Sun Fire™ V440 Server Setup: Cabling and Power On

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Sun Fire V440 Server Setup: Cabling and Power On

This guide tells you how to route the cables and cords and power on the Sun Fire V440 server. Use this guide after you have installed the Sun Fire V440 server into a rack, following instructions either on the server's top panel or in the *Sun Fire V440 Server Installation Guide*. The illustrated instructions in this guide are a continuation of the the rackmount instructions on the Sun Fire V440 server top label. All installation instructions in full detail are included in the *Sun Fire V440 Server Installation Guide* and the *Cable Management Arm Installation Note*.

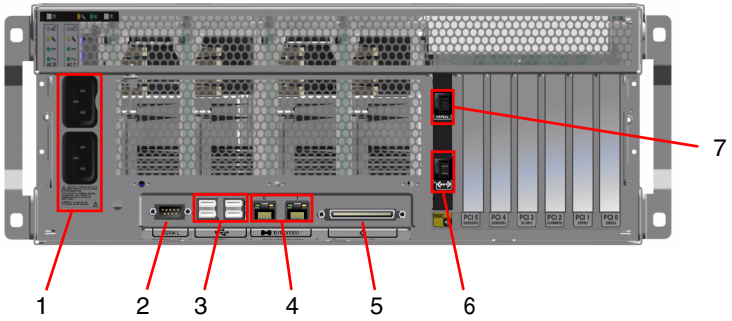
You should have completed the following tasks:

- Unpack the server
- Transfer online documentation and read the *Sun Fire V440 Server Product Notes*
- Rackmount the server
- Install the cable management arm

This document provides an overview of the following tasks:

Locating the Back Panel Ports

The following figure shows the Sun Fire V440 server back panel and identifies the AC power inlet and I/O ports.



Note – Illustration does not show the cable management arm in place.

	Port	Information
1	AC inlets	Power cords connect to each AC inlet. Do not disconnect the cords at this point.
2	Serial port (`ttyb`)	Use this port to set up a `tip` connection or to connect a serial modem.
3	USB	See the Sun Fire V440 Server Administration Guide for information about devices you can connect to these ports.
4	Ethernet	Use these ports to connect to your Ethernet network. The port on the left is net0; the port on the right is net1.
5	External SCSI	See the Sun Fire V440 Server Administration Guide for information about devices you can connect to this port.
6	Network Management (NET MGT)	You use this port to access ALOM features via the network. This port is marked by a symbol similar to the following: <...>
7	Serial Management (SER MGT)	By default, you use this port to attach the system console device and to configure the serial management interface.

Routing and Securing Cords and Cables

1. **Make sure that all cords and cables are slack enough to allow routing, yet taut enough to avoid obstructing the movement of the slide assemblies.**

   At a minimum, the server includes two power cords, an Ethernet cable, and a serial management cable.

2. **Before you connect any cords or cables, thread them through the cable management arm.**

Note – Your system has been shipped with one of two different cable management arm designs. See the *Cable Manasgement Arm Installation Note* for specific instructions on installing and using the cable management arm.

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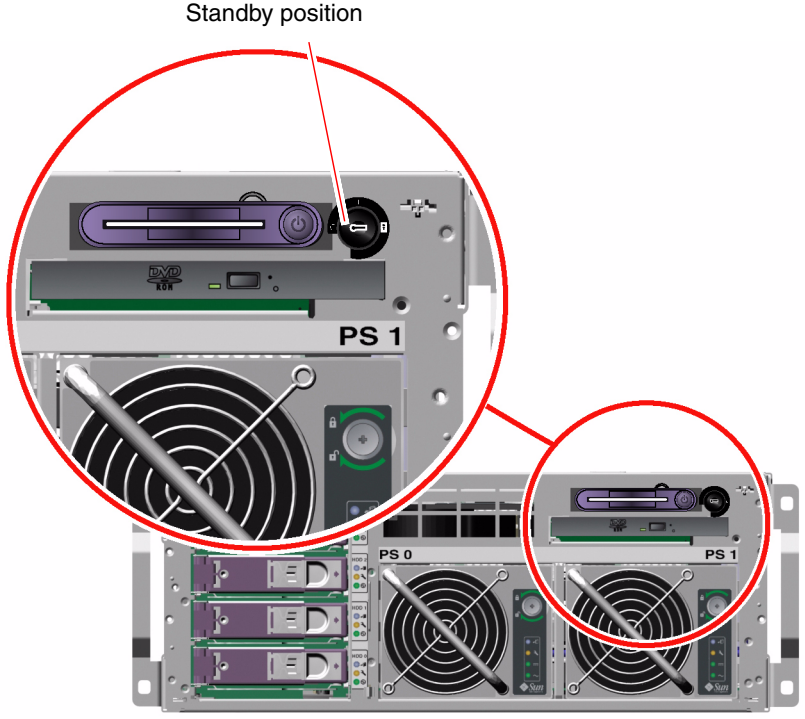
3. **Use the Velcro straps to secure the cords and cables to the cable management arm.**

4. **Plug in the Ethernet cable to the RJ-45 outlet to connect to your Ethernet network.**

   Contact your network administrator if you need more information.

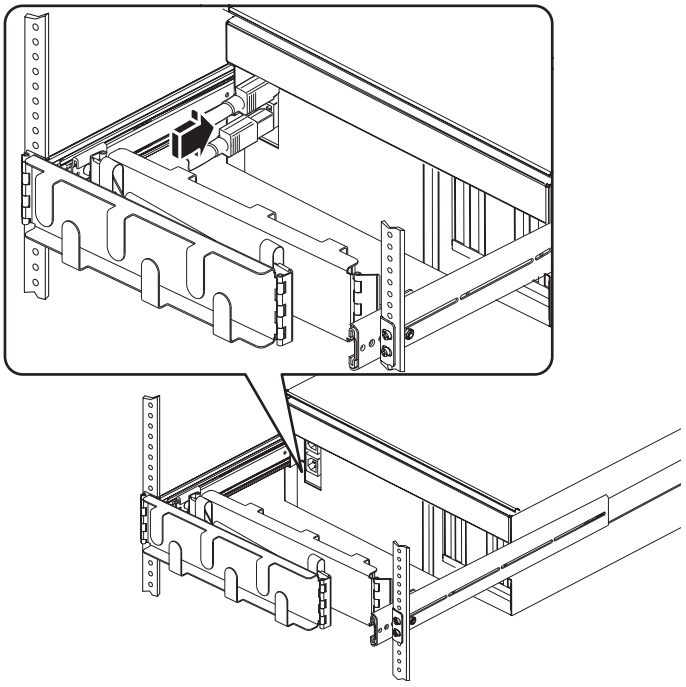
Connecting the Power Cords to the Server

1. **Unlock the right system door.**
2. **Insert the system key into the system control keyswitch.**
3. **Ensure that the system control keyswitch is in the Standby position.**



4. **Connect an AC power cord to each AC inlet at the back of the server.**

Note – Do not connect the cords to AC power outlets at this point. You connect the cords to AC outlets during a later step, after you have set up a system console device.



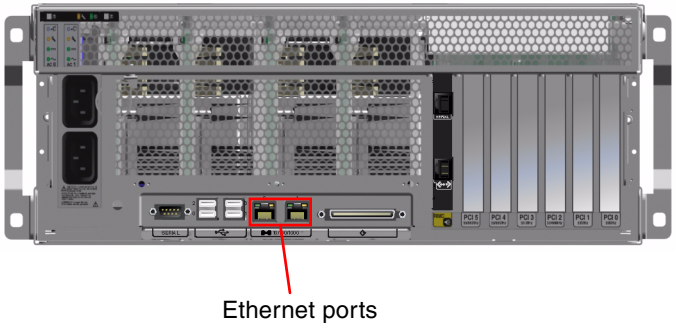
Connecting the Ethernet Cables

Use the following steps to connect a twisted-pair Ethernet cable to one or both of the Ethernet ports on the back panel. See the Sun Fire V440 Server Administration Guide for more information about seeing up more than one network interface.

1. **Choose a network port, using the following table as a guide.**

Ethernet Port	OBP Devalias	Device Path
0	net0	/pci@1c,600000/network@2
1	net1	/pci@1f,700000/network@1

2. **Plug in a Category-5 unshielded twisted-pair cable to the appropriate RJ-45 connector. The cable length must not exceed 328 feet (100 meters). After power-on, the Ethernet Link/Activity LED (on the left) is lit, and the Speed LED (on the right) indicates arbitrated 1000-Mbps operation.**



Note – Cable management arm has been removed for clarity.

Installing Optional Components

If you ordered options that are not factory-installed, see the *Sun Fire V440 Server Parts Installation and Removal Guide* for installation instructions.

Note – All internal options must be installed only by qualified service personnel. Installation and removal procedures for various parst are covered in the *Sun Fire V440 Server Parts Installation and Removal Guide*, which is included on the Sun Fire V440 documentation CD.

Caution – To protect electronic components from electrostatic damage, note the following guidelines.

- Place components on an antistatic surface such as a Sun antistatic discharge mat, an antistatic bag, or a disposable antistatic mat.
- Always wear an antistatic wrist strap connected to a metal surface on the chassis when you work on system components.

Setting Up a Console Device

When connected to the serial management port (SERIAL MGT) on the Sun Advanced Lights Out Manager (ALOM), different types of devices can serve as the interface to the system console. Among the devices:

- Terminal server
- `tip` connection
- Alphanumeric (ASCII) terminal

Instructions for setting up a terminal server and for making it a tip connectionare in the Sun Fire V440 Server Installation Guide. following are instructions for setting up an alphanumeric terminal.

Note – Make sure that the device you use as an interface to the system console is ready to receive messages before you plug in the server's power cord to an electrical outlet (oulined in a later step). If you do not set up the device before connecting the server to power, you will miss many important ALOM messages.

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1. **Remove the terminal's power plug from the AC outlet.**
2. **Connect one end of the serial cable to the terminal's serial port.**

   The Sun Fire V440 is a DTE machine. Use an RJ-45 serial cable or an adapter appropriate for your terminal. Plug in the cable to the terminal's serial port connector.
3. **Connect the serial cable's RJ-45 connector to the Sun Fire V440 server.**

   Plug in the cable to the server's serial management port (SERIAL MGT), which is the upper RJ-45 port on the ALOM card.
4. **Connect the terminal's power cord to an AC outlet and turn on the power.**
5. **Set the terminal to receive a 9600 baud, 8-bit signal with no parity and 1 stop bit.**

Preparing to Configure the Primary Interface

The following instructions assume that you have chosen a network port and have installed an Ethernet cable.

1. **Choose a host name for the server and make a note of it.**

   You need to furnish the host name at a later time, when you configure the network interface according to prompts from the Solaris™ Operating System (Solaris OS).

   The host name must be unique within the network. It can consist only of alphanumeric characters and the dash (-). Do not use a dot in the host name. Do not begin the name with a number or a special character. The name must not be longer than 30 characters.
2. **Determine the unique Internet Protocol (IP) address of the network interface and make a note of it.**

   You need to furnish the IP address at a later time, when you configure the network interface according to prompts from the Solaris OS.

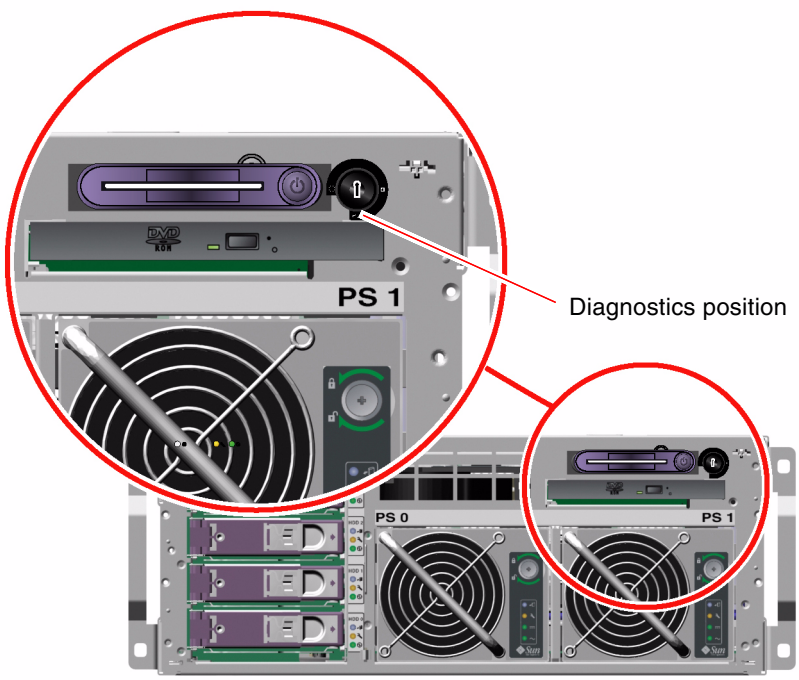
   An IP address must be assigned by the network administrator. Each network device or interface must have a unique IP address.

   After you boot the server, you must still configure the primary network.

   For other network devices to communicate with the server, you must enter the server's IP address and host name into the namespace on the network name server.

Powering On the Server

1. **Unlock and open the right system door.**
2. **Insert the system key into the system control keyswitch and turn the system control keyswitch to the Diagnostics position.**



Caution – The AC power cords provide a discharge path for static electricity. Unless otherwise noted in the Sun Fire V440 Parts Installation and Removal Guide, the cords must remain plugged in to the AC outlets when you handle internal components.

3. **Connect the outlet plug of each power cord to the power sequencer in the cabinet, or to a grounded AC power outlet.**

Caution – Each outlet must connect the server to a 15A circuit for North America and Japan, and to a 10A or 16A circuit for Europe. Consult local codes for additional requirements. See instructions provided with your cabinet for information about the power sequencer.

To ensure redundancy, connect cords to separate circuits or circuit breakers. The Standby LED for each power supply is lit, indicating that power is being supplied.

As soon as you plug in the power cords, several boot messages from the ALOM system controller are displayed on your system console device. The ALOM boot messages end with the following:

```
sc>
```

4. **At the ALOM prompt (`sc>`), enter the following command:**

```
sc> console
```

5. **When prompted, create and then confirm an administrator password.**

   Once again, the `sc>` prompt is displayed.

6. **At the ALOM prompt (`sc>`) *again* type the `console` command:**

```
sc> console
```

7. **Press the Power button.**

   The server runs full diagnostics, which can take several minutes. Because the `auto-boot?` parameter is `true` by default, the server will attempt to boot and install from the network. If no network boot server is found, the `ok` prompt is displayed.

   See the *Sun Fire V440 Server Installation Guide* for instructions on how to perform an alternative power-on method. The Power OK LEDs on the back panel are lit when the power supply is turned on.

Caution – Never move the server when the server power is on. Movement can cause catastrophic disk drive failure. Always power off the server before moving it.

Installing the Solaris Operating System and Other Software

You must have already set up a system console device before you can install the Solaris OS. See "Setting Up a Console Device" on page 7. Make sure that you have a supported version of the Solaris OS. See the Sun Fire V440 Product Notes for additional information.

1. **Locate your Solaris Media Kit.**

   The Solaris Media Kit, in which you will find the Solaris OS CDs and additional software, must be ordered separately. Contact your Sun service provider if you do not have a Solaris Media Kit.

2. **Install the Solaris operating sytem on your server.**

   - Read the *Start Here* document that is included in your Solaris Media Kit.
   - Complete each step to install the Solaris operating system.

   Install the software using any of four methods, which are fully explained in the documentation included with the Solaris Media Kit:

   - Solaris Web Start software
   - JumpStart™ software
   - Custom JumpStart software
   - Over a network

3. **Load additional software from the Supplement CD (optional).**

   See the documentation provided in the Solaris Media Kit for a listing of included software.

4. **Install any software patches listed in the *Sun Fire V440 Product Notes*. The latest versions of the Product Notes are located on the Sun Web site, at** `http://www.sun.com/documentation`**.**

   A list of recommended patches recommended patches is also available on the SunSolve Online Web site at `http://sunsolve.sun.com`. You can obtain patches and installation instructions from your Sun service provider or by downloading them from the SunSolve Online web site. Staying current with all patches will give you access to better diagnostics and server performance.

5. **Run the Sun Install Check tool to verify basic installation and configuration of your system.**

   Download the tool from the following URL:

   `http://www.sun.com/software/installcheck/index.html`

For More Information

Your Sun Fire V440 server is ready to use.

For more information, consult your Sun Fire V440 Server Documentation CD.

Application	Title	Part Number
Important safety information	*Sun Fire V440 Server Safety Information*	816-7731
Late-breaking information	*Sun Fire V440 Product Notes*	816-7733
Instructions on using the online documentation	*ReadMe*	816-7732
Unpacking, rackmounting, installing Solaris software	*Sun Fire V440 Server Installation Guide*	816-7727
Cable management arm installation	*Cable Management Arm Installation Note*	819-2290
Diagnostic tools and troubleshooting guidelines	*Sun Fire V440 Server Diagnostics and Troubleshooting Guide*	816-7730
Installing and removing field-replacable units (FRUs)	*Sun Fire V440 Server Parts Installation and Removal Guide*	816-7729
Administration and configuration	*Sun Fire V440 Server Administion Guide*	816-7728
Customizing the Sun Advanced Lights Out Manager (ALOM) software	Sun ALOM Online Help modules are are provided with the ALOM software. You can also access the ALOM help modules from your Documentation CD or from the ALOM Web site: http://www.sun.com/servers/alom.html	