



Netfinity 3500 M10

**Start Here**





Netfinity 3500 M10

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**Note**

Before using this *Start Here* book, read the *Safety Information* book.

**First Edition (July 1999)**

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## Setup overview

This booklet provides the information you need to unpack your server, cable and start your server, and install a network operating system (NOS). This booklet contains general information, such as features, help information, and a system illustration.

If you want detailed information or if you have options to install, refer to your *IBM Netfinity 3500 M10 User's Handbook*.

These are the steps you will perform to set up your server and to ensure that your server is functioning properly.

- 1 Review the *Safety Information* book.
- 2 Unpack your server and verify the package inventory.
- 3 Cable your server.
- 4 Start your server and run the power-on self-test (POST).
- 5 Install your options.
- 6 Configure your hardware.
- 7 Install your software.

### Definitions of Attention, Caution, and Danger notices

**Attention:** Indicates situations that can potentially damage programs, devices, or data.

**Caution:** Indicates situations that are potentially hazardous to you.

**Danger:** Indicates situations that are potentially lethal or extremely hazardous to you.

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## Reviewing the Safety Information book



Before installing this product, read the *Safety Information* book.

Antes de instalar este produto, leia o Manual de Informações sobre Segurança.

安裝本產品前請先閱讀《安全信息》手冊。

Prije instalacije ovog proizvoda pročitajte priručnik sa sigurnosnim uputama.

P ed instaláci tohoto produktu si p e t e p íru ku bezpe nostných instrukcí.

Læs hæftet med sikkerhedsforskrifter, før du installerer dette produkt.

Lue Safety Information -kirjanen, ennen kuin asennat tämän tuotteen.

Avant de procéder à l'installation de ce produit, lisez le manuel Safety Information.

Vor Beginn der Installation die Broschüre mit Sicherheitshinweisen lesen.

Πριν εγκαταστήσετε αυτό το προϊόν, διαβάστε το εγχειρίδιο Safety Information.

Installálás el tt olvassa el a Biztonsági el írások kézikönyvét !

Prima di installare questo prodotto, leggere l'opuscolo contenente le informazioni sulla sicurezza.

本製品を導入する前に、安全情報資料を御読みください。

이 제품을 설치하기 전에, 안전 정보 책자를 읽어보십시오.

Пред да го инсталирате овој производ прочитајте ја книгата со безбедносни информации.

Lees voordat u dit product installeert eerst het boekje met veiligheidsvoorschriften.

Les heftet om sikkerhetsinformasjon (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu należy przeczytać broszurę Informacje Dotyczące Bezpieczeństwa.

Antes de instalar este produto, leia o folheto Informações sobre Segurança.

Перед установкой продукта прочтите брошюру по технике безопасности (Safety Information).

Pred inštaláciou tohto produktu si pre ítajte Informa nú brožúrku o bezpe nosti.

Preden namestite ta izdelek, preberite knjižico Varnostne informacije.

Antes de instalar este producto, lea la Información de Seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

在安裝本產品之前，也請先閱讀「安全性資訊」小冊子。

1



**DANGER**

**Electrical current from power, telephone, and communication cables is hazardous.**

**To avoid a shock hazard:**

- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **Connect all power cords to a properly wired and grounded electrical outlet.**
- **Connect to properly wired outlets any equipment that will be attached to this product.**
- **When possible, use one hand only to connect or disconnect signal cables.**
- **Never turn on any equipment when there is evidence of fire, water, or structural damage.**
- **Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.**
- **Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.**

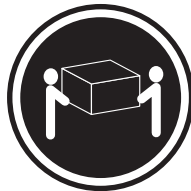
**To Connect:**

1. Turn everything OFF.
2. First, attach all cables to devices.
3. Attach signal cables to connectors.
4. Attach power cords to outlet.
5. Turn device ON.

**To Disconnect:**

1. Turn everything OFF.
2. First, remove power cords from outlet.
3. Remove signal cables from connectors.
4. Remove all cables from devices.

4



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

**CAUTION:**

**Use safe practices when lifting.**





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## Verifying your server package inventory

Verify that you received the items listed below.

### Hardware:

- IBM® Netfinity® 3500 M10 server
- Keyboard
- Mouse
- System power cord
- Power-on switch protector
- Two server keys

**Note:** After you unpack your server, locate the server keys (attached to the back of the server). Record the server key serial number and manufacturer telephone number in your *IBM Netfinity 3500 M10 User's Handbook* under "Server records and specifications."

The serial number and telephone number are on the keys.

If you lose the keys, you can order replacement keys from the manufacturer providing you have the key serial number.

### Software:

- IBM Enhanced Diagnostics* CD
- IBM ServerGuide™* CD package
- Other software packages

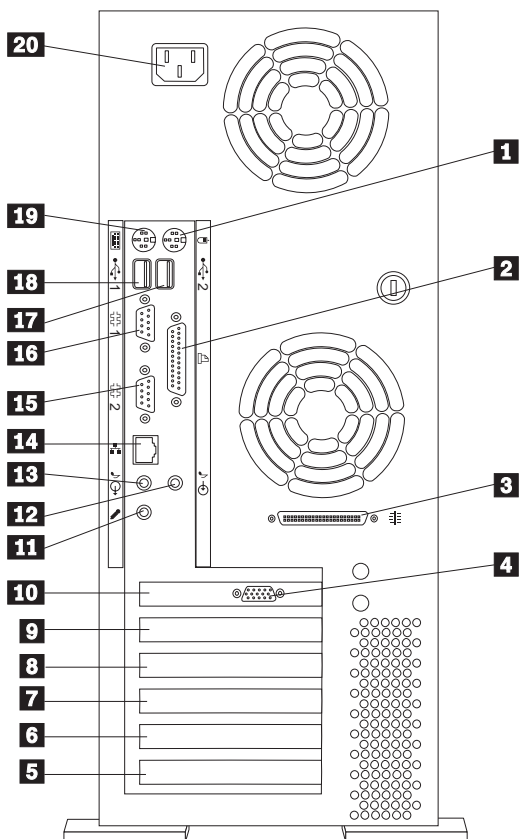
### Publications:

- IBM Netfinity 3500 M10 User's Handbook*
- Safety Information* book

If an item is missing or damaged, contact your place of purchase.

## Cabling your server

- 1 Select a location that will allow for air circulation. Be sure to maintain minimum clearances around the server:
  - 102 mm (4 in.) in the front
  - 127 mm (5 in.) in the rear
  - 51 mm (2 in.) on the left and right sides
- 2 Using the following illustration for reference, connect the monitor, keyboard, and mouse cables to the server.
- 3 Connect all power cords to electrical outlets.
- 4 Continue with “Starting your server” on page 3.



- 1 Mouse connector
- 2 Parallel port connector
- 3 SCSI connector
- 4 Monitor connector
- 5 Expansion slot 6 (Shared PCI/ISA)
- 6 Expansion slot 5 (PCI)
- 7 Expansion slot 4 (PCI)
- 8 Expansion slot 3 (PCI)
- 9 Expansion slot 2 (PCI)
- 10 Expansion slot 1 (AGP)
- 11 Microphone connector
- 12 Audio line in connector
- 13 Audio line out connector
- 14 Ethernet connector
- 15 Serial port 2 connector
- 16 Serial port 1 connector
- 17 Universal Serial Bus (USB) 2
- 18 Universal Serial Bus (USB) 1
- 19 Keyboard connector
- 20 Power cord connector

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## Starting your server

- 1 Turn on your monitor; then, turn on your server.
- 2 Observe your monitor.

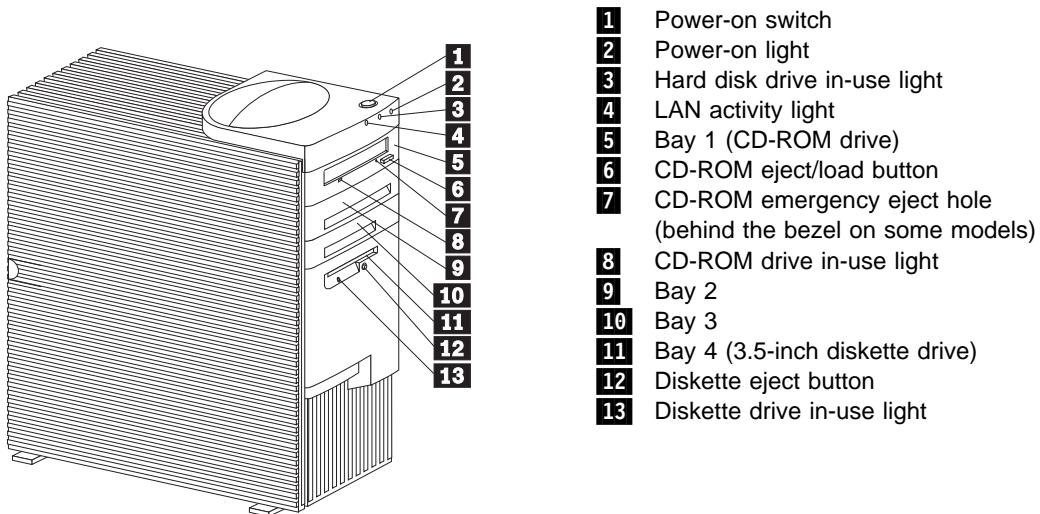
When the system successfully completes its power-on self-test (POST), the prompt requesting that you insert startable (bootable) media appears.

**Note:** The following message will appear because the operating system has not been installed:

1962 No operating system found. Press F1 to repeat boot sequence.

If any other error message appears, if you hear any beeps, or if your monitor screen is blank, refer to the “Solving Problems” chapter in your *IBM Netfinity 3500 M10 User's Handbook* for instructions; then, continue with step 3.

- 3 In the table provided under “Server records and specifications” in your *IBM Netfinity 3500 M10 User's Handbook*, record the server serial number and server key number.
- 4 Continue with “Installing your options” on page 4.



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## Installing your options

If you have options, install them now. Refer to the information provided with the option and your *IBM Netfinity 3500 M10 User's Handbook* for installation instructions.

After you have installed all your options, return here and continue with "Installing your software" on page 5. Use the *IBM ServerGuide* CD-ROM package to configure your hardware and install your software.

### Notes:

- When you install options, be sure that each option has a unique interrupt request (IRQ) assignment. Do not duplicate IRQs.
- When you install devices in bays 2, 3, 5, and 6, disable the termination for the devices before you install them.
- If you plan to install multiple network adapters, install only one at this time. After you have installed the operating system and it starts without errors, add the additional network adapters one at a time.
- To connect the server 10BASE-T or 100BASE-TX port to a repeater, use an unshielded twisted pair (UTP) cable with RJ-45 connectors at both ends. An EIA/TIA-568 category 5 cable must be used for 10BASE-T and 100BASE-TX connectors to meet various standards, including electromagnetic compatibility.

If you *do not* have options to install, continue with "Installing your software" on page 5.

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## Installing your software

Your server includes a copy of IBM ServerGuide. For information about ServerGuide, refer to the documentation provided inside your ServerGuide package.

The ServerGuide CDs provide a simplified server installation with device drivers tested for your server. You can use the programs on the ServerGuide CDs to:

- Configure supported hardware.
- Detect the supported hardware installed in your server; then, provide device drivers tested for that hardware.
- Automate some of the network operating system (NOS) installation steps.
- Provide a replicated installation path for installing Microsoft® Windows NT® Server 4.0 on multiple servers.
- Install popular application programs included with ServerGuide.
- Install IBM Update Connector. Once this program is installed, you can connect your server to an IBM update Web site and receive any available device drivers, BIOS, and program updates (requires Windows NT Server 4.0 and TCP/IP access to the Internet).

**If you decide not to use ServerGuide to assist you with the installation of your NOS**, you must download system-specific NOS installation instructions.

You can download the latest level of NOS installation instructions and device drivers from the World Wide Web at <http://www.ibm.com/support>

- 1** Under **Servers**, click **Netfinity**.
- 2** From the **Select your family** field, click **Netfinity 3500 M10**.
- 3** From the **Select your model** field, click your **model**; then:
  - Click **Downloadable files** to download device drivers.
  - or
  - Click **Software information** to download NOS installation instructions.

## Features at a glance

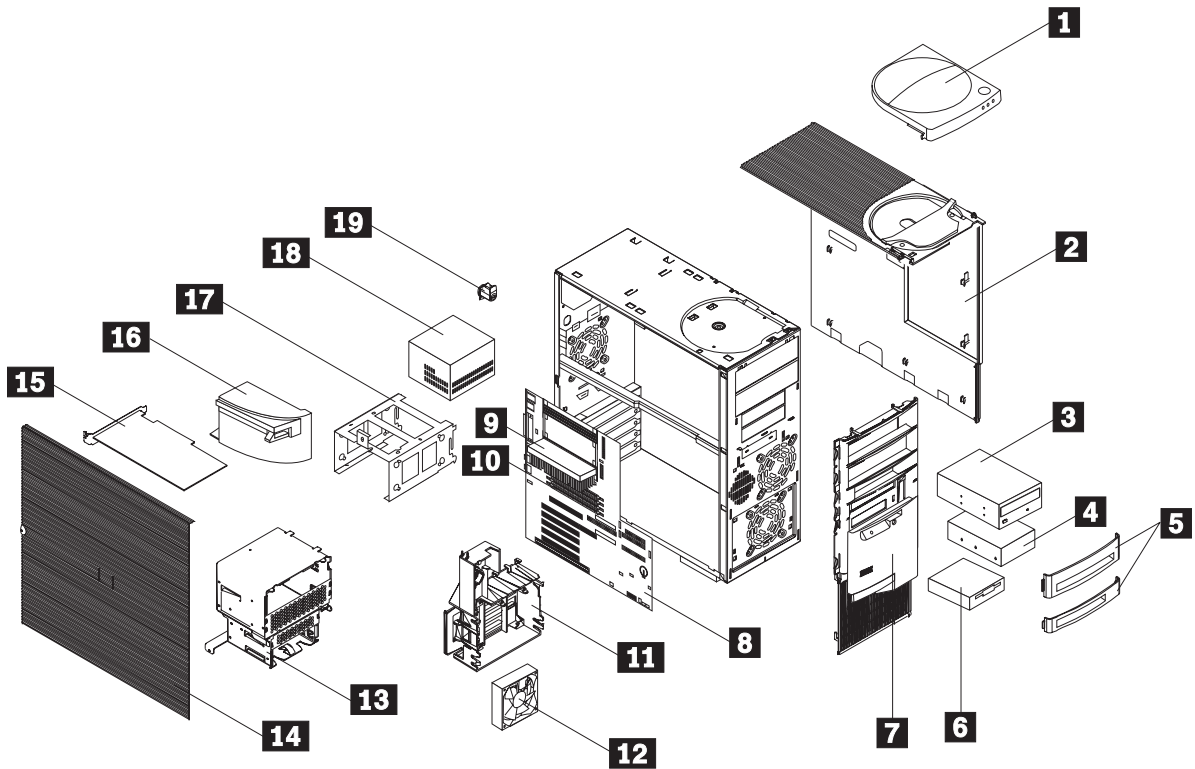
The following table summarizes the features of the IBM Netfinity 3500 M10 server. For detailed information about the features listed below, refer to your *IBM Netfinity 3500 M10 User's Handbook*.

<p><b>Microprocessor</b></p> <ul style="list-style-type: none"> <li>Standard: 64 MB or 128 MB, depending on server model</li> <li>Intel® Pentium® III microprocessor</li> <li>512 KB L2 cache memory</li> </ul> <p><b>Memory</b></p> <ul style="list-style-type: none"> <li>Expandable to 1 GB of SDRAM</li> <li>Installed: synchronous dynamic random access memory (SDRAM) error correcting code (ECC), 100 MHz DIMMs</li> <li>Support for:             <ul style="list-style-type: none"> <li>64 MB and 128 MB unregistered DIMMs, or 256 MB registered DIMMs, in either single-sided or double-sided configurations</li> <li>DIMM heights up to 2.5 inches</li> </ul> </li> <li>Four 3.3 V, synchronous, 168-pin, dual in-line memory module (DIMM) sockets</li> <li>Flash memory for system programs</li> </ul> <p><b>Internal hard disk drives</b></p> <ul style="list-style-type: none"> <li>Standard: Open bay or one SCSI hard disk drive</li> <li>Maximum SCSI devices:             <ul style="list-style-type: none"> <li>Four slimline hard disk drives</li> <li>Two half-height hard disk drives</li> </ul> </li> </ul> <p><b>CD-ROM drive</b></p> <ul style="list-style-type: none"> <li>One IDE CD-ROM drive</li> </ul>	<p><b>Removable-media drives</b></p> <ul style="list-style-type: none"> <li>Standard: One 3.5-inch, 1.44 MB diskette drive</li> <li>Maximum: One diskette drive and one tape backup</li> </ul> <p><b>Expansion</b></p> <ul style="list-style-type: none"> <li>Six drive bays</li> <li>Six expansion slots (four dedicated PCI, one shared ISA/PCI, and one dedicated AGP)</li> <li>Support for PCI/ISA Plug and Play adapters</li> <li>Support for dual microprocessors</li> <li>Support for additional internal and external SCSI devices</li> <li>Support for 3.5-inch, 1.44 MB diskette drive; internal tape drive</li> <li>Support for Netfinity ServeRAID adapters</li> </ul> <p><b>Power supply</b></p> <ul style="list-style-type: none"> <li>330 W, 115/230 V ac, 50/60 Hz</li> <li>Automatic ac voltage sensing</li> <li>Built-in overload and surge protection</li> </ul> <p><b>System Management</b></p> <ul style="list-style-type: none"> <li>RPL (remote program load) and DHCP (dynamic host configuration protocol)</li> <li>Wake on LAN</li> <li>Alert on LAN (supported on certain models)</li> <li>Remote reset from LAN</li> </ul>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>Power-on and administrator passwords</li> <li>Lockable cover</li> <li>Bolt-down capability</li> <li>Chassis-intrusion detection</li> <li>Startup sequence control</li> <li>Startup without diskette drive, keyboard, or mouse</li> <li>Unattended start mode</li> <li>Control access to diskette, hard disk, serial port, parallel port</li> </ul> <p><b>Video</b></p> <ul style="list-style-type: none"> <li>Standard: Graphics adapter or AGP graphics adapter, depending on server model</li> </ul> <p><b>Integrated functions</b></p> <ul style="list-style-type: none"> <li>Ethernet controller with 10BASE-T and 100BASE-TX connectivity</li> <li>ECP/EPP parallel port</li> <li>Two 16550 UART serial ports</li> <li>Two USB ports</li> <li>Mouse port</li> <li>Keyboard port</li> <li>Monitor port (on graphics adapter)</li> <li>Ethernet RJ-45 port</li> </ul> <p><b>Operating systems supported</b></p> <ul style="list-style-type: none"> <li>Microsoft® Windows NT® Server Version 4.0</li> <li>Novell Netware Version 4.x or 5.x</li> <li>SCO UnixWare</li> <li>IBM OS/2 Warp Server SMP</li> </ul>
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You can press **F1** at startup to view the configuration information for your server. Refer to the *IBM Netfinity 3500 M10 User's Handbook* for details.

<sup>1</sup> **Important:** You cannot mix registered and unbuffered DIMMs in your server. To use registered DIMMs, you must remove all unbuffered DIMMs from your server.

## Exploded view of the Netfinity 3500 M10



- |   |                                   |
|---|-----------------------------------|
| <b>1</b> Server handle/cap assembly     | <b>11</b> Adapter card guide      |
| <b>2</b> Server top/side cover assembly | <b>12</b> Fan                     |
| <b>3</b> CD-ROM drive                   | <b>13</b> Hard disk drive cage    |
| <b>4</b> Hard disk drive                | <b>14</b> Server side cover       |
| <b>5</b> Drive bezels                   | <b>15</b> Adapter card            |
| <b>6</b> Diskette drive                 | <b>16</b> Air baffle              |
| <b>7</b> Server front bezel             | <b>17</b> Hard disk drive bracket |
| <b>8</b> System board                   | <b>18</b> Power supply            |
| <b>9</b> Microprocessor                 | <b>19</b> Keylock assembly        |
| <b>10</b> DIMM (memory)                 |                                   |

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## Getting help

Many problems can be solved by using online help or by reading the online or printed documentation that comes with your server or software. Also, be sure to read the information in any README files that come with your software. If you are unable to solve the problem yourself, contact your place of purchase or IBM.

IBM representatives are trained to help you with almost any problem you might have, from setting up your server, to hardware or software problems.

### IBM Start Up Support

The IBM Start Up Support program provides comprehensive telephone assistance 24 hours a day, 7 days a week during the first 90 days after installation of your server. Service availability will vary by country. Response time will vary depending on the number and nature of calls received. IBM specialists can help you set up, install, and configure your server.

- In the U.S. or Puerto Rico, call 1-800-772-2227.
- In Canada, call 1-800-565-3344.
- In the United Kingdom, call 01475-55555.

Help is available for IBM and non-IBM network operating systems, network interface adapters, and other optional peripherals. To receive marketing and technical information, including hardware, operating systems, and local area network (LAN) information, access the IBM Automated Fax System:

- In the U.S., call 1-800-426-3395.
- In Canada, call 1-800-465-3299.
- In all other countries, contact your IBM reseller or your IBM marketing representative.

### Placing the call

Have the following information ready when you call and, if possible, be at your server.

- Serial numbers of your server, monitor, and other components
- A description of the problem
- Exact wording of any error messages
- Hardware and software configuration information for your system

### IBM HelpCenter®

During the warranty period, you can get help and information by telephone through the IBM HelpCenter. The HelpCenter provides:

- Telephone assistance with problem determination
- Service arrangements (on-site or carry-in)

These services are available 24 hours a day, 7 days a week. Service availability will vary by country. Response time will vary depending on the number and nature of calls received.

- In the U.S. or Puerto Rico, call 1-800-772-2227.
- In Canada, call 1-800-565-3344.
- In the United Kingdom, call 01475-55555.

In all other countries, contact your IBM reseller or your IBM marketing representative.



## **IBM bulletin board system (BBS)**

Bulletin boards and online information services provide assistance through question-and-answer message areas, chat rooms, searchable databases, and more. The IBM BBS is available 24 hours a day, 7 days a week. Service availability will vary by country. Long distance telephone charges might apply.

- In the U.S., call 1-919-517-0001.
- In Canada, call:
  - Montreal: 514-938-3022
  - Toronto: 905-316-4255 or 416-956-7877
  - Vancouver: 604-664-6464
- In all other countries, contact your IBM reseller or your IBM marketing representative.

## **Using the World Wide Web**

For the latest information about IBM products and support, access the IBM World Wide Web site at the following address:

<http://www.ibm.com/>

You can select a country-specific Web site from this page.

## **Network and Server Support**

For support on simple or complex networks, you can purchase the Network and Server Support service. This service provides support for major network operating systems and many popular non-IBM and network-interface adapters. You can purchase this service on a per-call basis, as a multiple-incident package, or as an annual contract with a 10-incident limit.

To receive a list of products that this service supports:

- In the U.S., call 1-800-426-3395
- In Canada, call 1-800-465-7999 or 1-800-465-3299.
- In all other countries, contact your IBM reseller or your IBM marketing representative.

## **Additional support**

Services similar to the ones described in this section might be available through your IBM reseller or place of purchase. Contact your dealer for further information.

## Warranty service

Your server comes with a three-year, limited, on-site warranty. The warranty covers IBM parts installed in the server and includes labor for the replacement of defective IBM parts. Options by IBM (OBI), when installed in the server, are covered under the system warranty or the option warranty, whichever is greater.

Be sure to retain your proof of purchase to verify your warranty service entitlement.

## Upgrading your warranty service

You can upgrade your standard warranty service or extend the service beyond the warranty period. Warranty upgrades in the U.S. include:

- Carry-in service to on-site service.
- On-site service to premium on-site service.

You also can extend your warranty. Warranty and Repair Services offer a variety of post-warranty maintenance options. Availability of these services varies by product.

- In the U.S., call 1-800-426-4968.
- In Canada, call 1-800-465-7999.
- In the United Kingdom, call 01705-561000.
- In all other countries, contact your IBM reseller or your IBM marketing representative.

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Part Number: 37L6688

Printed in U.S.A.

July 1999

37L6688

