



## Savvio SAS Installation Guide

### ST973401SS and ST936701SS

#### Fibre Channel interface disc drives

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#### Handling precautions/Electrostatic discharge protection

- Disc drives are fragile. Do not drop or jar the drive. Handle the drive only by the edges or frame.
- Drive electronics are sensitive to static electricity. Keep the drive in its antistatic container until you are ready to install it. Wear a wrist strap and cable connected to ground. Discharge static from all items near or that will contact the drive. Never use an ohmmeter on any circuit boards.
- Use caution when troubleshooting a unit that has voltages present.
- Do not disassemble the drive; doing so voids the warranty.
- Return the entire drive for depot service if any part is defective.
- Do not apply pressure or attach labels to the circuit board or to the top of the drive.

#### Electromagnetic compliance

- See the Safety and Regulatory Agency Specifications page, part number 75789512, which was shipped with this installation guide.

#### Drive characteristics

	ST973401SS	ST936701SS
Formatted capacity	73.4 Gbytes	36.7 Gbytes
Total # of data blocks	143,374,744 (88BB998h)	71,687,372 (445DCCCh)
Cylinders (user accessible)	51,052	51,052
Heads (user accessible)	4	2
Disc rotation +/- 5%	10,000 RPM	10,000 RPM

#### What you need

- Screwdriver and four M3 x .5 metric drive mounting screws
- Host system with Serial Attached SCSI (SAS) host adapter or backplane

#### Installation instructions

##### 1. Mount the drive in the host system carrier or tray

Most SAS host systems (including enclosures) provide a way to insert the drive using a carrier or tray, which allows the drive to be hot-plugged into the system.

Mount the drive to the carrier or tray provided by the host system using four M3 x 0.5 metric screws. When tightening the screws, use a maximum torque of 4.5 in-lb +/- 0.45 in-lb. Do not over-tighten or force the screws. You can mount the drive in any orientation.

**Note.** SAS drives are designed to be attached without I/O or power cables; however, you may also connect the drive using high-quality cables that have a maximum I/O cable length of 4 meters (13.1 feet).

##### 2. Insert the drive

Slide the carrier or tray into the appropriate bay in your host system. This connects the drive directly to your system's SAS connector. The SAS connector is normally located on a SAS backpanel.

**Note.** There are no jumpers or terminators on the drive. Power is supplied through the SAS connector.

##### 3. Format the drive

The drive has been *low level* formatted at the factory. You do not need to perform another low level format on this drive unless you decide to perform certain diagnostics through the host adapter. If you do decide to perform a low level format, do not abort the format as this is likely to make the drive inoperable. Low level formats can take up to 60 minutes for ST973401SS models, or 30 minutes for ST936701SS models.

Protect against power failure or other power interruptions during the format.

**Caution.** Formatting a drive erases all user data. Be sure that you understand this principle before formatting any hard disc drive. It is not necessary to format a drive that previously has been used to store data, unless your intention is to erase all user data. Seagate® is not responsible for lost user data.

#### Operating systems

Savvio™ disc drives are designed to operate with a variety of operating systems. Please refer to your system or SAS host adapter (controller) manual for information about formatting and setting up the drive for use with your particular operating system.

#### Hot plugging the drive

This drive features hot plugging capabilities which allows you to insert and remove the drive without powering down the host system.

#### Drive startup options

The drive's motor will start spinning the discs based on how the host system is configured to control the spinup sequence of the drives. Most systems that host only a couple of drives enable all of the drives to start up immediately when power is applied to the drives. Systems hosting larger numbers of drives may be configured to start drives at various times to avoid overloading the capabilities of the host system's power supply.

If you want to change the startup option for the drive, please refer to the documentation provided with your SAS host adapter or host system.

#### Troubleshooting

- **Drive does not spin up.** Remove and then reinsert the drive into the drive bay on the host-supplied carrier or tray. Make sure the drive makes firm contact with the host's SAS backpanel connector. Also, check the drive startup options from your host adapter. See "Drive Startup Options" above for the common startup options.
- **Computer does not seem to recognize the drive.** Verify that the drive is enabled by the SAS host adapter setup utility.

#### Seagate support services

For online information about Seagate products, visit [www.seagate.com](http://www.seagate.com) or e-mail your disc questions to [DiscSupport@Seagate.com](mailto:DiscSupport@Seagate.com).

If you need help installing your drive, consult your dealer first. If you need additional help, call a Seagate technical support specialist. Before calling, note your system configuration and drive model number.

Africa	+1-405-324-4714	Netherlands	00 800-47324283
Australia	1800-14-7201	New Zealand	0800-443988
Austria	0 800-20 12 90	Norway	00 800-47324283
Belgium	00 800-47324283	Poland	00 800-311 12 38
China*	800-810-9668	Spain	00 800-47324283
Denmark	00 800-47324283	Sweden	00 800-47324283
France	00 800-47324283	Switzerland	00 800-47324283
Germany	00 800-47324283	Singapore	800-1101-150
Hong Kong	800-90-0474	Taiwan*	00-800-0830-1730
Hong Kong†	001-800-0830-1730	Thailand	001-800-11-0032165
India	1-600-33-1104	Turkey	00 800-31 92 91 40
Indonesia	001-803-1-003-2165	United Kingdom	00 800-47324283
Ireland	00 800-47324283	USA/Canada/	1-800 SEAGATE or
Italy	00 800-47324283	Latin America	+1-405-324-4700
Japan	0034 800 400 554	Other European	
Malaysia	1-800-80-2335	countries	+1-405-324-4714
Middle East	+1-405-324-4714		

\*Mandarin  
†Cantonese

**Warranty.** Contact your place of purchase or our web site ([www.seagate.com](http://www.seagate.com)).

**Return Merchandise Authorization (RMA).** Before returning the drive, verify that it is defective. Seagate Worldwide customer service centers are the only facilities authorized to service Seagate drives. Contact nearest center for return procedures and trade regulations.

#### Shipping the drive

**Caution.** Back up the data before shipping. Seagate assumes no responsibility for data lost during shipping or service. Shipping drive in an unapproved container voids the warranty. Pack the drive with original box and packing materials. Use no other materials. This prevents electrical and physical damage in transit.

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