**The Easiest Way to Install Your Drive**

DiscWizard™ is Seagate's exclusive Windows program that is included with your drive for easy drive installation. You can use this software if you have a bootable hard drive in your computer and are running Windows 95 or 98.

Run DiscWizard before installing your drive for customized step-by-step instructions for your system.

To run DiscWizard:
- Select Run from the Windows Start menu and type `x:\setup`, where `x` is the drive letter of your CD-ROM.

If you cannot run DiscWizard, follow the instructions on this installation sheet to install and configure your drive.

**What You Need**

- Phillips screwdriver and four 6-32 UNC drive mounting screws
- A standard 40-pin ATA interface cable, or an 80-conductor cable to run Ultra ATA 100 (max length: 18 inches)
- An unused drive power cable for your new drive
- Windows 98 to support drives greater than 33.8 Gbytes

**Ultra ATA/100 Requirements**

The drive can support transfer rates up to 100 Mbytes per second (UDMA 5) in Ultra ATA/100 mode. For your drive to run in this mode, you need the following:

- A computer that supports UDMA mode 5
- A 40-pin 80-conductor cable (available from your dealer)
- A software utility to confirm and activate Ultra ATA/100. Seagate® provides a utility called UA T A100.exe. You can download the latest version from our Web site at www.seagate.com.
- The Windows 98 operating system

**Handling Precautions**

Disc drives are extremely fragile. Do not drop or jar the drive.

- Keep the drive in the protective SeaShell™ container until you are ready to install it. This minimizes handling damage.
- The drive has a protective cover called SeaShield®. Do not remove this permanent cover—it protects the drive from electrostatic discharge (ESD) and minor impact damage.
- Protect your drive from static discharge by wearing a grounded wrist strap throughout the installation process.
- Always handle the drive by the edges or frame.
- Do not apply pressure or attach labels to the circuit board or the top of the drive.

**Setting the Jumpers**

Refer to the jumper settings below to configure the drive for your system.

### BIOS Settings

<table>
<thead>
<tr>
<th>Drive Model</th>
<th>Cylinders</th>
<th>Heads</th>
<th>Sectors</th>
<th>Total Sectors*</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST340823A</td>
<td>16,383</td>
<td>16</td>
<td>63</td>
<td>78,165,380</td>
</tr>
<tr>
<td>ST330621A</td>
<td>16,383</td>
<td>16</td>
<td>63</td>
<td>58,633,344</td>
</tr>
<tr>
<td>ST320413A</td>
<td>16,383</td>
<td>16</td>
<td>63</td>
<td>39,102,336</td>
</tr>
<tr>
<td>ST315311A</td>
<td>16,383</td>
<td>16</td>
<td>63</td>
<td>28,336,832</td>
</tr>
<tr>
<td>ST310211A</td>
<td>16,383</td>
<td>16</td>
<td>63</td>
<td>19,541,088</td>
</tr>
</tbody>
</table>

*One sector equals 512 bytes.

### Circuit Board

- **Pin 1:** Connector
- **Pin 2:** Power
- **Pin 3:** Interface connector
- **Pin 4:** Motherboard

## Options Jumper Block

<table>
<thead>
<tr>
<th>Pin 1</th>
<th>Pin 2</th>
<th>Pin 3</th>
<th>Pin 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BIOS Settings

<table>
<thead>
<tr>
<th>CHS Mode</th>
<th>LBA Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 Gbytes</td>
<td>32 GB</td>
</tr>
</tbody>
</table>

**Master or single-drive:** The drive is shipped configured for a master or a single drive with a jumper set on pins 7 and 8.

**Drive is slave:** To configure the drive as a slave, or second drive on the cable, remove all the jumpers.

**Master with non-ATA compatible slave:** Use this setting if the slave drive is not recognized. Configure the master drive with a jumper set on pins 5 and 6 and pins 7 and 8 to enable this option.

**Cable-select option:** Computers that use cable-select determine the master and slave drives by selecting or deselecting pin 28, CSEL, on the interface bus. To enable cable select, set a jumper on pins 5 and 6.

**Alternate capacity jumper:** Drives with a 40-Gbyte capacity are limited to 33.8 Gbytes. Drives with 30 Gbytes or less are limited to 2.1 Gbytes.

### Attaching Cables and Mounting the Drive

1. Attach one end of the drive interface cable to the interface connector on your computer's motherboard (see your computer manual for connector locations).

   **Caution.** Align pin 1 on the motherboard connector with pin 1 on your drive connector. Pin 1 is marked by a stripe on one side of the cable.

2. Attach the interface connector and the power connector to the drive.

   **Note.** You can mount the drive in any orientation. Usually it is mounted with the circuit board down.

3. Secure the drive in the computer using four 6-32 UNC mounting screws in either the side-mounting or bottom-mounting holes. Insert the screws no more than 0.20 inch (5.08 mm) into the bottom-mounting holes and no more than 0.14 inch (3.55 mm) into the side-mounting holes.

4. Save and exit the system setup program.
**Preparing the Drive with Disk Manager**

**Installing a Single Drive**

If you are installing a single drive, we recommend using Disk Manager to automatically partition and format your drive. This software is stored on the CD provided with your drive. To run Disk Manager:

1. Boot your computer from your Windows 98 or 95 startup diskette.
2. Insert the DiscWizard CD and change to the drive letter of your CD-ROM.
3. At the prompt, type `dm`. Then press `ENTER`. Disk Manager guides you through the installation process.
4. Proceed to the section on “Loading the Operating System.”

**Installing a Slave Drive**

If you are installing a second drive, or slave, to your system, use the DiscWizard software provided with your drive.

**Note.** If you do not want to install your drive using Disk Manager, see “Standard DOS installation” below to partition and format your drive.

**Standard DOS Installation**

**Caution.** Partitioning or formatting a drive erases all data on it. Seagate assumes no liability if you erase your data.

**Drive Partitioning**

Partitioning divides the drive into sections or partitions that function as separate logical drives (labeled C,D,E, etc.). To partition your new drive:

1. Insert a bootable DOS diskette and restart your computer.
2. Type `fdisk` and press `ENTER`. If you have two drives installed, select your new drive from option five of the FDISK menu.
3. Select “Create DOS partition or logical DOS drive” by pressing 1. Then press `ENTER`.
4. Select “Create Primary DOS partition” by pressing 1 again. Create your first drive partition. To make the partition bootable, mark the partition as active.
5. Verify that all space on your new drive has been partitioned. If necessary, create an extended partition with additional logical drives.

**Drive Formatting**

**Caution.** Use the correct drive letters to prevent formatting a drive that already contains data.

At the A: prompt, type `format x:s`, where `x` is the letter of your first new partition. Repeat the format process for all new partitions. Proceed to “Loading the Operating System” below.

**Loading the Operating System**

1. Boot your computer from your Windows 98 or 95 startup diskette with the Windows CD loaded.
2. At the prompt, type `msdos/setup`, where `x` is the drive letter of your CD-ROM drive. Continue with the Windows setup instructions.

**Troubleshooting**

If your drive is not working properly, follow these troubleshooting steps.

1. **Does the drive spin up?** A spinning drive produces a faint whine and clicking noise that begins when power is applied. If your drive does not spin, check that the power connector and interface cable are securely attached and the Jumpers are installed correctly.
2. **Does the computer recognize the drive?** Verify that the drive is enabled in the system CMOS or setup program. If not, select the autodetect option and enable it. If your drive has a problem, it may not be recognized by the system.
3. **Does FDISK detect the drive?** Run the FDISK program located on your Windows startup diskette. Type `fdisk/status` to verify that your hard drive is present.
4. **Does Scandisk find the drive defect-free?** Scandisk is a utility located on your Windows startup diskette that scans the drive for defects. If defects are detected, this may be an indication of a problem.

5. **Why won’t the drive format to full capacity?** Verify that your BIOS has autodetect and LBA mode enabled. Otherwise you may need to use Disk Manager to achieve the full capacity of your drive. Download the latest version from www.seagate.com or find it on your CD.

6. **The computer hangs on startup.** Use the alternate capacity jumper if your computer does not support higher capacity drives. The jumper limits the 40-Gbyte drive capacity to 33.8 Gbytes and limits drives with capacities of 30 Gbytes or less to 2.1 Gbytes. To reach full capacity, refer to heading 5.

**Note.** If the above steps do not solve the problem, contact your dealer or visit www.seagate.com to download SeaTools disc diagnostics software and for more troubleshooting advice.

**Seagate Support Services**

**Internet**

For online information about Seagate products, visit www.seagate.com or e-mail your disc questions to: DiscSupport@Seagate.com.

**Technical Support**

If you need further help installing your drive, first consult your dealer. Dealers are familiar with their unique system configurations and can help you with system conflicts and other technical issues. If you need additional help, you can talk to a Seagate technical support specialist. Before calling, note your system configuration and drive model number.

---

**Warranty**

To determine the warranty status of your Seagate disc drive, contact your place of purchase or visit our Web site at www.seagate.com for more information.

**RMA (Return Merchandise Authorization)** Before requesting a return authorization, Run SeaTools to diagnose your drive. In addition, please verify that your drive is defective by following the troubleshooting checklist in this guide. Seagate offers comprehensive customer support for all Seagate drives worldwide.

Seagate customer service centers are the only facilities authorized to service Seagate drives. Drive return procedures vary depending on geographical location and are subject to current International Trade Regulations.

**Shipping Your Drive**

**Caution.** Back up the data on your drive before shipping it. Seagate assumes no responsibility for data lost during shipping or drive repair. Shipping a drive in an unapproved container voids the warranty. Pack the drive with foam rubber only. Do not use paper, bubble wrap, or newspapers. Keep your original box and packing materials for storing or shipping your drive. To preserve the warranty status of your drive, any product returned to Seagate must be properly packaged in the original box or a Seagate-approved container to prevent physical and electrical damage while in transit.

**Electromagnetic Compliance for the European Union** This model complies with the European Union requirements of the Electromagnetic Compatibility Directive 89/336/EEC of 03 May 1989 as amended by Directive 92/31/EEC of 28 April 1992 and Directive 93/68/EEC of 22 July 1993. Compliance of this drive, as a system component, was confirmed with a test system. We cannot guarantee that your system will comply. The drive is not meant for external use (without properly designed enclosure, shielded I/O cable, etc.).

**Sicherheitsanleitung**


2. Zur Befestigung des Laufwerks werden 4 Schrauben 6-32 UNC-2A benötigt. Bei seitlicher Befestigung darf die maximale Länge der Schrauben im Chassis nicht mehr als 3,3 mm und bei Befestigung an der Unterseite nicht mehr als 5,08 mm betragen.

3. Als Versorgungsspannungen werden benutzt: ±5 V ± 5 %; ±2 V ± 10 % (1,9A für ca. 30 Sek. für ±10%). Die Versorgungsspannung muss SELV entsprechen.


© 2000 Seagate Technology, LLC. All rights reserved.

Publication Number: 21200248-001, Rev. A, July 2000

Seagate, Seagate Technology, the Seagate logo, U Series 5, DiscWizard, SeaShell and SeaShield are either registered trademarks or trademarks of Seagate Technology, Inc. Other product names are registered trademarks or trademarks of their owners.