

Quick Installation Guide Hitachi Deskstar 7K4000 & Deskstar 5K4000

Models: HDS7K4040ALE640
HDS5C4040ALE630

NOTE: The Deskstar 7K4000 & 5K4000 hard drives feature Advanced Format technology. Advanced Format increases the physical sector size on hard drives from 512 bytes to 4096 (4K) bytes, which increases drive capacities and improves error correction capabilities. Please consult the [Hitachi Advanced Format Drives](#) page on our website for more information on using these hard drives.



System Requirements for Serial ATA

The following are needed to install a Serial ATA (SATA) drive to a system:

- SATA capable motherboard or controller card
- SATA hard drive
- SATA cable (1 meter or less in length)

Handling precautions

- Set the drive down gently to prevent damage from impact or vibration.
- Do not open the ESD bag containing the drive until needed.
- Handle the drive carefully by the edges. Do not touch the exposed printed circuit board or any electronic components.
- Do not press on the top or bottom of the drive.
- Before handling the drive, discharge any static electricity from yourself and your clothing. With one hand, touch an unpainted metal surface on your computer chassis, then touch the ESD bag with the other hand. Remain in contact with the chassis and the bag for a minimum of two seconds.

Quick installation procedure

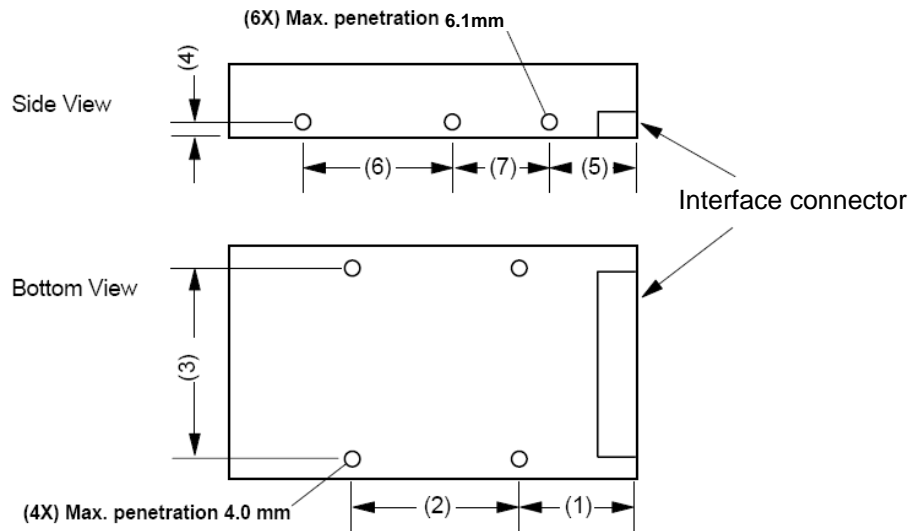
Note: Back up all data before installing drive.

1. Turn off the computer.
2. Unplug the computer.
3. Remove the computer cover as instructed by the computer system manual.
4. Discharge static electricity (see Handling precautions).
5. Note the mounting position of existing drives and cables. If you are replacing a drive or any cable, remove it now.
6. Remove the drive from the ESD bag.
7. Record the model, the part number, and the serial number of the drive for future reference.
8. Attach the Serial ATA cable to the drive. Match key on cable to connector on drive

Mounting instructions

Note: The mounting hole and connector locations are shown in figures 1 and 2.

1. Mount the drive securely.
2. Verify all attachments.
3. Replace the computer cover.
4. Plug in the computer.
5. Turn on the computer.
6. Verify that the hard disk is recognized by the BIOS. Instructions for accessing your BIOS can be found in the computer system manual or in the motherboard manufacturer documentation. If the drive is not recognized in the BIOS, check the following:



Thread	(1)	(2)	(3)	(4)	(5)	(6)	(7)
6-32UNC	41.28±0.5	44.45±0.2	95.25±0.2	6.35±0.2	28.5±0.5	60.0±0.2	41.6±0.2

Figure 1: Mounting holes locations (all dimensions are in mm)

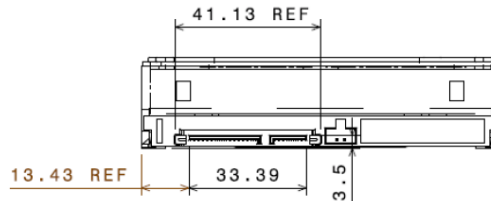


Figure 2: Connector location (all dimensions are in mm)

- 1) Auto Detect is enabled for the port the hard disk is connected to.
- 2) SATA and power cables are connected securely and not damaged.
- 3) The latest BIOS version is loaded onto the system.
7. Many factors must be considered in order to take advantage of the full capacity of drives >2.2TB. Some configurations offer a higher likelihood of success. Please refer to our High Capacity Technology Brief and visit our Above 2TB web page at <http://www.hitachigst.com/internal-drives/above-2tb>.
8. Your operating system setup utility will provide instructions on how to partition and format your drive before it installs the operating system. For additional information see: www.hitachigst.com/support

Note: The hard drive supports 6Gbps, 3Gbps and 1.5Gbps interface speeds. Higher interface speeds are gated by Host Bus Adapter (HBA) or SATA chipset of the system.

Mounting Recommendations

The drive will operate in all axes (6 directions). Performance and error rate will stay within specification limits if the drive is operated in the other orientations from which it was formatted.

For reliable operation, the drive must be mounted in the system securely enough to prevent excessive motion or vibration of the drive during seek operation or spindle rotation, using appropriate screws or equivalent mounting hardware.

The recommended mounting screw torque is 0.6 - 1.0 Nm (6-10 Kgf.cm).

The recommended mounting screw depth is 4 mm maximum for bottom and 6.1 mm maximum for horizontal mounting.

Drive level vibration test and shock test are to be conducted with the drive mounted to the table using the bottom four screws.

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Capacity notice: One GB is equal to one billion bytes and one TB equals 1,000 GB (one trillion bytes) when referring to hard drive capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drive, the computer's operating system, and other factors.

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