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You can read the recommendations in the user guide, the technical guide or the installation guide for MAXTOR ST5851A. You'll find the answers to all your questions on the MAXTOR ST5851A in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

## User manual MAXTOR ST5851A User guide MAXTOR ST5851A Operating instructions MAXTOR ST5851A Instructions for use MAXTOR ST5851A Instruction manual MAXTOR ST5851A



**INSTALLING YOUR MAXTOR HARD DRIVE**

There are two ways to install a Seagate hard drive: a desktop PC or a laptop. This guide provides instructions for both. For more information on hard drive installation, visit [www.seagate.com](http://www.seagate.com).

**BEFORE YOU BEGIN**

- Read the instructions carefully before you begin.
- Make sure you are working on a hard surface.
- Avoid touching the drive's surface.
- Do not touch the drive's pins or connectors.

**1. DRIVING THE DRIVE**

The drive is a 3.5-inch drive. It is designed to fit into a 3.5-inch drive bay. The drive is shown in the diagram below.

**2. ATTACHING THE DRIVE**

Use the screws provided to attach the drive to the drive bay. The drive is shown in the diagram below.

**3. CONNECTING THE DRIVE**

Connect the drive to the system unit. The drive is shown in the diagram below.

**4. INSTALLING THE DRIVE**

Install the drive in the system unit. The drive is shown in the diagram below.

**5. TESTING THE DRIVE**

Test the drive to ensure it is working properly. The drive is shown in the diagram below.

**6. TROUBLESHOOTING**

Check for common problems and solutions. The drive is shown in the diagram below.

**7. CONTACT INFORMATION**

For more information, contact Seagate Customer Support. The drive is shown in the diagram below.

**8. WARRANTY INFORMATION**

Read the warranty information for the drive. The drive is shown in the diagram below.

**9. INDEX**

Find the information you need quickly. The drive is shown in the diagram below.

**10. APPENDICES**

Additional information and resources. The drive is shown in the diagram below.



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**Manual abstract:**

This symbol indicates additional information on the topic being discussed appears on the back of this sheet. . . Straight-edge and Phillips screwdrivers Drive mounting screws If you are mounting this 3.5-inch drive in a 5.25-inch drive bay, you need a mounting adapter or frame kit. You may need drive mounting rails if your drive bay is not designed for direct mounting. A drive host adapter and connector cable with enough connectors for all your drives An unused drive power cable to plug into your new drive A bootable DOS system diskette (Seagate recommends using DOS Version 5.0 or later.) A blank 1.2-Mbyte or 1.4-Mbyte diskette for transferring the drive-support software to after you have mounted the drive Keep the drive in its antistatic bag until you are ready to install it.

· · **BEFORE YOU BEGIN Important.** Do not format this drive without first reading the instructions and removing the free drive-support software that is stored on the drive. Protect your drive from static discharge by making sure you are well grounded before touching the drive. We recommend wearing a grounded wrist strap throughout the installation process. Do not touch the connectors or any part of the printed circuit board.

Always handle the drive by its edges or frame. . . . . Make sure your computer is turned off before you open the case. Read the handling precautions at the right, and inspect the drive to make sure that it is not damaged. Save your foam-lined Seagate disc drive box. This box has been approved by Seagate for shipping a Seagate disc drive.

Using any other container or packing material voids your drive warranty. Do not apply pressure or attach labels to the circuit board or the top of the drive. 1.

**ONE DRIVE OR TWO?** The options jumper block allows you to configure the drive for your system. You can configure it to operate as a single drive, as the master with an ATA-compatible or a non-ATA-compatible slave, as the slave drive, or to work with cable-select. The drawing below shows the configuration settings. The configuration options are discussed on the back. The factory places jumpers on pins 2 and 4 and pins 5 and 6. This default setting allows you to install the drive as a single drive or as the master with an ATA-compatible slave. To install the drive with a different configuration, move the jumper on pins 2 and 4 to the appropriate pins.

**ACCESSING MORE THAN 528 MBYTES** The full capacity of your drive exceeds the maximum capacity many older computers can address. If your computer's BIOS was manufactured before June of 1994, it may not be able to access more than 528 Mbytes. Several options are available for surpassing the 528-Mbyte barrier. We recommend the following: 1 Use a hard drive controller or a BIOS upgrade that supports drives with capacities greater than 528 Mbytes, or 2 Use the free Disk Manager software stored on your Seagate drive to install the drive. Caution. You must transfer the free replacement 32-bit disk access driver for Windows 3.1, Disk Manager installation software and other software stored on the drive to a diskette in Drive A before you partition and format the drive. Instructions for transferring the software are provided in Section 2, "Transferring the Free Seagate Software." **ATTACHING CABLES 1** Attach one end of the 40-pin drive interface cable to the interface connector on your computer or host adapter as shown below. After threading the cable through the drive bay, attach your drive or drives to one of the connectors on the interface cable.

**Caution.** Make sure to align pin 1 of the computer's interface connector or the host adapter with pin 1 of your drive or drives. **MOUNTING THE DRIVE** You can mount the drive in any orientation. Secure the drive with four 6-32 UNC-2A mounting screws not more than six full turns into the drive frame in either the side mounting holes or the bottom mounting holes. Do not overtighten.

Do not use metric screws. After mounting the drive, replace your computer cover. If you are mounting the drive in a 5.25-inch drive bay, you need a mounting adapter or frame kit. Contact your computer dealer.

Some computers also require drive mounting rails, which can be obtained from your distributor or computer manufacturer. 2 Attach a power cable to each drive as shown. 2.2. **TRANSFERRING THE FREE SEAGATE SOFTWARE** The factory stores free software files on the drive that 1) allow your computer to access the drive's full capacity when the 528-Mbyte barrier is imposed; 2) you can use to partition and format the drive; and 3) provide information on other Seagate products. Transfer these files to a blank, bootable diskette in Drive A before you partition and format the drive. You need two diskettes if you want all of the files. The software programs are: SEG32BIT.386. A replacement 32-bit disk access driver for Windows 3.1 that provides full support for drives with capacities greater than 528 Mbytes in Windows.

Disk Manager. Installation software that partitions and formats your drive. It installs a software driver to surpass the 528-Mbyte barrier, if necessary. DRVIN11. A program that reads an installed ATA drive and displays the drive's major features. Seamove. Transfers the above software programs to a diskette in Drive A and erases the factory partition and format after the files are transferred. STDR9511.EXE. The Seagate Technical Desk Reference is a Windows application that contains information on other Seagate products.

You must copy this file to a separate diskette using the standard copy command before you use Seamove to transfer the other files. To make a bootable diskette and transfer the files: 1 Turn your computer on and enter Setup. See your computer or motherboard reference manual for instructions on how to enter Setup.

It may be called System Setup, BIOS Setup or CMOS Setup. 2 Locate the hard disc configuration settings.

3 Select user-defined or custom, and configure the drive for 615 cylinders, 4 heads and 17 sectors (Drive-type 2). Save and exit Setup. 4 Immediately insert your DOS diskette into Drive A. 5 At the A: prompt, type format a: /s and press ENTER. The /s switch makes the new diskette bootable.

6 The computer reads the DOS diskette and prompts you to insert a blank diskette into Drive A when it is ready to format the new diskette. 7 When the format is complete, reboot the computer with the new diskette. 8 Access the prompt assigned for your new Seagate drive. 9 Type seamove. Seamove transfers the files from the drive to your diskette. It erases the partition and the files when the transfer is complete. We refer to this diskette as the Seagate software diskette. 3.3.

**CONFIGURING SETUP** You must configure the computer to recognize the full capacity of your drive. If your BIOS cannot access your drive's full capacity and you use Disk Manager, leave the hard drive parameters you used for transferring the software file in Setup.

Go to Section 4A "Installation with Disk Manager Software."



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" Disk Manager will install its software driver, Dynamic Drive Overlay (DDO), to make the drive's full capacity available. If your BIOS can accept more than 528 Mbytes, use the steps below to configure the BIOS. Many BIOSs use logical block addressing (LBA) mode to access drives with capacities greater than 528 Mbytes. Check your documentation for this feature. 1 Turn your computer on and enter Setup. 2 Enable LBA mode if it is available. 3 Locate the hard disc configuration settings. 4 If your Setup has an Auto option, select it. Save and exit Setup.

The computer automatically determines the drive parameters and configures Setup. If there is no Auto option and LBA mode is enabled, select user-defined or custom and enter the LBA parameters shown for your drive in the table. If Setup does not accept all of the LBA parameters, use the CHS (cylinder, head and sector) parameters. If there is no Auto option and no LBA mode, select user-defined or custom and enter the CHS parameters. Drive Model ST5540A ST5851A Mode CHS CHS Cylinders 1,050 1,656 2,100 2,485 525 828 525 621 Heads 16 16 16 16 32 32 64 64 Sectors per track 63 63 63 63 63 63 63 63  
ST51080A CHS ST51270A CHS ST5540A ST5851A LBA LBA ST51080A LBA ST51270A LBA Note.

Your drive does not use write precomp or landing zone parameters; set these parameters to zero. 5 Save the settings and exit Setup. Your computer will continue the startup sequence. After the BIOS is configured, you can use either Disk Manager to partition and format the drive (see Section 4A "Installation with Disk Manager") or the standard partition and format (see Section 4B "Standard Partitioning and Formatting"). 4A.

INSTALLATION WITH DISK MANAGER SOFTWARE 4 1 Boot your computer with the Seagate software diskette in Drive A. This is a precaution to ensure that the Disk Manager installation does not conflict with any terminate-and-stay resident programs that may load into memory. 2 At the DOS prompt, type dm and press ENTER. 3 Follow the screen instructions until the Select an Install Option dialog box appears. Select (E)asy Disk Installation and press ENTER.

This puts a single partition on the drive. a 4B. STANDARD PARTITIONING AND FORMATTING If the BIOS cannot accept your drive's geometry, Disk Manager installs a software driver, Dynamic Drive Overlay (DDO), that allows your computer to access the drive's full capacity. Read the Important Information--Please Read screen carefully; it tells you how to boot with a diskette when your drive requires the Disk Manager software driver. If your computer requires the DDO to access your new Seagate drive, the Disk Manager banner must appear when you boot the computer after installing the drive.

If the banner does not appear, the computer will not recognize the drive. Make sure that Drive A is empty when you boot. Try again. 4 Verify that the drive's model number appears on the screen. If you have two drives, both model numbers must appear. Select the drive you want to install and press ENTER. Disk Manager partitions and formats the drive and makes it bootable if it is Drive C. If the model number is not shown, exit Disk Manager and turn off the computer. Check all cables and jumper settings. Try again.

YOU'RE DONE! b 4 Drive Partitioning press ENTER. Caution. Partitioning or formatting a drive erases all data on it. Seagate assumes no liability if you erase your data. Before you partition or format the drive, be sure to transfer the free software files that were stored on the drive at the factory.

4 Type 1 and press ENTER to "Create primary DOS partition." Type yes and press ENTER. This puts the entire drive on one partition and makes the partition active. When the partitioning is complete, FDISK reboots your computer. Drive Formatting At the A: prompt, type format d: /s, where d is the letter of your new hard drive (DOS automatically assigns a letter for each partition you create).

Caution. Make sure that you use the correct drive letter. All data on the drive is erased during the format. When the formatting completes, your drive is ready.

1 Insert a bootable DOS diskette in Drive A and boot your computer. 2 At the A: prompt, type fdisk and press ENTER. Note. If you have two drives installed, the menu displays five options. Option five allows you to select the drive you want to partition. Make sure you select the correct drive.

YOU'RE DONE! 3 Type 1 for "Create DOS partition or logical DOS drive" and 5 Follow the instructions in the post-installation screens. WINDOWS 3.1 32-BIT DISK ACCESS The 32-bit disk access feature in Windows 3.1 does not work with drives that have capacities greater than 528 Mbytes. If you want to use this feature, install the Seagate replacement 32-bit access driver, SEG32BIT.386, located on your Seagate software diskette. If during installation Windows 3.1 activates the 32-bit disk access feature in your system, a message suggesting that you disable 32-bit disk access appears the first time Windows loads into memory. Choose to disable 32bit disk access to open Windows. To install t/2 and Windows NT V3.

5, you must replace up to four of the original files with files supplied by Disk Manager. The replacement files are located in the OS2 and the NT subdirectories on your Seagate software diskette. The online manual tells you which files you need to replace and under what conditions to replace them. If you need assistance renaming a file, refer to your DOS reference manual. If you need to make a copy of an installation diskette, follow the instructions below--the installation diskette will not install if you use the standard copy command to copy it.

@@@Reinstall the drive and host adapter card and boot the computer. @@@@This service is available 24 hours daily. @@@@3 Insert a blank diskette into Drive A and press any key. @@@@Remove any diskette in Drive A and reboot. @@@@Responses are sent between 8:00 A.

M. and 5:00 P.M. @@The connector that has pin 28 disabled is used for the slave drive. @@@@Caution. Before you attempt to remove the DDO, back up your data files. You may need to use the backup files to restore your disc if your data is lost. If the migration encounters a media defect or is interrupted by a power loss or hardware failure, the migration will fail and your data will be lost. Run CHKDSK, SCANDISK or a third-party equivalent to detect and repair any media defects before you attempt the migration. 1 Boot the computer to Drive C.

2 Put your Seagate software diskette into Drive A and access the A: prompt. 3 Type dm and go to the Select Installation Options menu. 4 Select (M)aintenance Menu. 5 Select (M)igrate Dynamic Drive. This program shifts the data to where the standard format can find it. The migration may take up to an hour to complete, depending on the size of your drive. 6 When the Migration is complete, exit Disk Manager. 7 Remove the diskette and reboot the computer. Enter Setup. 8 Configure the hard drive with the parameters shown for your drive in the translation geometry table in Section 3 "Configuring Setup" on the front side of this poster.



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Save your changes and exit Setup. 9 When the boot is complete, insert the diskette and access that drive. 10 Type dm and go to the Maintenance Menu. 11 Select Uninstall (D)isk Manager. 12 Select the correct drive to uninstall.

When the uninstall is complete, exit Disk Manager and reboot. · Check for viruses. Check for I/O address conflicts between peripheral cards. The screen remains blank when you power up the system. · Make sure the monitor is plugged in and turned on.

· Check all cards. · Make sure the video card is seated in its slot and secured with mounting screws. You can talk to a technical support specialist between 8:00 A.M. and 5:00 P.M. (Pacific time) Monday through Friday. SeaFONE provides recorded technical information on selected Seagate products while you are on hold. You can access the recordings 24 hours daily. Before calling, note your system configuration and drive model number (STxxxx).

SeaTDD 408/438-5382 Remote LED You can attach a remote LED cable to pins 11 ( ) and 12 ( + ) of the drive. Attach the LED ground wire (usually the black wire) to pin 11 ( ). · While the computer is powered down, remove the drive host adapter. If the screen turns on after you reboot, the host adapter may be incompatible or defective. If so, see your dealer. Using a telecommunications device for the deaf (TDD), you can send questions or comments 24 hours daily and exchange messages with a technical support specialist between 8:00 A.M. and 5:00 P.M. (Pacific time) Monday through Friday.

The system hangs in FDISK or fails to create or save the partition record. SeaBOARD CompuServe Forum Online technical support for Seagate products is available on CompuServe. To access our technical support forum, type go seagate. This forum provides information similar to that found on SeaBOARD.

ADVANCED DISK MANAGER OPTIONS General Disk Manager partitions and formats your drive.

It installs the Dynamic Drive Overlay (DDO) software driver to provide access to your drive's full capacity if your computer's BIOS is not configured to access more than 528 Mbytes. DDO bypasses the BIOS during the boot sequence and load the drive information before DOS loads. Disk Manager: · The DOS utilities diskette may be corrupted. Try your backup DOS diskette. · Make the partitions smaller.

· Change the interrupt jumper setting on the host adapter. · Check for media defects at the beginning of the drive. Use CHKDSK, Check all cables. SCANDISK or a third-party surface scan utility. Seagate's Internet Connections Technical information for Seagate drives is available on the internet from Seagate's World Wide Web home page (<http://www.seagate.com>) or Seagate's ftp server (<ftp://ftp.seagate.com>). The ftp server contains information similar to that found on SeaBOARD.

· Some BIOSs have a Track 0 protection feature that protects Track 0 from viruses. This can cause FDISK to hang the system. You must disable this feature in Setup before you can use FDISK. See your computer reference guide for assistance. Be sure to re-enable this important feature when FDISK is done. ·

Provides an easy installation option that new drive in seconds. partitions and formats the · Provides an easy-to-use format if you want to customize your drive installation. · Installs a software driver, Dynamic Drive Overlay, that allows the computer to access the full capacity of your Seagate drive when the BIOS limits the drive capacity to 528 Mbytes. STORING AND SHIPPING YOUR DRIVE Keep your original box and packing materials for storing or shipping your drive. The box has a Seagate Approved Package label.

Shipping a drive in an unapproved container voids the warranty. Call your authorized Seagate distributor to purchase additional boxes. The figure below shows how a drive fits in an approved single-pack box, including the packing materials. The system error message, "Drive not Ready," appears. · Check all cable connections.

Make sure that pin 1 of the drive is connected to pin 1 of the hard-disc controller or host adapter. · Modifies the boot record with geometry for the new drive if the Dynamic Drive Overlay driver is required. · Copies the system files onto the new Drive C to make it bootable. · Enables read/write multiple, a feature that increases performance by allowing multiple blocks of data to be transferred in a single burst if your computer also support this feature.

TROUBLESHOOTING Basic Troubleshooting Techniques Warning.

Always turn off the computer before changing shunts or unplugging cables and cards. Wear a ground strap or take other antistatic precautions while handling your drive. If you have installed your drive and it does not function properly, perform the following basic checks: · Make sure the power supply is adequate for system needs. · Reboot the computer and make sure the drive spins up. The FDISK error message, "No Fixed Disk Present," appears. · Provides full drive-capacity support for several operating systems. · Provides complete, easy-to-use online documentation. Booting with a Diskette If Disk Manager installs DDO to access the full capacity of your drive, the information DDO uses to access the drive must load into memory before the operating system loads into memory. This occurs automatically when you boot to Drive C. To gain access to the drive when booting to Drive A: 1 Boot the computer with the Drive A door open.

2 When the Disk Manager banner appears on the screen, immediately press the SPACEBAR (you have about 2 seconds). 3 Insert the boot diskette and press the SPACEBAR. If you boot with a diskette regularly, you can create a Dynamic Drive Overlay boot diskette. It loads DDO into memory, then loads the operating system. See the online manual for more information about creating a Dynamic Drive Overlay boot diskette. · Make sure the power supply is adequate for system needs. · Verify the Setup drive-type values. · Check for I/O address conflicts. The drive does not format to full capacity. · Verify the drive-type values in Setup.

One of the following problems may have occurred: The values may be set with an incorrect translation characteristic. You may have entered a parameter value that exceeds the physical capacity of the drive. You entered a translation characteristic that does not take full advantage of the drive's capacity. The drive's physical specifications exceed the translation limits imposed by the BIOS. Warranty.

See your authorized Seagate distributor or dealer. With regards to the Disk Manager and SEG32BIT.386 software, there are no warranties, express or implied, including, but not implied, warranties of merchantability or fitness for a particular purpose. All such warranties are expressly and specifically disclaimed.



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*Maintenance and repair.*

*Seagate drives do not require maintenance. The head/disc assembly is sealed; a broken seal voids the warranty. Seagate customer-service centers are the only facilities authorized to repair Seagate drives. Seagate does not sanction any thirdparty repair facilities. 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 1. Das Gerraät ist ein Einbaugerät, das für eine maximale Umgebungstemperatur von 55°C vorgesehen ist. 2. Zur Befestigung des Laufwerks werden 4 Schrauben 6-32 UNC-2A benötigt. @ @3. @ @30 Sek. für ± 10%) 4. Die Versorgungsspannung muss SELV entsprechen. 5. @ @Bitte schaffen Sie Festplatteetiketten nicht weg.*

*6. @ @Seagate, Seagate Technology, SeaFAX, SeaFONE, SeaBOARD and the Seagate logo are registered trademarks of Seagate Technology, Inc. Medalist and SeaTDD are trademarks of Seagate Technology, Inc. Disk Manager is a registered trademark of Ontrack Computer Systems Inc. Other names are registered trademarks or trademarks of their owners.*

*Seagate reserves the right to change, without notice, product offerings or specifications. No part of this publication may be reproduced in any form without written permission from Seagate Technology, Inc. © Seagate Technology, Inc. 920 Disc Drive, Scotts Valley, CA 95066, USA Publication Number: 36352-105, Rev. A, January 1996, Printed in China Supersedes Publication Number 36342-xxx · Verify compatibility.*

*Verify that the host adapter and the drive are appropriately matched to each other and to your computer. Refer to the relevant documentation for details. · Check all cards. Verify that all cards are seated in their slots on the motherboard and are secured with mounting screws. · Check all cables. Make sure all ribbon and power cables are securely connected. Ribbon cables are easily damaged, especially at the connector. Try a new cable or a known good cable. Make sure no socket pins were bent when the cable was inserted. For each cable, verify that pin 1 on the cable is aligned with pin 1 on the drive and host adapter.*

*The edge-stripe on the ribbon cable is used to denote pin 1. Note. If you reset the Setup drive-type value, you must partition and format the drive again. · If you have partitioned the drive into individual logical drives, you may need to make the partitions smaller for the computer to access the full drive capacity. Supported Operating Systems Dynamic Drive Overlay provides support for drives with capacities greater than 528 Mbytes in the following operating systems: Caution. Do not reverse-plug the power connector; doing so could damage your drive. · If your computer supports LBA mode, you may need to enable an LBA mode function in Setup to get the drive's full capacity. Refer to your computer's reference guide. MS-DOS Windows 3.x Windows NT 3.*

*51 Window NT 3.50 (requires DM upgrade drivers) Windows 95 OS/2 V3.0 (Warp full pack) OS/2 V2.03.0 (requires DM upgrade drivers) · Verify equipment configuration.*

*Review the instructions in this guide and the host adapter installation guide, and make sure that all appropriate shunts are installed, or removed, to suit your application. · You can use the Disk Manager software to install the drive. The DOS messages "Disk Boot Failure," "Non-System Disk" or "No ROM Basic SYSTEM HALTED" appear. · Check the power-supply specifications. If new devices are installed, your computer's power supply may not support the new total power requirement.*

*Consult your dealer. · Verify the drive-type settings in Setup. The drive-type settings in Setup must not exceed the physical specifications of your drive. Also, the settings must not exceed the limitations set by the operating system and BIOS. · Reinstall the DOS system files using the DOS SYS utility. · Check all cables. · Use FDISK to verify that the primary partition is active. · Check for viruses. System error message, "HDD controller failure" appears. · Check for viruses.*

*Before you use someone else's diskette in your system for the first time, scan the diskette for viruses. · Confirm the jumper settings on the drive. · Verify the Setup drive-type values. ·*



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