Western Digital
EIDE Hard Drives
WD Caviar

1.2 GB	1.6 GB

2.0 GB	2.1 GB

2.5 GB	3.1 GB

	4.0 GB

Installation Guide

Western Digital

TECHNICAL SUPPORT SERVICES

Phone Assistance: 714-932-4900 or 800-832-4778 (in the U.S.)
                          714-932-5000 (outside the U.S.)
                          020-4467651 (The Netherlands only)
                          +31-20-4467651 (outside The Netherlands)

If you need additional information or help during installation or normal use of this product, contact Western Digital Technical Support. Our customer support staff will attempt to answer your installation questions by phone or issue a service authorization number for repair or replacement of your product. Unauthorized returns will not be accepted.

When calling for support, please have your serial numbers and system hardware and software versions available. To assist you in directing your call, a phone matrix is included in the back of this manual.

Technical Support Phone Support (Central Time)

Monday - Thursday	9 am - 12 noon	1 pm - 6 pm
Friday	9 am - 12 noon	1 pm - 4 pm
Saturday	8 am - 12 noon	1 pm - 5 pm

Modem Access: 714-753-1234 (North America only)

You may access the Technical Support Bulletin Board if you have a Hayes-compatible modem with a 2,400 to 28,800 baud rate. The following format is required: 8 data bits, 1 stop bit, and no parity.

DocuFAX: 714-932-4300 - 24 hours (North America only)

An automated FAX system is available so that you can have product information sent directly to your FAX machine.

On-line Services:

Internet: *http://www.wdc.com*   FTP Site: *ftp.wdc.com*
America Online keyword: *WDC*   Microsoft Network Go Word: *WDC*

CONTENTS

INTRODUCTION

This installation guide provides concise instructions and illustrations to make the installation of your Western Digital hard drive as quick and easy as possible. The most commonly asked installation questions are answered on the following pages. To fully understand your options, we recommend that you read this entire guide before starting the installation procedure.

HARDWARE

The Western Digital hard drive is an Enhanced IDE drive, which means that the controller circuitry and 40-pin IDE connector are mounted directly on the hard drive. It does not require a separate controller card if your system provides a 40-pin IDE connector on the motherboard or an existing controller card. The Western Digital hard drive is a 3.5-inch drive that can be used in a 3.5-inch bay or in a 5.25-inch bay using a 5.25-inch mounting bracket. Each hard drive comes with a three-year warranty and has been fully tested to ensure compatibility, reliability, and exceptional quality.

SOFTWARE

The Western Digital hard drive is low-level formatted and defect free. **Do not low-level format your Western Digital drive.**

This installation guide provides software instructions for the following environments:

- DOS 5.0 and above, Windows 3.1x, Windows for Workgroups, and Windows 95
- Windows NT
- OS/2 2.1x and OS/2 Warp
- Novell NetWare
- Unix

EZ-DRIVE

EZ-Drive installation software overcomes both the 4095 cylinder (drives larger than 2.1 GB) and 528 MB BIOS limitations. See the *Software Installation* section on page 14 for complete information.

If you don't have the latest version of EZ-Drive, you can obtain it through the BBS or our web site at www.wdc.com.

HARD DRIVE HANDLING PRECAUTIONS

Handle your Western Digital hard drive very carefully. Hard drives can be damaged by electrostatic discharge (ESD), rough handling, or shock and vibration. Handle the Western Digital hard drive by the sides only, and avoid touching the circuit board components.

Once your Western Digital hard drive is unpacked, place the drive on its antistatic bag on a clean, level work area. Do not stack hard drives or stand the Western Digital drive on its edge.

Note: Do not remove the tape seal or any labels from the drive; the warranty will be void.

INSTALLATION PREPARATION

This manual walks you through the four basic steps to install your Western Digital hard drive.

1. Hardware installation
2. System setup (CMOS)
3. Formatting and partitioning your drive
4. Operating system installation

BEFORE INSTALLING THE HARD DRIVE

- Write down the serial number and model number listed on your new Western Digital hard drive. The serial number is printed on the label containing the bar code and is listed as WD S/N: xxxxx xxx xxxx. The model number is on the large label at the top of the drive.

    Serial Number: _____

    Model Number: _____

- Gather these supplies: computer system manual, DOS or operating system installation diskette, operating system manual, a bootable DOS diskette, a small Phillips and medium flat-blade screwdriver.

CREATING A BOOTABLE DISKETTE
You must have a bootable DOS diskette to install EZ-Drive. Disk 1 of your standard DOS installation diskettes is a bootable diskette. If you don't have your original DOS installation diskettes, you can create one if you have a bootable C: hard drive by following these steps:

1. Insert a blank diskette into drive A.
2. Type: **format a:/s**. Press **ENTER**.

IF YOU HAVE A HARD DRIVE ALREADY INSTALLED
IMPORTANT: Protect your data. Regularly back up your the data on your hard drive.

- Back up the data on your existing hard drive.
- Make sure you have your DOS installation diskettes available. There are files on the first DOS diskette that you may need during the hard drive installation.
- Go into your CMOS system setup screen and write down your existing hard drive type and parameters (cylinders/ heads/sectors).
  Type: _____   Cylinders: _____
  Heads: _____   Sectors Per Track: _____
  *Landing Zone: _____   *Precomp: _____

 * Typically these parameters match the cylinders, but in some cases they are not used by the system.

PREPARING YOUR HARD DRIVE FOR INSTALLATION

1. Turn off your system.

2. Discharge static electricity by touching the metal chassis of the computer.

3. Unplug your computer.

4. Remove the computer's outside cover. (Consult your computer system manual for exact details and instructions.) Be sure to keep all screws and other parts together for easy reassembly.

   The following illustrations show typical configurations for PC systems.
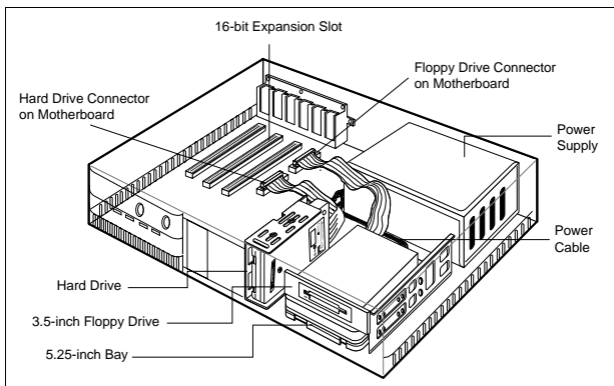
■ Typical PC System with Single or Dual Hard Drive(s) Connected to the Motherboard
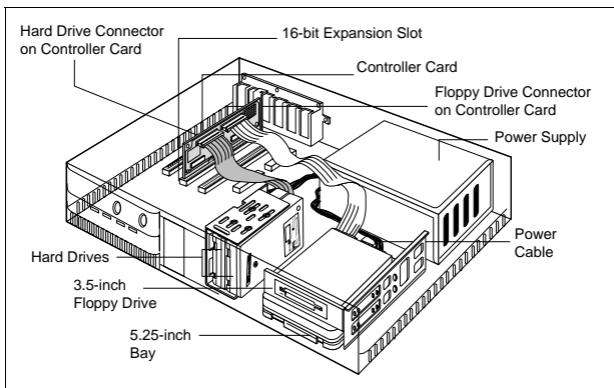
■ Typical PC System with Single or Dual Hard Drive(s)
Connected to a Controller Card

Choose the configuration that best fits your situation. We
recommend using the Western Digital drive as the master drive.

STEP 1. INSTALLING JUMPERS

Western Digital is currently shipping hard drives with two types
of connectors. Your hard drive may have either a 6-pin or a
10-pin connector. The first 6 pins on each of the jumper blocks
are identical. The additional four pins on the 10-pin connector
are reserved for future enhancements.

A jumper is required if you are installing the Western Digital
hard drive with an existing drive. One drive must be jumpered
as the master drive and the other as the slave drive. Western
Digital hard drives are shipped with a jumper shunt in the neutral
storage position (across pins 5 and 3). This jumper should be
repositioned to select one of the options shown in the next graphic.

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KEY: ▪ Jumper pins ▯ Jumper added

1 If the Western Digital drive is being installed as the only drive in your system, set the jumpers in these positions.

Single

5 3 1
6 4 2
6-PIN CONNECTOR

9 7 5 3 1
10 8 6 4 2
10-PIN CONNECTOR

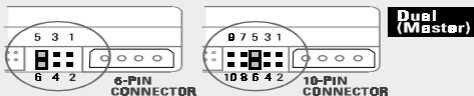**2** If the Western Digital drive is being installed as the boot drive (master drive) in a two drive system, set the jumpers in these positions.

Dual (Master)

5 3 1
6 4 2
6-PIN CONNECTOR

9 7 5 3 1
10 8 6 4 2
10-PIN CONNECTOR

3 If the Western Digital drive is being installed as the second drive (slave drive) in a two drive system, set the jumpers in these positions.

Dual (Slave)

5 3 1
6 4 2
6-PIN CONNECTOR

9 7 5 3 1
10 8 6 4 2
10-PIN CONNECTOR
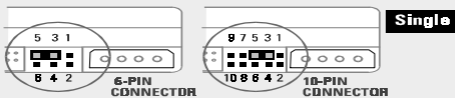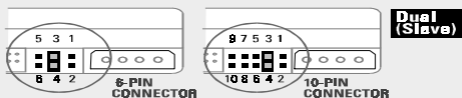
4 Cable Select (CSEL) option. Infrequently used by some system manufacturers. A special cable is required.

5 3 1
6 4 2
6-PIN CONNECTOR

9 7 5 3 1
10 8 6 4 2
10-PIN CONNECTOR

6-PIN DRIVE J5

40-pin IDE connector
Jumper shunt
Power supply connector

10-PIN DRIVE J8

40-pin IDE connector
Jumper shunt
Power supply connector
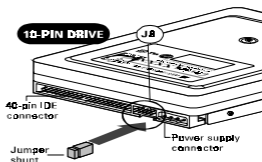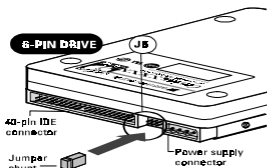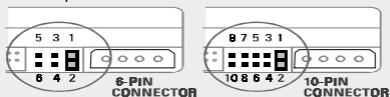
■ Jumpers for Western Digital Hard Drives

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A jumper is not required if you are installing the Western Digital hard drive as the only hard drive in the system.

Note: The Cable Select jumper option shown in the previous graphic is never required. It requires a special cable and hardware support in the host system.
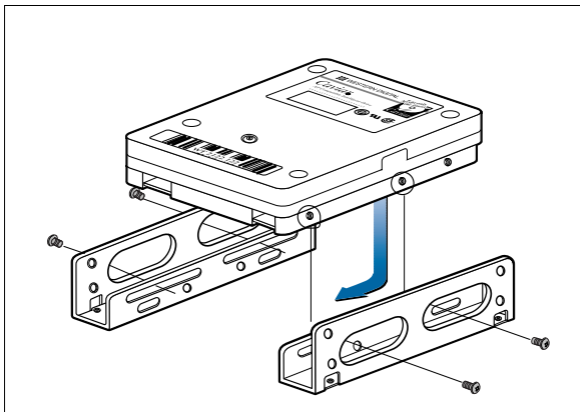
■ Mounting Hardware Installation

This illustration shows Western Digital hardware. Your hardware may vary.

STEP 2. MOUNTING HARDWARE
Inspect the bay to see whether it is a 3.5-inch or 5.25-inch bay. The Western Digital hard drive fits best in a 3.5-inch bay. If you are installing the Western Digital hard drive in a 5.25-inch bay, you must install the 5.25-inch mounting hardware.

Contact your local dealer or Western Digital technical support to obtain the mounting hardware.

Use the illustration on the previous page when installing the 5.25-inch mounting hardware in a 5.25-inch bay. Rails are sometimes necessary to complete installation. Consult your system manufacturer.

The examples in this manual are for horizontal installations, but vertical installations are also acceptable.

INSTALLING YOUR HARD DRIVE

1. Attach the end of the 40-pin interface cable to the 40-pin connector on the back of the Western Digital hard drive. Match pin socket 1 on the interface cable (the marked wire) to pin 1 on the Western Digital hard drive. For dual installations, connect the two hard drives together with a 3-connector interface cable.
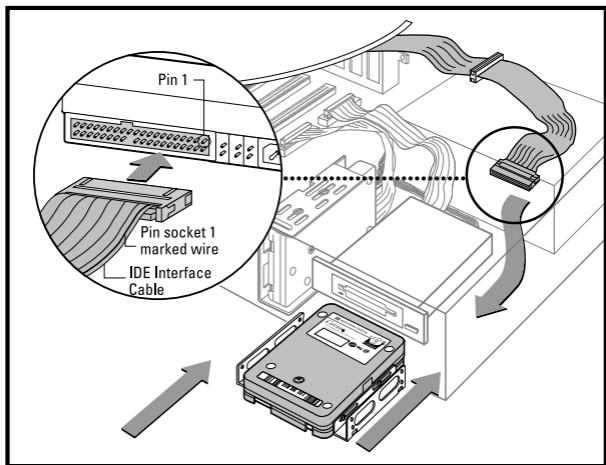
■ Attaching the IDE Interface and Power Supply Cables

2. Thread the cable through the empty bay and slide in the Western Digital hard drive.

3. Attach the computer system's power supply cable to the 4-pin power connector on the back of the Western Digital hard drive. The 4-pin connector is keyed to ensure proper insertion.
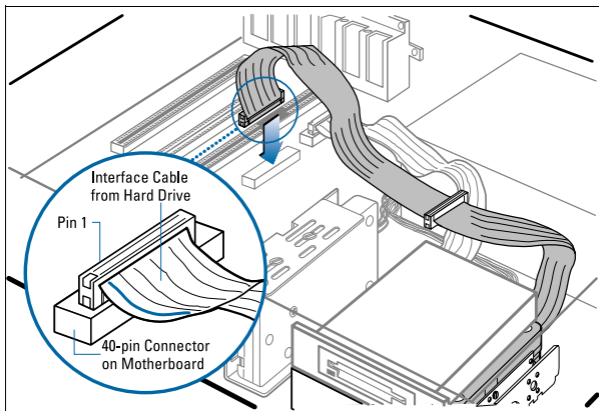
■ Attaching the IDE Cable to the Motherboard

4. **Single Drive Installation**: Attach the end of the 40-pin IDE cable from the Western Digital hard drive to the IDE connector on the motherboard or controller card.
   Dual Drive Installation: Connect the two hard drives together by using a three-connector IDE interface cable.

   Match pin socket 1 on the IDE cable (the marked wire) to pin 1 on the motherboard or controller card.
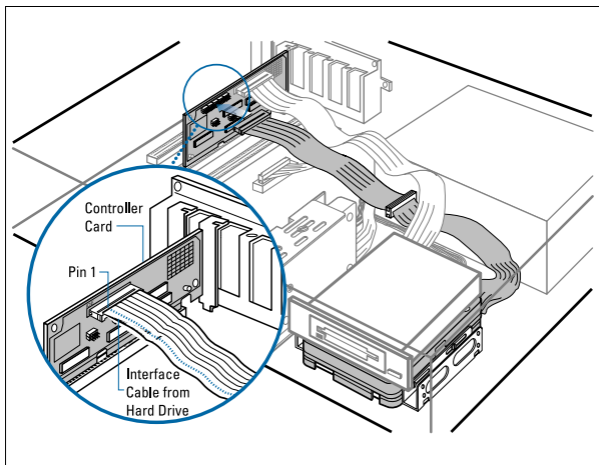
■ Attaching the IDE Cable to the Controller Card

Cabling Notes:

- Install single drives at the end of the 40-pin IDE cable.
- The 40-pin IDE cable should be no longer than 18 inches.
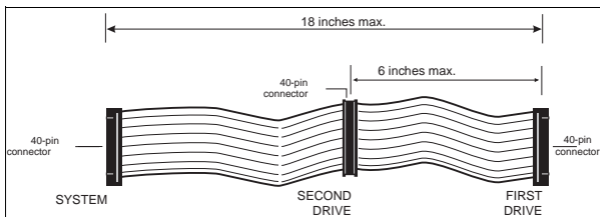
■ IDE Cable Connectors

5. Mount the Western Digital hard drive in the bay using ALL FOUR 6-32 mounting screws included. Do not install the screws past six threads (3/16-inch).
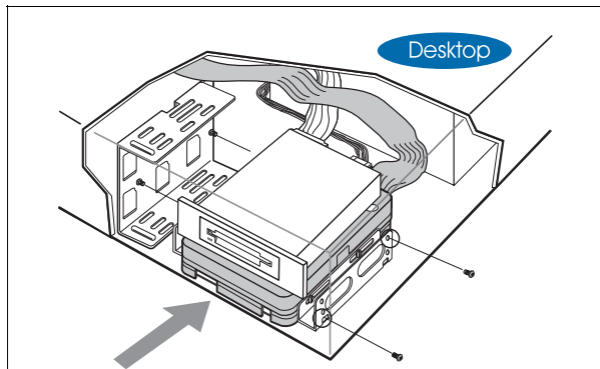
■ Mounting the Western Digital Hard Drive in a Desktop PC
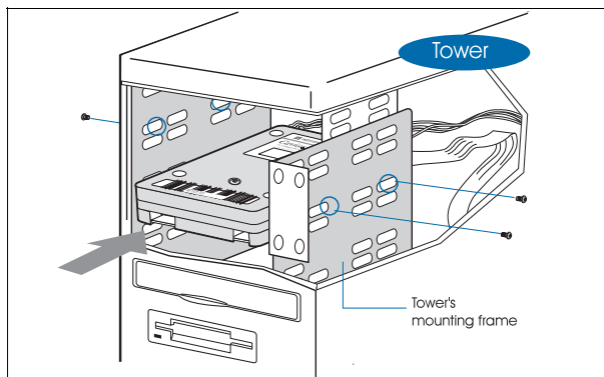
■ Mounting the Western Digital Hard Drive in a Tower PC

6. Check all cable connections. Replace the system cover, but don't screw it on yet. If you can't get the new drive to work, you may need to check your connections.

7. Plug in your computer.

8. See the *Software Installation* section for hard drive setup instructions.

IMPORTANT: If you are installing a 2.5 GB or larger drive and are not able to access your CMOS setup, refer to the BIOS Limitations for Hard Drives Larger than 2.1 GB section on page 45.
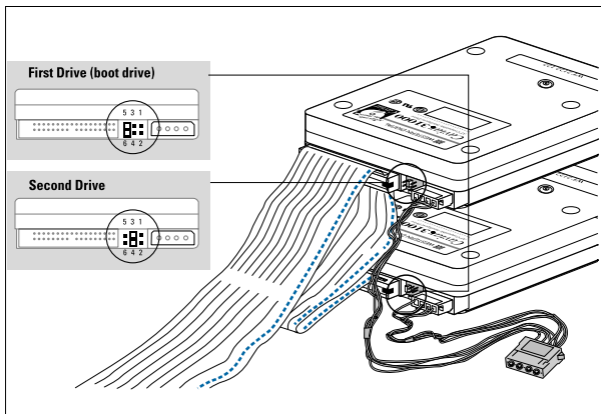
■ Typical Dual Western Digital Hard Drive Installation with All Cables Connected

SOFTWARE INSTALLATION

This section provides information that will help you determine if you need to use EZ-Drive software, hard drive partition and format instructions, and operating system installation information.

WHAT IS EZ-DRIVE SOFTWARE?

You can use EZ-Drive to overcome both the 4095 cylinder (hard drive larger than 2.1 GB) and 528 MB BIOS limitations if you don't have a translating BIOS.

You can also use EZ-Drive to quickly and easily partition and format your hard drive (even if you have have a translating BIOS) without having to use the FDISK and FORMAT programs.

Note: A BIOS that allows your system to recognize hard drive capacities greater than 528 MB is called a translating BIOS.

You need to install EZ-Drive if one of the following circumstances applies to your computer system.

- **Your system does not have a translating BIOS.** If your system BIOS is older than August of 1994, you probably do not have a translating BIOS and must use EZ-Drive. Call your BIOS manufacturer if you do not know whether your system has a translating BIOS. Phone numbers for BIOS sources are on page 17.

- **You might need to install EZ-Drive if you have a 2.5 GB or larger hard drive, and your system hangs after you turn it on.** See the section BIOS Limitations for Hard Drives Larger than 2.1 GB on page 45 for details.

You do not need to install EZ-Drive:

- **If you have a translating BIOS and a 2.1 GB or smaller hard drive.** However, if you have a translating BIOS, you can use EZ-Drive to quickly and easily partition and format your drive without installing the EZ-Drive software on your Western Digital hard drive.

INSTALLING YOUR SOFTWARE

STEP 1. TURN ON YOUR COMPUTER
Before you turn on your computer, you should have the following items:

- Bootable DOS diskette or Windows 95 startup diskette
- EZ-Drive diskette (if necessary)

If you do not have a bootable DOS diskette, see Creating a Bootable DOS Diskette on page 4 for details.

1. If you do not have an operating system installed, insert a bootable DOS diskette in drive A.

2. Turn on your computer.

   If you have a 2.5, 3.1, or 4.0 GB hard drive and your system does not respond after two minutes, see the section BIOS Limitations for Hard Drives Larger than 2.1 GB on page 45 for details.

   Note: All BIOSs are different. The information supplied here is not meant to be followed step-by-step, but is provided as a guideline.

3. Enter your CMOS setup. Refer to your system manual for instructions. Look for options such as "LBA" or "Translation," and enable this option.

Frequently, you must select an *auto config* drive type to see the full capacity of your drive. If you see a value greater than 16 heads, you probably have a translating BIOS.

4. Contact your system or BIOS manufacturer and verify that your system recognizes drive capacities over 528 MB.

Note: Even if your BIOS correctly detects the parameters, this doesn't mean that the BIOS can translate those parameters. If you are in doubt, we recommend contacting your system or BIOS manufacturer.

IMPORTANT: A translating BIOS supports drives greater than 528 MB (1023 cylinders, 16 heads, and 63 sectors).

If you have determined that your system does not support drive capacities over 528 MB, you may use the EZ-Drive installation software supplied in your hard drive package to overcome this BIOS limitation, or contact your system or BIOS manufacturer and obtain an updated BIOS that will support your drive.

Some of the most common system and BIOS manufacturers and their corresponding phone numbers in the USA are listed below.

System Manufacturers:

- AST	817-232-9824
- Compaq	713-518-2000
- Dell	512-338-4400
- Gateway 2000	605-232-2000
- HP	208-323-2551
- IBM	404-238-1234
- NEC	415-528-6000
- Packard Bell	801-579-0161

BIOS Sources:

- Micro Firmware	
(Phoenix BIOSs only)	405-321-8333
- Phoenix	617-551-4000
- Unicore	508-686-6468

STEP 2. PARTITION AND FORMAT YOUR DRIVE

The information in this step will help you manually partition and format your hard drive. For information on how to use EZ-Drive to partition and format your drive, see the EZ-Drive Software section.

Instructions for the following operating systems are provided.

- DOS 5.0 and Above, Windows 3.1x, Windows for Workgroups, and Windows 95
- Windows NT
- OS/2 2.1x and OS/2 Warp
- Novell NetWare
- Unix

DOS 5.0 and Above, Windows 3.1x, Windows for Workgroups, and Windows 95

These operating systems cannot recognize drive capacities larger than 528 MB without either using a translating BIOS or EZ-Drive.

Your installation procedure depends on whether you are replacing an existing (single or master) drive, or adding the new Western Digital drive as a second hard drive.

CAUTION: DOS has a 2.1 GB partition limit. If you have a drive larger than 2.1 GB, you must use at least two partitions to access the full capacity of your drive.

Replacing an Existing (Single or Master) Drive: DOS 5.0 and above automatically partition and format your drive during DOS installation. To partition and format a single or master drive:

1. Insert the first DOS installation diskette into drive A.
2. Press **CTRL+ALT +DEL** simultaneously to reboot your system.

   The setup program will partition and format for you. You do not need to low-level format.

Now that your new drive has been partitioned and formatted, you can install your operating systems. Refer to your DOS and Windows operating systems documentation for instructions.

Adding the Western Digital Drive as a Second Hard Drive: You must always use the FDISK and FORMAT utilities on the second hard drive. When using FDISK, make sure that you have selected the new drive. Do not delete any partitions on your existing drive; doing so results in lost data.

Partitioning the Drive: The following instructions describe how to manually partition your new drive. Before proceeding, we recommend reading Question 12 in the Troubleshooting section for information about partitioning.

Follow the instructions below for all other operating systems in this group.

1. Insert your DOS system diskette or first DOS installation diskette into drive A.
2. Press **CTRL+ALT +DEL** simultaneously to reboot your system.
3. Type **FDISK** at the A: prompt. Press **ENTER**.

4. Refer to your DOS manual for instructions to accommodate your specific installation requirements.

Windows 95: To partition your drive in Windows 95, you can run FDISK and FORMAT using the Run option under the Start Menu on the Taskbar. Windows 95 uses the FAT file system and has a 2.1 GB partition limit. You must reboot the system to enable 32-bit and long filename support.

Formatting the Drive: To format a partition, type FORMAT followed by the drive letter at the DOS prompt. For example, to format the "D" drive, type FORMAT D: and press **ENTER**.

CAUTION: When using FORMAT, be sure to select the proper drive letter in the FORMAT command line. Formatting a partition that already contains data will result in the loss of that data.

If you designated other drives or partitions during the FDISK routine, you must format those drives as well.

When the formatting process is complete, the drive is ready for use. For more information on formatting, refer to your operating system documentation.

Windows NT
Windows NT is capable of recognizing the full capacity of hard drives larger than 528 MB. However, some restrictions apply to systems without a translating BIOS.

For Systems With a Translating BIOS: Enter your CMOS setup and select a drive type that will recognize the full capacity of your drive. This is usually done by selecting the *auto config*

drive type. The boot partition can be set up to be as large as the full capacity of your hard drive.

For Systems Without a Translating BIOS: Enter your CMOS setup and select a user defined drive type. Enter these parameters: cylinders = **1023**, heads = **16**, sectors = **63**. Your system's first bootable partition is limited to a maximum of 528 MB. In Windows NT you can manually create additional partitions to utilize the remaining disk space after installation is complete. For information on how to obtain the maximum usable disk space when partitioning, refer to Question 12 in the Troubleshooting section.

CAUTION: Windows NT must be formatted using NTFS to access a partition larger than 2.1 GB. If Windows NT is formatted using FAT, the 2.1 GB partition limit applies. If you have a drive larger than 2.1 GB, you must use at least two partitions to access the full capacity of your drive.

OS/2 2.1x and OS/2 Warp

These operating systems are capable of recognizing the full capacity of hard drives larger than 528 MB. However, some restrictions apply to systems without a translating BIOS.

For Systems With a Translating BIOS: Enter your CMOS setup and select a drive type that will recognize the full capacity of your drive. This is usually done by selecting the auto config drive type.

The boot partition can be set up to be as large as the full capacity of your hard drive.

For Systems Without a Translating BIOS: OS/2 does not support bootable partitions in excess of 503 CMOS MB in systems without a translating BIOS. In this case, you must partition manually. Follow these steps for OS/2 installations.

1. During the installation process, you are asked to accept or define the bootable partition. Choose Define Partition. This runs the FDISK utility.

2. Define the primary partition to be no larger than 503 CMOS MB to prevent an installation failure. The capacity of a hard drive that exceeds 503 CMOS MB must be accessed as a separate partition. Set the remaining disk space to an extended partition. Normally, the remaining free space is set to an extended partition or other configuration as desired.

   Note: For information on how to obtain the maximum usable disk space when partitioning, refer to Question 12 in the Troubleshooting section.

3. Set the primary partition to **installable** or **bootable**.

4. Exit the FDISK utility and follow the prompt to replace the floppy diskette in drive A. Reboot the system.

5. The installation should now continue normally. Refer to your OS/2 documentation.

Novell NetWare
Your Novell NetWare version includes the hard disk driver IDE.DSK file. If your IDE.DSK file is dated prior to 9/94, we recommend that you obtain the version dated 9/94 or later because it allows you to work with both translating and non-translating BIOSs. Older versions of IDE.DSK do not work with translating BIOSs.

For Systems With a Translating BIOS: If you have the hard disk driver IDE.DSK dated 9/94 or later, go into your CMOS setup and select auto config drive type.

If you have an older version of IDE.DSK, go into your CMOS setup, select a user defined drive type and use these parameters: cylinders = **1023**, heads = **16**, sectors = **63**. This will disable the translation feature in your BIOS.

For Systems Without a Translating BIOS: Go into your CMOS setup, select a *user defined* drive type and use these parameters: cylinders = **1024**, heads = **16**, sectors = **63**. Even though you are manually setting your cylinders at 1024, Novell NetWare automatically adjusts that number to enable you to use the full capacity of your drive.

CAUTION: If using the older version of IDE.DSK do not install the drive using an auto config drive type in the CMOS setup. Do not enter more than 1023 cylinders or 16 heads for any drive with a capacity over 528 MB.

Unix

Current Unix operating systems do not work with translating BIOSs. You must set up your BIOS without enabling the translation feature.

Enter your CMOS setup and select a user defined drive type. Enter these parameters: cylinders = 1023, heads = 16, sectors = 63. This disables the translation feature in your BIOS.

CAUTION: Do not install the drive using an auto config drive type in the CMOS setup. Do not enter more than 1023 cylinders or 16 heads for any drive with a capacity over 528 MB.

You may need to manually enter the number of cylinders during Unix partitioning to obtain the full capacity of your drive. See the following table for the correct values.

Drive	Actual Cylinders[1]	Heads	Sectors/ Track	Actual Capacity (MB)
1.2 GB	2484	16	63	1281.9
1.6 GB	3148	16	63	1624.6
2.0 GB	3876	16	63	2000.3
2.1 GB	4092	16	63	2111.8
2.5 GB[2]	n/a	n/a	n/a	n/a
3.1 GB[2]	n/a	n/a	n/a	n/a
4.0 GB[2]	n/a	n/a	n/a	n/a

[1] Don't enter these numbers in CMOS. These numbers are used during the partitioning segment of the Unix installation.

[2] SCO Unix 3.2.4 and Interactive Unix 3.0.1 do not recognize partition sizes greater than 2.1 GB. Future support is anticipated.

EZ-DRIVE SOFTWARE

EZ-DRIVE SOFTWARE OVERVIEW

EZ-Drive is used to overcome system BIOS limitations that prevent you from accessing the full capacity of your hard drive. It also simplifies the hard drive formatting and partitioning process by eliminating the necessity to manually partition your hard drive via the FDISK program and logically format it via the FORMAT program.

If you have a translating BIOS and a 2.1 GB or smaller hard drive, you do not need to install EZ-Drive.

If you have a system without a translating BIOS, you need to install EZ-Drive or upgrade your BIOS.

OPERATING SYSTEM COMPATIBILITY

EZ-Drive CAN be used with these operating systems:

- DOS 5.0 and above
- Windows 3.1x and Windows for Workgroups
- Windows 95
- Windows NT
- OS/2 2.1x and OS/2 Warp

Please refer to specific instructions for each operating system included in this manual.

Note: If you install EZ-Drive and are installing an operating system, you must follow the instructions in Step 4. Installing an Operating System on page 32.

EZ-Drive CANNOT be used with these operating systems:

- Novell NetWare
- Unix

Please refer to specific instructions for each operating system included in this manual.

ON-LINE HELP
EZ-Drive provides on-line help files. To access these help files:

1. Insert the EZ-Drive diskette into drive A.

2. Type: **a:ez**.

3. Select Installation Help from the EZ-Drive Main Menu.

ISSUES ASSOCIATED WITH EZ-DRIVE
Data Compression Software: EZ-Drive is compatible with Stacker, Drivespace, and Doublespace disk compression utilities. Other data compression software may not be compatible. Always back up your data before using any data compression software.

Hard Disk Device Drivers: Products that use their own hard disk device drivers, such as third-party disk controllers, may not be compatible with EZ-Drive.

Memory Managers: EZ-Drive is fully compatible with the standard memory managers that come with DOS and Windows. However, EZ-Drive loads in conventional memory and may not be compatible with some third-party memory managers.

USING EZ-DRIVE SOFTWARE TO SET UP YOUR DRIVE

EZ-Drive checks your system to determine if software is required to access the full capacity of your drive. It does not install the software if it's not required. EZ-Drive can be used to quickly partition and format your drive.

If you choose to use EZ-Drive to prepare your hard drive for use in your computer system, you need to complete the following five steps:

Step 1. Backing up existing hard drives

Step 2. CMOS setup

Step 3. Install EZ-Drive

Step 4. Install an operating system (optional)

Step 5. Create an EZ-Drive recovery diskette

The procedures in this section pertain to DOS 5.0 and above, Windows 3.1x, Windows for Workgroups, Windows 95, Windows NT, OS/2 2.1x, and OS/2 Warp only.

To set up your hard drive in a Novell NetWare or UNIX environment, see Step 2. Partition and Format Your Drive on page 18.

STEP 1. BACKING UP EXISTING DRIVES

If you have an existing drive, write down the hard drive type and parameters (cylinders/ heads/sectors) for the existing drive. **Do NOT change the hard drive parameters of your existing hard drive** at this time. If your existing drive has Ontrack Disk Manager installed, read the following section before installing EZ-Drive.

Converting Ontrack Disk Manager Partitions To EZ-Drive Partitions

Ontrack Disk Manager and EZ-Drive cannot co-exist in the same system. If your existing drive has Ontrack Disk Manager installed and only one partition, it must be converted to EZ-Drive. If your existing drive has Ontrack Disk Manager installed and multiple partitions, do not install EZ-Drive.

During installation, EZ-Drive detects Ontrack Disk Manager and prompts you to convert the partition to an EZ-Drive partition. If you choose to do so, EZ-Drive attempts to convert the Ontrack Disk Manager partition to EZ-Drive partitions.

Even though EZ-Drive can convert your Ontrack Disk Manager partition to an EZ-Drive partition without data loss, Western Digital recommends that you back up your data before selecting this option.

Note: EZ-Drive can convert single Ontrack Disk Manager partitions only. It cannot convert multiple Ontrack Disk Manager Partitions.

STEP 2. CMOS SETUP

All BIOSs are different. The information supplied here is not meant to be followed step-by-step, but is provided as a guideline. Consult your system manual for details.

Before installing EZ-Drive, go into your CMOS setup and select the hard drive type option. The following hard drive types are usually offered in CMOS: *auto config, predefined,* and *user defined.*

Auto Config Drive Type: Western Digital recommends selecting the *auto config* drive type. The *auto config* drive type automatically sets up the Western Digital hard drive

parameters. If you encounter problems using *auto config*, try selecting *Type 01*.

If you select *auto config* and have a translating BIOS, EZ-Drive will not install. You can, however, use EZ-Drive to partition and format your hard drive.

Note: Even if your BIOS correctly detects the parameters, this doesn't mean that the BIOS can translate those parameters. If you are in doubt, we recommend contacting your system or BIOS manufacturer.

Predefined Drive Type: If you do not have the *auto config* drive type or if you encounter problems after selecting auto config, select the *Type 01* drive type. Selecting *Type 01* ensures that EZ-Drive will install on your hard drive.

User Defined Drive Type: Select *user defined* if your CMOS Setup does not offer *auto config* or *Type 01*.

If you select *user defined*, you must enter **1023x16x63** for your drive parameters.

STEP 3. INSTALLING EZ-DRIVE
Western Digital recommends that you back up the data on your existing drive before installing EZ-Drive. Carefully follow these instructions to avoid possible risk of data loss.

If you have a 2.5 GB or larger hard drive, you must create multiple partitions. Use the EZ-Drive Fully Automatic Installation to create two partitions; the first partition will be 2.1 GB and the second will consist of the remaining bytes on your hard drive. To create custom partition sizes, follow the instructions in Creating Multiple DOS Partitions.

Creating a Single DOS Partition

1. Boot the system with an operating system diskette.

2. Insert the EZ-Drive diskette into drive A. At the A: prompt, type **ez** and press **ENTER**.

3. The Micro House EZ-Drive license agreement displays. Press **ENTER** to start the installation.

CAUTION: Installing EZ-Drive on any drive that contains software and data will result in the erasure of all software and data on that drive.

4. At the EZ-Drive Main Menu, select **Fully Automatic Installation**. Press **ENTER**.

   Follow the instructions on screen.

5. After EZ-Drive detects the drive, the following message displays:

   EZ-Drive must control this drive to access the full capacity

   Press **Y** to continue installation.

6. EZ-Drive formats the drive now. Follow the instructions on screen, and when prompted insert a DOS diskette.

7. EZ-Drive has successfully set up your hard drive. Remove any diskette from your floppy drive and press **ESC** to exit and restart your system.

Your hard drive is now partitioned and formatted.

Creating Multiple DOS Partitions

Carefully follow the instructions below to avoid possible risk of data loss.

1. Boot the system with an operating system diskette.

2. Insert the EZ-Drive diskette into drive A. At the A: prompt, type **ez**

3. The Micro House EZ-Drive license agreement displays. Press **ENTER** to start the installation.

CAUTION: If you choose to "overwrite" the data on an existing drive that already contains software and data, you will erase and lose access to all the software and data on that drive.

---

4. At the EZ-Drive Main Menu, select Custom Installation. Press **ENTER**.

5. At the Select Drive Options menu, select the hard drive you want to partition and format.

   Press **ENTER**.

6. The Select Partition Option menu displays the following message:

   Setup Drive(s) with One Large Partition
   Setup Drive(s) with Multiple Partition

   Select Setup Drive(s) with Multiple Partition and press **ENTER**.

7. The Select Size of Partitions menu displays and prompts you to enter partition sizes. Press **ENTER** after typing each partition size.

8. When all partitions have been entered, a warning screen displays. Type **yes** to overwrite the current hard drive setup.

   EZ-Drive erases all the data on the displayed drive.

9. Follow the on-screen instructions to complete the EZ-Drive installation.

Your hard drive is now partitioned and formatted.

STEP 4. INSTALLING AN OPERATING SYSTEM

To install DOS 5.0 and above, Windows 3.1x, Windows for Workgroups, or Windows 95 operating system files onto your new drive, you must follow the procedure outlined below.

If you do not follow this procedure, DOS will not be able to recognize the hard drive partition created by EZ-Drive.

1. Reboot your system.

   After you reboot (before inserting your boot diskette), the following messages may display.

   EZ-Drive: Initializing . . .
   EZ-Drive: Hold the CTRL key down for Status Screen or to boot from floppy . . .

   Note: If the above messages do not display, boot to the first operating system installation floppy.

2. Press and hold the CTRL key down. A status screen displays.

3. Read the screen prompt and type: **A**.

   Note: If the system boots to DOS without the status screen displaying, you either pressed the CTRL key too early or too late. Reboot and try again.

4. Insert disk 1 of the operating system installation software into drive A. Press **ENTER**.

DOS will not need to partition and format the drive since EZ-Drive has already done this during its installation.

CAUTION: If DOS is not installed exactly as described above, the DOS setup routine will reformat the drive to less than the full drive capacity.

STEP 5. CREATING AN EZ-DRIVE RECOVERY DISKETTE

We highly recommend that you create a recovery diskette after installing EZ-Drive. If the EZ-Drive files are ever deleted from your hard drive or become corrupted, you will need this recovery diskette to access your hard drive. Without a recovery diskette, all the data on your hard drive could be lost.

Because the information stored on the recovery diskette includes your DOS partition table, you need to create a recovery diskette each time you partition your hard drive.

To create an EZ-Drive recovery diskette:

1. Insert the EZ-Drive diskette into drive A:
2. At the C: prompt, type: a:ez Press **ENTER** twice.
3. From the EZ-Drive Main Menu, select **Other Options.** Select **Create Recovery Disk.**

   When instructed, insert a blank diskette into the floppy drive and press **ENTER**.
4. The following message displays:

   Do you want to use this disk? Type: **YES**
5. EZ-Drive writes the system files onto the diskette.
6. Store your recovery diskette in a safe place.

If your EZ-Drive files ever become corrupted, boot to the recovery diskette to reinstall your EZ-Drive files.

EZ-DRIVE ADVANCED FEATURES

There are a variety of options available when using the EZ-Drive. A few of the important ones are described below.

FLOPPY BOOT PROTECTION

Windows NT, OS/2 2.1x, and OS/2 Warp operating systems do not support the EZ-Drive floppy boot protection scheme. If using one of these operating systems, you must disable floppy boot protection.

To enable or disable Floppy Boot Protection:

1. From the EZ-Drive main menu, select **Other Options**. Select **Change Installed Features**. Press ENTER.
2. Select the drive you want to change and press ENTER.
3. Select **Controlled by EZ-Drive**.

   Press ENTER to toggle the selection to **Enabled** or **Disabled**.
4. From the Change Installed Features screen, select **Save Changes**.

BOOTING FROM A FLOPPY DISKETTE

If you have installed EZ-Drive, use the following procedure when booting from a floppy disk. If you do not follow this procedure, DOS cannot recognize the hard drive partition created by EZ-Drive.

CAUTION: Incorrect floppy booting procedures can result in data loss.

1. Reboot the system. The following messages may display:

   EZ-Drive: Initializing . . .

   EZ-Drive: Hold the CTRL key down for Status Screen or to boot from floppy . . .

2. Press and hold down the CTRL key. A status screen displays.

   Note: If the system boots to DOS without the status screen displaying, you either pressed the CTRL key too early or too late. Reboot and try again.

3. Read the screen prompt and type **A**.

4. Insert disk 1 of the operating system installation software into drive A. Press **ENTER**.

If the above messages do not display, boot to the first operating system installation floppy.

UNINSTALLING EZ-DRIVE

This option removes EZ-Drive, and returns control of the drive to your system BIOS.

Before disabling EZ-Drive, make sure that you have properly configured the BIOS to recognize the drive capacity.

1. Insert the EZ-Drive diskette into drive A.

2. Type **a:ez** Press **ENTER**.

3. From the EZ-Drive Main Menu, select **Other Options**. From the Installation Options screen, select **Change Installed Features**.

4. Select the drive you want to change.

5. From the Change Installed Features screen, select **Controlled by EZ-Drive**. Press **ENTER** to toggle the selection to **Disabled**.

6. From the Change Installed Features screen, select **Save Changes**.

7. Press ESC to return to the Installation Options screen, and select **Uninstall EZ-Drive.**

8. A warning message displays. Type **Y** to remove EZ-Drive.

EZ-Drive is now uninstalled, and your BIOS controls this drive.

ENABLING 32-BIT DISK ACCESS IN WINDOWS 3.1X

To enable 32-bit disk access in Windows 3.1x, you must run SETUP.EXE located on the EZ-Drive diskette. This installs your 32-bit access driver only. It does NOT install EZ-Drive. Windows must be installed prior to running the setup program.

SETUP.EXE is a Windows 3.1x driver that is not intended for use in Windows NT and Windows 95 as these operating systems have built-in 32-bit disk access support.

To run the setup program:

1. Insert the EZ-Drive diskette into drive A (or B).

   The setup program must be run from Windows. In Windows select **Run** from the File Menu. Type: **a:\setup**

2. The EZ-Drive installation utility loads. Select **Install Driver** from the options listed at the bottom of the screen.

   When the screen prompt "Restart Windows" displays, your driver has been installed.

3. Select **Restart Windows**.

4. A Status Screen displays your drive information the first time you reboot. Press any key to start Windows.

Your driver is now installed.

Use the following instructions to enable the 32-bit disk access driver.

1. Start Windows. **Select Control Panel**, then select **386 Enhanced**.

2. Select **Virtual Memory**, then select **Change**.

3. Select **Use 32-Bit Disk Access** at the bottom of the screen. Select **OK**.

TROUBLESHOOTING

QUESTIONS AND ANSWERS

Q1: What kind of information should I have ready when I call Technical Support?

A:

1. Be prepared to give your hard drive serial number (you should have recorded this in the Introduction section of this manual).

2. Be in front of the computer in question and know what devices are in your computer. If possible, have in hand the user guides for these devices. What hard drive(s) do you have? What type of video card is in your computer?

3. Know the version of DOS (or other operating system) you are using. What version of Microsoft Windows are you using?

4. Know your CPU type and speed (for example 486/66).

5. Know the amount of memory (RAM) your system has. What memory management utility are you using (for example, QEMM or HIMEM)?

6. Know the manufacturer and version of your system BIOS (CMOS).

7. Know the amount of storage space available on your hard drive.

8. Have printed copies (or on-screen copies) of your AUTOEXEC.BAT and CONFIG.SYS files.

9. Have your EZ-Drive diskette, a bootable diskette with the current version of DOS, and a pencil and paper ready to write down any instructions.

Q2: I don't see the full capacity of my hard drive when installing my operating system.

A: There are two issues affecting the installation of your hard drive: 1) hard drives that have more than 4095 cylinders (drives larger than 2.1 GB); and 2) most system BIOSs dated before 1994 don't recognize drives larger than 528 MB. To overcome these limitations, either install EZ-Drive or upgrade your system BIOS. Phone numbers of common BIOS sources are on page 16 of this manual.

If you installed EZ-Drive and then incorrectly booted to your DOS installation diskettes, you may have accidentally used DOS to overwrite your EZ-Drive partitions. If EZ-Drive was installed, see Step 4. Installing an Operating System on page 32.

Q3: I get the message "HDD Controller Failure" after installing my Western Digital hard drive.

A: This is a normal occurrence and may happen when you first boot the system after installing the hard drive. Press F1 to continue. If the message continues to display, retrace the steps outlined for CMOS setup, cabling, and jumper configuration.

Make sure these instructions have been done correctly. Then follow the instructions for using EZ-Drive or FDISK and FORMAT to install the operating system.

Q4: Do I have to do anything to my original hard drive when adding yours to it?

A: Yes, one hard drive must be designated as a master, and the other as a slave. We recommend that you designate the new drive as your master. For non- Western Digital hard drives, consult your original hard drive's documentation for master/slave jumper positions.

Q5: What is a megabyte (MB)?

A: This is an area of confusion. Hard drive suppliers define a decimal megabyte as 1,000,000 bytes (10 6). Alternatively, a binary megabyte is defined as 1,048,576 (2 20). This is why some utilities show 2035.6 MB while others will show 2111.8 MB for the same drive. See the following table.

Drive	Actual Capacity (MB)	CMOS (MB)	CHKDSK (MB)
1.2 GB	1281.9	1222.6	1281.9
1.6 GB	1624.6	1549.4	1624.6
2.0 GB	2000.3	1907.7	2000.3
2.1 GB	2111.8	2035.6	2111.8
2.5 GB	2559.8	2441.2	2559.8
3.1 GB	3166.7	3020.0	3166.7
4.0 GB	4000.7	3815.4	4000.7

Q6: What should I check if my system will not start after I turn the power on?

A: Ensure that:

1. The IDE controller card, if installed, is properly seated and connected.

2. The connections at both ends of the hard drive cable are secure and correctly oriented.

3. The jumper selections on your hard drive(s) are correctly set for your installation.

4. If you have a 2.5 GB or larger drive, you may encounter a system BIOS limitation. Refer to the BIOS Limitations for Hard Drives Larger Than 2.1 GB section on page 45.

Q7: I can't boot DOS from my newly installed hard drive or access the hard drive after I've completed the software installation.

A: Check the system to ensure that:

1. You entered the correct hard drive parameters during your system setup procedure.

2. Some CMOS system setup utilities might have a boot sequence option. If yours does, verify that the boot sequence is A: then C:. Not all CMOS setup utilities have this option.

3. You correctly partitioned (via the operating system FDISK utility), and formatted (via the operating system FORMAT utility) your newly installed hard drive.

4. You made your primary drive bootable (formatted with /S option).

5. During the FDISK procedure you marked your bootable partition active.

Q8: My drive will not spin up or it spins down after a few seconds.

A: Ensure that:

1. Your power connector is in securely and working properly.

2. The orientation of pin socket 1 on the 40-pin IDE cable matches pin 1 on the connector.

3. The drive type in your CMOS setup is correct. If the problem still exists, contact Western Digital Technical Support.

Q9: I have a 2.5 GB or larger drive, and Windows 3.1 or Windows 95 installed. Can I create one partition only?

A: No. DOS has a 2.1 GB partition limitation. You must use at least two partitions to access the full capacity of your drive.

Q10. I've transferred files from my old drive to my new larger drive, and the same files seem to take up much more space. Why?

A: If your drive has only one partition, the large cluster size may be wasting some of your disk space. Refer to Question 12 below.

Q11: How can I get 32-bit disk access in Windows 3.1x?

A: Use the Western Digital 32-bit disk access driver. Run the SETUP.EXE program located on your EZ-Drive diskette. See Enabling 32-bit Disk Access in Windows 3.1x on page 36.

Q12: How should I partition my hard drive?

If your hard drive is 2.5 GB or larger, you must create multiple partitions.

Western Digital does not have a recommendation for the optimal number of partitions. The following information will help you make your decision.

EZ-Drive and FDISK utilities allow you to divide your drive into multiple partitions that function as separate drives.

In DOS, every file that is stored gets at least one allocation unit (called a "cluster"), no matter what the size of the file. The size of the cluster increases with the size of the partition. For example, if you have a 1024 MB partition, the cluster size will be 32 KB. This means that even a 62-byte batch file is going to consume 32 KB of storage space. A typical mix of application and data files can include thousands of files. If each file contains

a few KBs of wasted space, this can add up to several MBs of wasted space.

The only way to reduce the cluster size is to reduce the partition size. The breakdown for DOS 5.0 and above is as follows:

FDISK Partition Size [1]	Cluster Size
0 - 127 MB	2 KB
128 - 255 MB	4 KB
256 - 511 MB	8 KB
512 - 1023 MB	16 KB
1024 - 2047 MB	32 KB
[1] FDISK reports binary megabytes (1,048,576 bytes), not decimal megabytes (1,000,000 bytes). All numbers above are shown in binary megabytes.	

Note: The maximum partition that can be created in DOS is 2048 MB.

CAUTION: Repartitioning an existing drive destroys all the data. If repartitioning an existing drive, be sure to create a backup first.

Q13: My existing drive was installed using Ontrack Disk Manager. Can I just leave it as it is and install EZ-Drive on my new drive?

A: No. Ontrack Disk Manager and EZ-Drive cannot co-exist in the same system. If you install

EZ-Drive on your new drive, you must convert the Ontrack Disk Manager partitions on your existing drive to EZ-Drive partitions. Refer to the Converting Ontrack Disk Manager Partitions to EZ-Drive Partitions section on page 28.

Q14: What will happen if I install EZ-Drive on a hard drive that has Ontrack Disk Manager?

A: Even though EZ-Drive will attempt to convert the Ontrack Disk Manager partition to an EZ-Drive partition, we recommend that you backup your files before installing EZ-Drive.

Q15: Can I install Windows NT 3.5x, OS/2 2.1x or OS/2 WARP on my drive that originally was installed with EZ-Drive?

A: Yes, but you must first disable floppy boot protection before installing EZ-Drive. Refer to the Floppy Boot Protection section on page 34.

Q16: How much memory does EZ-Drive use?

A: 5 KB.

Q17: Do I need to use the Cable Select (CSEL) jumpers?

A: No, this jumper option is only used as an alternative by some system manufacturers to designate drive(s) as master or slave. This jumper option requires a special cable and hardware support in the host system. The cable supplied in your hard drive package does not support CSEL. Use of the CSEL jumper option makes no difference in hard drive performance or functionality.

Q18: What is the warranty period on your drives?

A: Every Western Digital hard drive covered in this manual has a 3-year warranty.

Q19: I've read the entire Troubleshooting section and I still cannot correctly install my drive.

A: If none of the solutions presented in this section solve your problem, there are other options available:

1. Read the README.CAV text file on the EZ-Drive diskette for additional troubleshooting information.

2. Check Western Digital's on-line services for a more comprehensive list of frequently asked questions. See the inside front cover of this manual for the address.

3. Contact your reseller/retailer.

4. Have the EZ-Drive diskette available and contact Western Digital technical support.

BIOS LIMITATIONS FOR HARD DRIVES LARGER THAN 2.1 GB

If you have installed a 2.5 GB, 3.1 GB, or 4.0 GB hard drive and your system locks up on initial boot read the instructions in this section. Refer to the jumper setting illustration on page 45.

The 2.5 GB, 3.1 GB, and 4.0 GB hard drives have more than 4095 cylinders. Some system BIOSs CANNOT properly recognize hard drives that have more than 4095 cylinders.

You will know if your system BIOS has this limitation after installing your drive. On the initial boot your system may lock up or show a much smaller drive capacity. If your system locks up, follow the instructions below. If your system reports a much smaller drive capacity, follow the instructions outlined on page 16.

If your system does not respond after two minutes (i.e., locks up), follow these steps:

1. Turn your system power off, check the IDE interface and power supply cables.

2. Check jumper settings.

3. Turn your system power on.

4. Try to enter your CMOS setup, and set the drive type to *auto config*.

If your system still doesn't respond, it may be because you have a system BIOS that doesn't support drives with more than 4095 cylinders. If this is the case, these solutions are available:

1. Use EZ-Drive.

   If your system locks up before you can enter CMOS, you may need to turn your system power off and disconnect the IDE cable from the system to access your CMOS setup.

   - Enter your CMOS setup.

   - Select the Hard Disk Type option for the new Western Digital hard drive. Select a *user defined* drive type and enter: **1023x16x63**.

   - Reconnect your IDE cable to the system.

   These new settings will allow your system to boot so that you can install EZ-Drive to access the full capacity of your drive.
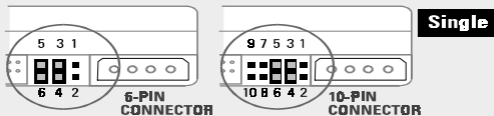
   – OR –

If you don't have a user defined drive type, use option 2 or 3 below. This option changes the parameters reported to the BIOS. In the future, if you move this drive to another system, you must put the jumper back to the standard position.
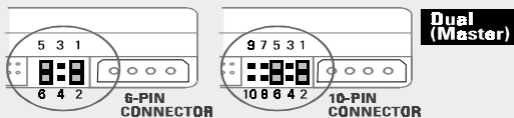
2. Rejumper the drive as shown on the next page, and install EZ-Drive. If you use these alternate jumper settings, you must install EZ-Drive.
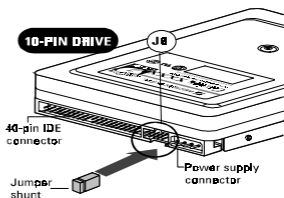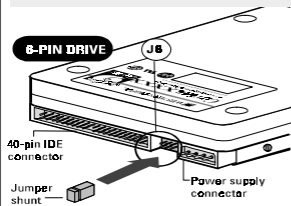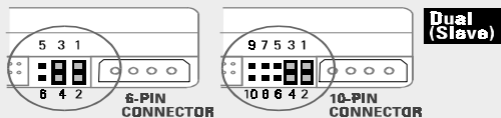
KEY: ▪ Jumper pins   ▣ Jumper added

1 If the 2.5 GB or larger Western Digital drive is being installed as the only drive in your system, set the jumpers in these positions.

Single

6-PIN CONNECTOR

10-PIN CONNECTOR

2 If the 2.5 GB or larger Western Digital drive is being installed as the boot drive (master drive) in a two drive system, set the jumpers in these positions.

Dual (Master)

6-PIN CONNECTOR

10-PIN CONNECTOR

3 If the 2.5 GB or larger Western Digital drive is being installed as the second drive (slave drive) in a two drive system, set the jumpers in these positions.

Dual (Slave)

6-PIN CONNECTOR

10-PIN CONNECTOR

6-PIN DRIVE   J8

40-pin IDE connector

Jumper shunt

Power supply connector

10-PIN DRIVE   J8

40-pin IDE connector

Jumper shunt

Power supply connector

■ Jumper Settings for 2.5 GB or Larger Hard Drives
(Used only to overcome the BIOS limitation described in this section.)

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Note: These special jumper settings WILL NOT work for OS/2 Warp, Novell NetWare, or Unix.

– OR –

3. Upgrade your BIOS.
   A properly upgraded BIOS will support the drive. Contact your system manufacturer.
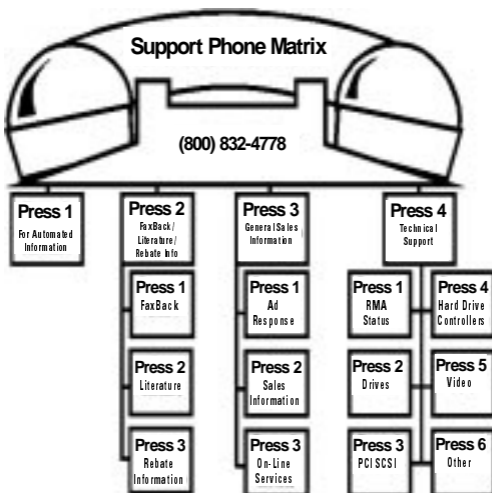
OTHER DRIVE MANUFACTURERS

If you are installing your new Western Digital hard drive with a non Western Digital hard drive, you may have to contact the manufacturer for master/ slave jumper configuration information. As of the date of this publication the phone numbers in the USA are:

IBM	914-765-1900
Maxtor	408-432-1700
Quantum	408-894-4000
Seagate/Conner	408-438-8222

WESTERN DIGITAL TECHNICAL SUPPORT

Support Phone Matrix

(800) 832-4778

Press 1
For Automated Information

Press 2
FaxBack/ Literature/ Rebate Info

Press 1
FaxBack

Press 2
Literature

Press 3
Rebate Information

Press 3
General Sales Information

Press 1
Ad Response

Press 2
Sales Information

Press 3
On-Line Services

Press 4
Technical Support

Press 1
RMA Status

Press 2
Drives

Press 3
PCI SCSI

Press 4
Hard Drive Controllers

Press 5
Video

Press 6
Other

RADIO FREQUENCY INTERFERENCE STATEMENT

FCC NOTICE

This Western Digital product has been verified to comply with the limits for a Class B computing device pursuant to subpart B Part 15 of FCC rules. This does not guarantee that interference will not occur in individual installations. Western Digital is not responsible for any television, radio, or other interference caused by unauthorized modifications of this product.

If interference problems do occur, please consult the system equipment owner's manual for suggestions. Some of these suggestions include relocation of the computer system away from the television or radio, or placing the computer AC power connection on a different circuit or outlet.

CSA NOTICE

Le prés ent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B préscrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

This digital apparatus does not exceed the Class B limits for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

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WARRANTY INFORMATION

OBTAINING SERVICE

Western Digital Corporation ("WDC") values your business and always attempts to provide you the very best of service. If this Product ever requires maintenance, either contact the dealer from whom you originally purchased the Product or telephone WDC's Technical Support Department. No Product may be returned directly to WDC without first contacting our Technical Support Department at (714) 932-4900 or at (800) 275-4932. If it is determined that the Product may be defective, you will be given a Return Material Authorization ("RMA") number and instructions for Product return. An unauthorized return, i.e., one for which an RMA number has not been issued, will be returned to you at your expense. Authorized returns are to be shipped prepaid and insured to the address on the RMA and are to be packaged securely to prevent damage. In order to conclusively establish the period of warranty, an original purchase receipt must accompany the returned Product. WDC shall have no liability for lost data, regardless of the cause, recovery of lost data, or data contained in any Product placed in its possession.

LIMITED WARRANTY

WDC warrants that the Product, in the course of its normal use, will be free from defects in material and workmanship for a period of three (3) years and will conform to WDC's specification therefor. This limited warranty shall commence on the purchase date appearing on your purchase receipt.

WDC shall have no liability for any Product returned if WDC determines that the asserted defect a) is not present, b) cannot reasonably be rectified because of damage occurring before WDC receives the Product, or c) is attributable to misuse, improper

installation, alteration (including removing or obliterating labels), accident or mishandling while in your possession. Subject to the limitations specified above, your sole and exclusive warranty shall be, during the period of warranty specified above and at WDC's option, the repair or replacement of the Product. The foregoing warranty of WDC shall extend to repaired or replaced Products for the balance of the applicable period of the original warranty or thirty (30) days from the date of shipment of a repaired or replaced Product, whichever is longer.

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