

PC Server 720

Setup

IBM

PC Server 720

Setup

Note

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 25. Also read the general information under “Product Warranties and Notices” in the *User's Reference*.

First Edition (July 1995)

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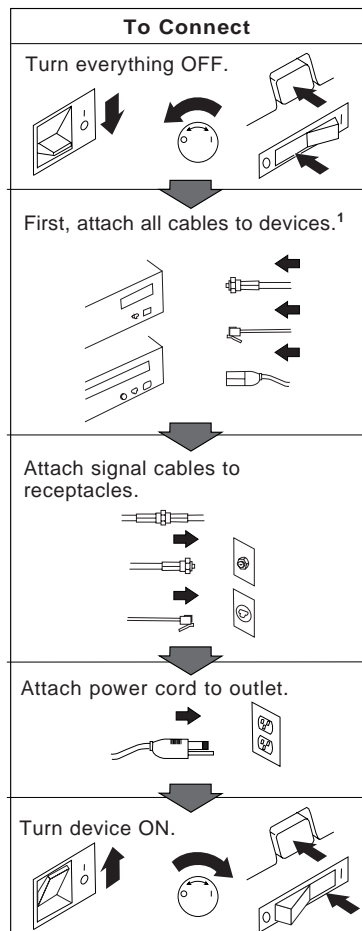
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Safety Information

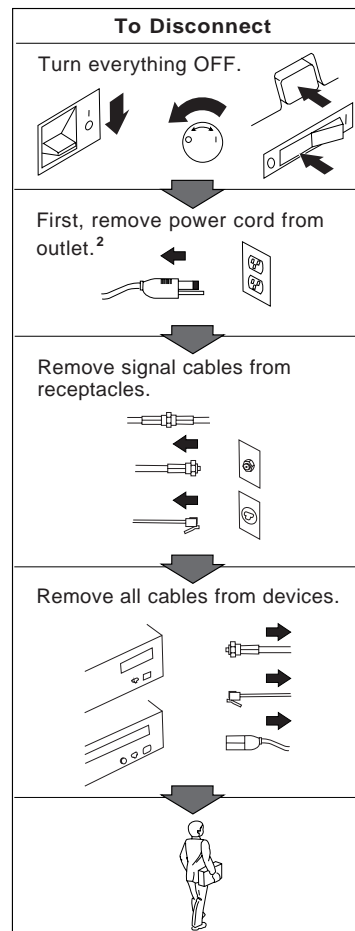


DANGER:

Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, connect and disconnect cables as shown below when installing, moving or opening the covers of this product or attached devices. The power cord must be used with a properly grounded outlet.



¹ In the U.K., by law, the telephone cable must be connected after the power cord.



² In the U.K., by law, the power cord must be disconnected after the telephone line cable.

Laser Compliance Statement

The PC Server 720 contains an IBM CD-ROM drive that is a laser product. The IBM CD-ROM drive has a label that identifies its classification. The label, located on the drive, appears below.

CLASS 1 LASER PRODUCT
LASER KLASSE 1
LUOKAN 1 LASERLAITE
APPAREIL A LASER DE CLASSE 1

The IBM CD-ROM drive is certified in the U.S. to conform to the requirements of the Department of Health and Human Services 21 Code of Federal Regulations (DHHS 21 CFR) Subchapter J for Class 1 laser products.

Elsewhere, the drive is certified to conform to the requirements of EN60825.



CAUTION:

Do not open the drive; no user adjustments or serviceable parts are inside.

Class 1 laser products are not considered to be hazardous. The IBM CD-ROM drive has an internal Class IIIb (3b), 5-milliwatt, gallium-arsenide laser that operates at a wavelength of 760 to 810 nanometers. The design of the laser system and the IBM CD-ROM drive ensures that there is no exposure to laser radiation above a Class 1 level during normal operation, user maintenance, or servicing conditions.

About This Book

This book contains instructions for unpacking, setting up, and cabling your server. This booklet also contains instructions for using some of the programs provided on compact discs (CDs) in the IBM ServerGuide package. Also included, with the ServerGuide package, is a publication that describes the advantages of IBM ServerGuide.

Notices Used in This Book

This book contains information notices that relate to a specific topic. Following are the notice definitions.

Notes

These notices provide important tips, guidance, or advice.

Warning

These notices indicate possible damage to programs, devices, or data. A warning notice is placed just *before* the instruction or situation in which damage could occur.

Caution

These notices indicate situations which can be potentially hazardous to you. A caution notice is placed just *before* the instruction or situation that could be hazardous.

Related Publications

The *PC Server 720 User's Handbook*, included with your server, provides detailed instructions on how to install and remove options, and how to configure your server. This book also provides information to help you solve some of the simpler problems that might occur and information on how to obtain assistance and service.

The *PC Server 720 User's Reference*, also included with your server, contains detailed information about the advanced features of your server.

Included with the ServerGuide CD package is a publication that describes the advantages of using ServerGuide.

About This Book

The *IBM Personal System/2 Hardware Maintenance Manual Supplement* is available for purchase. It contains error codes, advanced diagnostic procedures, and a parts catalog for the PC Servers. This manual is intended for trained service technicians.

For a complete listing of publications available in the U.S. and Puerto Rico, call 1-800-426-7282. In Canada, call Customer Assistance at 1-800-465-1234. In all other countries, contact the IBM support organization that services your area, your IBM marketing representative, or your IBM authorized reseller.

Welcome and Thank You

We appreciate your decision to purchase an IBM PC Server 720. Your server offers speed, power, expandability, and compatibility.

Your PC Server library consists of three manuals: this *Setup* booklet, the *User's Handbook*, and the *User's Reference*. This *Setup* booklet contains instructions to help you set up your IBM PC Server. The *User's Handbook* contains detailed information about installing options, configuring your server, and solving problems. The *User's Reference* contains detailed information about the advanced features of your PC Server. Before you buy additional hardware for your server, be sure to review the *User's Reference*.

Also included is the ServerGuide package, which contains a number of CDs. These CDs contain operating systems, application programs, utility programs, online documentation, and more. Refer to the *ServerGuide User's Guide* that comes with ServerGuide for more information.

We also have included a *PC Server Service and Support* pamphlet. This pamphlet provides you with important information and phone numbers to call for different types of support for your PC Server.

The PC Server 720 also comes with IBM's PC Server Startup Support, which provides additional HelpWare coverage during the first 90 days after installation. IBM PC Server Startup Support is available to PC Server customers at no additional charge. This comprehensive program enhances IBM HelpWare support for setup, installation, configuration, and problem determination. It provides assistance for popular network operating systems and network adapters from IBM and non-IBM vendors. In the U.S., call IBM at 1-800-772-2227, or in Canada, call 1-800-565-3344 if you need assistance.

In all other countries, contact the IBM support organization that services your area, your IBM marketing representative, or your IBM authorized reseller.

Welcome and Thank You

Getting Started

Before you begin:

Make sure you have an adequate number of properly grounded electrical outlets for your server, display, and any other options you intend to install.

Place your server in a location that is dry. Rain or spilled liquids might damage your server.

Leave about 51 mm (2 in.) of space around the front and rear of your server to allow the server's cooling system to work properly.

Have a supply of 1MB, 2MB, and 4MB, 3.5-inch diskettes available. You will need these diskettes later, when you install your operating system and backup your configuration and all important data.

Have a small, flat-blade screwdriver available.



Unpacking Your Server

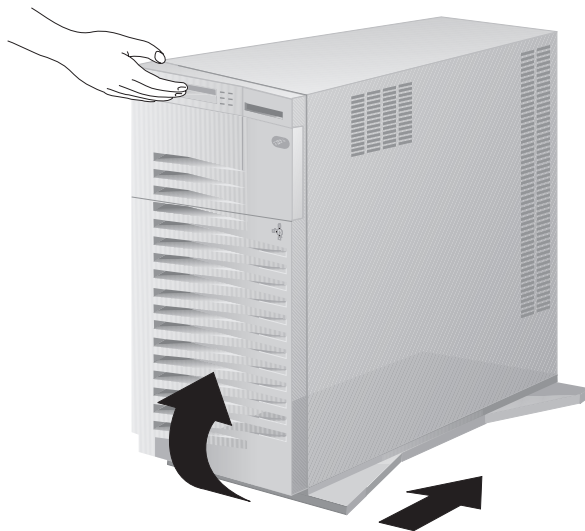
Unpacking Your Server

Refer to the graphical instructions on the exterior of the carton to unpack the server.

CAUTION:

Due to the weight of the server, do not attempt to lift the server by yourself. To avoid possible injury while moving or lifting the server, ask another person to help you.

When the server is in the normal upright position, move it by lifting up on the handle and rolling it forward or backward as shown. (A roller is built into the rear of the server's base.)



Unpacking Your Server

Preinstallation Checklist

After you unpack your server and display, make sure you have the following items:

Server power cord and door-lock keys.

Keyboard and keyboard cable.

Mouse.

Display, display signal cable, display power cord, and display instructions. (These items are not included with your server.)

A 9-pin, serial-port cable. You can use this cable to attach an American Power Conversion (APC) uninterruptible power supply (UPS).

Diskettes that come with the server.

IBM ServerGuide CD package.

PC Server 720 User's Handbook, *PC Server 720 User's Reference*, and *PC Server Service and Support* pamphlet.

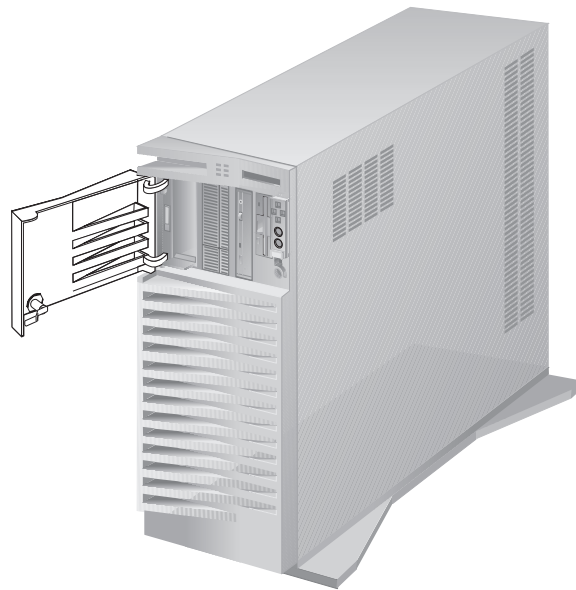
Contact your IBM authorized reseller or IBM marketing representative if any of the above items are missing or damaged.

Removing the Packing Material

Removing the Packing Material

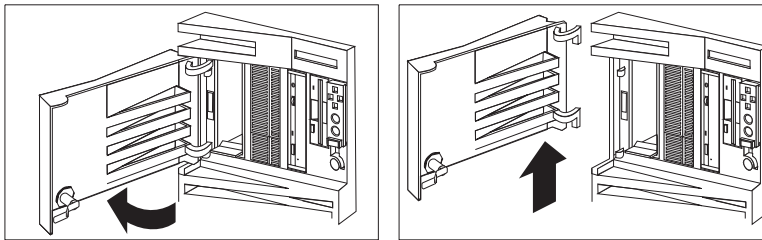
To remove the packing material, follow these instructions:

1. If you have not already done so, locate the keys; then, unlock and open the door on the front of the server.
2. Remove any packing material, diskettes, or CDs that might be in the drives.

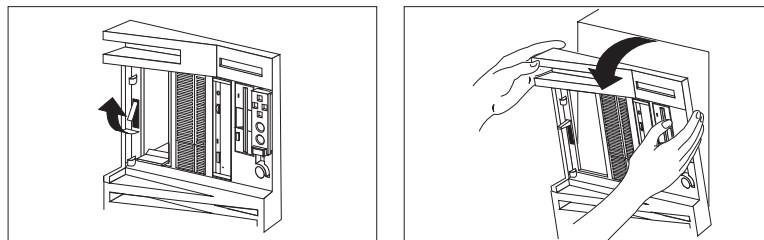


Removing the Packing Material

3. Remove the door by carefully lifting it up and off the hinges. Store it in a safe place.

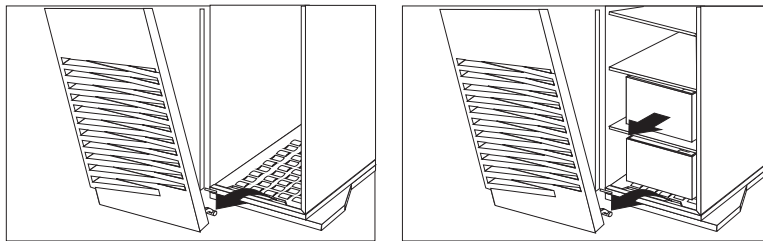


4. Remove the front cover:
 - a. Release the latch on the left side of the CD-ROM storage compartment by pulling it up from the bottom.
 - b. Grasp the sides of the front cover and pull it forward.



Removing the Packing Material

- c. Detach the front cover bottom hooks from the grooves located on the bottom of the server, and lift the front cover off the bottom of the server.
- d. Remove the cardboard packing material from inside the two bottom bays of the server.



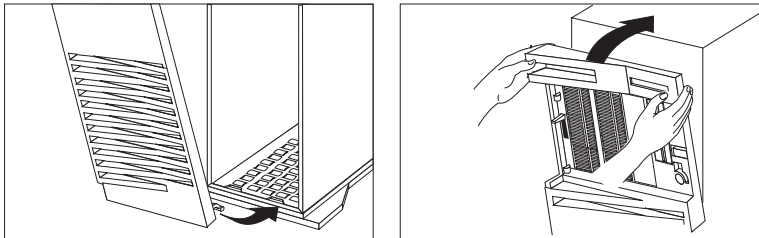
5. If you are not familiar with the features of your server, and you have no options to install, continue with step 7 on page 9.

If you are familiar with the features of your server and you have options to install, (such as adapters, diskette drives, hard disk drives, or memory-modules kits), continue with step 6.

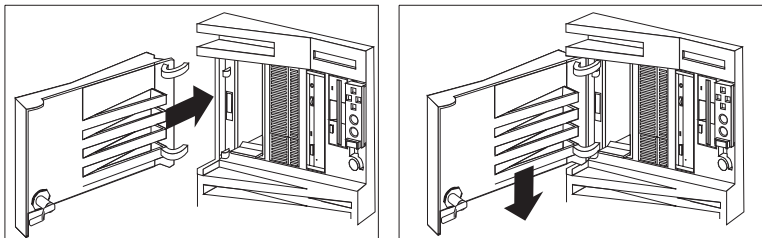
6. To install options now:
 - a. Review “Connecting the Cables and Power Cord” on page 10 and “Starting the Server” on page 12, but do not complete these steps now. You might need to refer to these pages during the option-installation instructions.
 - b. Refer to the step-by-step installation instructions in the “Installing Options” section of the *User's Handbook*.
 - c. If you have not already connected the cables, turned on the display, and started the server, complete these steps now.
 - d. After you install your options and update the configuration, go to “Using ServerGuide” on page 15 in this booklet and complete the setup and installation procedures.

Removing the Packing Material

7. Reinstall the front cover:
 - a. Align the bottom of the front cover with the bottom of the server.
 - b. Fit the front cover bottom hooks into the grooves located on the bottom of the server.
 - c. Pivot the cover upward, and then press the top of the cover into the top of the server until they snap together.
 - d. To lock the cover in place, snap the latch on the left side of the CD-ROM storage compartment down.



8. Reinstall the door at the front of the server by aligning the pins with the hinges, and sliding the door down.



9. Close the door.

Connecting the Cables and Power Cord

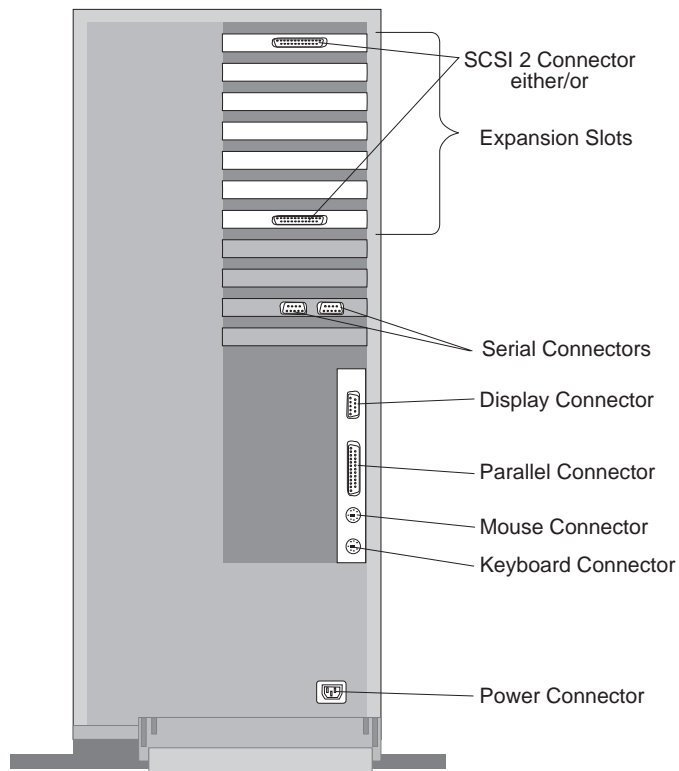
Connecting the Cables and Power Cord

Warning: Be sure to maintain a clearance of at least 51 mm (2 in.) on all sides of the server to allow for air circulation.

1. Connect the keyboard cable to the keyboard. Connect the other end of the keyboard cable to the server by aligning the flat side of the cable connector so that it faces the keyboard icon (next to the keyboard connector, on the server).
2. Connect the mouse cable to the mouse connector on the server.
3. If your display has a separate signal cable, connect one end of the signal cable to the display. Connect the other end of the signal cable to the display connector on the server.
4. Connect the display power cord to the display.
5. Connect the server power cord to the power connector.
6. *Secure all these connections*, then plug the display power cord and the server power cord into properly grounded electrical outlets.

Note: Refer to the “Product Warranties and Notices” section of the *PC Server 720 User's Reference* for more information about IBM power cords.

Connecting the Cables and Power Cord

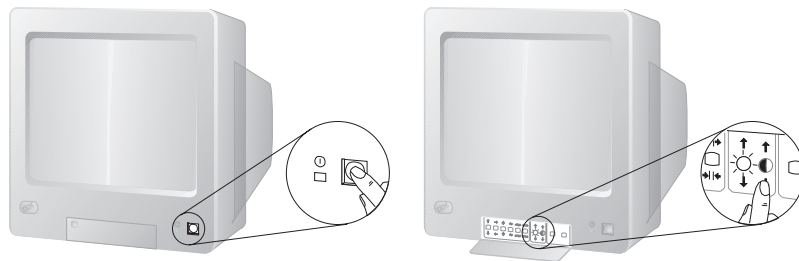


Starting the Server

Starting the Server

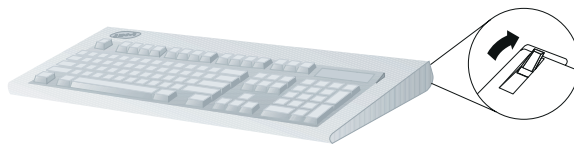
1. Turn on your display and adjust the Brightness and Contrast controls to the approximate midpoint.

You can readjust these controls and the display location for personal viewing comfort after you turn on your server.



Note: The locations of the Power Switch and the Brightness and Contrast controls on your display might be different from those shown above.

2. Adjust the keyboard feet and position the keyboard for personal typing comfort.



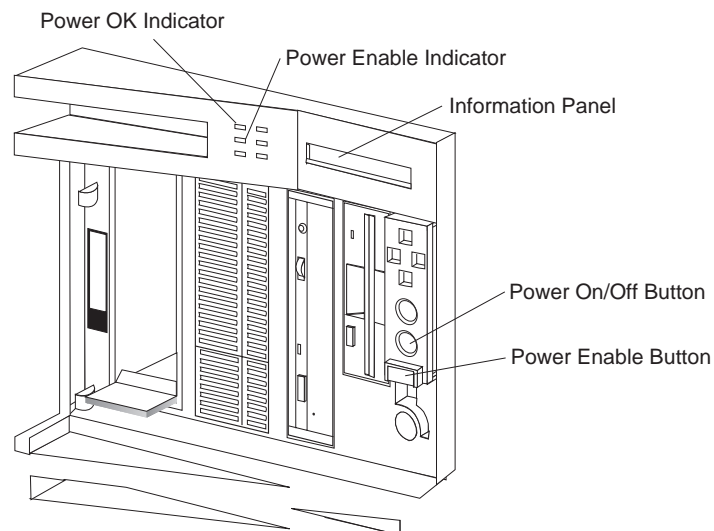
Starting the Server

3. Open the door on the front of the server.
4. If the server is turned on, turn it off.

To turn off the server, press and hold the power on/off button. When you press this button to turn off your server, the information panel will display a HOLD FOR POWER OFF message. When this message changes to SHUTTING DOWN, you can release the power on/off button. The server will power off after you release the button.

5. If you installed any external devices, turn them on now.
6. Press the power-enable button. The green power-enable indicator comes on.

Note: The power-enable indicator must be illuminated before the server can be powered on.



Starting the Server

7. Turn on the server.

To turn on the server, press the power on/off button momentarily, and the power OK indicator will illuminate. The *power-on self-test (POST)* begins.

8. Check your display. The screen displays the IBM logo and a number that represents the amount of available server memory. The server beeps once to indicate it is working properly.

Notes:

- a. If you hear more than one beep, or no beep, check to see if an error message appears. If an error message appears, or if your screen is blank, refer to the “Solving Problems” section of the *User's Handbook* for more information.
 - b. If your server stops running during testing or normal operation, record the data that appears on the information panel and call for service. Give the service technician the information that appears on the panel.
9. You will be prompted to insert a startable diskette or a startable CD. *Don't insert anything yet.*

Even if you plan to install your own operating system, be sure to start the ServerGuide Main CD and read the README files provided in the **Start Here** section.
 10. Continue with “Using ServerGuide” on page 15.

Using ServerGuide

It is important that you read and understand the following information, whether you choose to install an operating system that is available in the ServerGuide package or you choose to install *your own* operating system.

One of the easiest and most efficient ways to install an operating system and take advantage of a wide variety of the latest software for the network environment is to use ServerGuide.

You can install an operating system from ServerGuide or you can install *your own* operating system and still use many of the features available on ServerGuide. (For example: you can install NetFinity, which is a LAN systems-management program; run demonstration programs; use the performance-tuning feature; and do much more.) Take the time now to read the information that comes with the ServerGuide package; then return here.

The ServerGuide CDs contain small computer system interface (SCSI) and super video graphics array (SVGA) device drivers that will be installed automatically if you install one of the operating systems from the ServerGuide CD package. However, if you choose to install *your own* operating system, you will need to install the SCSI device drivers and the SVGA device drivers. These device drivers are on the diskettes that come with the server. Refer to the README files on the diskettes for installation instructions.

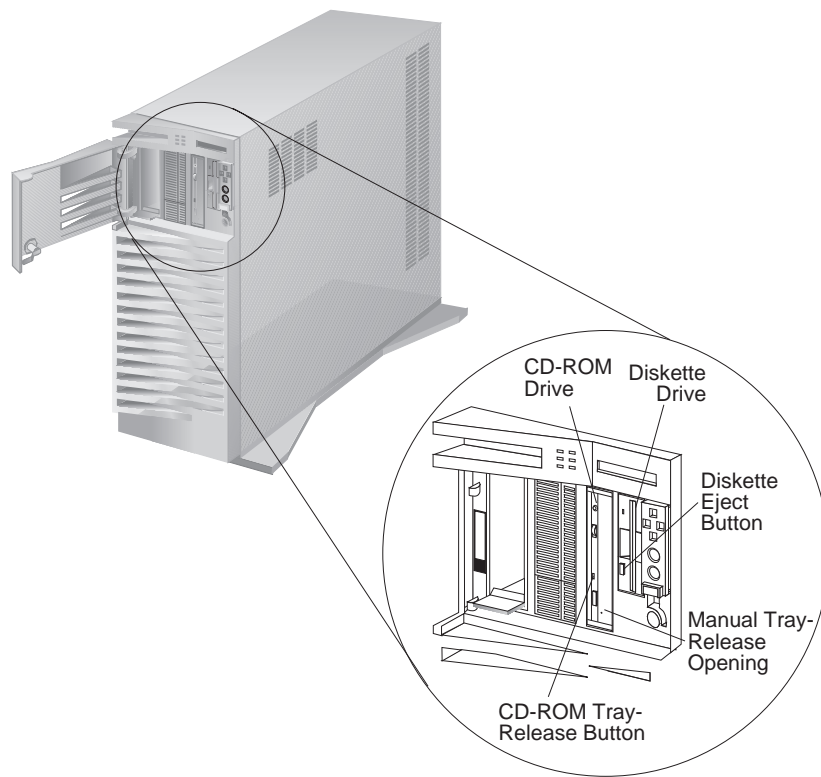
For additional considerations regarding device drivers and operating systems, be sure to read “Software Considerations” on page 19 and “Operating Systems Considerations” on page 20.

For all disk-array models, a redundant array of independent disks (RAID) diskette is included. Before you install an operating system on a disk-array model, use the configuration programs on the *RAID Adapter Option Diskette* to view or change the existing disk-array configuration.

Using ServerGuide

To start the ServerGuide Main CD:

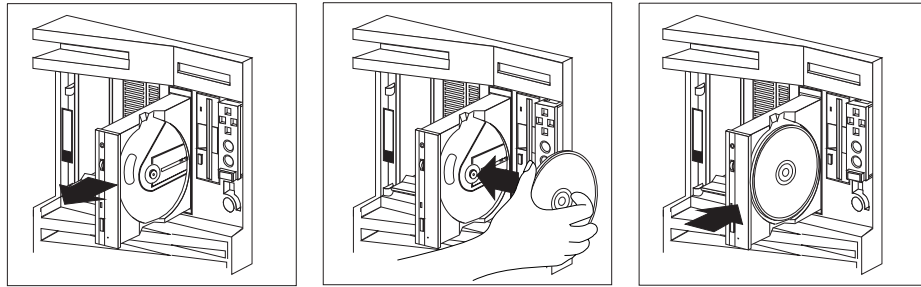
1. Locate the ServerGuide CD package and diskettes.
2. Press the CD-ROM tray-release button. The CD-ROM tray will extend out approximately 25 mm (1 in.) from the server. Pull the tray straight out until it stops.



Note: If the CD-ROM tray does not extend out, insert the end of a paper clip into the manual tray-release opening and gently pull the tray open.

Using ServerGuide

3. With the label information facing right, center and place the ServerGuide Main CD on the hub as shown.



4. Push the CD-ROM tray back into the server.
5. Insert the ServerGuide License Diskette into the diskette drive.
6. Press the **Ctrl+Alt+Del** key sequence to restart the server.

The ServerGuide logo screen appears, followed by a language-selection screen.

7. Select a language; the Main Menu appears.
8. Select **Start Here** and review the information.

The README files in the **Start Here** section of the ServerGuide Main CD contains important information about the ServerGuide, operating systems, and device drivers. Be sure to review the README files before you install your operating system.

Installing Your Operating System

You can install an operating system from ServerGuide or from separately purchased diskettes or CDs.

Before you install an operating system on a disk-array model, use the configuration programs on the *RAID Adapter Option Diskette* to view or change the existing disk-array configuration. Refer to your *User's Handbook* for detailed instructions; then, return here.

If you have not already installed your options, do so now, before you install your operating system. Installing your options now enables ServerGuide to install the necessary device drivers during the operating system installation process. Some options might require device drivers that are not available on ServerGuide. If this occurs, follow the installation instructions that come with the option; then, return here.

If you are installing an operating system from the ServerGuide CD, select **Start Here** and follow the instructions on the screen; then, go to “Finishing the Installation” on page 22.

If you are installing *your own* operating system:

1. Review “Software Considerations” on page 19 and “Operating Systems Considerations” on page 20; then, return here.
2. Follow the installation instructions that come with your operating system; then, go to “Finishing the Installation” on page 22.

Software Considerations

IBM and other manufacturers of operating systems, network programs, and application programs periodically make software updates available. These updates provide enhancements and corrections for the off-the-shelf versions of the software. To ensure that the software you install functions properly, contact the manufacturers to obtain the most current updates.

If you intend to install an IBM operating system or network programs, such as OS/2 for SMP or OS/2 LAN Server, you can obtain the most current software updates from the IBM Personal Software Solutions Center. These software updates are called ServicePaks or corrective-service diskettes (CSDs). In the U.S., you can call the IBM Personal Software Solutions Center at 1-800-992-4777.

For the latest information about hardware device drivers and SMP operating systems supported by your PC Server 720:

In the U.S., call IBM at 1-800-772-2227.

In Canada, call 1-800-565-3344.

In all other countries, contact the IBM support organization that services your area, your IBM marketing representative, or your IBM authorized reseller.

To install your system management device drivers, follow the instructions in the README file in the SYSMGT directory on the *PC Server 720 System Management Device Drivers* diskette that comes with the server.

Operating Systems Considerations

The following operating systems require special considerations.

SCO

To use your CD-ROM drive with a Santa Cruz Operation (SCO) operating system, you must change the SCSI ID of the CD-ROM drive to 5 or use a bootstring command to override the default. The bootstring command can be found in the installation instructions that come with the SCO operating system.

If you are installing SCO Open Desktop/Open Server 3.0 or UNIX System V Rel 3.2 Version 4.2 on your PC Server 720, you must obtain the Advanced Hardware Supplement (AHS) 3.4 from SCO. You must also obtain from SCO an additional Software Level Supplement (SLS) U0D383B or later. This SLS includes the required ALAD device driver.

If you are installing a SCO operating system, you may need updated device drivers for full compatibility with the latest hardware used in IBM servers. Refer to the **Start Here** section on the ServerGuide Main CD for information on how to obtain the latest device drivers that are available from SCO. To install the SCO operating system, follow the installation instructions that come with the SCO operating system.

If you are installing multiprocessor (MP) support, you must obtain the following supplements from SCO:

- SCO MPX 3.0 (MP Extensions)

- SCO AHS 3.4 (the Multiprocessing Drivers include the latest APIC device driver)

- Device drivers for the C-bus II multiprocessing bus are provided in the SCO Vendor Contributed Directory. See the **Start Here** section on the ServerGuide Main CD for instructions on how to obtain the latest device drivers.

Windows NT

For installation instructions for Windows NT Version 3.5 or later, refer to the README file on the *PC Server 720 System Management Device Drivers* diskette that comes with your server.

OS/2 and Novell NetWare Installation

For installation instructions for OS/2 or Novell Netware, refer to the README files in the **Start Here** section of the ServerGuide Main CD.

If you have an OS/2 2.11 SMP license and you want to install it on your PC Server 720 without using ServerGuide, call 1-800-992-4777 and request APAR II08627. You will need to provide the HelpWare group with your OS/2 license information. The HelpWare group will ship you a CD and installation diskettes.

All Other Installations

If you are installing other operating systems, such as UnixWare, use the installation instructions that come with the operating system.

Finishing the Installation

Important

Be sure to maintain at least 51 mm (2 in.) of space at the rear of the server to allow the server's cooling system to work properly. Blocking the air vents can cause overheating, which might result in a malfunction or permanent damage.

Your server hardware is set up, and you are ready to learn about your server. The order in which you do these tasks is up to you. Use the following checklist as a guide.

Learn about your server and the system utility programs

Your server comes with utility programs to help you configure your server and troubleshoot problems. Information about these utility programs can be found in the *User's Handbook*. If your server is a disk-array model, read and become familiar with the "Configuring the Disk Array" section of the *User's Handbook*. Follow the instructions to back up your disk-array configuration information.

Record your identification numbers

Your server has important identification information that you will need if you have it serviced. The "Server Records" section of the *User's Handbook* shows where to find these numbers, and provides space to record and retain information. Be sure to record your ServerGuide License Diskette serial number in that section.

Finishing the Installation

Install options

If you decided earlier to delay installing your options, you might want to complete these installations now. Refer to your *User's Handbook* for installation instructions.

Install SVGA and SCSI device drivers

If you did not install one of the operating systems from the ServerGuide CD package, get the SVGA and the SCSI device driver diskettes that come with your server and install these device drivers now.

These diskettes contain README files to help you install device drivers and complete your installation. Be sure to review the README files *before* you install the device drivers.

Install System-Management device drivers

To install your system-management device drivers, follow the instructions in the README file in the SYSMGT directory on the *PC Server 720 System Management Device Drivers* diskette that comes with the server.

Install option files

Some options that you install might come with a diskette that contains device drivers, configuration files, or test programs. To install these files (after your operating system is installed), follow the instructions that come with the diskettes.

Install application programs

To install application programs, follow the instructions supplied with each application program.

Finishing the Installation

Review your *User's Handbook* and *User's Reference*

The *User's Handbook* contains information that will help you to configure and use the server, to install and remove options, and to use the system programs that are provided. This book also provides information to help you solve some of the simpler problems that might occur, and information on how to obtain assistance and service.

The *User's Reference* contains information about the hardware and software features and expansion capabilities of your server. This book also contains information about the microprocessors and memory, data-storage devices, video subsystems, input and output (I/O) ports, SCSI subsystem, and security. For your convenience, the *User's Reference* also includes a glossary and product warranty information.

Notices

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NT	Microsoft Corporation
Open Desktop	The Santa Cruz Operation, Inc.
Open Server	The Santa Cruz Operation, Inc.
SCO	The Santa Cruz Operation, Inc.
UnixWare	Novell, Inc.

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