



Netfinity 7000 M10

**Express Setup and Installation**





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**Note**

Before using this *Netfinity Server Library* and the product it supports, be sure to read the information in the “Legal and Safety Information” section of this *Server Library*.

**First Edition (September 1998)**

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# Express Setup and Installation

This setup and installation section contains the information that will guide you through:

- Setting up and cabling your Netfinity 7000 M10.
- Starting and configuring your Netfinity 7000 M10.
- Installing your Network Operating System (NOS).

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## Overview

After reviewing the “Legal and Safety Information” section of this *Server Library*, these are the steps you will perform when you follow the Express Setup and Installation procedure.

### Hardware Installation

- 1** Install your server in a rack.
- 2** Install hot-swap hard disk drives.
- 3** Install an additional microprocessor.
- 4** Cable your server.
- 5** Verify your server is operating properly.
- 6** Install additional options.

### Software Installation

- 1** Configure your hardware, install the network operating system (NOS), and install device drivers.
- 2** Enhance server performance with additional programs.

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## Safety Statement



Before installing this product, read the Safety Information.

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 **Safety Information** (安全信息)。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.

Antes de instalar este producto lea la información de seguridad.

Läs säkerhetsinformationen innan du installerar den här produkten.

安裝本產品之前，請先閱讀「安全資訊」。

1



**DANGER**

**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.**

**To avoid shock hazard:**

- **The power cord must be connected to a properly wired and earthed receptacle.**
- **Any equipment to which this product will be attached must also be connected to properly wired receptacles.**

**When possible, use one hand to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.**

**Electrical current from power, telephone, and communications cables is hazardous. To avoid shock hazard, connect and disconnect cables as described following when installing, moving, or opening covers of this product or attached devices.**

**To Connect**

1. Turn Everything OFF.
2. First, attach all cables to devices.
3. Attach signal cables to receptacles.
4. Attach power cord(s) to outlet.
5. Turn device ON.

**To Disconnect**

1. Turn Everything OFF.
2. First, remove power cord(s) from outlet.
3. Remove signal cables from receptacles.
4. Remove all cables from devices.

**NOTE:** In the UK, by law, the telephone cable must be connected after the power cord.

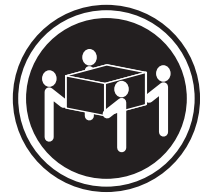
**NOTE:** In the UK, the power cord must be disconnected after the telephone cable.



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≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

**CAUTION:**

**Use safe lifting practices when lifting your machine.**

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## Hardware Installation

This hardware installation procedure provides the information or provides references to the information you need to set up and cable your server, start your server, and verify that your server hardware is functioning properly.

### Before you begin:

- Review the “Legal and Safety Information” section of this *Server Library*.
- If you have not unpacked your server, unpack it and use the “Inventory List” in the “Start Here” section of this *Server Library* to make sure you received all items shipped with the server.
- To maintain proper system cooling, do not operate the Netfinity 7000 M10 for more than two minutes without either a drive or a filler panel installed in each bay.
- If you plan to install a ServeRAID adapter in your Netfinity 7000 M10, you must determine how you want to set up your disk arrays before you configure your server. The RAID levels (0, 1, or 5) of the disk arrays you configure determine the number of hard disk drives you need to install. RAID level-0 requires one drive (minimum), RAID level-1 requires two drives (minimum), and RAID level-5 requires three drives (minimum). For additional information, refer to the information that comes with your ServeRAID option.

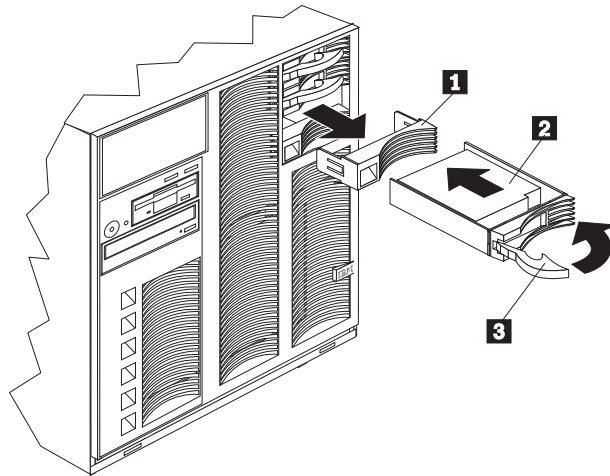
## 1. Installing the Server in a Rack

Install the server in the rack before you begin installing options. For installation instructions, refer to “Rack Installation” information in the “Hardware Information” section of this *Server Library*.

## 2. Installing Hot-Swap Hard Disk Drives

Use the following procedure to install hot-swap hard disk drives in your Netfinity 7000 M10.

- 1** Touch the static-protective bag containing the drive to any unpainted metal surface on the server; then, remove the drive from the bag.
- 2** Remove the filler panel **1** from one of the hot-swap bays. Refer to the following illustration.
- 3** Insert the drive **2** into the bay.  
Ensure that the tray handle **3** on the drive is in the open position (perpendicular to the drive).
- 4** Slide the drive assembly into the bay until it connects to the backplane; then, move the handle to the locked (closed) position.



## 3. Installing an Additional Microprocessor

If you have an additional microprocessor to install, do so now; then, return here and continue with “4. Cabling Your Server” on page 8. For installation instructions, refer to the “Microprocessor Installation” information in the “Hardware Information” section of this *Server Library* and the information provided with the microprocessor.

If you do not have an additional microprocessor to install, continue with “4. Cabling Your Server” on page 8.

## 4. Cabling Your Server

Use the following procedure to attach the cables to your Netfinity 7000 M10.

- 1 Select a location that will allow for air circulation. Be sure to maintain minimum clearances around the server:

**Front** 306 mm (12 in.)

**Rear** 306 mm (12 in.)

**Left and Right Sides** 51 mm (2 in.)

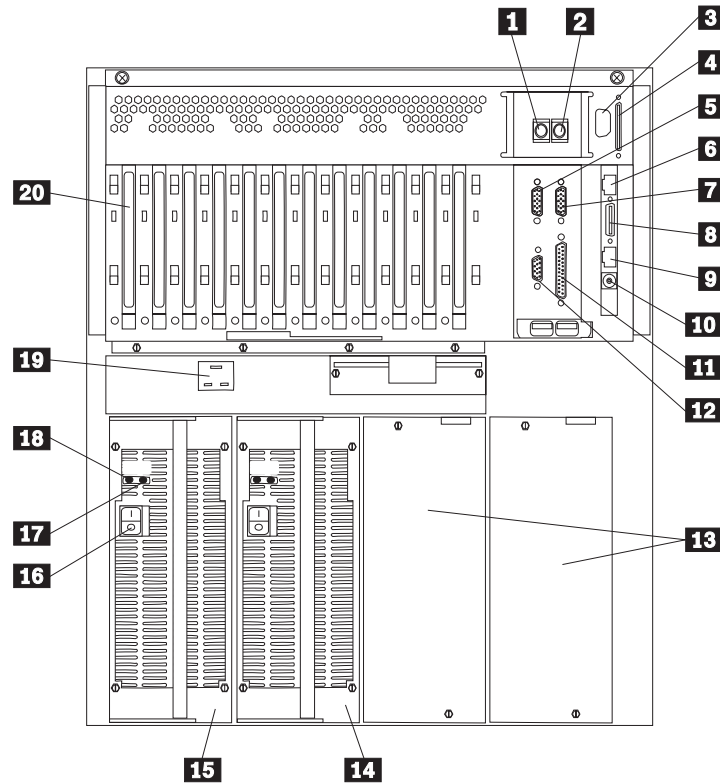
- 2 Connect the keyboard, mouse, and monitor cables to the server. For the location of cable connectors, refer to the illustration on the following page.

### Important

- If you are attaching a modem or fax machine to your server and you are in the United Kingdom, plug in the power cords first; then, connect the telephone line to the wall outlet and the server.
- To connect the server 10BASE-T or 100BASE-TX port to a hub, use a UTP cable with RJ-45 connectors at both ends. An EIA/TIA-568 category 5 cable must be used for 100BASE-TX connectors to meet various standards, including electromagnetic compatibility.

- 3 Connect the power cord to the server.
- 4 Connect all power cords to electrical outlets.
- 5 Continue with “5. Verifying Your Server Is Operating Properly” on page 10.

## Server Cable Connectors



- 1** Keyboard
- 2** Mouse
- 3** External connector knockout (for Token-Ring service-processor option)
- 4** SCSI
- 5** Serial port A
- 6** Ethernet (dedicated to connecting your Advanced System Management adapter to an Ethernet network through a service-processor interface, such as Netfinity Manager)
- 7** Serial port B
- 8** Dual serial port
- 9** RS485
- 10** Reserved
- 11** Parallel port
- 12** Video (monitor)
- 13** Power supply filler panels
- 14** Power supply 2
- 15** Power supply 1
- 16** Power supply power switch
- 17** DC power light
- 18** AC power light
- 19** Power cord
- 20** PCI expansion slots

## 5. Verifying Your Server Is Operating Properly

Use the following procedure to verify that your Netfinity 7000 M10 is operating properly.

- 1 Turn on all external devices, such as your monitor, printer, and modem; then, turn on your server. For the location of controls and lights, refer to the illustration on the following page.
- 2 If the power supplies in your server have power switches, make sure the switches are on.

### Important

After you plug the server power cord into an outlet and before you press the power control button, the power-on light will blink to indicate that power is present.

- 3 Press the power control button on the front of the server. After the system-management processor initializes the system power light comes on and the power-on self-test (POST) begins.
- 4 Observe your monitor. When the system successfully completes its POST, the server beeps once, CP:71 appears in the the operator information panel, and a prompt appears on your monitor requesting that you insert startable (bootable) media.

If F1 is pressed at this time, the following POST message might appear because the operating system has not been installed.

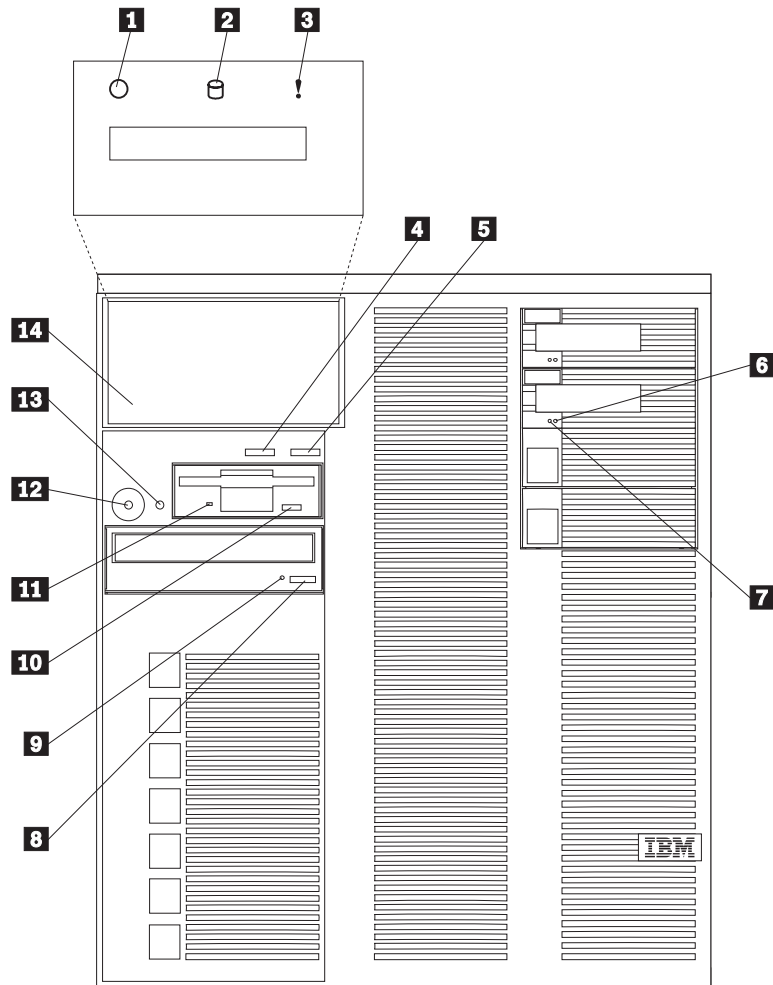
1962 No operating system found. Press F1 to repeat boot sequence.

### Important

- If you have added or removed options, POST message 164 appears if configuration information has changed. Start the Configuration/Setup Utility program and select **Save Settings**.
- If any other error message appears, you hear more than one beep, or your monitor screen is blank, refer to the “Problem Solving” information in the “Hardware Information” section of this *Server Library* for instructions; then, return here and continue with “6. Installing Additional Options” on page 12.

- 5 Continue with “6. Installing Additional Options” on page 12.

## Controls and Lights



- 1** System power light
- 2** SCSI hard disk activity light
- 3** System error light
- 4** Enter button
- 5** Next button
- 6** Hard disk status light
- 7** Hard disk activity light
- 8** CD-ROM eject/load button
- 9** CD-ROM in-use light
- 10** Diskette eject button
- 11** Diskette in-use light
- 12** Power control button
- 13** Reset button
- 14** Operator information panel

## 6. Installing Additional Options

If you have additional options to install, do so now. For installation instructions, refer to the information in this *Server Library* and the information provided with the option.

- 1 Before installing options, turn off your server and unplug the server power cord from the outlet.

### Important

- Adding or removing some options can change configuration information in the server. When you start (boot) the server after adding or removing options, POST message 164 appears if configuration information has changed. Start the Configuration/Setup Utility program and select **Save Settings**.
- If you plan to install multiple network adapters, install only one at this time. After you have installed the network operating system (NOS) and it is starting without errors, install the additional network adapters one at a time.

You can install all adapters at once, but installing the adapters one at a time makes locating a defective adapter much easier.

- 2 Use the tables provided in the “Hardware Information” section of this *Server Library* to:
  - Update the “Hardware Information” device-records tables with the new option information.
  - If you installed a second microprocessor, update the microprocessor information.
  - Record the server serial number and key serial number.
- 3 After you have installed all your options, return here and continue with “Software Installation” on page 13.



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## Software Installation

This software installation procedure provides the information you need to configure hardware, install device drivers, and install the network operating system (NOS).

### 1. Configuring Hardware and Installing the Network Operating System

For detailed information about ServerGuide hardware configuration, network operating system (NOS) installation, device driver installation, or partition sizes, see the “ServerGuide and Netfinity Manager Information” section of this *Server Library*.

#### Before you begin:

If the ServerGuide CD does not start, restart the server and press **F1** when F1 appears on the screen. Select **Configuration/Setup Utility** and check for the following:

- Invalid drive startup sequence (startable CDs require a CD-ROM in the startup sequence)
- Duplicate SCSI ID settings
- Duplicate IRQ assignments

To get started, do the following:

- 1 To configure hardware, insert the *HardwareGuide* CD (CD1); then, restart the server.

#### Important

Information about the ServeRAID configuration program is included in this *Netfinity Server Library* or with the ServeRAID option.

- 2 To install your NOS, insert the *SoftwareGuide* CD (CD2); then, restart the server. See the *SoftwareGuide* CD label for NOS versions supported. Your copy of the NOS CD is required.

#### Important

If you decide not to use ServerGuide to install the NOS, see “Installing Your NOS without ServerGuide” on page 14.

- 3 Click on **README** to review hints and tips for your NOS installation.
- 4 From the Main Menu, click on **Operating System Installation**. Follow the online instructions to complete the installation.

After the NOS is installed, be sure to see “2. Enhancing Server Performance with Additional Programs” on page 14.

## Installing Your NOS without ServerGuide

If you have already configured the server hardware, and you decide not to use ServerGuide to install your NOS, you must have system-specific NOS installation instructions and device drivers.

You can download the latest level of NOS installation instructions and device drivers from the World Wide Web at:

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

- 1** Click on **IBM Servers Support**.
- 2** From the **select family** field, click on **Netfinity 7000 M10**.
- 3** From the list in the Netfinity 7000 M10 window, click on the model.
  - To download device drivers, click on **Downloadable Files**.
  - To download NOS installation instructions, click on **software information**.

## 2. Enhancing Server Performance with Additional Programs

As a convenience, ServerGuide includes current NOS updates provided by NOS software developers. There is no need to download updates from a Web site. To install updates, refer to the README file on the root directory of the ServerGuide *Operating System FixPak* CD.

### Application Programs

The ServerGuide CDs include a variety of powerful application programs for which no activation keys are required. Some of these programs are:

- IBM Update Connector  
Connects you to the IBM HelpCenter server to check for updates to your server BIOS, microcode (firmware), device drivers, and application programs.
- IBM Netfinity Manager  
State-of-the-art systems management software
- IBM ServeRAID Programs  
Administration and monitoring capability.

For more information about the application programs included with ServerGuide, see the "ServerGuide and Netfinity Manager Information" section of this *Server Library*.





Part Number: 01K7786

Printed in U.S.A.

September 1998

01K7786

