
SAS/SATA hard drive installation

HP xw Workstation series

This document describes how to install a Serial Attached SCSI (SAS) and Serial ATA (SATA) hard disk drive (HDD) on your workstation.

Kit contents

Ensure that the following components are included in your drive kit:

- a SATA or SAS HDD
- Multiple SATA interface cables (each of a different length and with different connector orientation combinations)
- SAS-to-SATA interface adapter
- Four M3 guide screws
- Warranty



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Your responsibilities

You are responsible for determining whether the product is appropriate for your use and will function with other equipment without malfunction or damage. You are also responsible for backing up data before installing any product and for regularly backing up data after installing the product. HP is not liable for any damage to equipment or data loss resulting from the use of any product.

Regulatory notices

This product has been tested and found to comply with the limits for a Class B digital device of the FCC Rules. Refer to the documentation that came with the computer for additional regulatory information governing this product.

Technical support

Comprehensive technical support is available online at <http://www.hp.com/support>.

You can also call HP for technical support. Refer to the documentation that came with the computer for support telephone numbers.

Warnings and cautions

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-  **WARNING!**  Any surface or area of the equipment marked with these symbols indicates the presence of a hot surface or hot component. If this surface is contacted, the potential for injury exists. To reduce the risk of injury from a hot component, allow the surface to cool before touching.
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-  **WARNING!**  Any surface or area of the equipment marked with these symbols indicates the presence of an electrical shock hazard. To reduce the risk of injury from electrical shock, do not open any enclosed area.
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-  **WARNING!** To reduce the risk of electric shock or damage to your equipment:
- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
 - Plug the power cord in a grounded (earthed) outlet that is easily accessible at all times.
 - Disconnect power from the equipment by unplugging the power cord from the electrical outlet.
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-  **WARNING!** To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation, setup, posture, and health and work habits for computer users, and provides important electrical and mechanical safety information. This guide is located on the Web at <http://www.hp.com/ergo> and/or on the documentation CD if one is included with the product.
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-  **WARNING!** If a product is shipped in packaging marked with this symbol, , the product must always be lifted by two persons to avoid personal injury due to product weight.
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- △ **CAUTION:** Static electricity can damage the electronic components of the workstation. Before beginning these procedures, be sure you are discharged of static electricity by briefly touching a grounded metal object.
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- △ **CAUTION:** Observe the following cautions when removing or replacing a processor:
- Installing a processor incorrectly can damage the system board. Have an HP authorized reseller or service provider install the processor. If you plan to install it yourself, read all of the instructions carefully before you begin.
 - Failure to follow the workstation preparation instructions and these result in an improperly installed processor, causing extensive system damage.
 - Processor socket pins are delicate and bend easily. Use extreme care when placing the processor in the socket.
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- △ **CAUTION:** To prevent damage to this system, observe the following Electro Static Discharge (ESD) precautions while performing the system parts removal/replacement procedures:
- Work on a static-free mat.
 - Wear a static strap to ensure that any accumulated electrostatic charge is discharged from your body to the ground.
 - Create a common ground for the equipment you are working on by connecting the static-free mat, static strap and peripheral units to that piece of equipment.
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-  **NOTE:** HP accessories are for use in HP workstation products. They have been extensively tested for reliability and are manufactured to high quality standards. HP, therefore, warrants only those accessories that are manufactured or sold by HP.
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Preparing for installation

Before beginning installation of the drive, ensure that the installation kit contains all necessary items, that you have the required tools, that you understand the necessary precautions, and that you have prepared the workstation, as described in the following subsections.

Tools required

You may need the following to install the hard drive:

- Torx T-15 screwdriver or flat-bladed screwdriver

Precautions for handling the drive

Observe all precautions when handling the drive, as listed below:

- Do not move the drive during operation. Doing so may cause it to malfunction during reading.
- Avoid placing the drive in a location that is subject to extreme temperatures, or mechanical vibration.

- Keep the original packing materials for future transportation of the drive.
- If any object or liquid falls into the cabinet, immediately unplug the workstation and have it checked by an authorized service provider.

Installing the hard drive

 **NOTE:** For specific information relating to your workstation, refer to www.hp.com/go/bizsupport.

NOTE: HP does not support mixing SATA and PATA hard drives on the same workstation.

1. Turn off the computer and any external devices.
2. Disconnect the AC power cord and any external devices.
3. Remove the side access panel from the computer.
4. Install the hard drive into the drive bay. When installing the HDD into 3.5" internal bays on xw4000 series workstations, first install four 6-32 guide screws (provided in the HDD kit) into the holes near the corners on the left- and right-side of the hard drive.

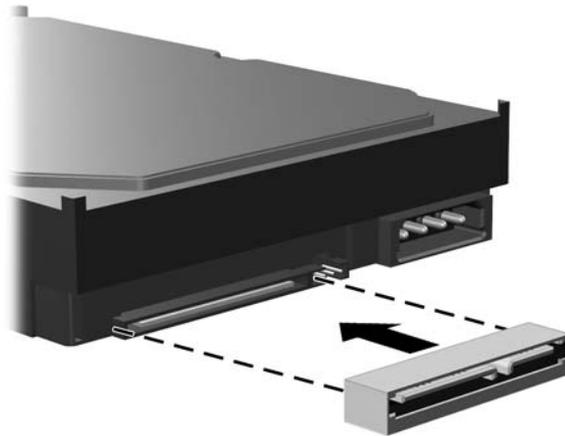


 **NOTE:** The HP xw4000 Workstation series chassis also have spare 6-32 screws installed in the sheet metal of the drive bay structure to be used for this purpose.

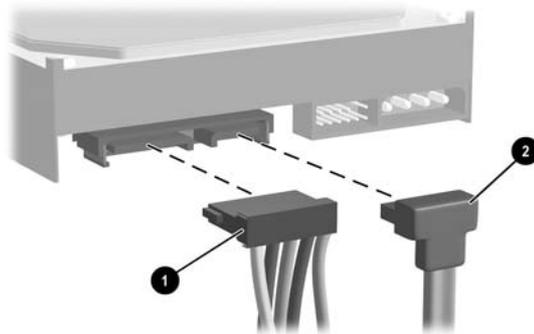
5. Select the SATA interconnect cable from the kit that best fits the hardware configuration of your SATA or SAS hard drive and interconnect requirements of the workstation.

 **NOTE:** Individual SATA ports and connectors on the system board are identified on the service label, located on the inside of the workstation access panel.

6. If installing a SAS hard drive, first carefully attach the SAS-to-SATA interconnect cable adapter to the drive SAS connector. The cable adapter is provided with the kit, and is required only when installing an SAS (as opposed to a SATA) hard drive.



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7. Connect the power cable (1) and data cable (2) to the hard drive.
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8. Connect the opposite end of the data cable to the system board or controller card.
CAUTION: To avoid any hard drive performance problems, connect the primary hard drive to the connector on the system board labeled SATA 0 or SAS 0, depending on hard drive type. Connect a second hard drive to the SATA 1 or SAS 1 connector. Connect a third hard drive to the SATA 2 or SAS 2 connector and a fourth hard drive to the SATA 3 or SAS 3 connector.
 9. Replace the side access panel.
 10. Reconnect any external devices to the computer.
 11. Plug the AC power cord into the computer, then into a grounded AC outlet.

Configuring the computer

NOTE: The information in the following sections is only applicable if you installed an additional (second) drive. If you only upgraded the existing hard drive and transferred your data from an old drive to the new drive, you may skip the procedures on creating partitions unless you encounter problems upon startup.

System configuration is the process of specifying the devices and programs that make up a computer system. When you add or remove accessories, the computer must be configured to recognize these changes.

Turn on the computer and read the messages displayed during startup.

- If the system recognizes the new drive, information about the drive displays on the screen, and you are prompted to press F1 to save and continue.
- If you are not prompted to press F1, there is a problem with the installation of the drive, and you need to diagnose the problem. Start by reviewing the steps in the “Installing the hard drive” section, in this document.

Creating a partition using Microsoft Windows XP or Windows Vista Business

1. Log in as **Administrator**.
2. From the Windows desktop, click **Start > Control Panel**.
3. Ensure you are in **Classic View** (not the default XP **Category View**), then double-click **Administrative Tools**.
4. Double-click **Computer Management**.
5. **Select Storage > Disk Management**. This starts the Write Signature and Upgrade Disk Wizard. Click **Cancel** to stop the wizard.

 **NOTE:** You may be prompted by the system to upgrade to a Dynamic drive. Refer to www.microsoft.com/support for more information or refer to the Microsoft OS Manual that shipped with the computer. Otherwise, select the default to continue.

6. Right-click the **Disk <n> Unallocated** area.
7. Click **Initialize Disk** and click **OK**.
8. Right-click the black bar above the **Unallocated Disk** area.
9. Click **New Partition** to run the New Partition Wizard. Click **Next**.
10. Select the partition needed or use the defaults and click **Next**.
11. Specify the partition size or use the defaults and click **Next**.
12. Specify the drive letter of the partition or use the default and click **Next**.
13. Select **Choose Partition File System and other Partition Parameters** or use the defaults and click **Next**.
14. Verify that the information in the **Settings** box is correct before finalizing the partition information.
15. Click **Finish** to create the partition and begin the format process.