



Installation Guide

- *Installation and Configuration*
- *Troubleshooting*
- *Drive Specifications*

For Integrator/OEM Only

Table of Contents

Installation Guide	1
Troubleshooting	13
Drive Specifications	16

1 Check system requirements.

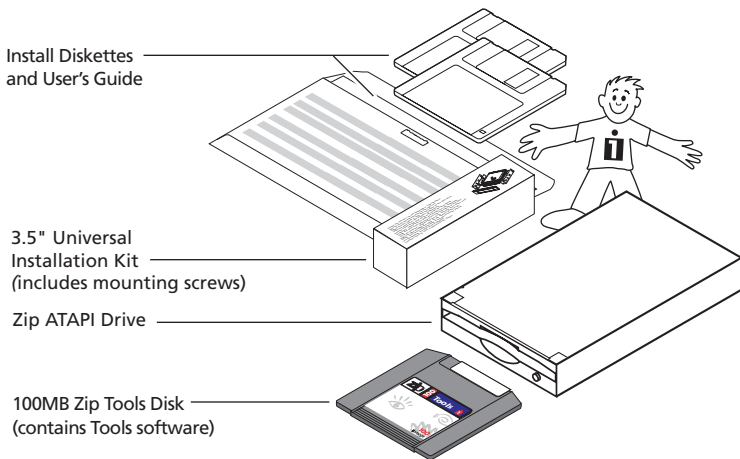
- Pentium or higher IBM-compatible computer (recommended)
- Empty 3½ or 5¼ inch drive bay with front panel access
- Embedded IDE interface or IDE card
- Windows NT, Windows 95, Windows 3.1, or DOS version 5.0 or higher
- Iomega Tools software (included with the Zip ATAPI drive)

■ **BIOS Support:** *It is recommended that BIOS support for the Zip ATAPI drive be disabled in the CMOS setup. On some systems with autodetection, it will be necessary to specifically turn off autodetection for the Zip ATAPI drive. Refer to the Owner's Manual for your computer if you need more information.*

The Zip ATAPI drive meets the latest ATAPI specifications; however some computers with early ATAPI support do not meet these specifications and so may not work correctly with removable ATAPI drives like the Zip ATAPI drive. Refer to the Zip ATAPI Errata sheet for additional information. ■

2 Unpack the Zip ATAPI drive.

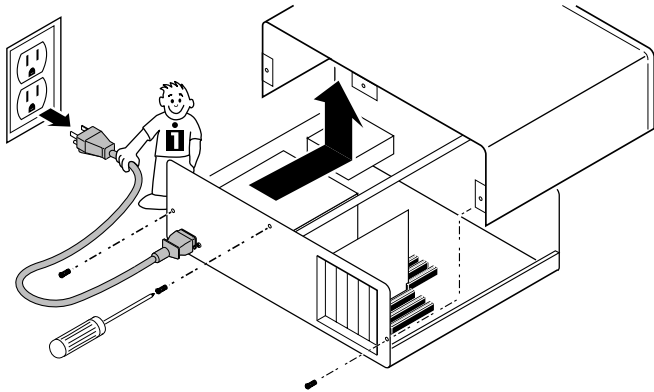
■ **CAUTION** *Before handling the Zip ATAPI drive, touch a grounded metal object (like an unpainted metal screw on the back of your computer) to discharge any buildup of personal static electricity. ■*



3 DISCONNECT the computer power cord and remove the cover. (Refer to your computer manual if removal is unclear.)

On some computers (especially tower models), you may need to remove the computer's face plate as well as the cover in order to access the drive bays.

WARNING Always disconnect computer electrical power at power source before beginning a computer hardware change. ■

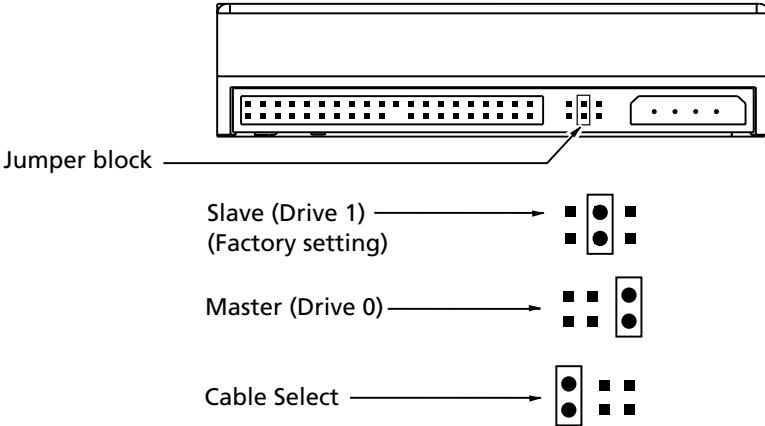


4 Identify the IDE interface connection you want to use for the Zip ATAPI drive.

- If the computer has an IDE hard drive, there may be an available connection on the primary IDE interface cable.
- If there are two drives connected to the primary IDE cable, connect the Zip ATAPI drive on the secondary IDE channel or use an IDE interface card.
- If there is not an existing IDE interface cable with an available connection, you will need a standard 40-pin IDE interface cable for connecting the Zip ATAPI drive.

5 Configure jumper settings on the Zip ATAPI drive as needed for your system.

The Zip ATAPI drive ships ready to install as the second drive on the IDE connection (slave configuration). If the Zip ATAPI drive will be the only drive connected to the IDE interface cable, change the jumper setting to master (drive 0). If the computer is a Cable Select system, use the "Cable Select" jumper setting.



Slave (Drive 1)

Use the slave jumper setting if the Zip ATAPI drive will be one of two drives connected to the IDE interface cable and the other drive is configured as a master drive. If there is one drive connected to the cable before the Zip drive is installed, it is probably configured as a master; however, some IDE drives require a different jumper setting when two drives are connected. If you encounter any problems, refer to the documentation that came with the existing IDE drive for additional jumper setting information.

Note that many CD-ROM drives will not support a slave drive. If you connect the Zip ATAPI drive to the same IDE interface cable as a CD-ROM, you may need to configure the Zip ATAPI drive as the master and the CD-ROM as the slave.

Master (Drive 0)

The Zip ATAPI drive should be configured as a master (drive 0) if it will be the only drive connected to the IDE interface cable, or if there will be two drives connected to the cable and the other drive is configured as a slave. A Zip ATAPI drive which is configured as a master will support either a second Zip ATAPI drive which is configured as a slave or an IDE hard drive or CD-ROM which is configured as a slave.

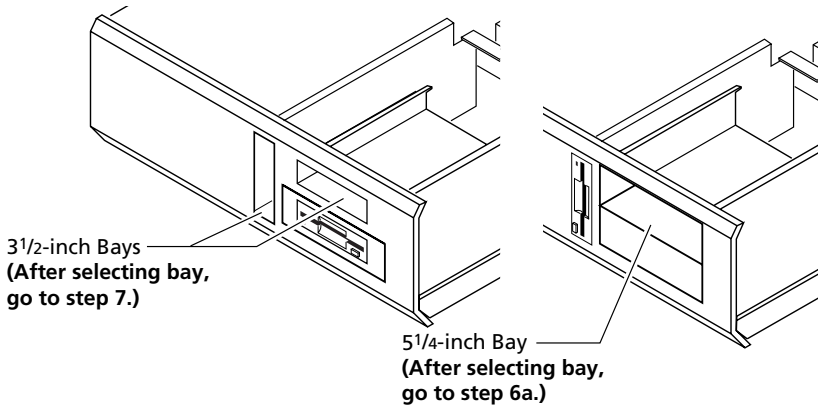
Cable Select

Use this setting whenever the Zip ATAPI drive is installed on a computer that features "Cable Select." Note that this setting should be used whether the Zip ATAPI drive will be the only drive connected to the Cable Select IDE cable or one of two drives connected to the cable. On Cable Select systems, the drive closest to the IDE controller is automatically the master drive.

■ **NOTE:** *If you do not have information from the computer manufacturer stating whether or not the system uses Cable Select, check the IDE interface cable. On a Cable Select system, there is an open connection on one of the wires between the first and second drive connectors. If there are no breaks or holes in the interface cable, it is probably not a Cable Select system.* ■

6 Locate a vacant drive bay and remove the panel cover.

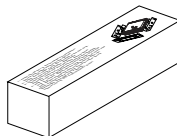
The Zip ATAPI drive is ready to install in a 3½ inch drive bay. A mounting bracket or sled must be used for installation in a 5¼ inch drive bay.



6a 5¼-inch drive bays ONLY:

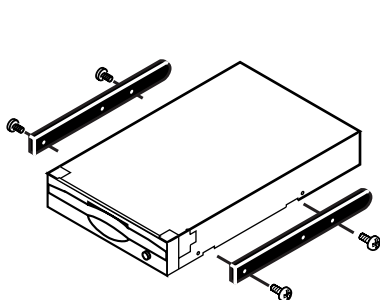
Use the 3.5-inch Universal Installation Kit to assemble a 5¼-inch mounting bracket and attach it to the drive, then go to step 7.

■ **Instructions** for assembling the mounting bracket are printed on the box. ■

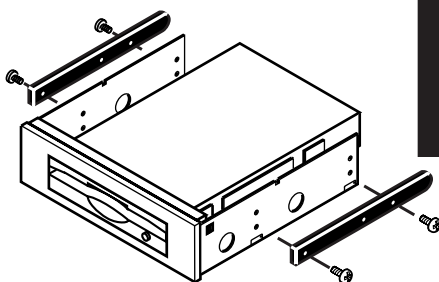


7 Check mounting requirements: Your drive bay may require side rails.

■ **HINT:** Check other drives in the system (such as a CD-ROM drive) to see if they use mounting rails. If so, you may need similar mounting rails for the Zip ATAPI drive. If the computer does not include extra mounting rails, contact your computer dealer to obtain the rails you need. ■



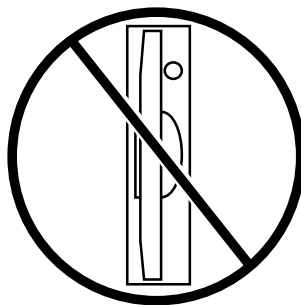
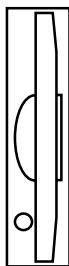
3 1/2-inch Bay



5 1/4-inch Bay

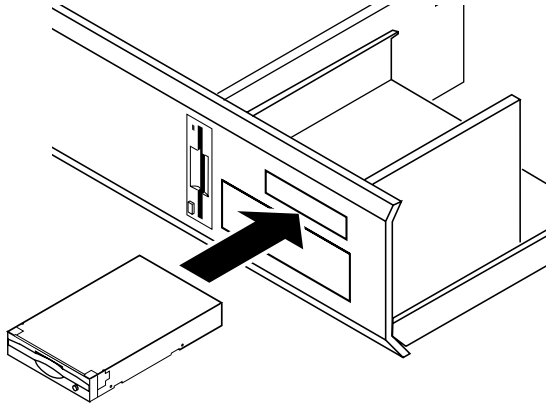
8 Check for correct mounting orientation before sliding the drive into the drive bay.

Correct mounting orientations



Do **not** mount vertically with the left side of the drive down!

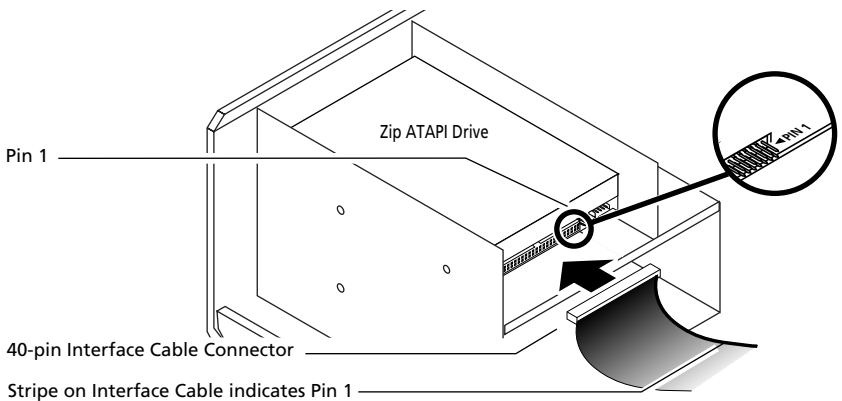
9 Slide the Zip drive into the drive bay.



■ **NOTE:** *If it makes it easier to connect cables on your computer, you can secure the Zip drive in the drive bay now. (See step 12 for instructions on securing the drive.)* ■

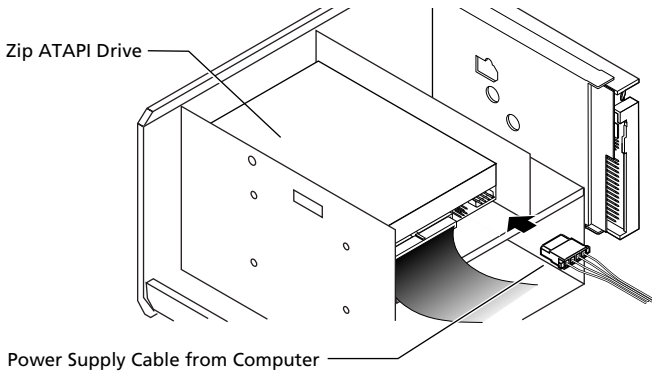
10 Use a standard 40-pin interface cable to connect the Zip ATAPI drive to the computer's embedded IDE interface or IDE card.

CAUTION *Make sure PIN 1 on the cable connects to PIN 1 on the Zip ATAPI drive. All IDE interface cable connections must maintain correct pin 1 orientation in order for the Zip drive to be recognized by the system.* ■



11 Connect a computer power supply cable.

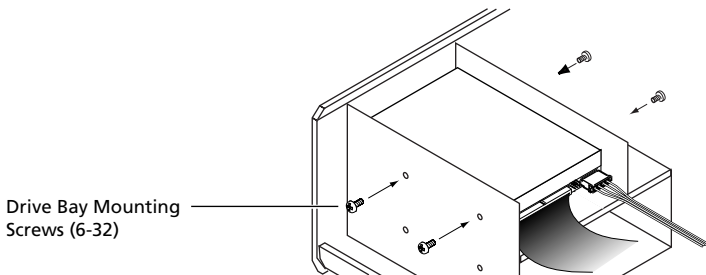
■ **NOTE:** If all available power supply cables have micro connectors, you will need a power cable converter. If the computer does not have a spare power supply cable, you will need a power Y-cable. ■



CAUTION Make sure the power supply cable is securely connected to the Zip drive. ■

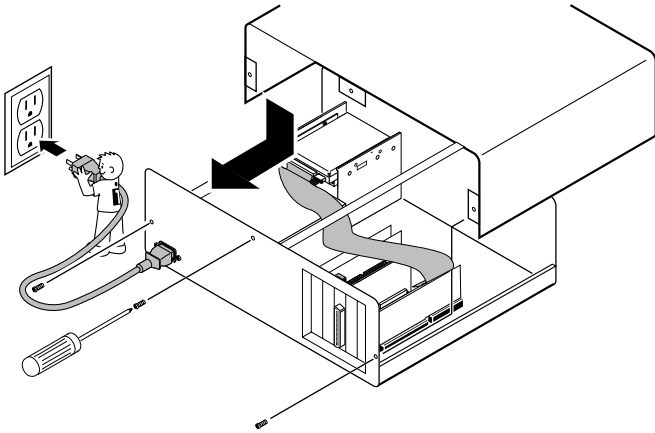
12 Secure drive in drive bay (mounting screws are in the 3.5" Universal Installation kit).

Align the front of the Zip drive with other drives installed in the computer. If there is not clear access to the drive bay mounting holes, refer to your computer manual for additional instructions. Note that if the drive is held in place securely by rails, you will not need to use the mounting screws.



CAUTION Mounting screws must not extend into the Zip ATAPI drive farther than 4.0 mm (about 0.16 inch). Mounting screws that are too long could damage the drive. ■

13 Check all connections, arrange the cables to fit under the cover, and replace the computer cover.



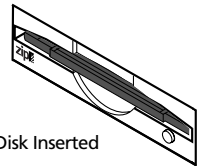
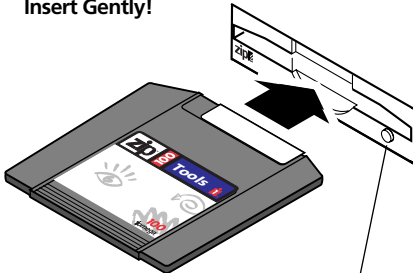
14 Reconnect power cord, turn ON power switch, and wait for the operating system to load.

15 Insert the 100MB Zip "tools" disk into the Zip drive.

CAUTION Always make sure computer power is ON before inserting a Zip disk! ■

When you insert a Zip disk, the green busy light in the eject button will flash momentarily. When the eject button is pushed, the drive takes a few seconds to deliver the disk.

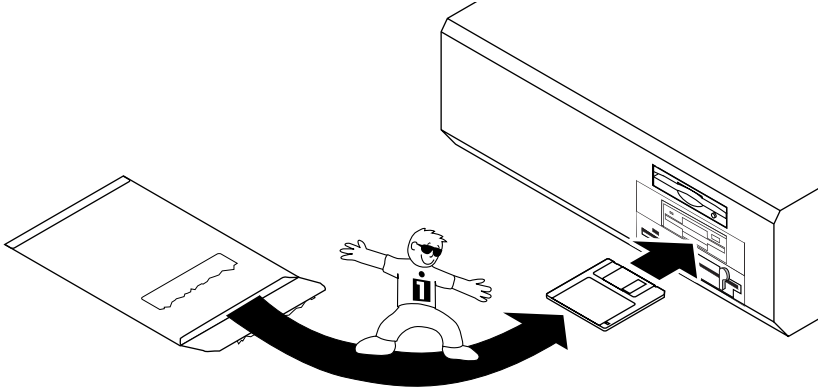
Insert Gently!



Disk Inserted

Eject Button / Green Busy Light
(Flashes when drive is transferring data,
or when inserting or ejecting a disk)

16 Insert the *INSTALL* diskette for your system into the computer's floppy drive.



17 Start the Setup program as described below and follow the screen instructions to install Tools software for the Zip drive.

■ **IMPORTANT!** *Installing the Tools software package installs the software drivers needed for the Zip ATAPI drive. If the drivers are not installed, the Zip drive may not be recognized or may not work correctly on the system. ■*

Windows® 95 Users:

You may need to run `Setup.exe` twice from the Windows 95 Install diskette – once to automatically install the updated drivers needed by Windows 95 for the Zip ATAPI drive, the second time to install Tools 95 software to support all features of the Zip drive.

1. Click the Start button and choose Run.
2. Type `a:\Setup` in the command line dialog box and click OK.
3. If Setup restarts the system before completing the Tools installation, run Setup again from the Install diskette after Windows 95 restarts.

If you need Help, refer to the electronic manual (`MANUAL.EXE`) located on the Windows/DOS Install diskette or to the Troubleshooting section of this guide.

Windows NT® Users:

You may need to run **SetupNT.exe** twice from the Windows NT Install diskette – once to install the **Iomega Zip IDE/ATAPI** driver, the second time to install ToolsNT software. Reboot the system after installing the Zip ATAPI driver and before installing the ToolsNT package.

■ **IMPORTANT!** *You must have administrator privileges for your local computer in order to install software drivers under Windows NT. You must also have administrator privileges for your computer to run the ToolsNT utilities.* ■

Installing Iomega Software under Windows NT 4.0:

1. Run **a:\setupnt.exe** from the Windows NT Install diskette.
 - If the SetupNT program is unable to locate the “tools” disk, make sure it is fully inserted and click “OK.” If SetupNT is still unable to locate the “tools” disk, click “OK” again and SetupNT will automatically open the “SCSI Adapters” Control Panel so that you can install the Iomega Zip IDE/ATAPI driver.** Continue to step 2.
- ****NOTE:** *Windows NT installs drives or adapters that use the IDE interface as SCSI adapters.* ■
- If the necessary driver is already present on the system, SetupNT will be able to locate the “tools” disk and install ToolsNT software. After Windows NT reboots, the Zip ATAPI drive will be ready to use.
2. Select the “Drivers” tab and click the “Add” button.
3. When the list of Iomega adapters appears, double-click the **Iomega Zip IDE/ATAPI** driver.
4. Choose “Current” in the Windows NT dialog box. Windows NT will then add the necessary driver to the list of installed drivers found on your system.
5. At the next Windows NT dialog box, select “Yes” to reboot the system. Remove the Install diskette from the floppy drive while Windows NT reboots.
6. After Windows NT reboots, run **SetupNT** again from the Install diskette to install the ToolsNT software package.

■ **IMPORTANT!** *If the SetupNT program still cannot locate the “tools” disk, refer to the NTReadme.txt file on the Install diskette for instructions on manually installing the driver.* ■

Installing Iomega Software under Windows NT 3.51:

1. Run `a:\setupnt.exe` from the Windows NT Install diskette.
 - If the SetupNT program is unable to locate the “tools” disk, make sure it is fully inserted and click “OK.” If SetupNT is still unable to locate the “tools” disk, click “OK” again and SetupNT will automatically run the “Windows NT Setup” program so that you can install the Iomega Zip IDE/ATAPI driver. Continue to step 2.
 - If the necessary driver is already present on the system, SetupNT will be able to locate the “tools” disk and install ToolsNT software. After Windows NT reboots, the Zip ATAPI drive will be ready to use.
2. From the Windows NT Setup window, choose the Options pull-down menu and select “Add/Remove SCSI adapters.”

■ **NOTE:** *Windows NT installs drives or adapters that use the IDE interface as SCSI adapters.* ■
3. When the list of adapters appears, click “Add,” then click “OK” in the message box.
4. Click the down arrow next to the window for “Select SCSI Adapter Option” to open the adapter list.
5. Scroll down the list of adapters and select the Iomega Zip IDE/ATAPI driver.
6. Click the “Install” button.
7. Choose “Current” in the Windows NT dialog box. Windows NT will then add the necessary driver to the list of installed adapters found by the operating system.
8. Click the “Close” button and exit Windows NT Setup.
9. Click “OK” and reboot the system. Remove the Install diskette from the floppy drive while Windows NT reboots.
10. After Windows NT reboots, run **SetupNT** again from the Install diskette to install the ToolsNT software package.

■ **IMPORTANT!** *If the SetupNT program still cannot locate the “tools” disk, refer to the NTRedme.txt file on the Install diskette for instructions on manually installing the driver.* ■

Windows 3.1 Users:

Run **Setup.exe** from the Install diskette for Windows/DOS.

1. Start Windows.
2. In the Windows Program Manager, select the File menu and choose Run.
3. In the Command Line box, type **a:setup** if the Windows/DOS Install floppy is in drive a: (or **b:setup** if it is in drive b:).
4. Click OK or press the Enter key to start the Setup program.

DOS Users (Windows not installed):

1. At the DOS prompt, type **a:guest** if the Install diskette is in drive a: (or **b:guest** if it is in drive b:).
2. Press Enter and note the drive letter Guest assigns to your Zip drive.
3. At the DOS prompt type: **d:\dosstuff\install** (use the Zip drive letter in place of d:), then press Enter.
4. After the software installation is complete, reboot the computer.

■ **Saving Files to the Tools Disk:** If you attempt to save files to the Zip "tools" disk and find that the disk is write-protected, run **d:\dosstuff\reclaim** (use the Zip drive letter in place of d:). ■



If you need Help, refer to the *Troubleshooting* section which starts on the following page. The electronic manual (**MANUAL.EXE**) located on the Windows/DOS Install diskette also includes problem solving information for software installations under Windows 95, Windows 3.1, and DOS.



Congratulations! When the software installation is complete, your Zip drive will be ready to use.

Use your Zip drive just like any other drive on your system. Your Zip drive will have its own drive letter, and you can store and copy files to and from the Zip drive using the same methods you use for other drives. For additional information on using the Zip drive and Tools software, refer to the *Zip ATAPI User's Guide* and to the **README.TXT** file on the Windows/DOS Install diskette.

Troubleshooting

If you encounter a problem while installing or using your Zip drive, check this section for help.

CAUTION *Electrical power should be turned off before connecting or disconnecting any cables; otherwise, computer equipment could be damaged.* ■

- 1 The green busy light on the Zip drive does not turn on.
 - (a) Make sure the computer is receiving power.
 - (b) Make sure the power cable connection to the Zip ATAPI drive is secure.
 - (c) Make sure there is a disk in the drive.

- 2 The Zip drive is not assigned a drive letter, or the Iomega software cannot find the Zip drive.
 - (a) Make sure pin 1 is properly connected on all IDE interface connections. The stripe on the interface cable should align with pin 1 on each connection. If the cable does not have a keyed connector, make sure the connector is not shifted a pair of pins.
 - (b) Make sure the Zip ATAPI drive is configured correctly. Refer to the configuration information in step 5 of the installation instructions.
 - (c) If there is another drive on the same IDE channel, make sure it is also properly configured. Refer to the documentation that accompanied the other IDE drive for configuration information (often this information is on the hard disk case). If you cannot locate the documentation, contact the manufacturer of the drive.
 - (d) Make sure BIOS support for the Zip ATAPI drive is disabled in the computer's CMOS setup. Note that this may require turning off autodetection for the Zip ATAPI drive. Refer to the Owner's Manual for the computer if you need instructions on disabling autodetection.

If you are unable to disable BIOS support for the Zip drive in the CMOS setup and the Zip ATAPI drive does not appear on the system, the computer may have an incompatible BIOS that does not correctly understand removable ATAPI drives. You may be able to solve the problem by obtaining an updated BIOS from the computer manufacturer. If an updated BIOS is not available, it may be possible to install the Zip ATAPI drive successfully using an add-on IDE card.

(e) Make sure the software drivers for the Zip ATAPI drive are correctly installed on the computer system. The necessary drivers are included with the Iomega Tools software package. Carefully follow the installation instructions given for the computer's operating system in step 17 of the Installation Guide section.

(f) If the computer's operating system is Windows 95, make sure the system is running in 32-bit mode (Protected mode). To check whether the system is running in 32-bit mode, right mouse click on *My Computer* and select "Properties." Click the "Performance" tab and check that "File System" and "Virtual Memory" are listed as 32-bit. If the mode is 16-bit, refer to the Windows 95 documentation for instructions on improving the system performance to 32-bit.

(g) Some IDE hard drives do not work properly unless they are in a certain position on the IDE cable. You may need to reverse the position of the master drive and the Zip ATAPI (slave) drive on the cable for the master drive to work properly.

(h) If the computer still does not recognize the Zip ATAPI drive, it may be that the existing IDE master drive does not allow access to a slave drive on the same cable. Try installing the Zip ATAPI drive on the secondary IDE channel.

3 Computer does not recognize a slave drive connected to the same IDE connection with a Zip ATAPI master drive.

(a) Make sure pin 1 is properly connected on all IDE interface connections. The stripe on the interface cable should align with pin 1 on each connection. If the cable does not have a keyed connector, make sure the connector is not shifted a pair of pins.

(b) Make sure the slave drive is correctly jumpered as a slave. Refer to the documentation that accompanied the slave drive for configuration information (often this information is on the hard disk case). If you cannot locate the documentation, contact the manufacturer of the drive.

(c) Some IDE hard drives do not work properly unless they are in a certain position on the IDE cable. You may need to reverse the position of the slave drive and the Zip ATAPI (master) drive on the cable for the slave drive to work properly.

(d) If the computer still does not recognize the slave drive, configure the jumper settings on the Zip ATAPI drive for the Cable Select option. Refer to the configuration information in step 5 of the installation instructions.

4 Computer fails to boot correctly or hangs while booting after the Zip ATAPI drive is installed.

Make sure BIOS support for the Zip ATAPI drive is disabled in the computer's CMOS setup. Note that this may require turning off autodetection for the Zip ATAPI drive. Refer to the Owner's Manual for the computer if you need instructions on disabling autodetection.

If you are unable to disable BIOS support for the Zip drive in the CMOS setup and the computer hangs during boot-up, the computer may have an incompatible BIOS that does not correctly understand removable ATAPI drives. You may be able to solve the problem by obtaining an updated BIOS from the computer manufacturer. If an updated BIOS is not available, it may be possible to install the Zip ATAPI drive successfully using an add-on IDE card.

5 Computer will not boot under Windows NT unless a disk is present in the Zip ATAPI drive.

This happens if Windows NT has set the Zip ATAPI drive as the location for the system page file. To eliminate the problem under version 4.0, open the Control Panel and double click on the "System" icon. Click the "Performance" tab and change the location of the system page file. Note that you may not be able to use the default hard drive as the location for the system page file if it does not have sufficient space available. (This may be why Windows NT set the Zip drive as the system page file location.)

6 Data transfer problems or drive operation is erratic.

Make sure the Zip ATAPI drive is electrically grounded. If the drive bay mounting screws do not make contact with a direct metallic path to the Zip drive chassis (for example, if you are using a plastic carrier to mount the drive in a 5¼" bay), then you need to provide a grounding strap. The grounding strap should be a wire from the ground lug on the right side of the drive by the power connector to a solid, metal connection on the computer chassis.

7 Computer locks up when the Zip driver program runs, or fails to recognize the Zip ATAPI drive.

These problems may occur if the computer is using an IDE caching controller. IDE caching controllers do **not** support ATAPI or removable IDE drives and **cannot** be used with the Zip ATAPI drive.

Warranty

This product carries a one year limited warranty. For complete warranty information, refer to the detailed warranty statement shipped with this product.

Drive Specifications

Electrical Power Requirements

Voltage Requirements

5 vdc +/- 5%	
Maximum Continuous	800 mA rms
Peak	1.65 amps
+5 vdc maximum ripple	100 mV P-P

Power Dissipation

Maximum Continuous	4.0 Watts
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Performance Characteristics

Data Transfer Rate

Sustained	Up to 11.2 Mbits/sec
Burst	Up to 26.7 Mbits/sec

Seek Time

Minimum	4.0 ms
Average	29.0 ms
Maximum	55.0 ms

Reliability Features

Nonrecoverable Errors	Less than 10 errors in 10^{13} bits
Drive Mean Time Before Failure	100,000 hours
Insertion/Removal Cycles (multiple disks)	10,000 minimum

Environmental Limits

Operating Temperature*

Drive with disk inserted 10° to 51°C (50° to 123°F)

* Operating temperature limits must not be exceeded at the head / disk interface.

Storage Temperature (6 months)

Drive -22° to 51°C (-8° to 123°F)

Disk -22° to 51°C (-8° to 123°F)

Shipping Temperature (96 hours)

Drive -40° to 60°C (-40° to 140°F)

Disk -40° to 51°C (-40° to 123°F)

Relative Humidity (noncondensing)

Operating humidity 20 to 80%

Storage / Shipping 10 to 90%

Maximum Wet Bulb

Operating 26.7°C (80°F)

Storage / Shipping 29.4°C (85°F)

Max Temperature Gradient

Operating 12°C/hr (22°F/hr)

Altitude

Operating To 3,048 m (10,000 ft)

Shock

Operating 7g, ½ sine wave for 11 msec

Shipping (96 hr) 100g for 11 msec

Vibration (Sweep rate = 1 Oct/min)

Operating 0.4g, 0-peak at 5-20Hz
0.2g, 0-peak at 20-250 Hz

Shipping 1.3g, 0-peak at 5-27 Hz
2.0g, 0-peak at 27-60 Hz
5.0g, 0-peak at 60-500 Hz

Iomega's Automated Help Systems

Internet Home Page: <http://www.iomega.com>
America Online™ Keyword: Iomega
Automated FAX Help (U.S. & Canada only) .. 1-801-778-5763
Automated E-Mail support@iomega.com
(Please type "Zip" in the subject header when sending your E-Mail)
Iomega Bulletin Board 1-801-778-5888
8,N,1; 9600 baud and above; ANSI (24 hrs - Download only)
Repair and Return Information 1-801-779-6100
(No technical support information is available at this number.)

European Support Numbers

Refer to the electronic manual included with your Zip software package for a complete list of European support numbers.



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