



Hardware Reference Guide

Compaq Evo Desktop D310v Series

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This guide provides basic information about upgrading this series of computers.

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WARNING: Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.



CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

Hardware Reference Guide
Compaq Evo Desktop D310v Series
First Edition (August 2002)
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Hardware Upgrades

Installation Sequence

It is very important that you follow this sequence of steps to ensure the proper installation of any optional equipment.

For more information about Computer Setup, refer to the *Computer Setup (F10) Utility Guide*.

1. If the computer is turned on, turn it off and disconnect the power cord from the wall outlet.



WARNING: To reduce the risk of personal injury from electrical shock and/or hot surfaces, be sure to disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching.



WARNING: To reduce the risk of electrical shock, fire, or damage to the equipment, do not plug telecommunications or telephone connectors into the network interface controller (NIC) receptacles.



CAUTION: Static electricity can damage the electronic components of the computer or optional equipment. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object. See Chapter 4, "Electrostatic Discharge," for more information.

2. Open the computer by removing its access panels. See the procedure for removing the computer access panels later in this chapter.
3. Install any optional equipment. See the applicable sections of this guide or refer to the documentation provided with the optional equipment for instructions.

4. Replace the computer cover.
5. Turn on the monitor, computer, and any devices you want to test.

Reconfigure the computer, if necessary. For more information about Computer Setup, refer to the *Computer Setup (F10) Utility Guide*.

Removing the Access Panels

1. Shut down the operating system properly, then turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet, and disconnect any external devices.



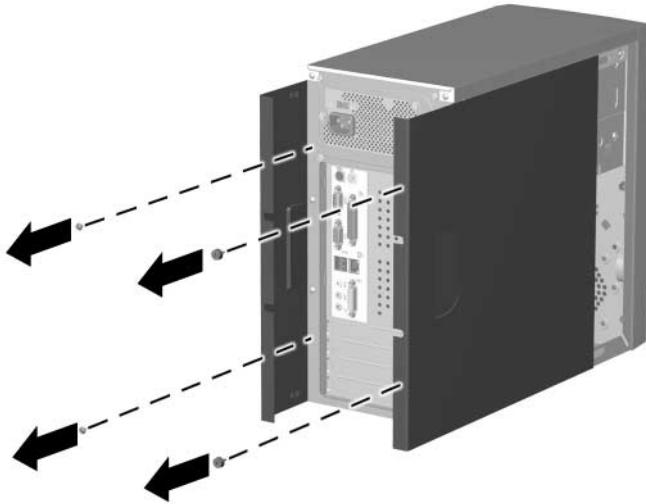
CAUTION: Before removing the computer access panel, ensure that the computer is turned off and that the power cord is disconnected from the electrical outlet.

3. Remove the two screws that secure the access panel to the computer chassis.



Remove the right access panel to upgrade memory or an expansion card. Remove the left access panel to upgrade a drive.

4. Slide the access panel back about 1 inch (2.5 cm), then lift it away from and off the unit.



Removing the Computer Access Panels

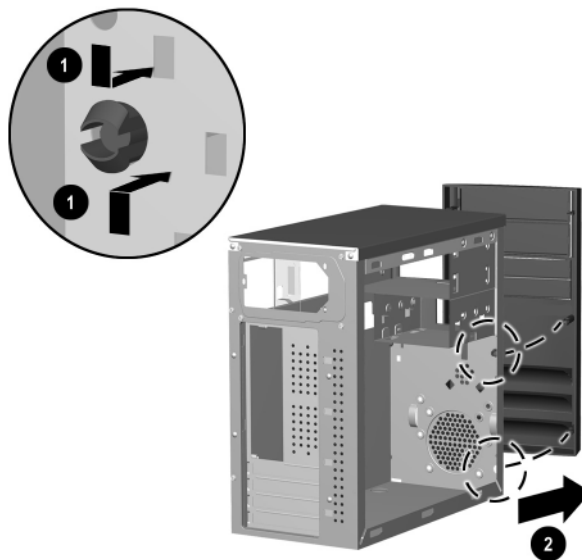
To replace the access panel, reverse steps 1-4.

Removing the Front Bezel



Remove the front bezel to upgrade a drive.

1. Shut down the operating system properly, then turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet, and disconnect any external devices.
3. Remove the computer access panels.
4. Squeeze the two circular tabs inside the front of the chassis **1**, then pull the front bezel away from the chassis to release it **2**.



Removing the Front Bezel



When replacing the front bezel, ensure that the circular tabs are properly aligned with the chassis before pressing the front bezel into place.

Installing Additional Memory



CAUTION: Your memory module sockets have gold metal contacts. When upgrading your memory, it is important to use memory modules with gold metal contacts to prevent corrosion and/or oxidation resulting from having incompatible metals in contact with each other.



CAUTION: Static electricity can damage the electronic components of the computer or optional cards. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object. Refer to Chapter 4, "Electrostatic Discharge," for more information.



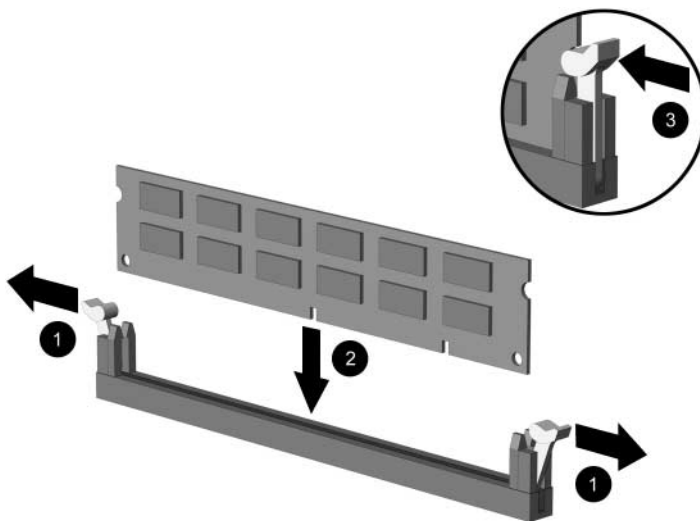
CAUTION: When handling a memory module, be careful not to touch any of the contacts. Doing so may damage the module.

1. Shut down the operating system properly, then turn off the computer and any external devices.
 2. Disconnect the power cord from the power outlet, and disconnect any external devices.
 3. Remove the access panel and locate the memory module sockets.
-



WARNING: To reduce risk of personal injury from hot surfaces, allow the internal system components to cool before touching.

4. Open both latches of the memory module socket ❶, and insert the memory module into the socket ❷.



Installing a Memory Module

5. Begin by installing a module into the socket nearest the preinstalled module, and install the modules following the numerical order of the sockets.
6. A memory module can be installed in only one way. Match the notch on the module with the tab on the memory socket. Push the module down into the socket, ensuring that the module is fully inserted and the latches on each end snap back into place ❸.
7. Repeat steps 4 to 6 for any additional modules that you want to install.
8. Replace the access panel.

The computer should automatically recognize the additional memory the next time you turn on the computer.

Installing or Removing an Expansion Card

1. Shut down the operating system properly, then turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet, and disconnect any external devices.
3. Remove the access panel.

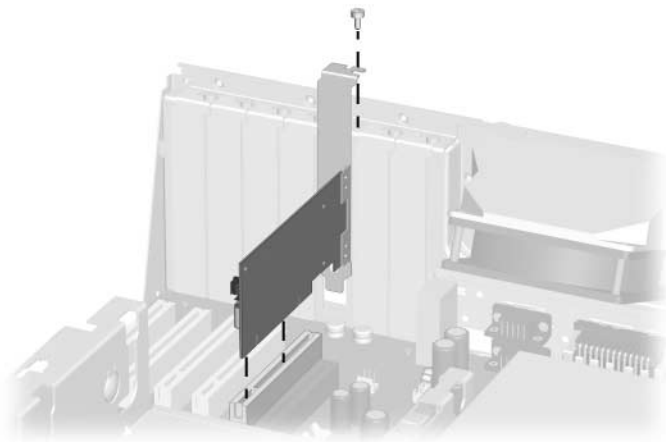
If installing an expansion card, skip to step 8.

4. To remove an expansion card, disconnect any cables attached to the expansion card.
5. Remove the screw at the top of the expansion slot.
6. Hold the card at each end and carefully rock it back and forth until the connectors pull free from the socket. Be sure not to scrape the card against other components.
7. Store the card in anti-static packaging.
8. Install a new expansion card or an expansion slot cover to close the open slot.

If not installing an additional expansion card, skip to step 10.

9. Remove the expansion slot cover.

10. Slide the expansion card into the expansion socket and press it firmly into place.



Installing an Expansion Card

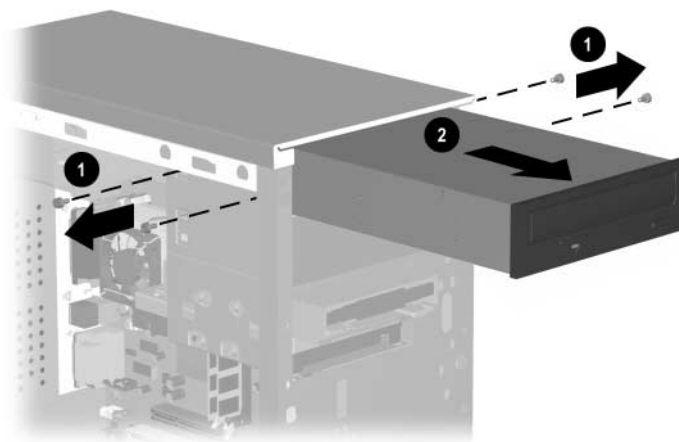


When you install an expansion card, make sure you press firmly on the card so that the entire connector seats properly in the expansion card socket.

11. Replace the screw at the top of the expansion slot.
 12. Replace the access panel.
 13. Connect external cables to the installed card, if needed.
- Reconfigure the computer, if necessary.

Removing a 5.25 Inch Drive

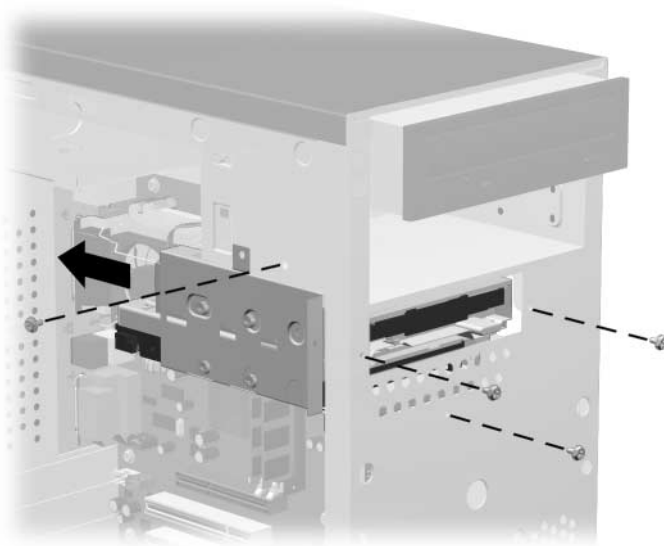
1. Shut down the operating system properly, then turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet.
3. Remove both access panels.
4. Remove the front bezel.
5. Disconnect the power, data, and audio cables, as necessary, from the back of the drive.
6. Remove the four screws, two from each side, that secure the drive in the drive cage ❶.
7. Slide the drive out of the drive cage, as shown in the illustration below ❷.



Removing the 5.25 Inch Drive

Removing a Diskette Drive or Hard Drive

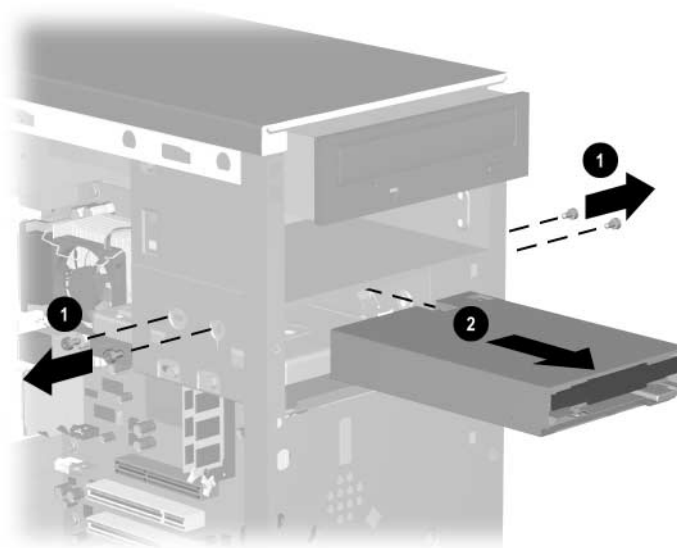
1. Shut down the operating system properly, then turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet.
3. Remove the left access panel.
4. Remove the front bezel.
5. Disconnect the power, data, and audio cables, as necessary, from the back of the drive.
6. Remove the four screws, 3 in the front and 1 on the side, that secure the drive cage to the chassis.



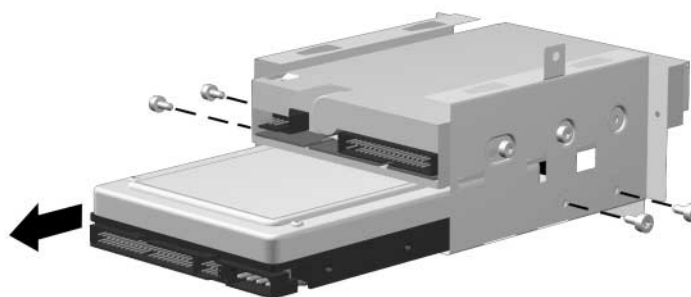
Removing the Drive Cage

7. Remove the drive cage from the chassis.

8. Remove the four screws, two from each side, that secure the drive in the drive cage ❶.
9. Slide the drive out of the drive cage, as shown in the illustrations below ❷.



Removing the Diskette Drive



Removing the Hard Drive

To replace the drive cage, reverse steps 5-6.

Battery Replacement

Replacing the Battery

The battery that comes with your computer provides power to the real-time clock and has a lifetime of about three years. When replacing the battery, use an equivalent 3-volt lithium coin cell battery. A replacement battery may be purchased at your local retailer or from the Compaq.com Web site.



The spare part number for a standard coin cell battery is 153099-001, which corresponds to a CR2032 battery or equivalent.



WARNING: Your computer contains an internal lithium manganese dioxide, vanadium pentoxide, or alkaline battery or battery pack. There is a risk of fire and burns if the battery pack is not handled properly. To reduce the risk of personal injury:

- Do not expose the battery to temperatures higher than 140° F (60° C).
 - Do not disassemble, crush, puncture, short external contacts, or dispose of the battery in fire or water.
 - Replace the battery only with the Compaq spare designated for this product.
 - Do not attempt to recharge the battery.
-



CAUTION: Static electricity can damage the electronic components of the workstation or optional equipment. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object.



Batteries, battery packs, and accumulators should not be disposed of together with the general household waste. To forward them to recycling or proper disposal, please use the public collection system or return them to Compaq, your authorized partners, or their agents.

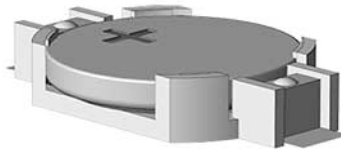
To replace the battery:

1. Shut down the operating system properly, turn off the computer and any external devices, disconnect the power cord from the electrical outlet, and remove the computer cover or access panel.
-



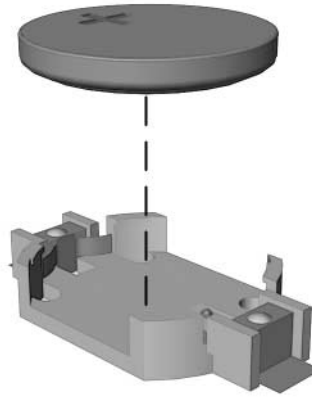
It may be necessary to remove an expansion card to gain access to the battery.

2. Locate the battery and battery holder on the system board, as shown in the following illustration.
3. Press the release latch to remove the battery.



Battery and Battery Holder

4. Lift the battery out of its holder.



Removing the Coin Cell Battery

5. Slide the replacement battery into position, positive side up. The battery holder automatically secures the battery in the proper position.
6. Replace any expansion boards you removed.
7. Replace the computer cover or access panel.
8. Plug in and turn on the computer.
9. Reset the date and time, your passwords, and any special system setups, using Computer Setup. Refer to the *Computer Setup (F10) Utility Guide* for additional information.

Routine Care & Shipping Information

Routine Care

Follow these suggestions to take care of your personal computer and monitor:

- Operate the personal computer on a sturdy, level surface. Leave a 3-inch (7.6-cm) clearance at the back of the system unit and above the monitor to permit the required airflow.
- Never operate the personal computer with the cover or side panel removed.
- Never restrict the airflow into the personal computer by blocking the air intake or exhaust vents.
- Keep the personal computer away from excessive moisture, direct sunlight, and extremes of heat and cold.
- Keep liquids away from the personal computer and keyboard.
- Never cover the ventilation slots on the monitor with any type of material.
- Turn off the personal computer before you do either of the following:
 - Wipe the exterior of the personal computer with a soft, damp cloth as needed. Using cleaning products may discolor or damage the finish.
 - Occasionally clean the air intake and exhaust vents on the personal computer. Lint and other foreign matter can block the vents and limit the airflow.

CD-ROM Drive Precautions

Be sure to observe the following guidelines while operating or cleaning your CD-ROM drive.

Operation

- Do not move the drive during operation. This may cause it to malfunction during reading.
- Avoid exposing the drive to sudden changes in temperature, as condensation may form inside the unit. If the temperature suddenly changes while the drive is on, wait at least one hour before you turn off the power. If you operate the unit immediately, it may malfunction while reading.
- Avoid placing the drive in a location that is subject to high humidity, extreme temperatures, mechanical vibration, or direct sunlight.

Cleaning

- Clean the panel and controls with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution. Never spray cleaning fluids directly on the unit.
- Avoid using any type of solvent, such as alcohol or benzene, which may damage the finish.

Safety

If any object or liquid falls into the drive, immediately unplug the personal computer and have it checked by an authorized Compaq service provider.

Shipping Preparation

Follow these suggestions when preparing to ship your personal computer:

1. Back up the hard drive files onto the network or removable media. Be sure that the backup media is not exposed to electrical or magnetic impulses while stored or in transit.



The hard drive locks automatically when the system power is turned off.

2. Remove and store separately any removable media and MultiBay drives.
3. Turn off the personal computer and external devices.
4. Disconnect the power cord from the electrical outlet, then from the personal computer.
5. Pack the system components, MultiBay drives, and external devices in their original packing boxes or similar packaging with sufficient packing material to protect them.

Electrostatic Discharge

A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the device.

Preventing Electrostatic Damage

To prevent electrostatic damage, observe the following precautions:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly.

Grounding Methods

There are several methods for grounding. Use one or more of the following methods when handling or installing electrostatic-sensitive parts:

- Use a wrist strap connected by a ground cord to a grounded workstation or computer chassis. Wrist straps are flexible straps with a minimum of 1 Megaohm +/- 10 percent resistance in the ground cords. To provide proper ground, wear the strap snug against the skin.
- Use heelstraps, toestraps, or bootstraps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
- Use conductive field service tools.
- Use a portable field service kit with a folding static-dissipating work mat.

If you do not have any of the suggested equipment for proper grounding, contact your Compaq authorized dealer, reseller, or service provider.



For more information on static electricity, contact your Compaq authorized dealer, reseller, or service provider.

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