU Customer returns: One 360MHz or below UltraSPARC CPU module	UG-MXXX-M450 <sup>1</sup>
Module upgrade from UltraSPARC 300MHz or slower CPU to 450MHz/4MB e-cache CPU for E220R or E420R FACTORY INSTALLED Customer returns: One UltraSPARC 300MHz or slower CPU module	UGFA-MXXX-M450
<b>From Sun Ultra 300-MHz Module</b>	
Module upgrade from UltraSPARC 400MHz CPU to UltraSPARC 450MHz/4 MB e-cache for E220R and E420R FIELD INSTALLED Customer returns: One UltraSPARC 400MHz module with 2MB or 4MB e-cache	UG-M400-M450 <sup>1</sup>
Module upgrade from UltraSPARC 400MHz CPU to UltraSPARC 450MHz/4 MB e-cache for E220R and E420R FACTORY INSTALLED Customer returns: One UltraSPARC 400MHz module with 2MB or 4MB e-cache	UGFA-M400-M450

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### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- 

### Ordering Notes

- *Requires Solaris 2.6 5/98 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

# Upgrades to Ultra Enterprise 220R Servers *(continued)*

Description	Order Number
<b>Memory upgrade</b>	
<b>From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules) to 512-Mbyte (4 x 128-Mbyte DIMM modules)</b>	
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations *** Customer returns: * 128MB (Any combination) of Sun	UG-MEM128-MEM512 <sup>2</sup>
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup and Netra servers and Ultra Workstation FACTORY INSTALLED Customer returns: * 128MB (Any combination) of Sun memory SIMMS	UGFA-MEM128-MEM512
<b>From 256-Mbytes Sun memory (any combination of 16-MB, 32-MB, 64-MB, or 128-MB of Sun SIMMs)</b>	
Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup and Netra servers and Ultra Workstation FACTORY INSTALLED Customer returns: * 128MB (Any combination) of Sun memory SIMMS	UGFA-MEM128-MEM512 <sup>1</sup>

### Upgrade to 512-Mbyte (4 x 128-Mbyte DIMM modules)

#### From 128-Mbyte (any combination of 16-, 32-, 64-Mbyte SIMM modules)

Upgrade from 128-Mbyte (Any combination of 16, 32, or 64-Mbyte Sun SIMMS) of memory to 512-Mbyte (4x128-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7004A compatible Workgroup Servers or Workstations *** Customer returns: * 128MB (Any combination) of Sun	UG-MEM128-MEM512 <sup>1</sup>
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### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Footnote

1. *Only for factory-installed, X7004A-compatible Workgroup Servers or Netra Servers Workstations.*
2. *Standard Configurations are Sun's recommended configurations.*

# Ordering Flow Chart for Upgrades to Enterprise 420R

Each step represents a **required/recommended** line item on a Sales Order

## Step 1 - required

Enter Family Part Number

UG-A33 - *Ultra Enterprise 420R Server Upgrades*



## Step 2 - required

Order Base Package

### Choose from:

UG20-A33-AA - *E420R zero base*

UG11-A33-AA - *E420R zero base with 18GB 10k drive (only migrate 256MB memory DIMMS)*

UG14-A33-000CX - *E420R chassis, CPU*

UG26-A33-000-NK - *E420R zero base (256MB DIMMS and 1-inch 9.1 and 18GB drives migrate)*

UG25-A33-000-NK - *E420R zero base (256MB DIMMS and 1-inch 9.1 and 18GB drives migrate)*



## Step 2a - required

Order UG-RMA when ordering E420R system upgrade

UG-RMA - *Return Material Authorization Kit (Configure to order systems only)*



## Step 3 - optional/required

### Order CPU

1, 2, 3, or 4 CPUs can be installed in a system. All CPUs for one system must be the same speed and must match > No CPU migrate. See configuration rules.

### Choose from:

1195A - *450-MHz UltraSPARC-II CPU w/4MB E-cache*  
UGFA-MXXX-M450 - *400MHz, 4MB external cache upgrade from 170/200/250/300MHz CPU (factory installed, 2nd CPU only)*

UGFA-M400-M450 - *450MHz, 4MB external cache upgrade from 400MHz CPU (factory installed, 2nd CPU only)*



## Step 4 - optional/required

### Order Memory

Order 2, 4, or 8 DIMMs. Sixteen memory expansions DIMM slots are available. Min. memory configuration 4, Max. 16 DIMMs (4 groups of 4). DIMMs must be added in matched groups of four.

Optional if ordering UG14-A34-000-CX, UG26-A34-000-NK, UG25-A34-000-NK (256MB DIMMS may be migrated)

### Choose from:

7043A - *64-Mbyte ECC memory (2 x 32MB DIMMs)*

7005A - *512-Mbyte ECC memory (2 x 256MB DIMMs)*

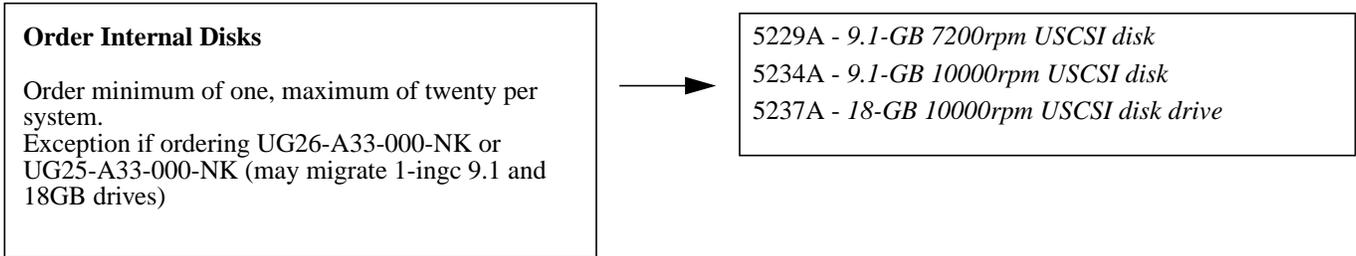


## Ordering Flow Chart for Upgrades to Enterprise 420R *(cont.)*

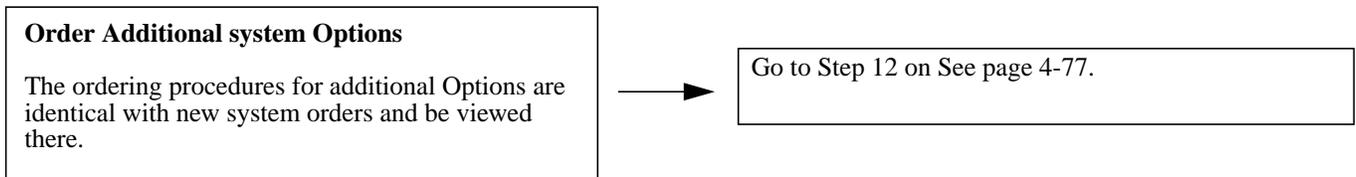
Each step represents a **required/recommended** line item on a Sales Order



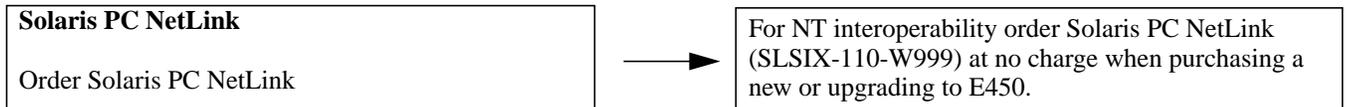
### Step 5 - optional/required



### Step 6 - optional



### Step 7 - optional



## Upgrades to Ultra Enterprise 420R Servers

Description	Order Number
<b>Base Systems</b>	
<b>From SPARCserver 4, 5, 10, or 20</b>	
Upgrade SPARCserver 20, 10, 4, or 5 to Enterprise 420R server base configuration with one power supply and 32X CD-ROM Customer Returns: Complete SPARC server including CPU, memory and drives	UG20-A33-AA
<b>From Enterprise 1 or 150</b>	
Upgrade Enterprise 1 or 150 server to Enterprise 420R server base configuration with one power supply and 32X CD-ROM Customer Returns: Complete server including CPU, memory and drives	UG11-A33-AA
<b>Standard Configurations</b>	
<b>From SPARCserver 4, 5, 10, or 20</b>	
Upgrade SPARCserver 20 or lower server to Enterprise 420R server with four 450MHz UltraSPARC-II processor and 4MB E-cache, 4GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, two power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Complete SPARCserver with CPU, memory and drives	US20A33ULD49S004EJ 1
Upgrade SPARCserver 20 or lower SPARCserver to Enterprise 420R server with two 450MHz UltraSPARC-II processor and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, one power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Complete SPARCserver with CPU, memory and drives	US20A33ULD29S002EJ 1
<b>From Enterprise 2</b>	
Upgrade Enterprise 2 server to Enterprise 420R server base configuration with one power supply and 18GB 10k rpm drive Customer Returns: Enterprise 2 server chassis, CPU and drive	UG14-A33-000-CX
<b>From Enterprise 1 or 2</b>	
Upgrade Enterprise 1 or 2 server to Enterprise 420R server with four 450MHz UltraSPARC-II processor and 4MB E-cache, 4GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, two power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Enterprise 2 server with CPUs, memory and drives	U14A33ULD49S-004EJ 1
Upgrade Enterprise 1 or 2 server to Enterprise 420R server with two 450MHz UltraSPARC-II processor and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, one power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Enterprise 1 or 2 server with all CPUs, 4 memory DIMMS and all drives	U14A33ULD29S-002EJ 1

**Footnote**

1. Standard Configurations are Sun's recommended configurations.

## Upgrades to Ultra Enterprise 420R Servers *(continued)*

Description	Order Number
<b>Base Systems</b>	
<b>From Enterprise 250</b>	
Upgrade Enterprise 250 rack server to Enterprise 420R server base configuration with one power supply, 32x CD-ROM, no memory or drive Customer Returns: Enterprise 250 server chassis with CPU. 1-inch 9.1GB 7200rpm or 10k rpm drive or 18GB 10Krpm drive and 256MB memory DIMMS migrate.	UG26-A33-000-NK
<b>From Enterprise 450</b>	
Upgrade Enterprise 450 server to Enterprise 420R server base configuration with one power supply, 32x CD-ROM, no memory or drive Customer Returns: Enterprise 450 server chassis and CPU. 1-inch 9GB and 18GB drives, 64MB DIMMS and 256MB memory DIMMS migrate.	UG25-A33-000-NK
<b>Standard Configurations</b>	
<b>From Enterprise 250</b>	
Upgrade Enterprise 250 server to Enterprise 420R server with four 450MHz UltraSPARC-II processor and 4MB E-cache, 4GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, one power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Enterprise 250 server with CPUs, memory and drives	U26A33ULD49S-004EJ 1
Upgrade Enterprise 250 server to Enterprise 420R server with two 450MHz UltraSPARC-II processor and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, one power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Enterprise 250 server with all CPUs, memory and drives	U26A33ULD29S-002EJ 1
<b>From Enterprise 450</b>	
Upgrade Enterprise 450 server to Enterprise 420R server with four 450MHz UltraSPARC-II processor and 4MB E-cache, 4GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, two power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Enterprise 450 server with four CPUs, memory and drives	U25A33ULD49S-004EJ 1
Upgrade Enterprise 450 server to Enterprise 420R server with two 450MHz UltraSPARC-II processor and 4MB E-cache, 2GB memory, two 18GB 10,000rpm 1-inch high internal Ultra SCSI, internal SunCD(tm) 32, one power supply, Solaris server license STANDARD CONFIGURATION Customer Returns: Enterprise 450 server two CPUs, all memory and all drives	U25A33ULD29S-002EJ 1

### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

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## Upgrades to Ultra Enterprise 420R Servers *(continued)*

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Description	Order Number
<b>Upgrade to 450MHz UltraSPARC-II Module with 4MB e-cache for E420R Only</b>	
<b>From Sun Ultra 167-MHz, 200MHz, 250MHz, or 300MHz Module</b>	
Module upgrade from 360MHz & below to 450MHz CPU Customer returns: One 360MHz or below UltraSPARC CPU module	UG-MXXX-M450 <sup>1</sup>
Module upgrade from UltraSPARC 300MHz or slower CPU to 450MHz/4MB e-cache CPU for E220R or E420R FACTORY INSTALLED Customer returns: One UltraSPARC 300MHz or slower CPU module	UGFA-MXXX-M450
<b>From Sun Ultra 300-MHz Module</b>	
Module upgrade from UltraSPARC 400MHz CPU to UltraSPARC 450MHz/4 MB e-cache for E220R and E420R FIELD INSTALLED Customer returns: One UltraSPARC 400MHz module with 2MB or 4MB e-cache	UG-M400-M450
Module upgrade from UltraSPARC 400MHz CPU to UltraSPARC 450MHz/4 MB e-cache for E220R and E420R FACTORY INSTALLED Customer returns: One UltraSPARC 400MHz module with 2MB or 4MB e-cache	UGFA-M400-M450

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### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

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### Ordering Notes

- *Requires Solaris 2.6 5/98 or later Solaris 2.x release.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

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### Footnote

1. *Standard Configurations are Sun's recommended configurations.*

# Upgrades to Ultra Enterprise 420R Servers *(continued)*

Description	Order Number
<b>Memory upgrade</b>	
<b>From 256-Mbytes Sun memory (any combination of 64-MB, or 128-MB of Sun SIMMs)</b>	
Upgrade from 256-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FIELD INSTALLED Customer returns: * 256MB (Any combination) of Sun memory SIMMS	UG-MEM256MB-MEM1GB 1,2
Upgrade from 256-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FACTORY INSTALLED Customer returns: * 256MB (Any combination) of Sun memory SIMMS	UGFA-MEM256M-MEM1G <sup>1</sup>
Upgrade from 512-Mbyte (Any combination of 16-, 32-, 64-, 128-Mbyte Sun SIMMS) of memory to 1024-Mbyte (4x256-Mbyte Sun DIMM modules) of memory. ***NOTE: ONLY for X7005A compatible Workgroup Servers or Workstations *** FIELD INSTALLED Customer returns: * 512MB (Any combination) of Sun memory SIMMS	UG-MEM512-MEM1GB <sup>1,2</sup>

### General Note

- *Maximum discount may apply; contact your local Sun sales representative for details.*

### Footnote

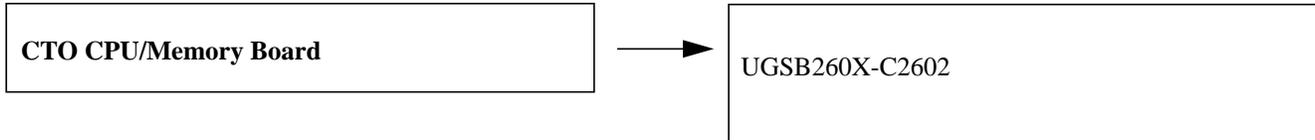
1. *Only for field-installed, X7005A-compatible Workgroup Servers or Workstations.*
2. *Standard Configurations are Sun's recommended configurations.*

## **Mid-Range/Data Center Servers**

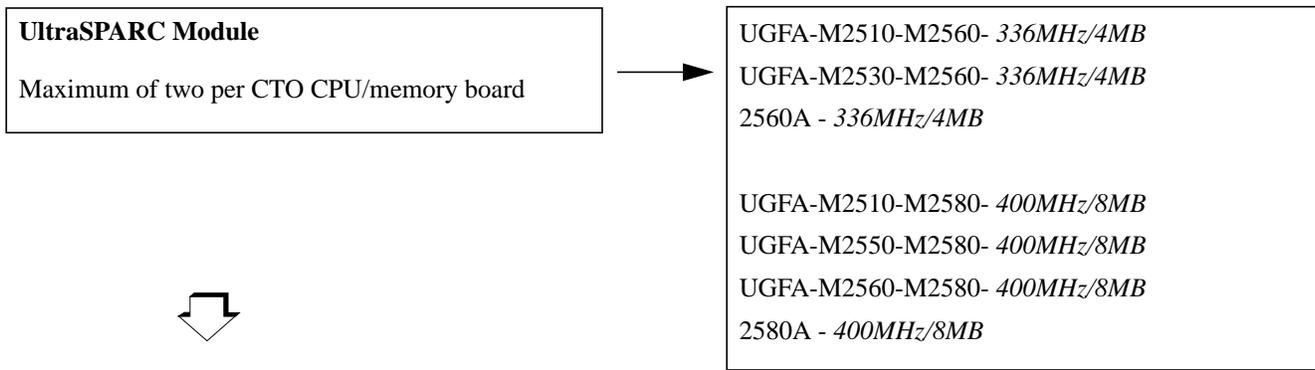
# Enterprise 3500-4500 CTO CPU/Memory Board Upgrade Flowchart

Each step represents a **required/recommended** line item on a Sales Order

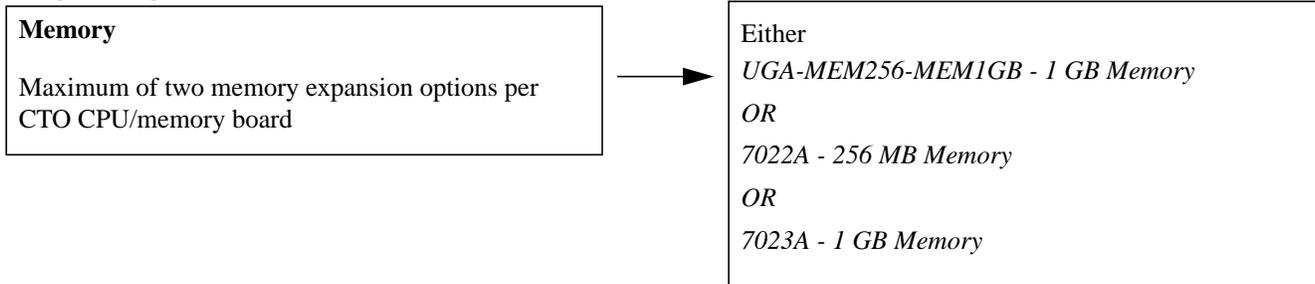
## Step 1 - required



## Step 2 - optional \*



## Step 3 - optional \*



\* Each CTO CPU/memory board must contain at least one configured UltraSPARC module or one Memory expansion option. If an empty standalone CPU/memory board is desired, order the existing 2602A.

# Enterprise 3500-4500 Configure-to-Order CPU/Memory Board Upgrade

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### General Comments

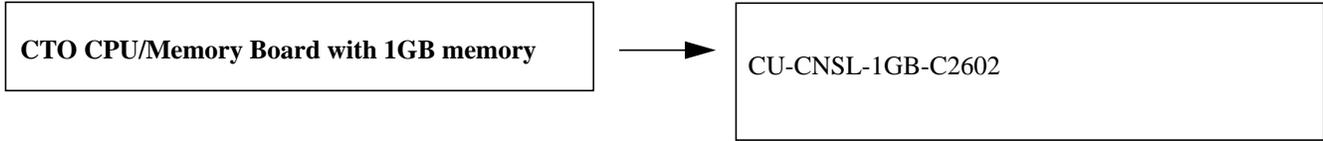
- The Configure-to-Order (CTO) CPU/memory board upgrade option allows Enterprise 3X00-6X00 customers to expand their existing systems by purchasing factory-configured and tested add-on boards. The controlled assembly and test process reduces the risk of failures. No new hardware or software is required with this option.
- The rules for CTO CPU/memory board upgrades are identical to those for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 server systems today:
  - All currently supported combinations of CPUs and/or memory for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 servers today are also supported on the CTO boards. This includes the ability to order:
    - CTO CPU/memory board with one or two CPUs and no memory options
    - CTO CPU/memory board with one or two memory options and no CPUs
  - As with the existing factory-configured CPU/memory boards, if two CPUs are installed on a single CTO CPU/memory board, both CPUs must be identical.
- The CTO CPU/memory board option can only be ordered if CPUs and/or memory are to be factory-configured on the board. Customers who wish to purchase empty standalone CPU/memory boards must order the 2602A.
- A maximum of 20 CTO CPU/memory boards is allowed per line item on a sales order.
- CTO I/O boards are not available for the Enterprise 3X00-6X00 servers.

# Enterprise 3500-4500 CTO CPU/Memory Board Consolidation Upgrade Flowchart

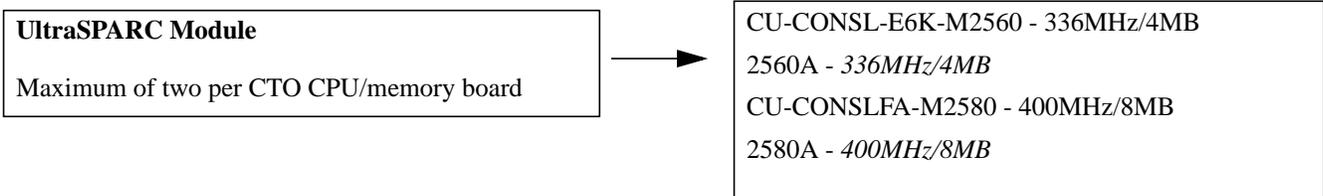
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Each step represents a **required/recommended** line item on a Sales Order

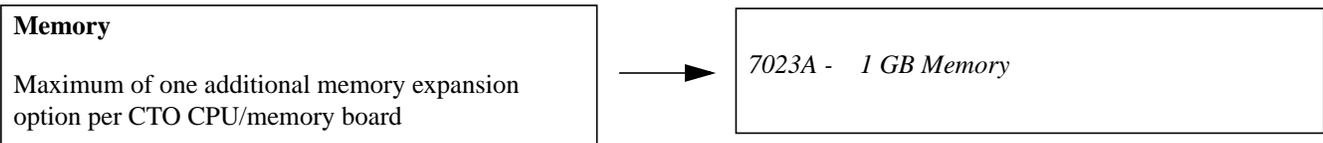
## Step 1 - required



## Step 2 - optional \*



## Step 3 - optional \*



\* If an empty standalone CPU/memory board is desired, order the existing 2602A.

# Enterprise 3500-4500 Configure-to-Order CPU/Memory Board Consolidation Upgrade

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### General Comments

- The Configure-to-Order (CTO) CPU/memory board consolidation option allows Enterprise 3X00-6X00 customers to expand their existing systems by purchasing factory-configured and tested add-on boards. The controlled assembly and test process reduces the risk of failures. No new hardware or software is required with this option.
- The rules for CTO CPU/memory board upgrades are identical to those for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 server systems today:
  - All currently supported combinations of CPUs and/or memory for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 servers today are also supported on the CTO boards. This includes the ability to order:
    - CTO CPU/memory board (with 1 GB memory) with one or two CPUs
    - CTO CPU/memory board with one additional memory option and no CPUs
  - As with the existing factory-configured CPU/memory boards, if two CPUs are installed on a single CTO CPU/memory board, both CPUs must be identical.
- The CTO CPU/memory board option can only be ordered if CPUs and/or memory are to be factory-configured on the board. Customers who wish to purchase empty standalone CPU/memory boards must order the 2602A.
- A maximum of 20 CTO CPU/memory boards is allowed per line item on a sales order.
- CTO I/O boards are not available for the Enterprise 3X00-6X00 servers.

# Ordering Flow Chart for Intra Enterprise Server Upgrades

Each step represents a **required/recommended** line item on a Sales Order

## Step 1 - required

Select upgrade based on "Upgrade From" system.

- Choose one:**
- UG-E3000-E3502
  - UG-E3000-E4501
  - UG-E350X-E4501
  - UG-E3000-E5501
  - UG-E350X-E5501
  - UG-E4000-E4501
  - UG-E4000-E6501
  - UG-E450X-E6501



## Step 1a - required

**Order: UG-RMA**  
(Return Material Athorization Kit) - no charge



## Step 2 - required

Determine which components in "Upgrade From" System will migrate to "Upgrade To" System **AND** assess that the migrating components are within the minimum/maximum configuration limits of the "Upgrade To" System.

- If "Upgrade To" System is:**
- E3500 - See page 8-88.
  - E4500 - See page 8-96.
  - E5500 - See page 8-111.
  - E6500 - See page 8-122.



## Step 3 - optional

**Additional Options**  
For additional options, please refer to the appropriate pages in this Pricebook.

- If "Upgrade To" System is:**
- E3500 - See page 8-88.
  - E4500 - See page 8-96.
  - E5500 - See page 8-111.
  - E6500 - See page 8-122.

# Ordering Flow Chart for Upgrades to Enterprise 3500

Each step represents a required/recommended line item on a Sales Order

## Step 1

Select upgrade based on "Upgrade From" system.



## Step 1a - required

**Order: UG-RMA**  
(Return Material Authorization Kit) - no charge



## Step 2 - optional

**UltraSPARC module**  
Two modules included in E3500-CX2.  
Maximum of 8 per E3500. Maximum of two modules per CPU/Memory Board.



## Step 3 - required

**Memory**  
Minimum of one per System.  
Maximum of six per System.  
Maximum of two per CPU/Memory Board.



## Step 4 - optional

**CPU/Memory Board**  
One included in E3500-CX2.  
Maximum of 4 per E3500.



## Step 5 - required

Go to step 4 on page 4-109 for additional



## Step 6 - required

**Power Cord/Country Kit**  
Order one kit at no charge.  
Order a Power Cord Kit when server does not include a monitor.  
Order a Type 5 Country Kit when server includes a monitor. See page 6-141.



## Step 7 - optional / E3500 only

**Solaris PC NetLink**  
Order Solaris PC NetLink

### Choose one:

UG-WRKGP-E3501-C62  
UG-SUNSV-E3501-C62  
UG-E3000-E3501  
UG-WRKGP-E3501-C82  
UG-WRKGP-E3502-C82  
UG-SUNSV-E3501-C82  
UG-SUNSV-E3502-C82

### Choose from:

UG-M2560 - 336MHz Module w/ 4MB E-cache  
UG-M2580 - 400MHz Module w/ 8MB E-cache  
UGFA-M2510-M2560 - 333/336MHz/4MB  
UGFA-M2530-M2560 - 333/336MHz/4MB  
UGFA-M2510-M2580 - 400MHz/8MB  
UGFA-M2550-M2580 - 400MHz/8MB  
UGFA-M2560-M2580 - 400MHz/8MB

### EITHER:

7022A - 256 MB Memory

### OR:

7023A - 1 GB Memory

### OR:

UGFA-MEM256-MEM1GB - 1 GB Memory

2602A - CPU/Memory Board (supports 4MB Modules)  
UGFA-SB260X-2602 - Board Upgrade from 2600 or 2601 CPU/Memory Bd to 2602 CPU/Memory Bd

### EITHER:

X311L - North American/Asian

X386L - Australian

### OR:

X3500A - North American

X3579A - Canadian-Bilingual

For NT interoperability order Solaris PC NetLink (SLSIX-110-W999) at no charge when purchasing a new or upgrading to E3500.

## Upgrades to Enterprise 3500

---

Description	Order Number
<b>From Early Sun Workstations to Sun E3502 (including SunRay Enterprise Servers)</b>	
UPGRADE FROM 50 EARLY SPARCstations to Sun E3500 enclosure, one CPU/Memory Board, two 400-MHz/8-MB UltraSPARC modules, 1-GB memory, one SBus I/O Board with two empty FC-AL sockets, 32x CDROM, two Power/Cooling Modules, Solaris Server License. Customer must return: Qty 50 early SPARCstation chassis with mother- board, CPU, memory, graphics and disks. Must order 50 Corona Enterprise App	UG15ES-E3502-BAEX0
<b>From Any Desktop Server</b>	
Upgrade from any Sun WrkGrp Server to Enterprise 3500 Base Package, with tower enclosure, one SunCD 32, one Power/Cooling module, one CPU/Memory Board, two 336MHz/4MB UltraSPARC Modules, Solaris Server license Customer returns: * Any Sun WrkGrp Server with System enclosure, system board and internal peripherals	UG-WRKGP-E3501-C62
Upgrade from any Sun WrkGrp Server to Enterprise 3500 Base Package, with tower enclosure, one SunCD 32, one Power/Cooling module, one CPU/Memory Board, two 400MHz/8MB UltraSPARC Modules, Solaris Server license Customer returns: * Any Sun WrkGrp Server with System enclosure, system board and internal peripherals	UG-WRKGP-E3501-C82
Upgrade from any Sun WrkGrp Server to Enterprise 3500 Base Package, with tower enclosure, one SunCD 32, two Power/Cooling modules, one CPU/Memory Board, two 400MHz/8MB UltraSPARC Modules, one 1GB memory option, one SBus I/O Bd, Solaris Server license Customer returns: * Any Sun WrkGrp Server with System enclosure, system board and internal peripherals	UG-WRKGP-E3502-C82
<b>From Sun-3 and Sun-4 Deskside and Server Systems, SPARCserver 6X0 or SPARCserver 1000(E) Systems</b>	
Upgrade from Sun 3/4/6X0 or S1000 Server to Enterprise 3500 Server Base Package, w/ tower enclosure, one SunCD 32, one Power/Cooling module, one CPU/Memory Board, two 336MHz/4MB UltraSPARC Modules, Solaris Server license Customer returns: * One of following systems: Sun-3 or Sun-4 Deskside Servers, SPARCServers 630MP, 670MP, 690MP or SS1000	UG-SUNSV-E3501-C62

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
- 

### Ordering Notes

- *The upgrade system cabinet will not be sold without additional required components. See page 8-87.*
- *For additional system boards, memory, disk options, disk controllers, and tape drives, refer to the "Enterprise 3500" section. See page 8-106.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Upgrades to Enterprise 3500 *(continued)*

Description	Order Number
<b>From Sun-3 and Sun-4 Deskside and Server Systems, SPARCserver 6X0 or SPARCserver 1000(E) Systems</b> <i>(continued)</i>	
Upgrade from Sun 3/4/6X0 or S1000 Server to Enterprise 3500 Server Base Package, w/ tower enclosure, one SunCD 32, one Power/Cooling module, one CPU/Memory Board, two 400MHz/8MB UltraSPARC Modules, Solaris Server license Customer returns: * One of following systems: Sun-3 or Sun-4 Deskside Servers, SPARCServers 630MP, 670MP, 690MP or SS1000	UG-SUNSV-E3501-C82
Upgrade from Sun 3/4/6X0 or S1000 Server to Enterprise 3500 Server Base Package, w/ tower enclosure, one SunCD 32, two Power/Cooling modules, one CPU/Memory Board, two 400MHz/8MB UltraSPARC Modules, one 1GB memory option, one SBus I/O Bd, Solaris Server license Customer returns: * One of following systems: Sun-3 or Sun-4 Deskside Servers, SPARCServers 630MP, 670MP, 690MP or SS1000	UG-SUNSV-E3502-C82

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#### From Enterprise 3000

Enclosure upgrade Enterprise 3000 to Enterprise 3500 including Standalone Enclosure, card cage, 5:1 Clockboard, Peripheral Power Supply w/AC inlet, SunCD Customer must return a system Enclosure, Card Cage, clockboard and SunCD	UG-E3000-E3502
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*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-86.*

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*
- *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*

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#### Ordering Notes

- *The upgrade system cabinet will not be sold without additional required components. See page 8-87.*
- *For additional system boards, memory, disk options, disk controllers, and tape drives, refer to the "Enterprise 3500" section. See page 8-106.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

## Upgrades to Enterprise 3500 *(continued)*

Description	Order Number
<b>Upgrades to 400-MHz Module with 8-Mbyte external cache</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2580
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2580
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2550-M2580
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2550-M2580
<b>From Enterprise 336-MHz or 400-MHz UltraSPARC Module with 4-Mbyte external cache</b>	
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UG-M2560-M2580
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UGFA-M2560-M2580
<b>From any non-UltraSPARC module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 400-MHz Module with 8-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC Sun processor module	UG-M2580

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

## Upgrades to Enterprise 3500 *(continued)*

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Description	Order Number
<b>Upgrades to 336-MHz Module</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2560 <sup>1</sup>
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336/333-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2560
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2530-M2560 <sup>1</sup>
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2530-M2560
<b>From any non-UltraSPARC Module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 336-MHz Module with 4-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC processor module	UG-M2560

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Upgrades to Enterprise 3500 *(continued)*

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Description	Order Number
<b>Upgrades to 250-MHz/4MB Modules</b>	
<b>From Enterprise 167-MHz or 250-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz or 250-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 250-MHz UltraSPARC Module with 4-Mbyte external cache Customer must return: * 167-MHz or 250MHz Module with .5M or 1MB External Cache CUSTOMER INSTALLABLE	UG-M2510-M2550 <sup>1</sup>

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<b>Sun Enterprise EXX00 Server memory upgrade</b>	
<b>From 256-Mbyte (8 x 32-Mbyte SIMM modules - (X)7022A) to 1-Gbyte (8 x 128-Mbyte SIMM modules - (X)7023A)</b>	
Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers Customer returns: one 256MB (7022A) Memory Module	UG-MEM256-MEM1GB <sup>1</sup>
Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers- FACTORY INSTALL Customer returns: one 256MB (7022A) Memory Module	UGFA-MEM256-MEM1GB

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 3500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board</b>	
<b>From SPARCserver 1000(E) System Board</b>	
Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 256-Mbyte memory Factory Installed Customer Returns: One SS1000 System Board	UGSB1000-X-256M-C
Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 1GB memory Factory Installed Customer returns: One SS1000 System Board	UGSB1000-X-1GB-C
<b>From SPARCserver 1000(E) or SPARCcenter 2000(E) System Board</b>	
Board Upgrade from SS1000 or SC2000 System Board to Enterprise 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer returns: One SS1000 or SC2000 system board	UGSB2000-X-0M-C
<b>From Enterprise Server System Board</b>	
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FIELD INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-2602
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGFA-SB260X-2602
CTO CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) Configure To Order - FIELD INSTALL Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-C2602 <sup>1</sup>

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
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#### Footnote

1. *Please see the CTO section for additional details.*

## Upgrades to Enterprise 3500 *(continued)*

Description	Order Number
<b>Upgrade to any Enterprise System Board</b>	
<b>From Enterprise Server I/O Board</b>	
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED: Customer Returns: one 2610 or 2611 SBus I/O Board	UGSB261X-2612 <sup>1</sup>
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 2610 or 2611 SBus I/O Board	UGFA-SB261X-2612
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED Customer Returns: one 262x Graphics I/O Board	UGSB262X-2622 <sup>1</sup>
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 262x Graphics I/O Board	UGFA-SB262X-2622
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 263x PCI I/O Board	UGSB263X-2632 <sup>1</sup>

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 3500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board</b>	
<b>From Enterprise Server I/O Board <i>(continued)</i></b>	
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FACTORY INSTALLED Customer Returns: one 263x PCI I/O Board	UGFA-SB263X-2632
EXX00 PCI I/O Board Upgrade from 261X SBus I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 261x SBus I/O Board	UGSB261X-2632 <sup>1</sup>
<b>From Enterprise X000 83MHz Clock Board</b>	
5:1 Enterprise Sys Clock board upgrade. Required for 400MHz/8MB Faster UltraSPARC module. Customer returns: Enterprise system clock board.	UG-5/1-CLOCKBOARD <sup>1</sup>

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 4500

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Description	Order Number
<b>From Sun3X0/4X0/6X0/SPARCserver 1000(E) or SPARCcenter 2000 Systems</b>	
Chassis upgrade frm Sun 3X0/4X0/6X0 SS1000 or SC2000 to Enterprise 4500 with standalone enclosure, one SunCD 32, two Power/Cooling Module, 1 CPU/Memory board, 1 SBus I/O board with two empty FC-AL sockets, and Solaris Server License Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UG-SUNSV-E4501
Chassis upgrade frm Sun 3X0/4X0/6X0 SS1000 or SC2000 to Enterprise 4500 with standalone enclosure, one SunCD 32, two Power/Cooling Modules, two SBus I/O boards with two empty FC-AL sockets, and Solaris Server License Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UG-SUNSV-E4502
Chassis upgrade frm Sun 3X0/4X0/6X0 SS1000/SC2000 to Enterprise 4500 Rackmounted in 72" StorEdge Rack, one SunCD 32, two Power/Cooling Modules, two SBus I/O boards with two empty FC-AL sockets, and Solaris Server License Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UG-SUNSV-E4502-R

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#### From Enterprise 3000

Enclosure upgrade Enterprise 3000 to Enterprise 4500 including Standalone Enclosure, card cage, peripheral power supply, one PCM, 5:1 Clockboard, AC box, and SunCD32 Customer must return a system Enclosure, Card Cage, peripheral power supplies,clockboard and SunCD	UG-E3000-E4501
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*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-86.*

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#### From Enterprise 3500

Enclosure upgrade Enterprise 350x to Enterprise 4500 including Standalone Enclosure, card cage, peripheral power supply, one PCM, 5:1 Clockboard and AC box Customer must return a system Enclosure, Card Cage, peripheral power supplies and clockboard	UG-E350X-E4501
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*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-86.*

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
- *The upgrade system cabinet will not be sold without additional required components.*
- *For additional system boards, memory, disk options, disk controllers, and tape drives, refer to the "Enterprise 450" section. See page 4-67.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Upgrades to Enterprise 4500 *(continued)*

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Description	Order Number
<b>From Enterprise 4000</b>	
Enclosure upgrade Enterprise 4000 to Enterprise 4501 including Standalone Enclosure, card cage, peripheral power supply, one PCM, 5:1 Clockboard, AC box, and SunCD32 Customer must return a system Enclosure, Card Cage, peripheral power supplies, clockboard and SunCD	UG-E4000-E4501
<b>Upgrade to Enterprise 4000 Gigaplane</b>	
E4000 Enhanced Gigaplane Bd Upgrade from 84Mhz Gigaplane. Upgrade includes Enhanced Gigaplane, 5:1 Clockboard, 32x SunCD --FIELD INSTALLED Customer Returns: 84MHz Gigaplane, Clockboard, SunCD	UG-E4000-5/1GIGPLN <sup>1</sup>

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components.*
  - *For additional system boards, memory, disk options, disk controllers, and tape drives, refer to the "Enterprise 450" section. See page 4-67.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Upgrades to Enterprise 4500 *(continued)*

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Description	Order Number
<b>Upgrades to 400-MHz Module with 8-Mbyte external cache</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2580
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2580
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2550-M2580
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2550-M2580
<b>From Enterprise 336-MHz or 400-MHz UltraSPARC Module with 4-Mbyte external cache</b>	
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UG-M2560-M2580
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UGFA-M2560-M2580
<b>From any non-UltraSPARC module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 400-MHz Module with 8-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC Sun processor module	UG-M2580

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

## Upgrades to Enterprise 4500 *(continued)*

Description	Order Number
<b>Upgrades to 336-MHz Module</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2560 <sup>1</sup>
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336/333-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2560
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2530-M2560 <sup>1</sup>
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2530-M2560
<b>From any non-UltraSPARC Module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 336-MHz Module with 4-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC processor module	UG-M2560

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

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### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
- *The upgrade system cabinet will not be sold without additional required components.*
- *For additional system boards, memory, disk options, disk controllers, and tape drives, refer to the "Enterprise 4500" section.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

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### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 4500 *(continued)*

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Description

Order Number

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#### Upgrades to 250-MHz/4MB Modules

##### **From Enterprise 167-MHz or 250-MHz Module with 0.5 or 1-Mbyte external cache**

Upgrade from 167-MHz or 250-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 250-MHz UltraSPARC Module with 4-Mbyte external cache Customer must return: * 167-MHz or 250MHz Module with .5M or 1MB External Cache CUSTOMER INSTALLABLE	UG-M2510-M2550 <sup>1</sup>
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#### **General Notes**

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### **Footnote**

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Hardware Upgrades - Mid-Range/Data Center Servers

### Upgrades to Enterprise 4500 *(continued)*

Description	Order Number
<b>Sun Enterprise EXX00 Server memory upgrade</b>	
<b>From 256-Mbyte (8 x 32-Mbyte SIMM modules - (x)7022A) to 1-Gbyte (8 x 128-Mbyte SIMM modules - (x)7023A)</b>	
Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers Customer returns: one 256MB (7022A) Memory Module	UG-MEM256-MEM1GB <sup>1</sup>
Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers- FACTORY INSTALL Customer returns: one 256MB (7022A) Memory Module	UGFA-MEM256-MEM1GB

#### Upgrade to any Enterprise System Board

##### From SPARCserver 1000(E) System Board

Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 256-Mbyte memory  
Factory Installed  
Customer Returns: One SS1000 System Board

UGSB1000-X-256M-C

Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 1GB memory  
Factory Installed  
Customer returns: One SS1000 System Board

UGSB1000-X-1GB-C

##### From SPARCserver 1000(E) or SPARCcenter 2000(E) System Board

Board Upgrade from SS1000 or SC2000 System Board to Enterprise 2602 CPU/Memory Board (no memory)  
FACTORY INSTALLED  
Customer returns: One SS1000 or SC2000 system board

UGSB2000-X-0M-C

#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

## Upgrades to Enterprise 4500 *(continued)*

Description	Order Number
<b>Upgrade to any Enterprise System Board <i>(continued)</i></b>	
<b>From SPARCserver 1000(E) or SPARCcenter 2000(E) System Board <i>(continued)</i></b>	
Board Upgrade from SC2000 System Board to Enterprise 2602 CPU/Memory Board incl. 256-Mbyte memory FACTORY INSTALLED Customer Returns: One SC2000 System Board	UGSB2000-X-256M-C
Board Upgrade from SC2000 System Board to Enterprise CPU/Memory Board incl. 1GB memory Factory Installed Customer returns: One SC2000 System Board	UGSB2000-X-1GB-C
<b>From Enterprise Server System Board</b>	
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FIELD INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-2602 <sup>1</sup>
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGFA-SB260X-2602
CTO CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) Configure To Order - FIELD INSTALL Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-C2602 <sup>2</sup>
<b>From Enterprise Server I/O Board</b>	
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED: Customer Returns: one 2610 or 2611 SBus I/O Board	UGSB261X-2612 <sup>1</sup>

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Please see the CTO section for additional details.*

### Upgrades to Enterprise 4500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board <i>(continued)</i></b>	
<b>From Enterprise Server I/O Board <i>(continued)</i></b>	
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 2610 or 2611 SBus I/O Board	UGFA-SB261X-2612
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED Customer Returns: one 262x Graphics I/O Board	UGSB262X-2622 <sup>1</sup>
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 262x Graphics I/O Board	UGFA-SB262X-2622
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 263x PCI I/O Board	UGSB263X-2632 <sup>1</sup>
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FACTORY INSTALLED Customer Returns: one 263x PCI I/O Board	UGFA-SB263X-2632

---

#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
- 

#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 4500 *(continued)*

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Description	Order Number
<b>From Enterprise Server I/O Board <i>(continued)</i></b>	
EXX00 PCI I/O Board Upgrade from 261X SBus I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 261x SBus I/O Board	UGSB261X-2632 <sup>1</sup>
<b>From Enterprise X000 83MHz Clock Board</b>	
5:1 Enterprise Sys Clock board upgrade. Required for 400MHz/8MB Faster UltraSPARC module. Customer returns: Enterprise system clock board.	UG-5/1-CLOCKBOARD <sup>1</sup>

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
- 

#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

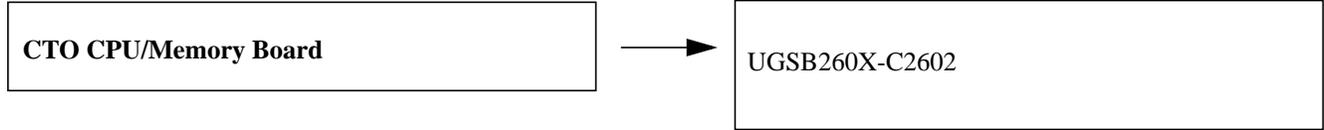
#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

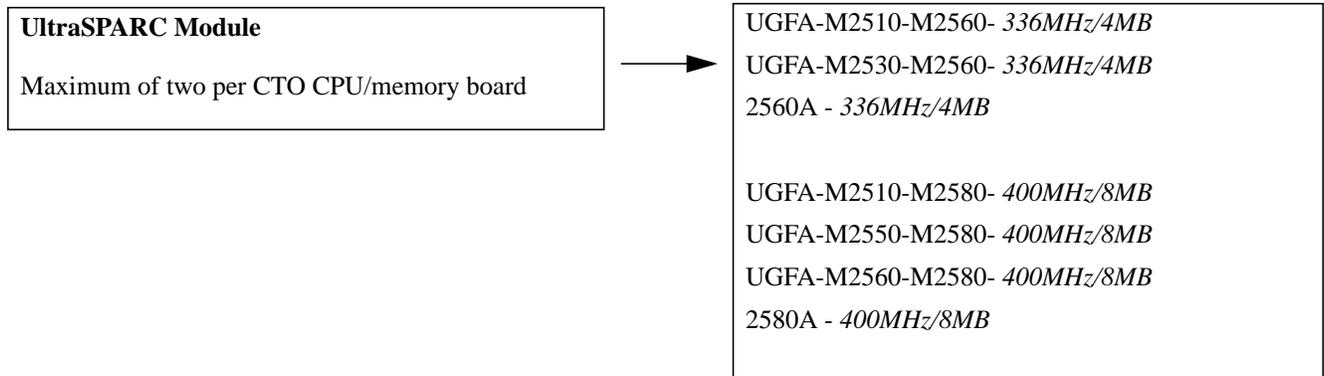
# Enterprise 5500-6500 CTO CPU/Memory Board Upgrade Flowchart

Each step represents a **required/recommended** line item on a Sales Order

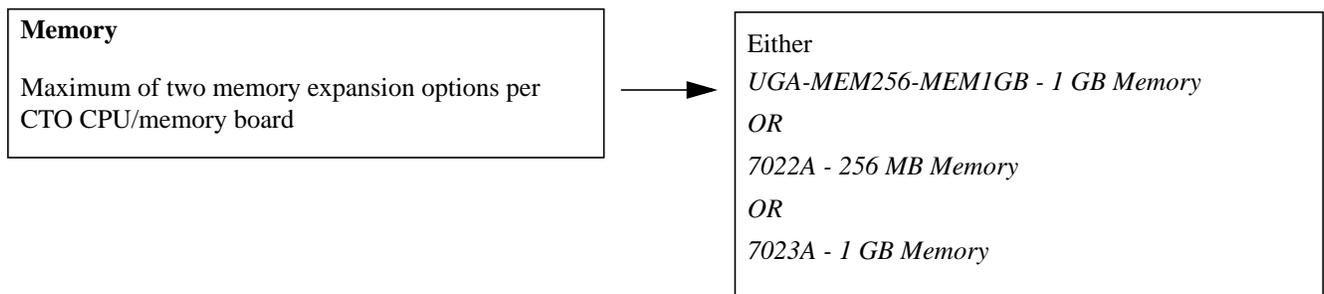
## Step 1 - required



## Step 2 - optional \*



## Step 3 - optional \*



\* Each CTO CPU/memory board must contain at least one configured UltraSPARC module or one Memory expansion option. If an empty standalone CPU/memory board is desired, order the existing 2602A.

# Enterprise 5500-6500 Configure-to-Order CPU/Memory Board Upgrade

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### General Comments

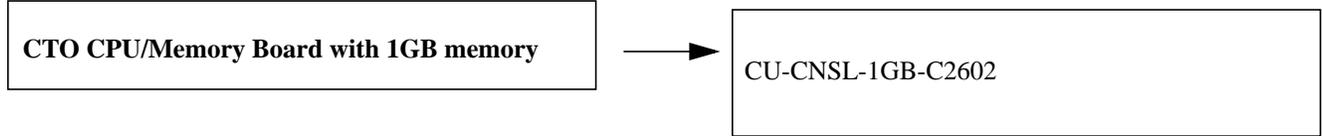
- The Configure-to-Order (CTO) CPU/memory board upgrade option allows Enterprise 3X00-6X00 customers to expand their existing systems by purchasing factory-configured and tested add-on boards. The controlled assembly and test process reduces the risk of failures. No new hardware or software is required with this option.
- The rules for CTO CPU/memory board upgrades are identical to those for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 server systems today:
  - All currently supported combinations of CPUs and/or memory for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 servers today are also supported on the CTO boards. This includes the ability to order:
    - CTO CPU/memory board with one or two CPUs and no memory options
    - CTO CPU/memory board with one or two memory options and no CPUs
  - As with the existing factory-configured CPU/memory boards, if two CPUs are installed on a single CTO CPU/memory board, both CPUs must be identical.
- The CTO CPU/memory board option can only be ordered if CPUs and/or memory are to be factory-configured on the board. Customers who wish to purchase empty standalone CPU/memory boards must order the 2602A.
- CTO I/O boards are not available for the Enterprise 3X00-6X00 servers.

# Enterprise 5500-6500 CTO CPU/Memory Board Consolidation Upgrade Flowchart

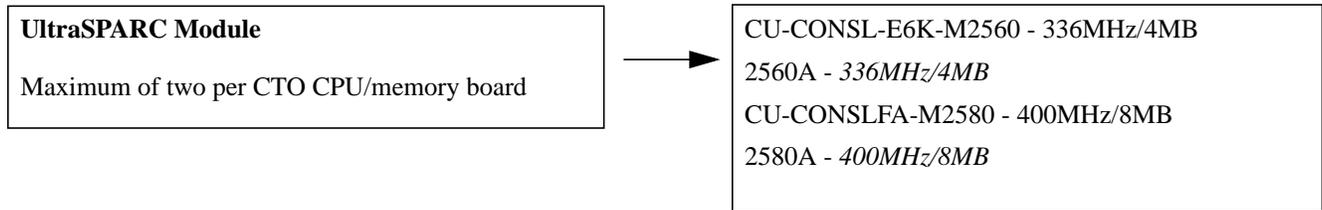
---

Each step represents a **required/recommended** line item on a Sales Order

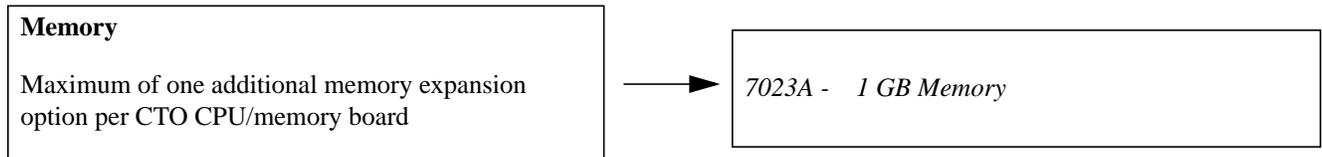
## Step 1 - required



## Step 2 - optional \*



## Step 3 - optional \*



\* If an empty standalone CPU/memory board is desired, order the existing 2602A.

# Enterprise 5500-6500 Configure-to-Order CPU/Memory Board Consolidation Upgrade

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### General Comments

- The Configure-to-Order (CTO) CPU/memory board consolidation option allows Enterprise 3X00-6X00 customers to expand their existing systems by purchasing factory-configured and tested add-on boards. The controlled assembly and test process reduces the risk of failures. No new hardware or software is required with this option.
- The rules for CTO CPU/memory board upgrades are identical to those for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 server systems today:
  - All currently supported combinations of CPUs and/or memory for CPU/memory boards that are factory-configured in the Enterprise 3500-6500 servers today are also supported on the CTO boards. This includes the ability to order:
    - CTO CPU/memory board (with 1 GB memory) with one or two CPUs
    - CTO CPU/memory board with one additional memory option and no CPUs
  - As with the existing factory-configured CPU/memory boards, if two CPUs are installed on a single CTO CPU/memory board, both CPUs must be identical.
- The CTO CPU/memory board option can only be ordered if CPUs and/or memory are to be factory-configured on the board. Customers who wish to purchase empty standalone CPU/memory boards must order the 2602A.
- CTO I/O boards are not available for the Enterprise 3X00-6X00 servers.

# Ordering Flow Chart for Intra Enterprise Server Upgrades

Each step represents a **required/recommended** line item on a Sales Order

## Step 1 - required

Select upgrade based on “Upgrade From” system.



**Choose one:**  
UG-E3000-E3502  
UG-E3000-E4501  
UG-E350X-E4501  
UG-E3000-E5501  
UG-E350X-E5501  
UG-E5000-E5501  
UG-E5000-E6501  
UG-E550X-E6501



## Step 1a - required

**Order: UG-RMA**  
(Return Material Athorization Kit) - no charge



## Step 2 - required

Determine which components in “Upgrade From” System will migrate to “Upgrade To” System **AND** assess that the migrating components are within the minimum/maximum configuration limits of the “Upgrade To” System.



**If “Upgrade To” System is:**  
E3500 - See page 8-88.  
E4500 - See page 8-96.  
E5500 - See page 8-111.  
E6500 - See page 8-122.



## Step 3 - optional

**Additional Options**  
For additional options, please refer to the appropriate pages in this Pricebook.



**If “Upgrade To” System is:**  
E3500 - See page 8-88.  
E4500 - See page 8-96.  
E5500 - See page 8-111.  
E6500 - See page 8-122.

# Ordering Flow Chart for Upgrades to Enterprise 5500/6500

Each step represents a **required** line item on a Sales Order

## Step 1 - required

Select upgrade based on "Upgrade From" system.



## Step 1a - required

**Order: UG-RMA**  
(Return Material Authorization Kit) - no charge



## Step 2 - optional

**CPU Memory Board**  
Select board upgrades if applicable. Minimum of one per System. Maximum of 7 per E5500, 15 per E6500.



## Step 3 - required

**UltraSPARC Module**  
Minimum of one per System.  
Maximum of two per CPU/Memory Board.  
Maximum of 14 per E5500, 30 per E6500.



## Step 4 - required

**Memory**  
Minimum of one per System.  
Maximum of thirty per System.  
Maximum of two per CPU/Memory Board.  
Minimum requirement may be satisfied with board upgrades in step 2



## Step 5 - optional

Go to step 4 on page 4-87. for add. Options



## Step 6 - required

**Power Cord**  
Minimum of one.  
Maximum of one per Cabinet.  
One required per every Enterprise System or Expansion Cabinet.

### Choose one:

UG-SUNSV-E5501  
UG-SUNSV-E5502  
UG-E3000-E5501  
UG-E350X-E5501  
UGS2000-E6501  
UGS2000-E6502  
UG-E4000-E6501  
UG-E450X-E6501  
UG-E5000-E5501  
UG-E5000-E6501  
UG-E550X-E6501

### Choose from:

UGSB1000-X-256M-C  
UGSB1000-X-1GB-C  
UGSB2000-X-0M-C  
UGSB2000-X-256M-C  
UGSB2000-X-1GB-C  
2602A - CPU/Memory Board (4MB Modules)  
UGFA-SB260X-2602

### Choose from:

UG-M2560 - 336MHz Module w/ 4MB E-cache  
UG-M2580 - 400MHz Module w/ 8MB E-cache  
UGFA-M2510-M2560 - 333/336MHz/4MB  
UGFA-M2510-M2580 - 400MHz/8MB  
UGFA-M2530-M2560 - 333/336MHz/4MB  
UGFA-M2550-M2580 - 400MHz/8MB  
UGFA-M2560-M2580 - 400MHz/4MB  
2560A - 336MHz Module w/ 4MB E-cache  
2580A - 400MHz Module w/ 8MB E-cache  
UGFA-M2510-M2580 - 400MHz/8MB  
UGFA-M2550-M2580 - 400MHz/8MB  
UGFA-M2560-M2580 - 400MHz/8MB

### EITHER:

7022A - 256 MB Memory

### OR:

7023A - 1 GB Memory

### OR:

UGFA-MEM256-MEM1GB - 1 GB Memory

### Choose one:

3800A - Power Cord, U.S. Version

### Upgrades to Enterprise 5500

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Description	Order Number
<b>From SPARCserver 690MP or SPARCserver 1000(E) or SPARCcenter 2000</b>	
Chassis upgrade from SPARCserver 690/SS1000 or SC2000 to Enterprise 5500 with data center system cabinet, 1 SunCD 32, two Power/Cooling Module, 1 CPU/memory board, SBus I/O Board with two FC-AL sockets and Solaris Server License Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UG-SUNSV-E5501
Chassis upgrade from SPARCserver 690/SS1000 or SC2000 to Enterprise 5500 with data center system cabinet, 1 SunCD 32, two Power/Cooling Modules, two SBus I/O Boards and Solaris Server License Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UG-SUNSV-E5502

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#### From Enterprise 3000

Enclosure upgrade Enterprise 3000 to Enterprise 5500 including rack, card cage, AC box, SCSI Interface assemble, one PCM, key switch assembly, Peripheral Power Supply, 5:1 clockboard, and SunCD 32 Customer must return a system Enclosure, Card Cage, peripheral power supply, fan assembly, clockboard and SunCD	UG-E3000-E5501
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*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-109.*

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#### From Enterprise 3500

Enclosure upgrade Enterprise 350x to Enterprise 5500 including rack, card cage, AC box, SCSI Interface assemble, one PCM, key switch assembly, Peripheral Power Supply, 5:1 clockboard Customer must return a system Enclosure, Card Cage, peripheral power supply, fan assembly, clockboard	UG-E350X-E5501
--	----------------

*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-109.*

---

#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

#### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
- *The upgrade system cabinet will not be sold without additional required components.*

### Upgrades to Enterprise 5500 *(continued)*

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Description	Order Number
<b>From Enterprise 5000</b>	
Enclosure upgrade Enterprise 5000 to Enterprise 5500 including rack, card cage, AC box, SCSI Interface assemble, one PCM, key switch assembly, Peripheral Power Supply, 5:1 clockboard, and SunCD 32 Customer must return a system Enclosure, Card Cage, peripheral power supply, fan assembly, clockboard and SunCD	UG-E5000-E5501

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#### **Upgrade to Enterprise 5000 Gigaplane**

E5000 Enhanced Gigaplane Bd Upgrade from 84Mhz Gigaplane. Upgrade includes Enhanced Gigaplane, 5:1 Clockboard, 32x SunCD --FIELD INSTALLED Customer Returns: 84MHz Gigaplane, Clockboard, SunCD	UG-E5000-5/1GIGPLN <sup>1</sup>
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#### **General Notes**

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

#### **Ordering Notes**

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components.*
- 

#### **Footnote**

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Upgrades to Enterprise 5500 *(continued)*

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Description	Order Number
<b>Upgrades to 400-MHz Module with 8-Mbyte external cache</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2580
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2580
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2550-M2580
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2550-M2580
<b>From Enterprise 336-MHz or 400-MHz UltraSPARC Module with 4-Mbyte external cache</b>	
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UG-M2560-M2580
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UGFA-M2560-M2580
<b>From any non-UltraSPARC module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 400-MHz Module with 8-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC Sun processor module	UG-M2580

---

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

## Upgrades to Enterprise 5500 *(continued)*

---

Description	Order Number
<b>Upgrades to 400-MHz Module with 8-Mbyte external cache<sup>2</sup></b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2580 <sup>1,2</sup>
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2580 <sup>2</sup>
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2550-M2580 <sup>1,2</sup>
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2550-M2580 <sup>2</sup>

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components.*
- 

### Footnotes

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Contact local Sun IBB rep BEFORE quoting/ordering as there can be significant pre-requisites.*

## Upgrades to Enterprise 5500 *(continued)*

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Description	Order Number
<b>Upgrades to 400-MHz Module with 8-Mbyte external cache<sup>2</sup> <i>(continued)</i></b>	
<b>From Enterprise 336-MHz Module with 4-Mbyte external cache</b>	
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must return: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UG-M2560-M2580 <sup>1,2</sup>
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must return: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UGFA-M2560-M2580 <sup>2</sup>
<b>From any non-UltraSPARC Module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 400-MHz Module with 8-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC Sun processor module	UG-M2580 <sup>2</sup>

---

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Ordering Notes

- *Order Enterprise module upgrades with any of the moduless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components.*
- 

### Footnotes

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Contact local Sun IBB rep BEFORE quoting/ordering as there can be significant pre-requisites.*

## Upgrades to Enterprise 5500 *(continued)*

---

Description	Order Number
<b>Upgrades to 336-MHz Module</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2560 <sup>1</sup>
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336/333-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2560
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2530-M2560 <sup>1</sup>
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2530-M2560

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components.*
- 

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Upgrades to Enterprise 5500 *(continued)*

---

Description	Order Number
<b>Upgrades to 336-MHz Module <i>(continued)</i></b>	
<b>From any non-UltraSPARC Module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 336-MHz Module with 4-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC processor module	UG-M2560

---

### Upgrades to 250-MHz/4MB Modules

#### From Enterprise 167-MHz or 250-MHz Module with 0.5 or 1-Mbyte external cache

Upgrade from 167-MHz or 250-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 250-MHz UltraSPARC Module with 4-Mbyte external cache Customer must return: * 167-MHz or 250MHz Module with .5M or 1MB External Cache CUSTOMER INSTALLABLE	UG-M2510-M2550 <sup>1</sup>
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### Sun Enterprise EXX00 Server memory upgrade

#### From 256-Mbyte (8 x 32-Mbyte SIMM modules - (x)7022A) to 1-Gbyte (8 x 128-Mbyte SIMM modules - (x)7023A)

Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers Customer returns: one 256MB (7022A) Memory Module	UG-MEM256-MEM1GB <sup>1</sup>
Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers- FACTORY INSTALL Customer returns: one 256MB (7022A) Memory Module	UGFA-MEM256-MEM1GB

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Footnotes

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 5500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board</b>	
<b>From SPARCserver 1000(E) System Board</b>	
Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 256-Mbyte memory Factory Installed Customer Returns: One SS1000 System Board	UGSB1000-X-256M-C
Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 1GB memory Factory Installed Customer returns: One SS1000 System Board	UGSB1000-X-1GB-C
<b>From SPARCserver 1000(E) or SPARCcenter 2000(E) System Board</b>	
Board Upgrade from SS1000 or SC2000 System Board to Enterprise 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer returns: One SS1000 or SC2000 system board	UGSB2000-X-0M-C
Board Upgrade from SC2000 System Board to Enterprise 2602 CPU/Memory Board incl. 256-Mbyte memory FACTORY INSTALLED Customer Returns: One SC2000 System Board	UGSB2000-X-256M-C
Board Upgrade from SC2000 System Board to Enterprise CPU/Memory Board incl. 1GB memory Factory Installed Customer returns: One SC2000 System Board	UGSB2000-X-1GB-C

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

## Upgrades to Enterprise 5500 (continued)

Description	Order Number
<b>Upgrade to any Enterprise System Board (continued)</b>	
<b>From Enterprise Server System Board</b>	
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FIELD INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-2602 <sup>1</sup>
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGFA-SB260X-2602
CTO CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) Configure To Order - FIELD INSTALL Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-C2602 <sup>2</sup>
<b>From Enterprise Server I/O Board</b>	
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED: Customer Returns: one 2610 or 2611 SBus I/O Board	UGSB261X-2612 <sup>1</sup>
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 2610 or 2611 SBus I/O Board	UGFA-SB261X-2612
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED Customer Returns: one 262x Graphics I/O Board	UGSB262X-2622 <sup>1</sup>

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Please see the CTO section for additional details.*

## Upgrades to Enterprise 5500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board <i>(continued)</i></b>	
<b>From Enterprise Server I/O Board <i>(continued)</i></b>	
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 262x Graphics I/O Board	UGFA-SB262X-2622
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 263x PCI I/O Board	UGSB263X-2632 <sup>1</sup>
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FACTORY INSTALLED Customer Returns: one 263x PCI I/O Board	UGFA-SB263X-2632
EXX00 PCI I/O Board Upgrade from 261X SBus I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 261x SBus I/O Board	UGSB261X-2632 <sup>1</sup>

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
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### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

### Upgrades to Enterprise 5500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board <i>(continued)</i></b>	
<b>From Enterprise X000 83MHz Clock Board</b>	
5:1 Enterprise Sys Clock board upgrade. Required for 400MHz/8MB Faster UltraSPARC module. Customer returns: Enterprise system clock board.	UG-5/1-CLOCKBOARD <sup>1</sup>

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#### Bezel Upgrade Kit

Bezel Kit Upgrade for E5x00 or 6x00 systems Field Installed Customer returns: Nothing is required to be returned	UG-SF-BEZEL-KIT
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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
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#### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Upgrades to Enterprise 6500

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Description	Order Number
<b>From SPARCcenter 2000(E)</b>	
Chassis upgrade from SPARCcenter 2000(E) to Enterprise 6500 with data center system cabinet, 1 SunCD 32, two Power/Cooling Module, 1 CPU/Memory board, 1 SBus I/O board with two empty FC-AL sockets, and Solaris Server License Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UGS2000-E6501
Chassis upgrade from SPARCcenter 2000(E) to Enterprise 6500 with data center system cabinet, 1 SunCD 32, two Power/Cooling Modules, two SBus I/O boards and Solaris Server License. Customer must return: A system Enclosure, CPU Board, Primary Memory board, internal peripherals	UGS2000-E6502

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### From Enterprise 4000

Enclosure upgrade Enterprise 4000 to Enterprise 6500 including rack, card cage, AC box, SCSI Interface assemble, Interface assemble, key switch assembly, clockboard, SunCD32 Customer must return a system Enclosure, Card Cage, AC Box and SCSI tray, SunCD	UG-E4000-E6501
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*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-109.*

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### From Enterprise 4500

Enclosure upgrade Enterprise 450x to Enterprise 6500 including rack, card cage, AC box, SCSI Interface assemble, Interface assemble, key switch assembly, 5:1 Clockboard Customer must return a system Enclosure, Card Cage, AC Box and SCSI tray, clockboard	UG-E450X-E6501
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*Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-109.*

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
- *The upgrade system cabinet will not be sold without additional required components. See page 8-109.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Upgrades to Enterprise 6500 *(continued)*

Description	Order Number
<b>From Enterprise 5000</b>	
Enclosure upgrade Enterprise 5000 to Enterprise 65001 including rack, card cage, AC box, SCSI Interface assemble, Interface assemble, key switch assembly, clockboard, SunCD32 Customer must return a system rack Enclosure, Card Cage, AC Box and SCSI tray, SunCD	UG-E5000-E6501
<i>Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-109.</i>	

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<b>From Enterprise 5500</b>	
Enclosure upgrade Enterprise 550X to Enterprise 6500 including rack, card cage, AC box, SCSI Interface assemble, Interface assemble, key switch assembly, 5:1 Clockboard Customer must return a system rack Enclosure, Card Cage, AC Box and SCSI tray, clockboard	UG-E550X-E6501
<i>Note: When ordering this upgrade, please follow 'Ordering Flow Chart for Intra Enterprise Server Upgrades'. See page 8-109.</i>	

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#### Upgrades to 400-MHz Module with 8-Mbyte external cache

##### From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache

Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2580
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2580

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
- 

#### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components. See page 8-110.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
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#### Footnotes

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Contact local Sun IBB rep BEFORE quoting/ordering as there can be significant pre-requisites.*

### Upgrades to Enterprise 6500 *(continued)*

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Description	Order Number
<b>Upgrades to 400-MHz Module with 8-Mbyte external cache <i>(continued)</i></b>	
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2550-M2580
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 250MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2550-M2580
<b>From Enterprise 336-MHz or 400-MHz UltraSPARC Module with 4-Mbyte external cache</b>	
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FIELD INSTALLED Customer must returns: * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UG-M2560-M2580
Upgrade from 336-MHz or 400MHz UltraSPARC Module with 4MB external cache to 400-MHz UltraSPARC Module with 8-Mbyte external cache -FACTORY INSTALLED Customer must returns: * * 336MHz or 400MHz UltraSPARC Module with 4MB External Cache	UGFA-M2560-M2580
<b>From any non-UltraSPARC module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 400-MHz Module with 8-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC Sun processor module	UG-M2580

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

## Upgrades to Enterprise 6500 *(continued)*

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Description	Order Number
<b>Upgrades to 336-MHz Module</b>	
<b>From Enterprise 167-MHz Module with 0.5 or 1-Mbyte external cache</b>	
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UG-M2510-M2560 <sup>1</sup>
Upgrade from 167-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 336/333-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must returns: * 167MHz UltraSPARC Module with .5MB or 1MB External Cache	UGFA-M2510-M2560
<b>From Enterprise 250-MHz Module with 1 or 4-Mbyte external cache</b>	
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FIELD INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UG-M2530-M2560 <sup>1</sup>
Upgrade from 250-MHz UltraSPARC Module with 1MB or 4MB external cache to 336-MHz UltraSPARC Module with 4-Mbyte external cache -FACTORY INSTALLED Customer must return: * 250-MHz UltraSPARC Module with 1MB or 4MB External Cache	UGFA-M2530-M2560
<b>From any non-UltraSPARC Module</b>	
Upgrade from a non UltraSPARC module to a Enterprise Server 336-MHz Module with 4-Mbyte External Cache -FACTORY INSTALLED Customer must return: Any non UltraSPARC processor module	UG-M2560

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *This upgrade requires Solaris 2.5.1 or later Solaris 2.x release.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
- 

### Ordering Notes

- *Order Enterprise module upgrades with any of the moduleless Enterprise Server Chassis Upgrades. Minimum of one is required. See Enterprise Modules for details.*
  - *The upgrade system cabinet will not be sold without additional required components. See page 8-110.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*

## Upgrades to Enterprise 6500 *(continued)*

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Description

Order Number

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### Upgrades to 250-MHz/4MB Modules

**From Enterprise 167-MHz or 250-MHz Module with 0.5 or 1-Mbyte external cache**

Upgrade from 167-MHz or 250-MHz UltraSPARC Module with 0.5MB or 1MB external cache to 250-MHz UltraSPARC Module with 4-Mbyte external cache Customer must return: * 167-MHz or 250MHz Module with .5M or 1MB External Cache CUSTOMER INSTALLABLE	UG-M2510-M2550 <sup>1,2</sup>
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### Sun Enterprise EXX00 Server memory upgrade

**From 256-Mbyte (8 x 32-Mbyte SIMM modules - (x)7022A) to 1-Gbyte (8 x 128-Mbyte SIMM modules - (x)7023A)**

Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers Customer returns: one 256MB (7022A) Memory Module	UG-MEM256-MEM1GB <sup>1</sup>
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Upgrade from 256-Mbyte (7022A) Enterprise Server memory to 1GB (7023A) of memory ***Note: ONLY FOR 7023A compatible Enterprise Servers- FACTORY INSTALL Customer returns: one 256MB (7022A) Memory Module	UGFA-MEM256-MEM1GB
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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Footnotes

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
2. *Add "E10K" after the order number (e.g. UG-nnnnn-nnnnnE10K) for factory installation in a Enterprise 10000 Server.*

### Upgrades to Enterprise 6500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board</b>	
<b>From SPARCserver 1000(E) System Board</b>	
Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 256-Mbyte memory Factory Installed Customer Returns: One SS1000 System Board	UGSB1000-X-256M-C
Board Upgrade from SS1000 System Board to Enterprise CPU/Memory Board incl. 1GB memory Factory Installed Customer returns: One SS1000 System Board	UGSB1000-X-1GB-C
<b>From SPARCcenter 2000(E) System Board</b>	
Board Upgrade from SS1000 or SC2000 System Board to Enterprise 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer returns: One SS1000 or SC2000 system board	UGSB2000-X-0M-C
Board Upgrade from SC2000 System Board to Enterprise 2602 CPU/Memory Board incl. 256-Mbyte memory FACTORY INSTALLED Customer Returns: One SC2000 System Board	UGSB2000-X-256M-C
Board Upgrade from SC2000 System Board to Enterprise CPU/Memory Board incl. 1GB memory Factory Installed Customer returns: One SC2000 System Board	UGSB2000-X-1GB-C

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#### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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#### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

## Upgrades to Enterprise 6500 *(continued)*

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Description	Order Number
<b>Upgrade to any Enterprise System Board <i>(continued)</i></b>	
<b>From Enterprise Server System Board</b>	
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FIELD INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-2602 <sup>1</sup>
CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) FACTORY INSTALLED Customer Returns one 2600 or 2601 CPU Memory Board	UGFA-SB260X-2602
CTO CPU/Memory Board Upgrade for Enterprise Servers using CPU Board 2600 or 2601 CPU/Memory Board to 2602 CPU/Memory Board (no memory) Configure To Order - FIELD INSTALL Customer Returns one 2600 or 2601 CPU Memory Board	UGSB260X-C2602 <sup>2</sup>
<b>From Enterprise Server I/O Board</b>	
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED: Customer Returns: one 2610 or 2611 SBus I/O Board	UGSB261X-2612 <sup>1</sup>
EXX00 SBus I/O Board Upgrade from 2610 or 2611 SBus I/O Board to 2612 SBus I/O Board w/three empty SBus slots, two empty 100MB/sec FC-AL sockets, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 2610 or 2611 SBus I/O Board	UGFA-SB261X-2612

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### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
  - *Contact your local Sun sales office to update SunSpectrum contracts.*
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### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
  - *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*
- 

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*
  2. *Please see the CTO section for additional details.*
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## Upgrades to Enterprise 6500 *(continued)*

Description	Order Number
<b>Upgrade to any Enterprise System Board <i>(continued)</i></b>	
<b>From Enterprise Server I/O Board <i>(continued)</i></b>	
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FIELD INSTALLED Customer Returns: one 262x Graphics I/O Board	UGSB262X-2622 <sup>1</sup>
EXX00 Graphic I/O Board Upgrade from 262X Graphic I/O Board to 2622 Graphic I/O Board w/two empty SBus slots, two empty 100MB/sec FC-AL sockets, one empty UPA slot, one Fast/Wide SCSI Interface, one 10/100 MB/sec Ethernet Interface --FACTORY INSTALLED Customer Returns: one 262x Graphics I/O Board	UGFA-SB262X-2622
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 263x PCI I/O Board	UGSB263X-2632 <sup>1</sup>
EXX00 PCI I/O Board Upgrade from 263X PCI I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FACTORY INSTALLED Customer Returns: one 263x PCI I/O Board	UGFA-SB263X-2632
EXX00 PCI I/O Board Upgrade from 261X SBus I/O Board to 2632 PCI I/O Board w/two empty SBus slots, two empty 66MHz short PCI slots, on-board 10/100 Mbit Fast Ethernet and Fast/wide SCSI, two 5.0 volt riser cards installed. --FIELD INSTALLED Customer Returns: one 261x SBus I/O Board	UGSB261X-2632 <sup>1</sup>

### General Notes

- *Maximum discount may apply; contact your local Sun sales representative for details.*
- *Contact your local Sun sales office to update SunSpectrum contracts.*

### Ordering Notes

- *Enterprise System Board Upgrades may be ordered with the appropriate Chassis Upgrades to yield a system upgrade with multiple number of system boards.*
- *Terms and conditions of upgrade sale requires that residuals be returned to Sun Microsystems within 30 days of receipt of product, otherwise you will be billed for the non-returns.*

### Footnote

1. *This upgrade cannot be configured at the factory. It is a field installed upgrade.*