



NETBuilder II® Flash Memory Drive Installation Guide



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ABOUT THIS GUIDE

Introduction

This guide describes how to install the flash memory drive in all NETBuilder II® systems. The flash memory drive uses Personal Computer Memory Card International Association (PCMCIA) standard 1.0 flash memory cards, purchased separately. Refer to the release notes for approved vendors of the flash memory card.

This guide is intended for the system administrator, network equipment installer, or network manager who is responsible for installing and managing the network hardware. It assumes a working knowledge of network operations, but does not assume prior knowledge of 3Com® internetworking equipment.



If the information in the release notes shipped with your product differs from the information in this guide, follow the release notes.


Conventions

Table 1 and Table 2 list conventions that are used throughout this guide.

Table 1 Notice Icons

| Icon | Type | Description |
|------|------------------|---|
| | Information Note | Information notes call attention to important features or instructions. |
| | Caution | Cautions alert you to personal safety risk, system damage, or loss of data. |
| | Warning | Warnings alert you to the risk of severe personal injury. |

Table 2 Text Conventions

| Convention | Description |
|-------------------------------------|--|
| "Enter" vs. "Type" | When the word "enter" is used in this guide, it means type something, then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says "type." |
| "Syntax" vs. "Command" | <p>When the word "syntax" is used in this guide, it indicates that the general form of a command syntax is provided. You must evaluate the syntax and supply the appropriate port, path, value, address, or string; for example:</p> <p>Enable RIPIP by using the following syntax:</p> <pre>SETDefault !<port> -RIPIP CONTrol = Listen</pre> <p>In this example, you must supply a port number for !<port>.</p> <p>When the word "command" is used in this guide, it indicates that all variables in the command have been supplied and you can enter the command as shown in text; for example:</p> <p>Remove the IP address by entering the following command:</p> <pre>SETDefault !0 -IP NETaddr = 0.0.0.0</pre> <p> For consistency and clarity, the full form syntax (upper- and lowercase letters) is provided. However, you can enter the abbreviated form of a command by typing only the uppercase portion and supplying the appropriate port, path, address, value, and so forth. You can enter the command in either upper- or lowercase letters at the prompt.</p> |
| Text represented as screen display | <p>This <code>typeface</code> is used to represent displays that appear on your terminal screen, for example:</p> <pre>NetLogin:</pre> |
| Text represented as commands | <p>This typeface is used to represent commands that you enter, for example:</p> <pre>SETDefault !0 -IP NETaddr = 0.0.0.0</pre> |
| Keys | <p>When specific keys are referred to in the text, they are called out by their labels, such as "the Return key" or "the Escape key," or they may be shown as [Return] or [Esc].</p> <p>If two or more keys are to be pressed simultaneously, the keys are linked with a plus sign (+), for example:</p> <p>Press [Ctrl]+[Alt]+[Del].</p> |
| <i>Italics</i> | <i>Italics</i> are used to denote <i>new terms</i> or <i>emphasis</i> . |

1

INSTALLING THE FLASH MEMORY DRIVE

The flash memory drive provides local, internal storage for NETBuilder II systems with the CEC module installed. Flash memory cards must be purchased separately. See the release notes for approved cards and vendors.

This chapter describes how to install the flash memory drive into the NETBuilder II system. This chapter includes information on the following:

- Preparing your system for installation
- Installing in the NETBuilder II 4-Slot chassis
- Installing in the dual-wide NETBuilder II 8-Slot chassis
- Installing in the single-wide NETBuilder II 8-Slot chassis
- Installing in the NETBuilder II 8-Slot Extended chassis

Before Installing the Flash Memory Drive

Before you install the flash memory drive into the NETBuilder II system, follow these steps:

- 1 Observe appropriate electrostatic discharge (ESD) precautions.

ESD can damage circuit board components. Failures resulting from ESD may not be covered under your warranty. To prevent ESD damage, follow these procedures:

- Keep the flash memory drive in its antistatic shielded bag until you are ready to install it.
- Do not touch pins, leads, or solder connections on the board.
- Handle the board by the edges only.
- Store or ship the flash memory drive in static-protective packaging.

Observe proper grounding techniques when handling the flash memory drive: Use a foot strap and grounded mat, or wear a grounded static discharge wrist strap.

- 2 Unpack and inspect the flash memory drive for shipping damage.

If you find any damage, file a report with the shipping company. If the drive must be returned to your network supplier, ship it in its original shipping carton. If the original carton was damaged in shipment, repack the system in a carton that provides equivalent protection.

- 3 Verify that you have received all the contents. If an item is missing from an undamaged carton, contact your network supplier to secure a replacement. See the following sections for carton contents:

For the NETBuilder II 4- or 8-Slot system:

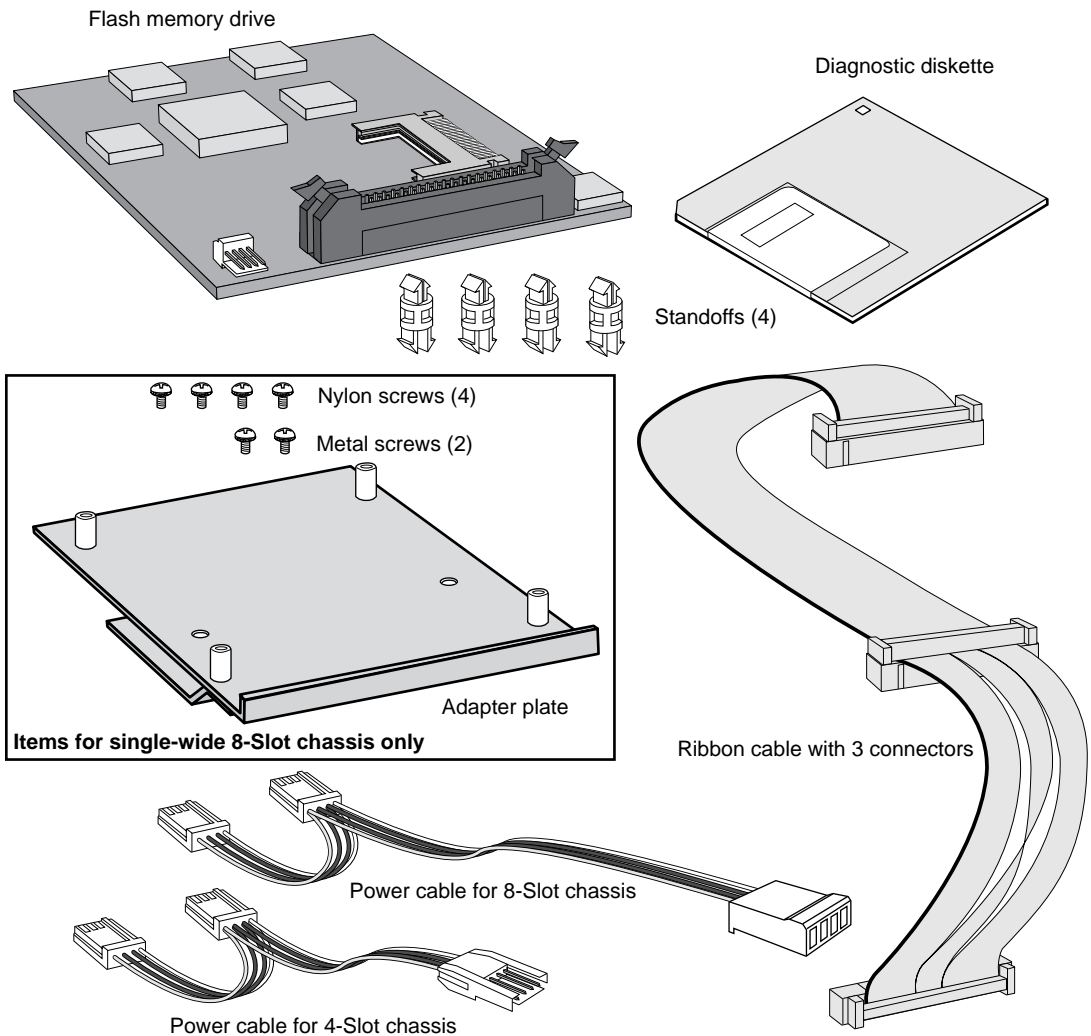
- Flash memory drive
- Ribbon cable
- *NETBuilder II Flash Memory Drive Diagnostic* diskette
- This guide
- Two bags of materials marked for 4-Slot or 8-Slot.



The dual-wide 8-Slot chassis uses parts from each bag.

Table 1-1 Required Materials for Each Chassis

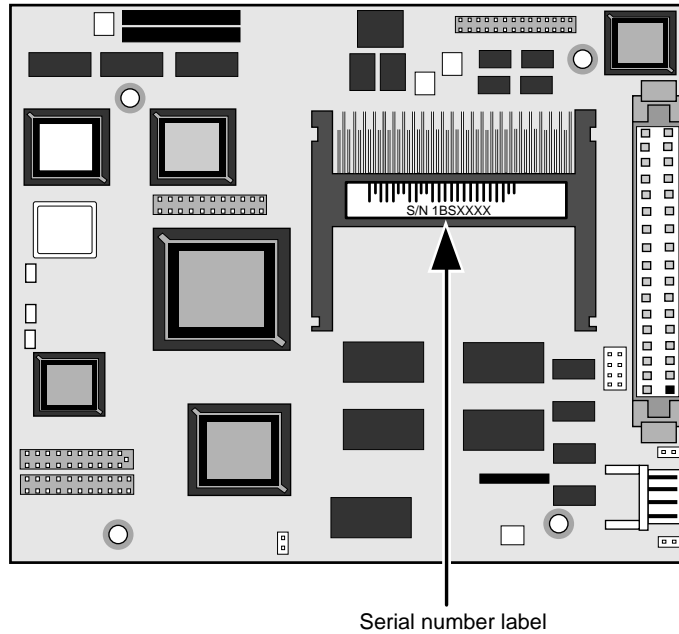
| 4-Slot Chassis | Dual-Wide 8-Slot Chassis | Single-Wide 8-Slot Chassis |
|--|--|---------------------------------|
| Shorter power cable (4-Slot bag) | Longer power cable (8-Slot bag) | Longer power cable (8-Slot bag) |
| a 4 plastic standoffs (4-Slot bag) | a 4 plastic standoffs (4-Slot bag) | 2 metal screws (8-Slot bag) |
| OR | OR | 4 nylon screws (8-Slot bag) |
| b 3 plastic standoffs (4-Slot bag) and 1 nylon screw (8-Slot bag) | b 3 plastic standoffs (4-Slot bag) and 1 nylon screw (8-Slot bag) | Adapter plate (8-Slot bag) |



For the NETBuilder II 8-Slot Extended system:

- Flash memory drive, mounted on a tray
 - *NETBuilder II Flash Memory Drive Diagnostic* diskette
 - This guide
- 4 In the space provided, copy the serial number from the label on the component side of the flash memory drive.

Serial number: _____

**Software Requirements**

The flash memory drive needs version 6.2 or later of the NETBuilder software. The Extended chassis needs version 8.0 or later of the NETBuilder software. Be sure to use the CEC firmware that shipped with your software version.

Identifying Your System

This manual includes installation instructions for four kinds of systems:

- 4-Slot chassis (single-wide and dual-wide)
- Dual-wide 8-Slot chassis
- Single-wide 8-Slot chassis
- Extended chassis

The assembly part number for each chassis is located on a label above the CEC slot. [Table 1-2](#) lists the assembly part numbers for each chassis.

Table 1-2 NETBuilder II Chassis Assembly Part Numbers

| Chassis | Assembly Part Number | Go to Page |
|--------------------|--|--|
| Single-wide 4-Slot | 20-0151-xxx | "Installing in the 4-Slot Chassis" |
| Dual-wide 4-Slot | 20-0250-xxx, 20-0406-xxx, or 20-0457-xxx | "Installing in the 4-Slot Chassis" |
| Dual-wide 8-Slot | 20-0249-xxx, 20-0407-xxx, or 20-0458-xxx | "Installing in the Dual-Wide 8-Slot Chassis" |
| Single-wide 8-Slot | 20-0125-xxx | "Installing in the Single-Wide 8-Slot Chassis" |
| 8-Slot Extended | 20-0270-xxx or 20-0459-xxx | "Installing in the Extended Chassis" |

Single-Wide Chassis

The older, single-wide 4-Slot and 8-Slot chassis have two ejector tabs for each module, as shown in [Figure 1-1](#).

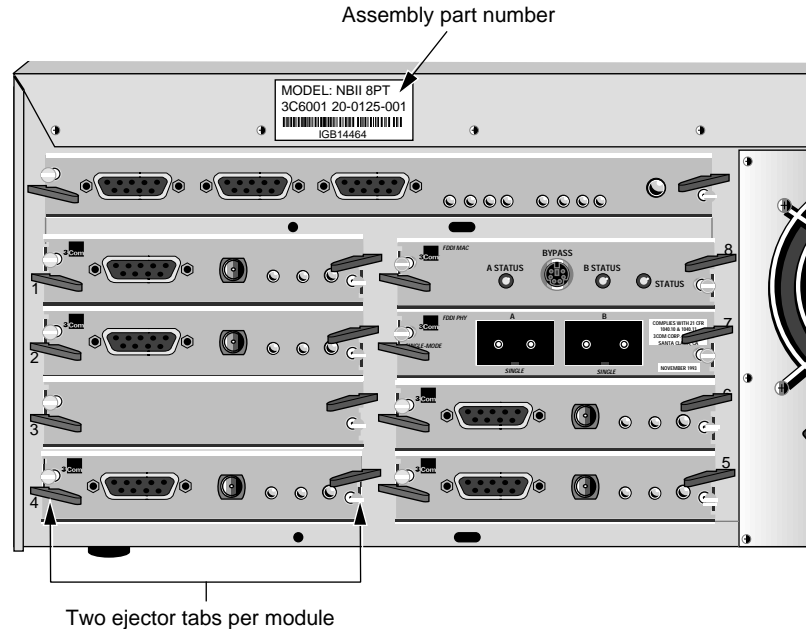


Figure 1-1 Single-Wide Chassis

Dual-Wide Chassis

The newer, dual-wide chassis have one ejector tab for each module (except for the CEC module slot, which has two ejector tabs), as shown in [Figure 1-2](#). The dual-wide chassis has a removeable center column, which allows for the installation of extended-format modules.

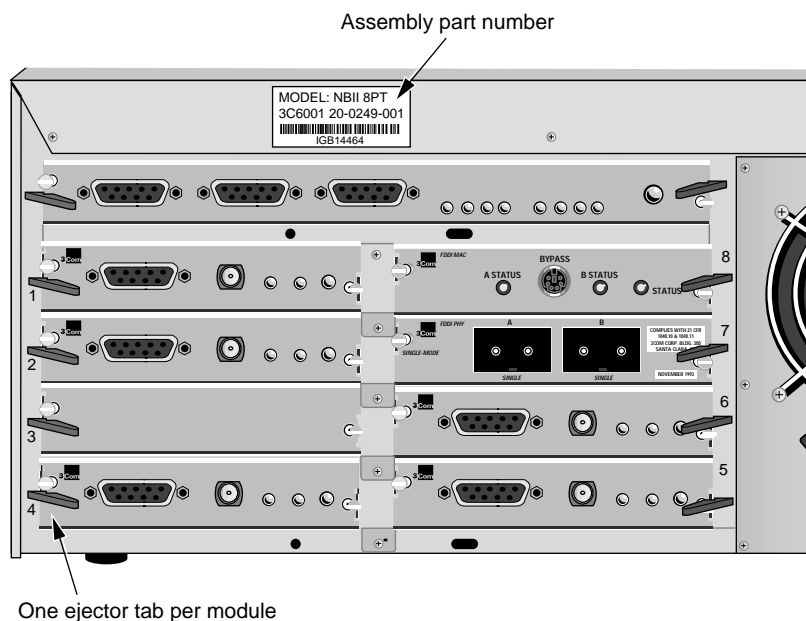


Figure 1-2 Dual-Wide Chassis

Installing in the 4-Slot Chassis

Use the following procedure to install the flash memory drive in the NETBuilder II 4-Slot chassis, both single-wide and dual-wide versions.

To identify your chassis, use [Table 1-3](#).

Table 1-3 4-Slot Chassis Assembly Part Numbers

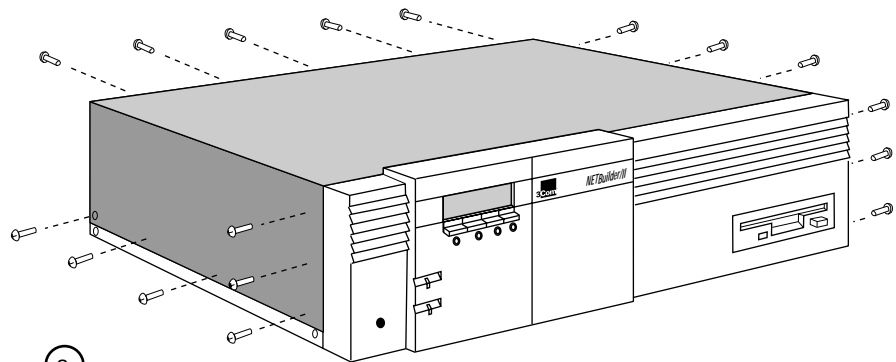
| Chassis | Assembly Part Number |
|--------------------|--|
| Single-wide 4-Slot | 20-0151-xxx |
| Dual-wide 4-Slot | 20-0250-xxx, 20-0406-xxx, or 20-0457-xxx |

See "[Identifying Your System](#)" for more information on single-wide and dual-wide NETBuilder II chassis.

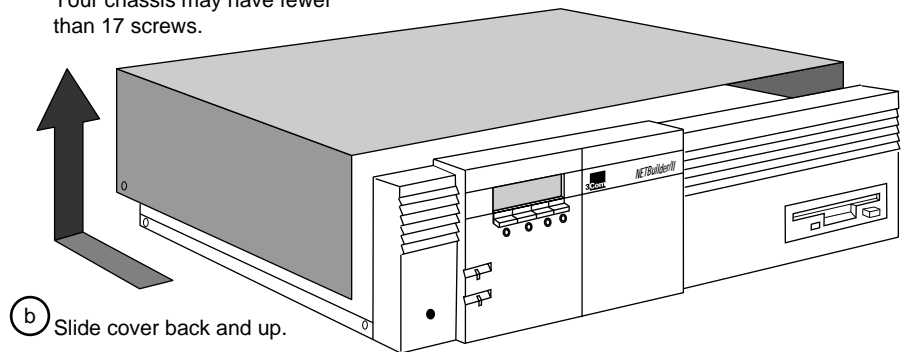
You will need a #2 Phillips screwdriver. A pair of pliers is recommended.

To install the flash memory drive, follow these steps:

- 1 Turn off the system and unplug the power cord from the outlet and the chassis.
- 2 If your system is mounted in a rack, remove it from the rack.
Use a #2 Phillips screwdriver to unscrew the three screws that secure each rack-mount bracket.
- 3 Remove the cover from the chassis.

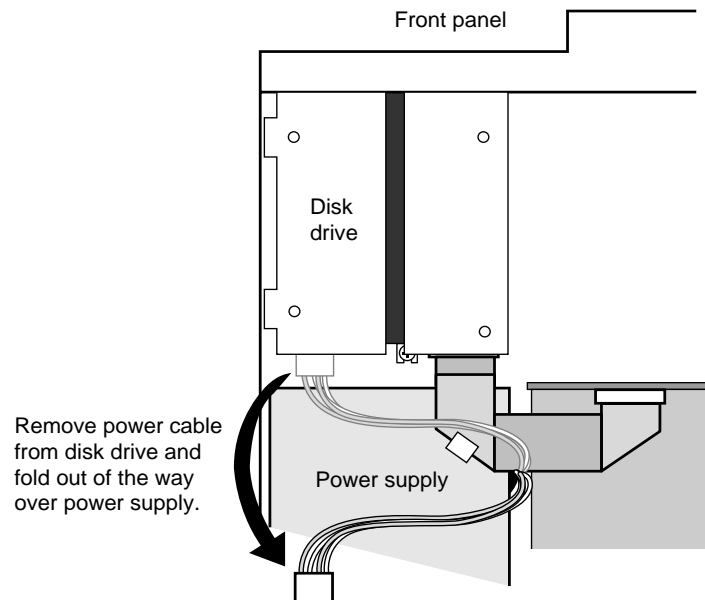


- (a) Remove up to 17 screws.
Your chassis may have fewer than 17 screws.

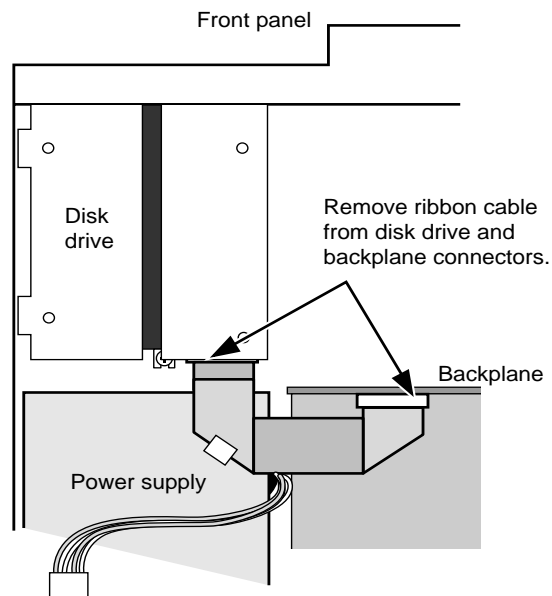


- (b) Slide cover back and up.

- 4 Disconnect the floppy disk drive's power cable.

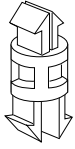


- 5 Disconnect and discard the floppy disk drive's ribbon cable.



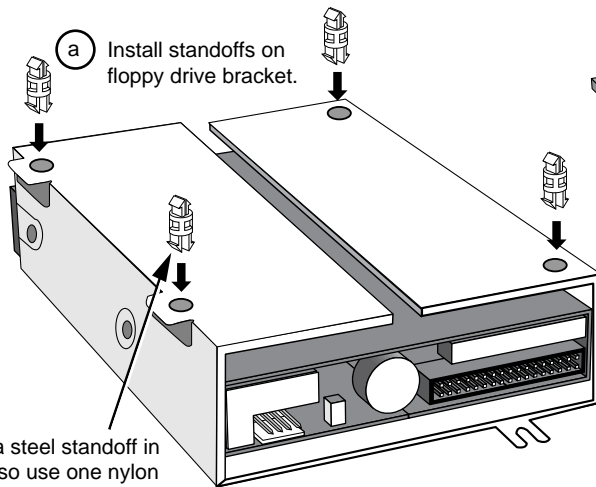
6 Install the flash memory drive on the floppy disk drive bracket.

Standoff detail:

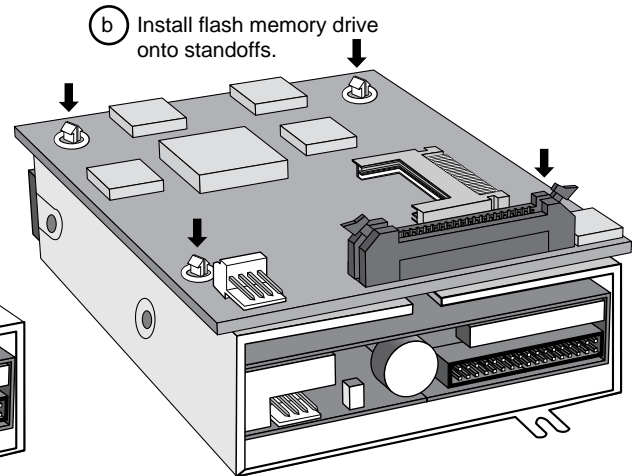


Flash card fits on narrow end of standoff.
Insert wide end of standoff in sheet metal bracket.

NOTE: pinch wide end of standoff with a pliers to make installaion easier.



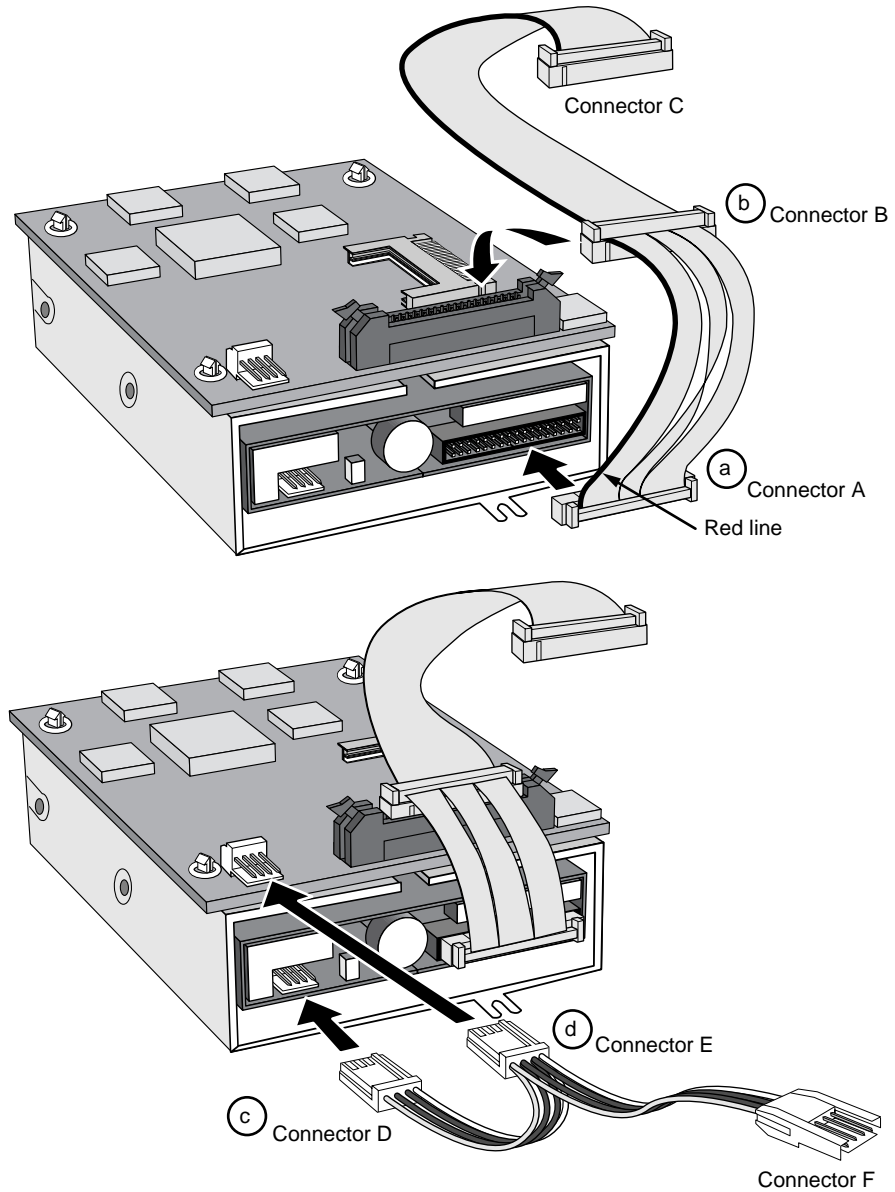
There may be a steel standoff in this location. If so use one nylon screw to hold the board in place.



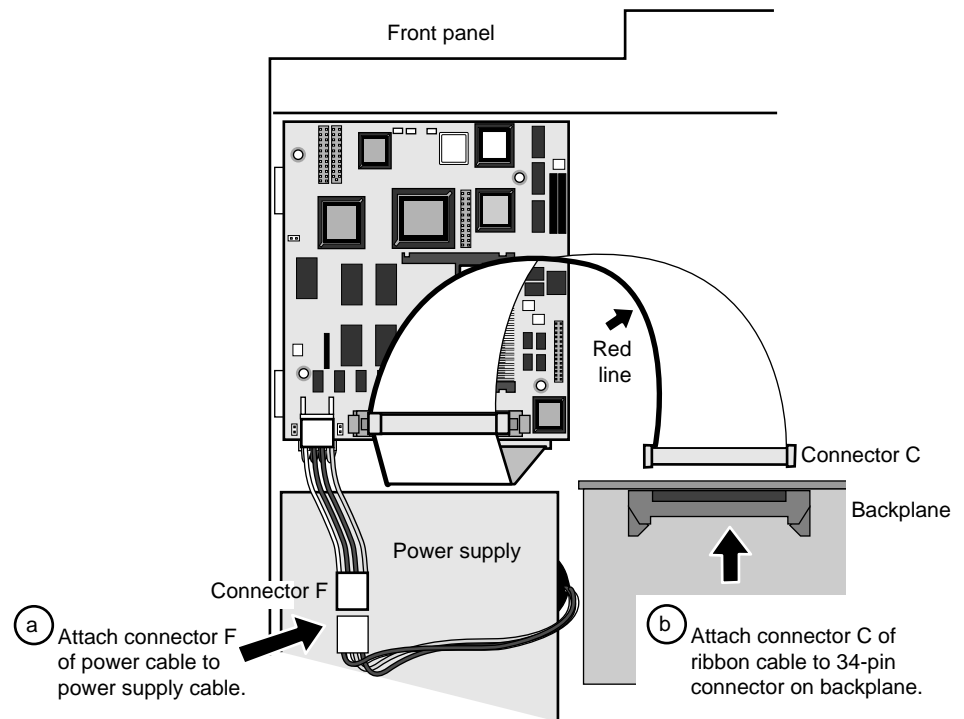
- 7 Attach ribbon and power cables to the floppy disk drive and flash memory drive.



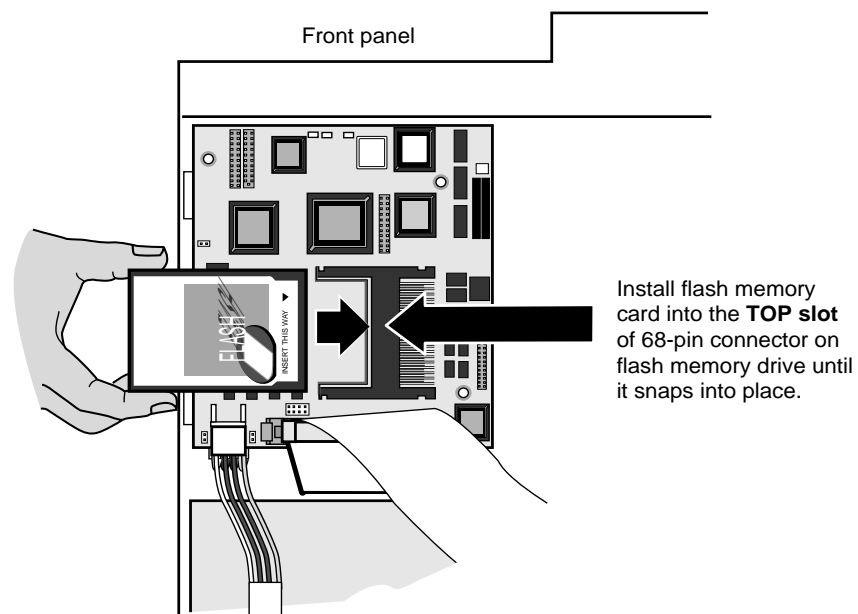
Be careful not to bend the connector pins.



- 8 Attach the ribbon cable to the backplane and the power cable to the power supply cable.



- 9 Insert the flash memory card (purchased separately) into the flash memory drive. The flash memory card is keyed so that it can only be installed with the company name facing up.

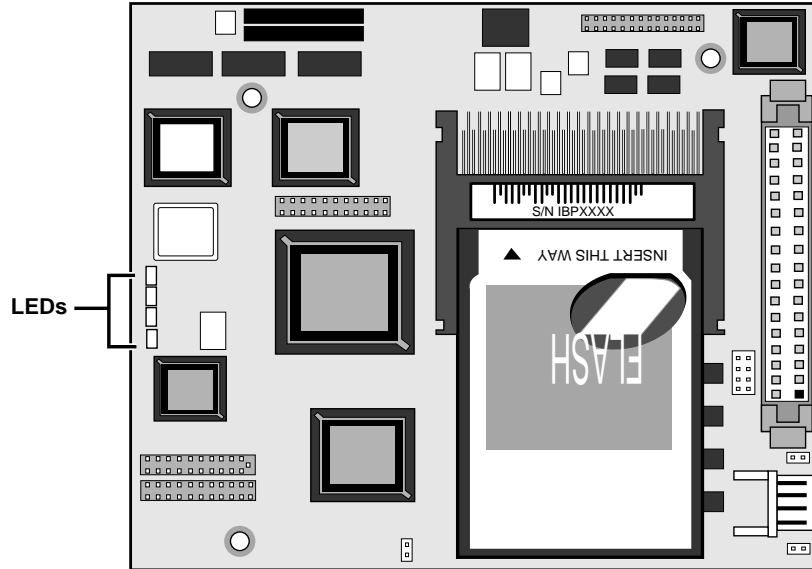


- 10 Plug the power cord into the chassis.



CAUTION: Verify that the power switch is in the off (O) position.

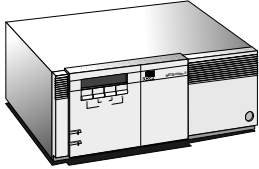
- 11 Plug the power cord into the outlet, then turn on the system.
- 12 With the cover off, check the status of the LEDs on the flash memory drive. All the LEDs should light simultaneously and then extinguish one by one.



For more information on the flash memory drive's LEDs, see [Chapter 3](#).

- 13 If you have a blank flash memory card and need to format it and install the software, complete the procedures in [Chapter 2](#).
- 14 If you have preinstalled software on your flash memory card, or have finished the procedures in [Chapter 2](#), turn off the power, then remove the power cord from the outlet and chassis.
- 15 Replace the cover.
 - a Slide the cover toward the front of the chassis and secure the cover to the chassis with up to 17 screws. Your chassis may have fewer than 17 screws.
 - b If your system has rack-mount brackets, screw in the three screws that secure each bracket.
- 16 If the NETBuilder II system was mounted in a rack, remount it in the rack.
- 17 Plug the power cord into the outlet and chassis and turn on your NETBuilder II system.

Installing in the Dual-Wide 8-Slot Chassis



Use the following procedure to install the flash memory drive in the dual-wide NETBuilder II 8-Slot chassis.

Identify your chassis by the assembly part number: **20-0249-xxx**, **20-0407-xxx**, or **20-0458-xxx**. See "[Identifying Your System](#)" for more information on single-wide and dual-wide NETBuilder II chassis.

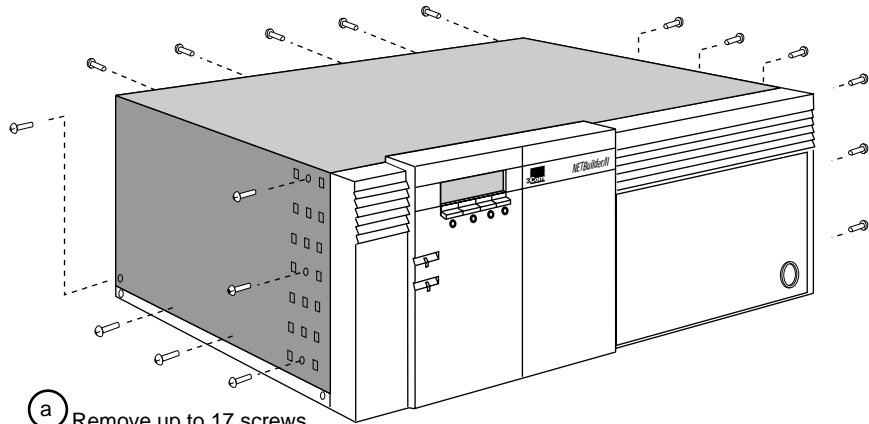
You will need a #2 Phillips screwdriver. A pair of pliers is recommended.

To install the flash memory drive, follow these steps:

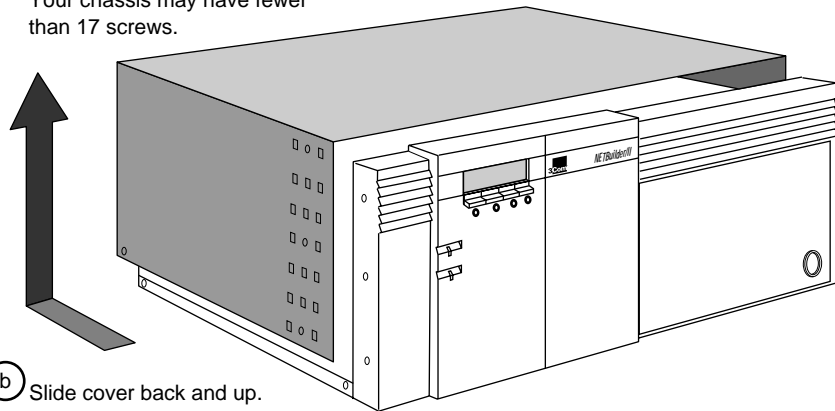
- 1 Turn off the system and unplug the power cord from the outlet and the chassis.
- 2 If your system is mounted in a rack, remove it from the rack.

Use a #2 Phillips screwdriver to unscrew the three screws that secure each rack-mount bracket.

- 3 Remove the cover from the chassis.

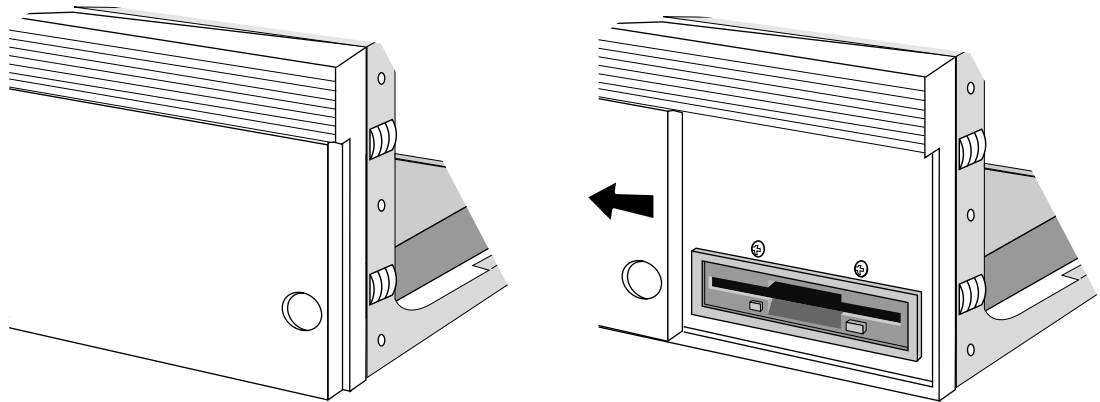


- (a) Remove up to 17 screws.
Your chassis may have fewer than 17 screws.

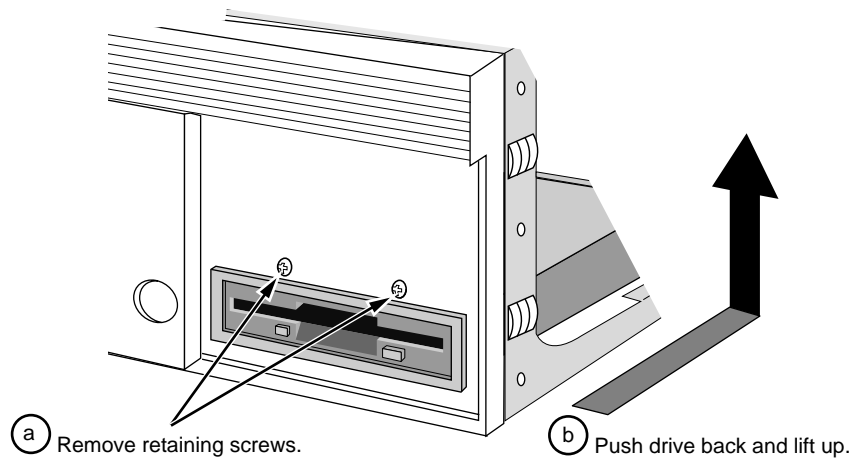


- (b) Slide cover back and up.

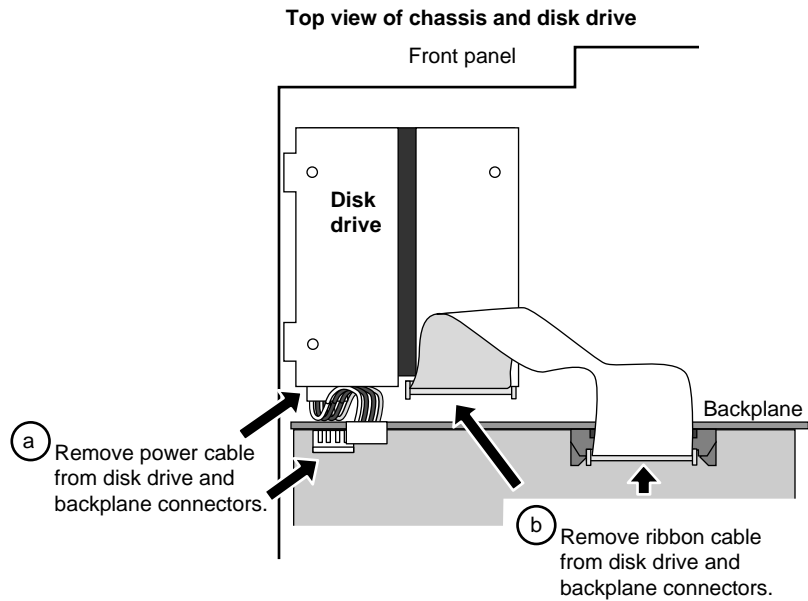
- 4 Slide the front bezel door to the left to reveal the floppy disk drive.



- 5 Remove the bracket containing the floppy disk drive from the chassis.



6 Disconnect and discard the ribbon cable and the power cable.

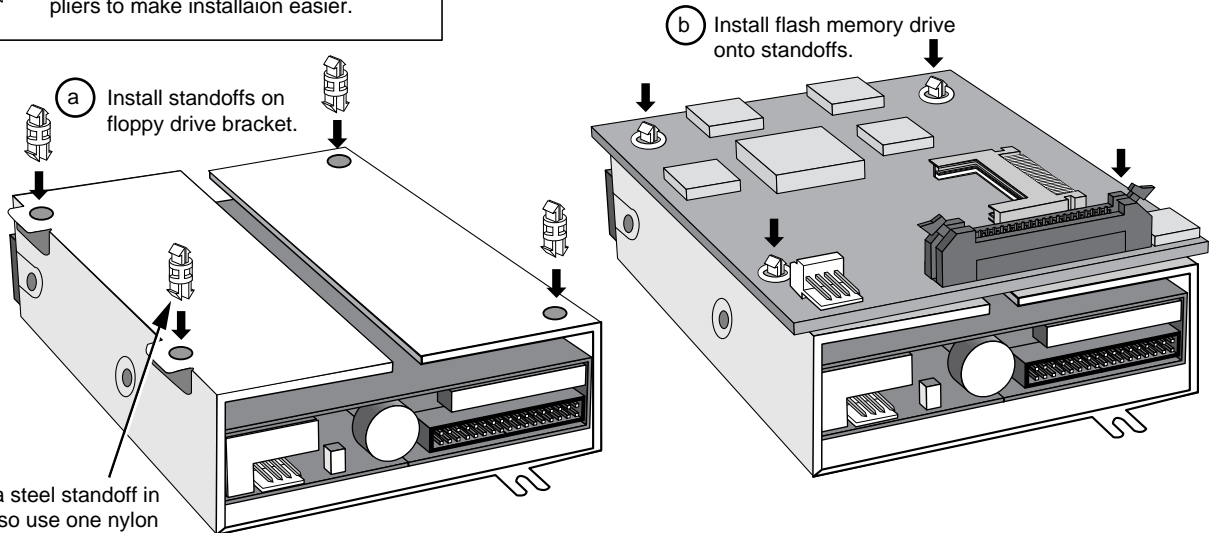


7 Install the flash memory drive on the floppy disk drive bracket.

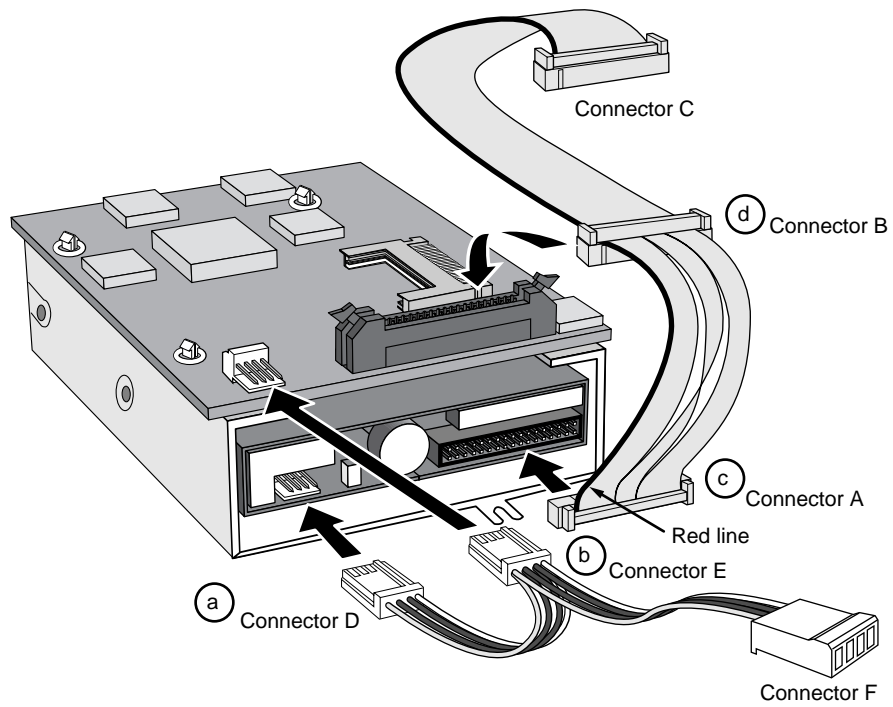
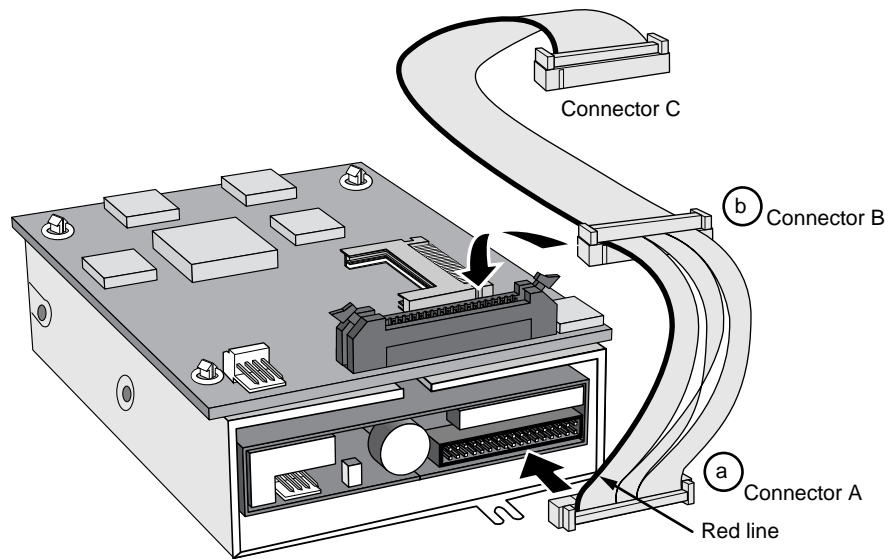
Standoff detail:

Flash card fits on narrow end of standoff.
Insert wide end of standoff in sheet metal bracket.

NOTE: pinch wide end of standoff with a pliers to make installaion easier.

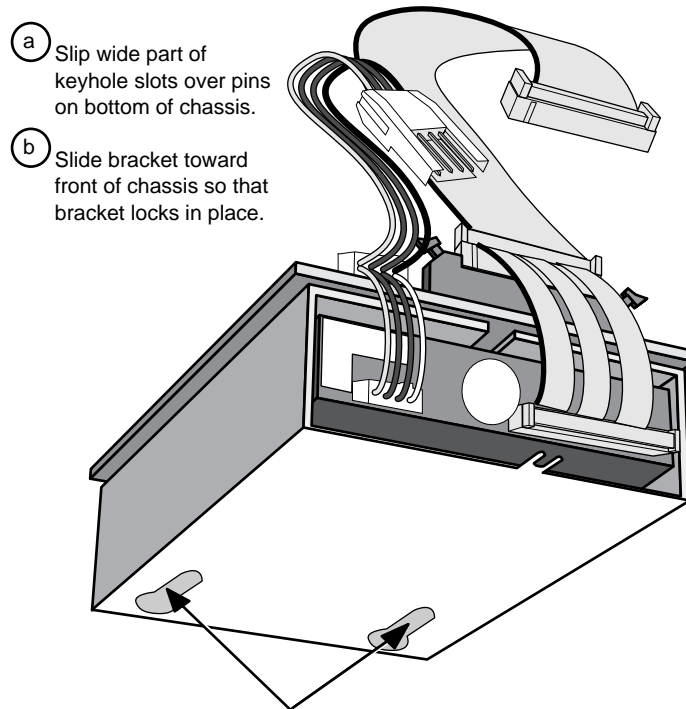


- 8 Attach ribbon and power cables to the floppy disk drive and flash memory drive.

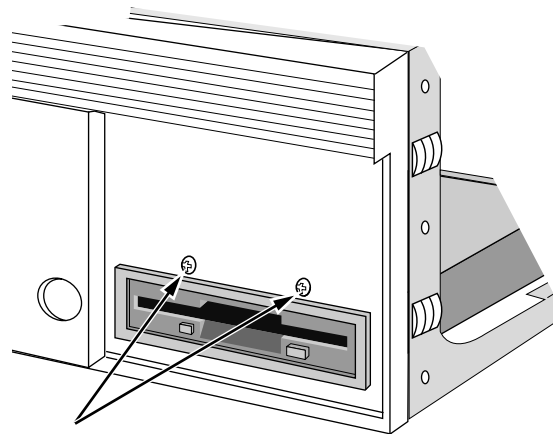


- 9 Place the bracket containing the floppy disk drive and the flash memory drive in the chassis.

As you place the floppy disk drive and flash memory drive into the chassis, you can compress the ribbon and power cables against the backplane.

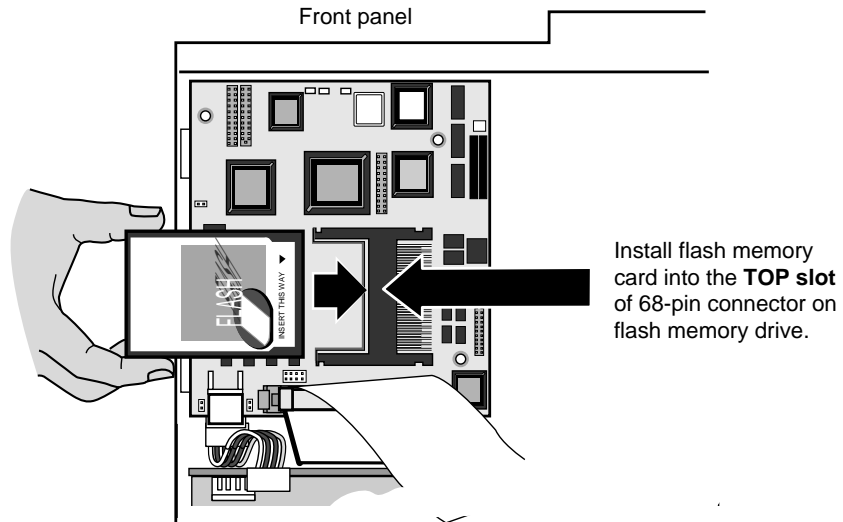


Keyhole slots on bottom of floppy disk bracket

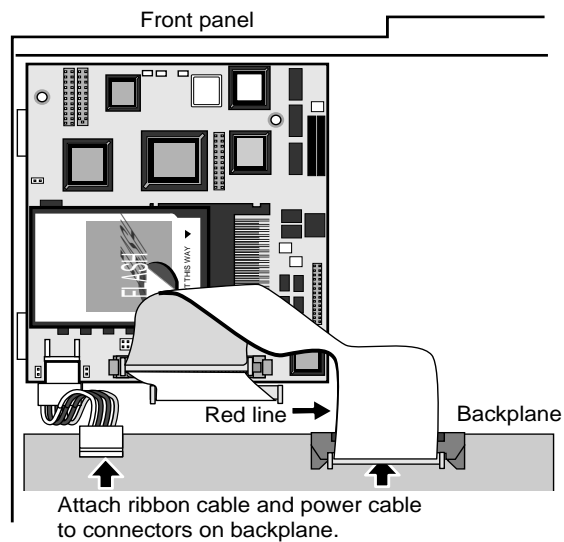


- 10 Insert the flash memory card (purchased separately).

The flash memory card is keyed so that it can only be installed with the company name facing up.



- 11 Connect the ribbon cable and the power cable to the backplane.



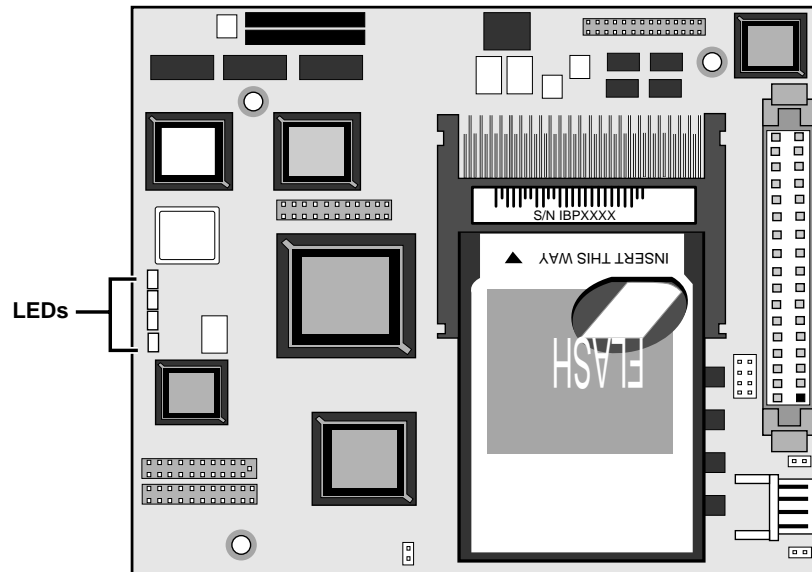
- 12 Plug the power cord into the chassis.



CAUTION: Verify that the power switch is in the off (O) position.

- 13 Plug the power cord into the outlet, then turn on the system.

- 14 With the cover off, check the status of the LEDs on the flash memory drive. All the LEDs should light simultaneously and then extinguish one by one.



For more information on the flash memory drive's LEDs, see [Chapter 3](#).

- 15 If you have a blank flash memory card and need to format it and install the software, complete the procedures in [Chapter 2](#).
- 16 If you have preinstalled software on your flash memory card, or have finished the procedures in [Chapter 2](#), turn off the power, then remove the power cord from the outlet and chassis.
- 17 Replace the cover.
- a Slide the cover toward the front of the chassis and secure the cover to the chassis with up to 17 screws. Your chassis may have fewer than 17 screws.
 - b If your system has rack-mount brackets, screw in the three screws that secure each bracket.
- 18 If the NETBuilder II system was mounted in a rack, remount it in the rack.
- 19 Plug the power cord into the outlet and chassis and turn on your NETBuilder II system.

Installing in the Single-Wide 8-Slot Chassis

Use the following procedure to install the flash memory drive in the single-wide NETBuilder II 8-Slot chassis.

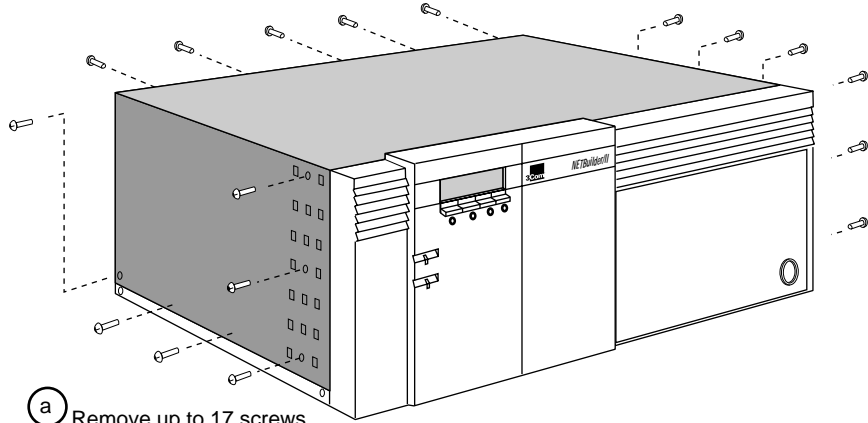
Identify your chassis by the assembly part number: **20-0125-xxx**. See ["Identifying Your System"](#) for more information on single-wide and dual-wide NETBuilder II chassis.

You will need a #2 Phillips screwdriver.

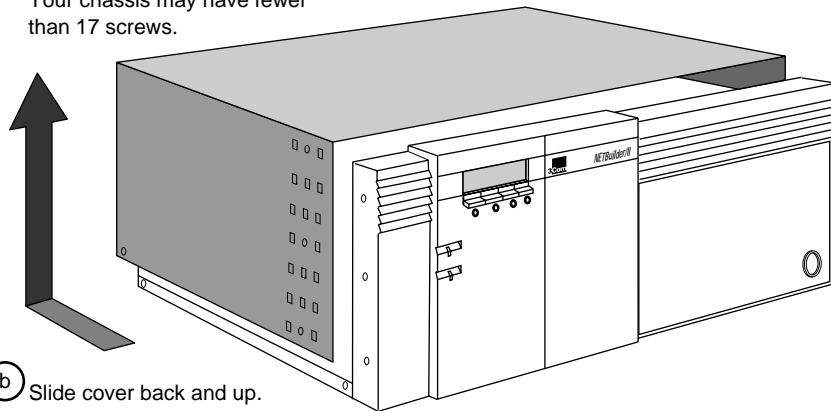
To install the flash memory drive, follow these steps:

- 1 Turn off the system and unplug the power cord from the outlet and the chassis.

- 2 If your system is mounted in a rack, remove it from the rack.
Use a #2 Phillips screwdriver to unscrew the three screws that secure each rack-mount bracket.
- 3 Remove the cover from the chassis.

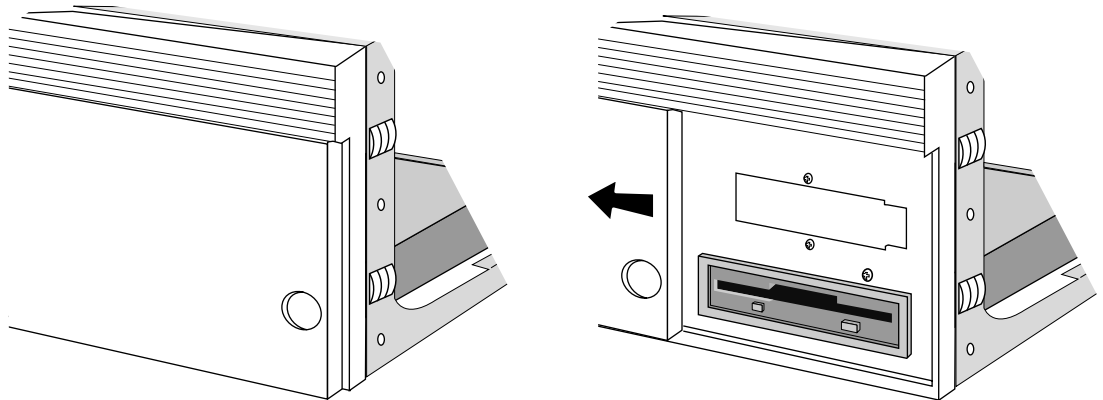


- a Remove up to 17 screws.
Your chassis may have fewer than 17 screws.

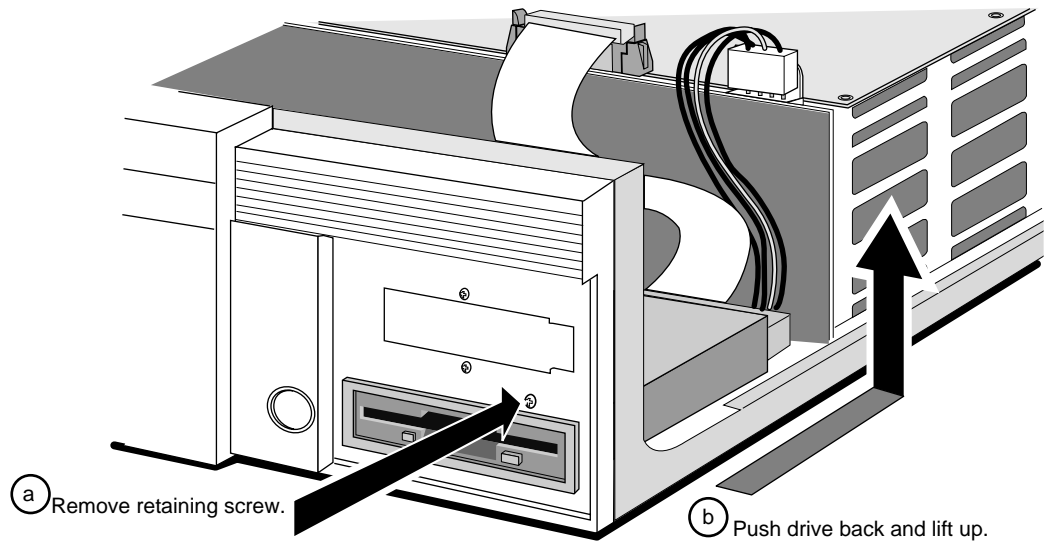


- b Slide cover back and up.

- 4 Slide the front bezel door to the left to reveal the floppy disk drive.



- 5 Remove the bracket containing the floppy disk drive from the chassis.

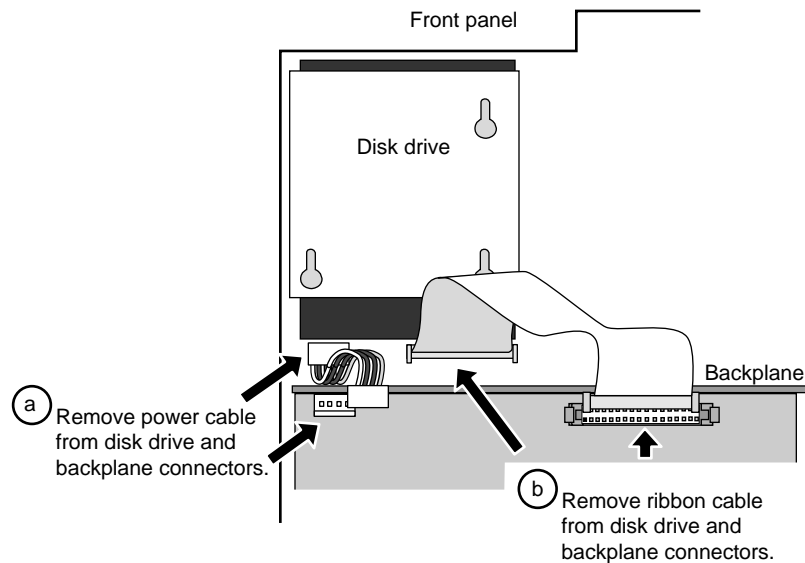


a Remove retaining screw.

b Push drive back and lift up.

- 6 Disconnect and discard the ribbon cable and the power cable.

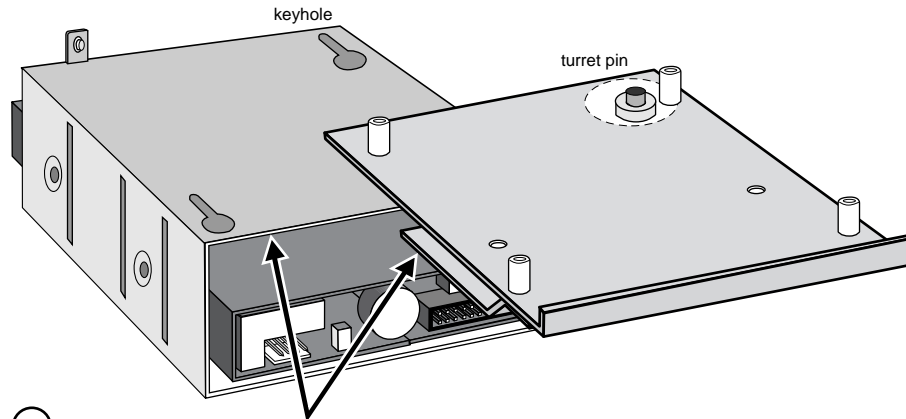
Top view of chassis and disk drive



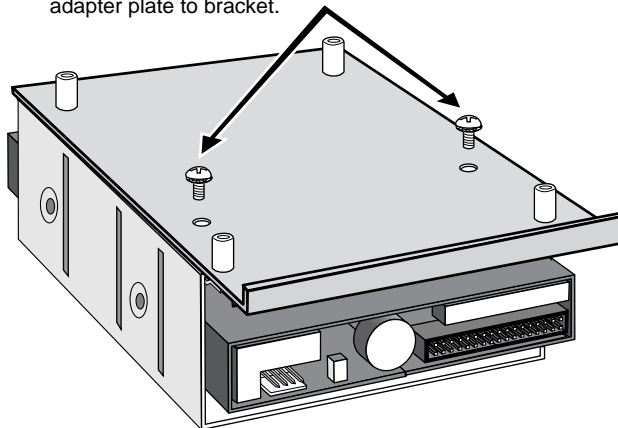
a Remove power cable from disk drive and backplane connectors.

b Remove ribbon cable from disk drive and backplane connectors.

7 Attach the adapter plate to the floppy disk drive.

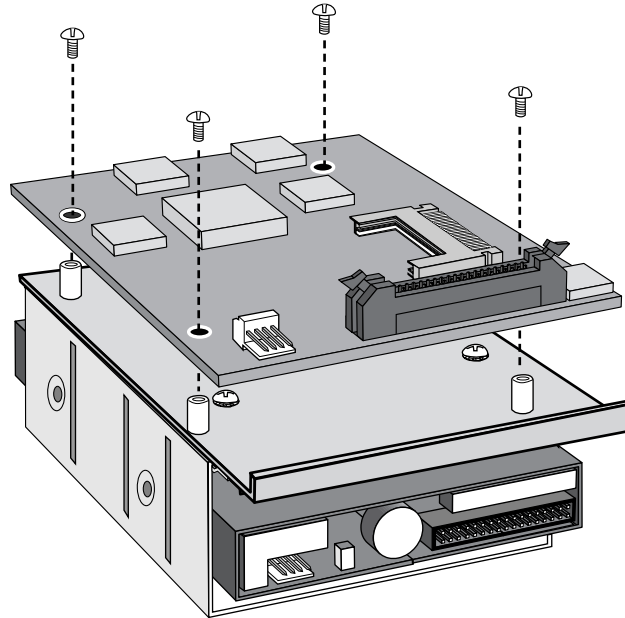


- a Slide flange on adapter plate under top of floppy drive bracket.
- b Slide adapter plate toward rear of bracket.
- c Match turret pin (on underside of adapter plate) with keyhole on top of bracket.
- d Make sure adapter plate is parallel with back of bracket.
- e Use two metal screws provided to tighten adapter plate to bracket.

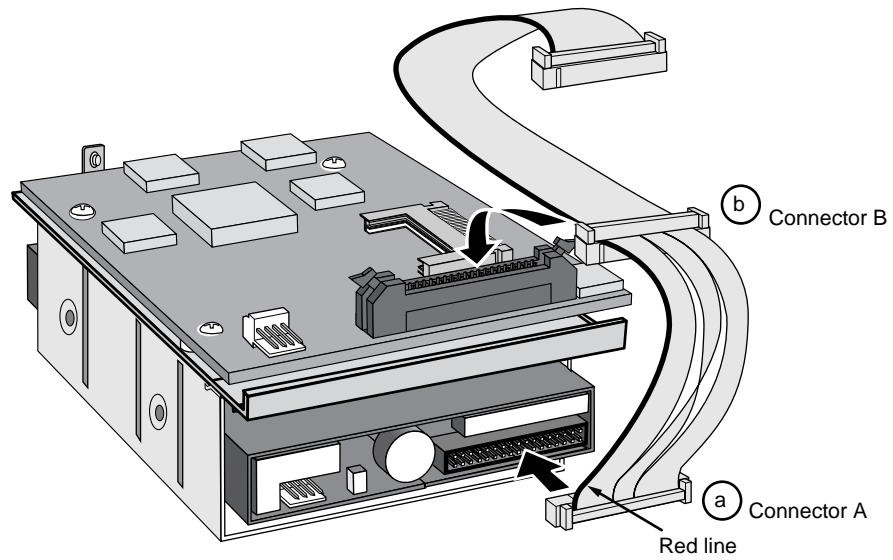


8 Attach the flash memory drive to the adapter plate.

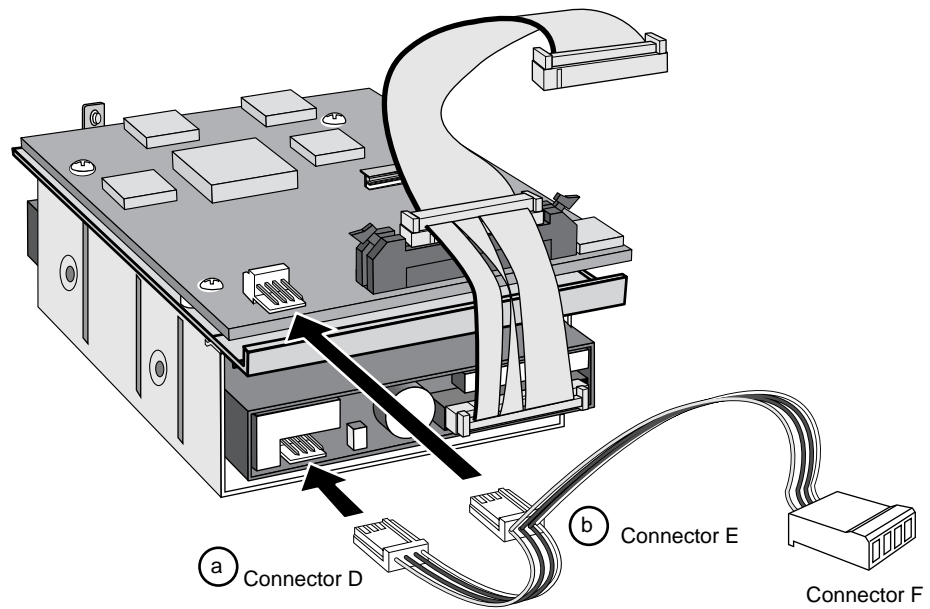
Use four nylon screws to mount flash memory drive to standoffs on adapter plate.



- 9 Connect the ribbon cable to the floppy disk drive and the flash memory drive.



- 10 Connect the power cable to the floppy disk drive and the flash memory drive.



- 11** Place the bracket containing the floppy disk drive and the flash memory drive in the chassis.

The bottom of the bracket has three turret pins. These pins engage three keyhole slots located on the bottom of the chassis.

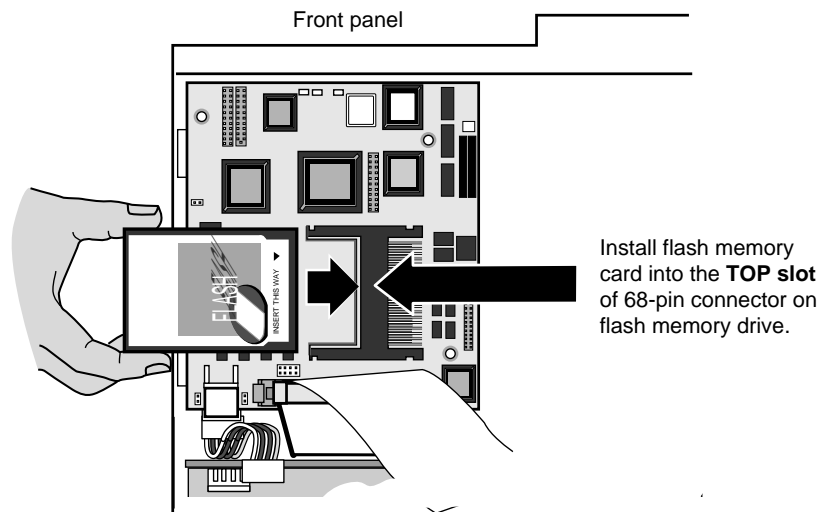
- a** Slip the turret pins into the wide part of the keyhole slots.
- b** Slide the bracket toward the front of the chassis until it is flush with the chassis.
- c** Secure this bracket with the retaining screw from the front of the chassis.

Both the screw and the pins lock the bracket in place.

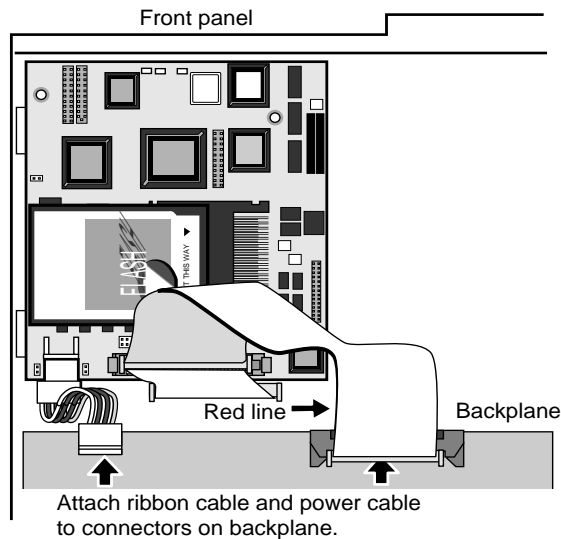
As you place the floppy disk drive and flash memory drive into the chassis, you can compress the ribbon and power cables against the backplane.

- 12** Insert the flash memory card (purchased separately).

The flash memory card is keyed so that it can only be installed with the company name facing up.



- 13** Connect the ribbon cable and the power cable to the backplane.



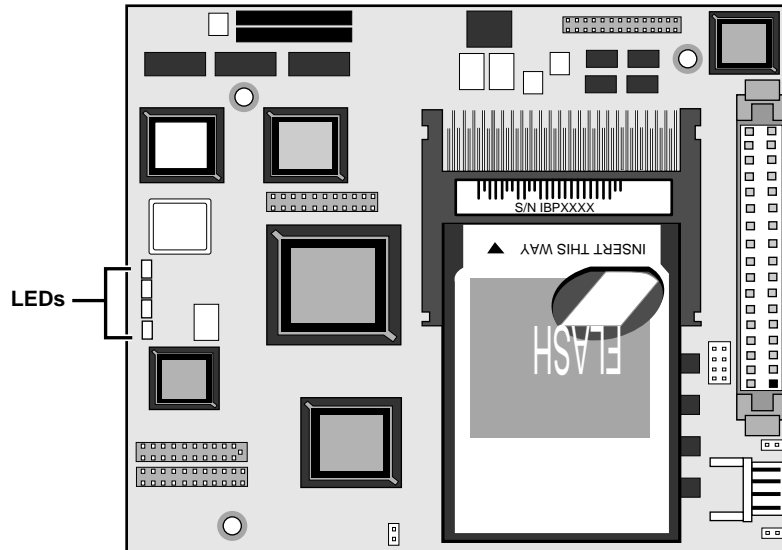
14 Plug the power cord into the chassis.



CAUTION: Verify that the power switch is in the off (O) position.

15 Plug the power cord into the outlet, then turn on the system.

16 With the cover off, check the status of the LEDs on the flash memory drive. All the LEDs should light simultaneously and then extinguish one by one.



For more information on the flash memory drive's LEDs, see [Chapter 3](#).

17 If you have a blank flash memory card and need to format it and install the software, complete the procedures in [Chapter 2](#).

18 If you have preinstalled software on your flash memory card, or have finished the procedures in [Chapter 2](#), turn off the power, then remove the power cord from the outlet and chassis.

19 Replace the cover.

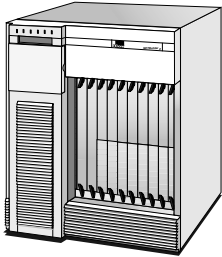
a Slide the cover toward the front of the chassis and secure the cover to the chassis with up to 17 screws. Your chassis may have fewer than 17 screws.

b If your system has rack-mount brackets, screw in the three screws that secure each bracket.

20 If the NETBuilder II system was mounted in a rack, remount it in the rack.

21 Plug the power cord into the outlet and chassis and turn on your NETBuilder II system.

Installing in the Extended Chassis

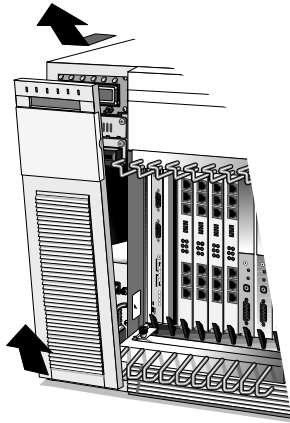


Use the following procedure to install the flash memory drive in the NETBuilder II Extended chassis.

You will need a #2 Phillips screwdriver.

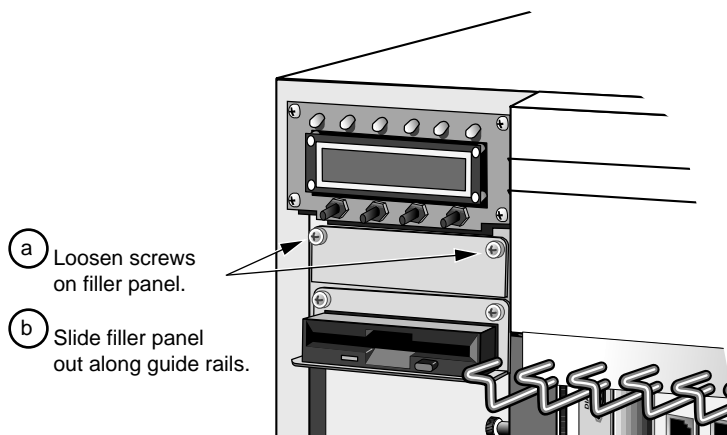
To install the flash memory drive, follow these steps:

- 1 Turn off the system and unplug the power cord(s) from the outlet and the chassis.
- 2 Remove the front bezel.

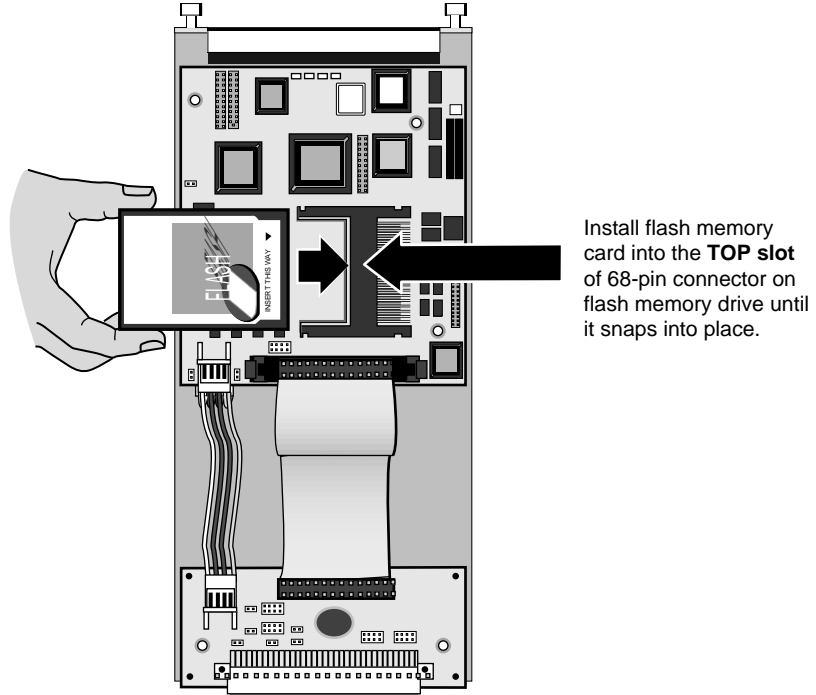


- 3 Remove the filler panel above the floppy drive.

There are two slots on the Extended chassis for floppy or flash memory drives. The top slot (shown below with the filler panel) is for drive A. The bottom slot is for drive B. This manual shows the flash memory drive installed in drive A, the default boot drive for the NETBuilder II system.

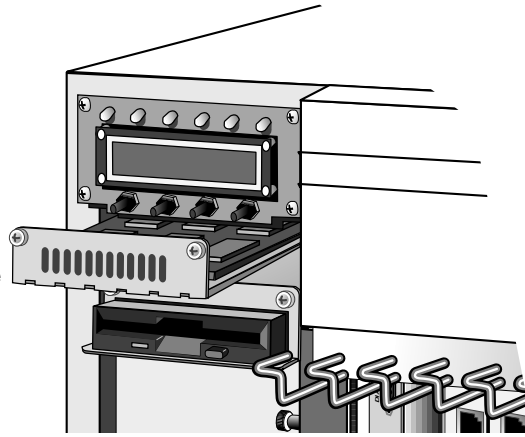


- 4 Insert the flash memory card (purchased separately) into the drive.
The flash memory card is keyed so that it can only be installed with the company name facing up.



- 5 Insert the flash memory tray.

Slide tray along guide rails until the connector engages the backplane.



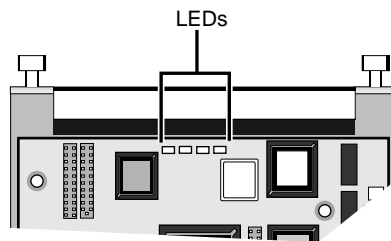
- 6 Plug the power cord(s) into the outlet and chassis and turn on the system.



CAUTION: Verify that the power switch is in the off (O) position.

- 7 With the bezel off, check the status of the LEDs on the flash memory drive by looking through the grill of the tray.

All the LEDs should light simultaneously and then extinguish one by one.



For more information on the flash memory drive's LEDs, see [Chapter 3](#).

- 8 Hand tighten the screws and replace the bezel.
- 9 If you have a blank flash memory card and need to format it and install the software, complete the procedures in [Chapter 2](#).

2

FORMATTING A BLANK FLASH MEMORY CARD

Complete the procedures in this chapter to format a blank flash memory card. See the release notes for approved models and vendors of flash memory cards.



CAUTION: *If you have preinstalled software, do not perform the procedure in this chapter and avoid accidentally erasing your software.*

Using the Flash Memory Diagnostics

Use the following procedure to boot from the *Flash Memory Drive Diagnostic* diskette after you have installed the flash memory drive in your system. The diagnostic software formats the flash memory card after running diagnostics on the drive.

- 1 Insert the *Flash Memory Drive Diagnostic* diskette and turn on the system.

If you have a new system or are booting from the floppy:

Your monitor will display the following:

```
Do you want to enter the monitor? (Y/N)
```

If you are booting from a source other than the floppy:

At the prompt, enter:

```
MONitor
```

Your monitor will display:

```
WARNING: Monitor mode halts normal operations. Confirm (Y/N)?
```

- 2 Enter Y.
- 3 Verify the installation of the flash memory drive by doing the following:

- a At the prompt, enter:

```
SI
```

The System Information menu is displayed.

- b Select Display System Information Summary from the menu.

The following display indicates successful installation of the flash memory drive:

```
Drive A is Flash Memory Drive
Drive B is floppy drive
...press any key to continue
```



If you see the message "Drive A is Unknown," you will need to perform step 5 twice, booting from the diagnostic diskette, in order for your system to recognize the flash memory drive.

- 4 Press any key, then enter Q to exit from System Information.

- 5 At the prompt, enter the following:

```
BT B:fdiag.29k
```



CAUTION: *If you have pre-installed software, do not use the diagnostic diskette and avoid accidentally erasing your software.*

The system will reboot from the diagnostic diskette, and the monitor will display:

```
The diagnostics will take approximately 4 minutes to complete  
Formatting flash file system
```

```
Warning - disk contents will be lost. Are you sure? (Y/N)
```



If you see the messages "Flash Memory Installation Failure" and "Not enough space on floppy," you will need to boot again from the diagnostic diskette in order for your system to recognize the flash memory drive.

- 6 Enter Y.

You will then be prompted:

```
Volume label (11 characters, Enter for none)?
```

- 7 Enter a volume label of up to 11 characters.

When the formatting is finished, the monitor will display:

```
Installation of Flash Memory Drive is complete
```

- 8 Exit the monitor utility by entering Go.

- 9 Remove the diagnostic diskette.

If you have a new system or are booting from the floppy:

- a Insert your normal boot diskette.

If you do not see the displays described in this procedure, see [Chapter 4](#) for troubleshooting information.

Installing Software

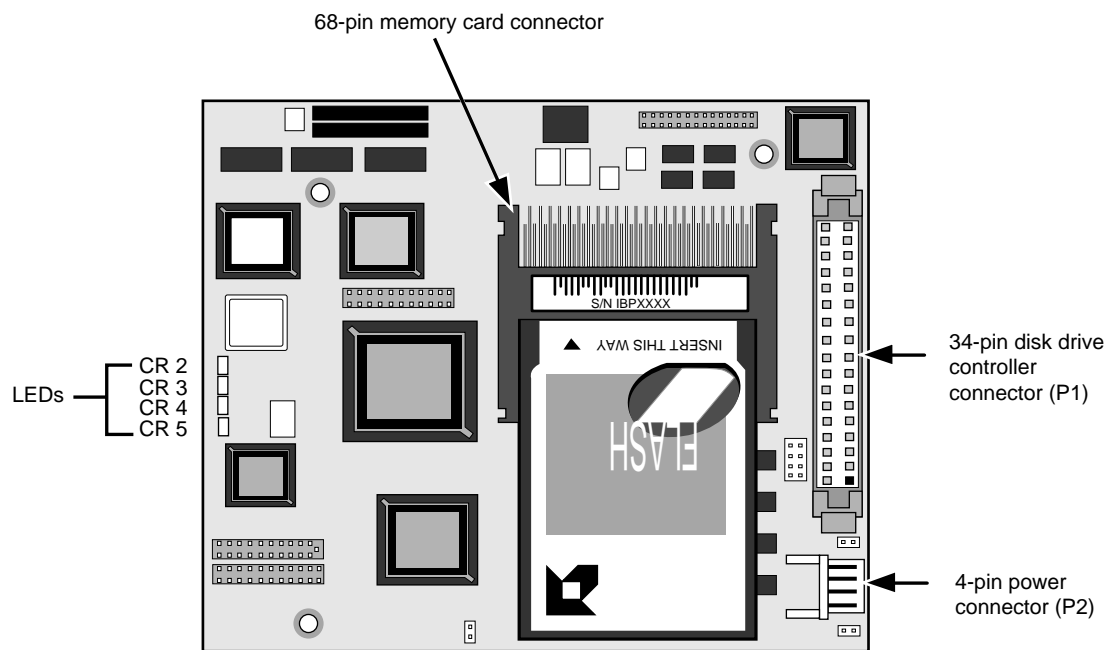
Refer to the *NETBuilder II Bridge/Router Getting Started Guide* to install software on your blank flash memory card.

3

FLASH MEMORY DRIVE COMPONENTS

This chapter describes the flash memory drive components.

The following figure shows the flash memory drive board with its major components, including the connectors, LEDs, and flash memory card.



Flash Memory Card

The flash memory card conforms to the Personal Computer Memory Card International Association (PCMCIA) standard 1.0. The flash memory card is the read/write media for the flash memory drive. The drive supports a 10 or 20 MB card.

LEDs

The four green LEDs (which are only visible with the cover off the 4- and 8-Slot chassis, and the bezel off the Extended chassis) provide information about the status of the flash memory drive. The LEDs are identified on the board as LEDs CR2 through CR5. They are used during power-on self-tests to indicate test completion status.

The LEDs are also used during normal operation to indicate channel status. When a hardware reset takes place, all four LEDs automatically light. See [Table 3-1](#) for more information.

Table 3-1 LEDs

| LED | Normal Behavior | Indicates |
|----------|-----------------|----------------------------|
| LED CR 2 | Off | Motor on |
| LED CR 3 | On | Flash format is recognized |
| LED CR 4 | Off | Write activity |
| LED CR 5 | Off | Recycling activity |

Self-Test All four LEDs are involved in the flash memory drive self-test mode. During self-test, all the LEDs should light simultaneously and then extinguish one by one. LED CR 3 then lights and stays on when the flash memory card has been formatted on a NETBuilder II system. Facing the front of the NETBuilder II system, LED CR 3 is the second from the left. If your LEDs do not light as specified during a self-test, refer to [Chapter 4, "Troubleshooting."](#)



The LEDs are only visible with the cover off the 4- and 8-Slot chassis, and the bezel off the Extended chassis.

Each LED indicates a separate self-test, as shown in [Table 3-2](#).

Table 3-2 LEDs Self-Tests

| LED | Self-Test |
|----------|---------------------|
| LED CR 2 | Address Bus/Refresh |
| LED CR 3 | Full RAM |
| LED CR 4 | Data Bus |
| LED CR 5 | PROM checksum |

Specifications

The flash memory drive has a maximum current consumption of 1.5 amp at +5 volt. [Table 3-3](#) lists the physical attributes of the flash memory drive.

Table 3-3 Physical Attributes

| Attribute | Description |
|-----------|-------------|
| Length | 5.3 inches |
| Width | 5 inches |
| Height | 1 inch |
| Weight | 4.2 ounces |

4

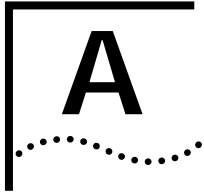
TROUBLESHOOTING

This appendix describes how to troubleshoot the flash memory drive. If you still have problems, refer to [Appendix A](#) for information about who to contact.

[Table 4-1](#) describes the symptom of a malfunction, the cause, and the action to correct it.

Table 4-1 Troubleshooting the Flash Memory Drive

| Symptom | Cause and Action |
|--|---|
| After running the diagnostics, no LEDs light during the self-test. | <i>The power cable is not seated correctly.</i> Check that the power cable connector fits securely in the floppy disk drive, the flash memory drive, the existing power cable, and the backplane. |
| LED CR3 does not stay on after the self-test. | <i>The flash memory card is not formatted with a recognizable format.</i> Format the flash memory card by completing the procedure in "Using the Flash Memory Diagnostics" . Or, at the monitor , enter: FO A: |
| One of the following messages appears while booting from the diagnostics diskette: Flash Memory Installation Failure Not enough memory space on floppy | <i>Flash memory drive is not recognized by the system.</i> Reboot from the diagnostic diskette. |
| One of the following messages appears while loading the flash memory diagnostics: System cannot access 2 floppy drives. Check cable connections or Drive A: Unknown drive | <i>Cables may not be seated correctly.</i> Check the cable connections for both the ribbon and power cables. |
| The following message appears while loading the flash memory diagnostics. Flash Memory Drive Installation Diagnostic (Version 1.0) System contains 2 floppy drives Drive A is unknown drive Drive B is floppy drive Floppy system did not find a drive with a flash memory card Please power off platform and check seating of flash card in connector | <i>Flash memory card may not be seated correctly.</i> Turn off the power. Check that the flash memory card is securely seated in the top slot of the 64-pin connector on the flash memory drive. |
| After installing the flash memory drive, the following message is displayed when you turn on the system: No floppy drives detected during self-test | <i>The ribbon cable is not connected.</i> Check that the ribbon cable connectors are fully seated on the floppy disk drive, flash memory drive, and the backplane. |



TECHNICAL SUPPORT

3Com provides easy access to technical support information through a variety of services. This appendix describes these services.

Online Technical Services

3Com offers worldwide product support 24 hours a day, 7 days a week, through the following online systems:

- 3Com Bulletin Board Service (3ComBBS)
- World Wide Web site
- 3ComForum on CompuServe®
- 3ComFactsSM automated fax service

3Com Bulletin Board Service

3ComBBS contains patches, software, and drivers for all 3Com products, as well as technical articles. This service is available via modem or ISDN 24 hours a day, 7 days a week.

Access by Analog Modem

To reach the service by modem, set your modem to 8 data bits, no parity, and 1 stop bit. Call the telephone number nearest you:

| Country | Data Rate | Telephone Number |
|----------------------|-----------------|----------------------|
| Australia | up to 14400 bps | (61) (2) 9955 2073 |
| Brazil | up to 14400 bps | (55) (11) 547 9666 |
| France | up to 14400 bps | (33) (1) 69 86 69 54 |
| Germany | up to 28800 bps | (49) (89) 627 32 188 |
| Hong Kong | up to 14400 bps | (852) 2537 5608 |
| Italy (fee required) | up to 14400 bps | (39) (2) 273 00680 |
| Japan | up to 14400 bps | (81) (3) 3345 7266 |
| Mexico | up to 28800 bps | (52) (5) 520 7835 |
| P. R. of China | up to 14400 bps | (86) (10) 684 92351 |
| Singapore | up to 14400 bps | (65) 534 5693 |
| Taiwan | up to 14400 bps | (886) (2) 377 5840 |
| U.K. | up to 28800 bps | (44) (1442) 278278 |
| U.S.A. | up to 28800 bps | (1) (408) 980 8204 |

Access by Digital Modem

ISDN users can dial-in to 3ComBBS using a digital modem for fast access up to 56 Kbps. To access 3ComBBS using ISDN, use the following number:

(408) 654 2703

World Wide Web Site

Access the latest networking information on 3Com Corporation's World Wide Web site by entering our URL into your Internet browser:

<http://www.3Com.com/>

This service features news and information about 3Com products, customer service and support, 3Com Corporation's latest news releases, selected articles from 3TECH™ (3Com Corporation's award-winning technical journal) and more.

3ComForum on CompuServe

3ComForum is a CompuServe-based service containing patches, software, drivers, and technical articles about all 3Com products, as well as a messaging section for peer support. To use 3ComForum, you need a CompuServe account.

To use 3ComForum:

- 1 Log on to CompuServe.
- 2 Enter **go threecom**.
- 3 Press [Return] to see the 3ComForum main menu.

3ComFacts Automated Fax Service

3Com Corporation's interactive fax service, 3ComFacts, provides data sheets, technical articles, diagrams, and troubleshooting instructions on 3Com products 24 hours a day, 7 days a week.

Call 3ComFacts using your touch-tone telephone. International access numbers are:

| Country | Telephone Number |
|---------|--------------------|
| U.K. | (44) (1442) 278279 |
| U.S.A | (1) (408) 727 7021 |

Local access numbers are available within the following countries:

| Country | Telephone Number | Country | Telephone Number |
|-----------|------------------|----------------------|------------------|
| Australia | 800 123853 | Netherlands | 06 0228049 |
| Belgium | 0800 71279 | Norway | 800 11062 |
| Denmark | 800 17319 | Portugal | 0505 442607 |
| Finland | 98 001 4444 | Russia (Moscow only) | 956 0815 |
| France | 05 90 81 58 | Spain | 900 964445 |
| Germany | 0130 8180 63 | Sweden | 020 792954 |
| Italy | 1678 99085 | U.K. | 0800 626403 |

Support from Your Network Supplier

If additional assistance is required, contact your network supplier. Many suppliers are authorized 3Com service partners who are qualified to provide a variety of services, including network planning, installation, hardware maintenance, application training, and support services.

When you contact your network supplier for assistance, have the following information ready:

- Diagnostic error messages
- A list of system hardware and software, including revision levels
- Details about recent configuration changes, if applicable

If you are unable to contact your network supplier, see the following section on how to contact 3Com.

Support from 3Com

If you are unable to receive support from your network supplier, technical support contracts are available from 3Com.

In the U.S. and Canada, call **(800) 876 3266** for customer service.

If you are outside the U.S. and Canada, contact your local 3Com sales office to find your authorized service provider. Use one of these numbers:

| Country | Telephone Number | Country | Telephone Number |
|------------|--------------------|----------------------|--------------------|
| Australia* | 1 800 678 515 | Mexico | (525) 520 7841 |
| Belgium* | 0800 71429 | Netherlands* | 06 0227788 |
| Brazil | (55) (11) 546 0869 | Norway* | 800 11376 |
| Canada | (416) 498 3266 | Singapore | (65) 538 9368 |
| Denmark* | 800 17309 | South Africa | (27) (11) 807 4397 |
| Finland* | 0800 113153 | Spain* | 900 983125 |
| France* | 05 917959 | Sweden* | 120 795482 |
| Germany* | 0130 821502 | Taiwan | (886) (2) 577 4352 |
| Hong Kong | (852) 2501 1111 | United Arab Emirates | (971) (4) 349049 |
| Ireland* | 1 800 553117 | U.K.* | 0800 966197 |
| Italy* | 1678 79489 | U.S.A | (1) (408) 492 1790 |
| Japan | (81) (3) 3345 7251 | | |

* These numbers are toll-free.

**Returning Products
for Repair**

A product sent directly to 3Com for repair must first be assigned a Return Materials Authorization (RMA) number. Products sent to 3Com without RMA numbers will be returned to the sender unopened, at the sender's expense.

To obtain an RMA number, call or fax:

| Country | Telephone Number | Fax Number |
|---------------------------------------|--------------------------|--------------------|
| U.S.A. and Canada | (800) 876 3266, option 2 | (408) 764 7120 |
| Europe | 31 30 60 29900, option 5 | (44) (1442) 275822 |
| Outside Europe, U.S.A., and Canada | (1) (408) 492 1790 | (1) (408) 764 7290 |

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3Com Corporation LIMITED WARRANTY

HARDWARE

3Com warrants its hardware products to be free from defects in workmanship and materials, under normal use and service, for the following lengths of time from the date of purchase from 3Com or its Authorized Reseller:

| | |
|--|----------|
| Network adapters | Lifetime |
| Other hardware products (unless specified above) | 1 year |
| Spare parts and spares kits | 90 days |

If a product does not operate as warranted above during the applicable warranty period, 3Com shall, at its option and expense, repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. Any replaced or repaired product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

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3Com warrants that the software programs licensed from it will perform in substantial conformance to the program specifications therefor for a period of ninety (90) days from the date of purchase from 3Com or its Authorized Reseller. 3Com warrants the media containing software against failure during the warranty period. No updates are provided. 3Com's sole obligation with respect to this express warranty shall be (at 3Com's discretion) to refund the purchase price paid by Customer for any defective software products, or to replace any defective media with software which substantially conforms to 3Com's applicable published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. 3Com makes no warranty or representation that its software products will work in combination with any hardware or applications software products provided by third-parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third-party products listed in the 3Com software product documentation or specifications as being compatible, 3Com will make reasonable efforts to provide compatibility, except where the noncompatibility is caused by a "bug" or defect in the third-party's product.

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Standard warranty service for *hardware* products may be obtained by delivering the defective product, accompanied by a copy of the dated proof of purchase, to 3Com's Corporate Service Center or to an Authorized 3Com Service Center during the applicable warranty period. Standard warranty service for *software* products may be obtained by telephoning 3Com's Corporate Service Center or an Authorized 3Com Service Center, within the warranty period. Products returned to 3Com's Corporate Service Center must be pre-authorized by 3Com with a Return Material Authorization (RMA) number marked on the outside of the package, and sent prepaid, insured, and packaged appropriately for safe shipment. The repaired or replaced item will be shipped to Customer, at 3Com's expense, not later than thirty (30) days after receipt of the defective product by 3Com.

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This Limited Warranty shall be governed by the laws of the state of California.

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