



# **Maintenance & Service Guide**

## Prosignia Desktop 340 Series Computer

Document Part Number: 320695-001

**December 2002**

This document provides the reader with basic information for maintaining the computer. It contains detailed instructions for the removal and replacement of all components, spare part numbers for all replacement parts, information on clearing and setting passwords, and instructions for resetting CMOS.

© 2002 Compaq Information Technologies, L.P.

Compaq, the Compaq logo, and Prosignia are trademarks of Compaq Information Technologies Group, L.P. in the U.S. and other countries.

Microsoft, MS-DOS, Windows, and Windows NT are trademarks of Microsoft Corporation in the U.S. and other countries.

Intel, Pentium, and Celeron are trademarks of Intel Corporation in the U.S. and other countries.

Adobe, Acrobat, and Acrobat Reader are trademarks or registered trademarks of Adobe Systems Incorporated.

All other product names mentioned herein may be trademarks of their respective companies.

Compaq Computer Corporation shall not be liable for technical or editorial errors or omissions contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material. The information in this document is provided "as is" without warranty of any kind, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, and is subject to change without notice. The warranties for Compaq products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty.

This document contains proprietary information that is protected by copyright. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of Compaq Computer Corporation.



**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.

---

Maintenance & Service Guide  
Prosignia 340 Desktop Series Computer  
Third Edition (December 2002)  
Document Part Number: 320695-001

---

# Contents

## 1 Product Description

1.1 System Design	1-2
1.2 Computer Features	1-2
1.2.1 Front Panel Controls and LEDs	1-2
1.2.2 Rear Panel Connectors	1-3
1.3 Serial Number Location	1-4

## 2 Spare Parts

2.1 System Unit	2-2
2.2 Mass Storage Devices	2-4
2.3 Cables	2-6
2.4 Standard and Optional Boards	2-8
2.5 Miscellaneous Parts	2-10
2.6 Keyboards	2-11
2.7 Monitors	2-11

## 3 Removal and Replacement Preliminaries and Routine Care

3.1 Electrostatic Discharge Information	3-1
3.1.1 Generating Static	3-1
3.1.2 Preventing Electrostatic Damage to Equipment	3-2
3.1.3 Personal Grounding Methods and Equipment	3-2
3.1.4 Grounding Workstations	3-3
3.1.5 Recommended Materials and Equipment	3-3
3.2 Routine Care	3-4
3.2.1 3.2.1 General Cleaning Safety Precautions	3-4
3.2.2 Cleaning the Computer Case	3-4
3.2.3 Cleaning the Keyboard	3-4
3.2.4 Cleaning the Monitor	3-5
3.2.5 Cleaning the Mouse	3-5
3.3 Service Considerations	3-5
3.3.1 Tools and Software Requirements	3-5
3.3.2 Screws	3-6
3.3.3 Cables and Connectors	3-6
3.3.4 Hard Drives	3-6
3.3.5 Plastic Parts	3-6
3.3.6 Lithium Battery	3-6

## 4 Removal and Replacement Procedures

4.1 Preparation for Disassembly	4-1
---------------------------------	-----

---

4.2 Hood .....	4-2
4.3 Power Supply .....	4-3
4.4 Mass Storage Devices .....	4-4
4.4.1 CD (Optical) Drive .....	4-5
4.4.2 Diskette Drive .....	4-7
4.4.3 Hard Drive .....	4-9
4.5 Video Card .....	4-11
4.6 Network Card .....	4-12
4.7 Fax/Modem Card .....	4-13
4.8 Memory Module .....	4-14
4.9 RTC Battery .....	4-15
4.10 Processor .....	4-16
4.11 Front Bezel .....	4-17
4.12 On-Button Board .....	4-18
4.13 System Board Bracket .....	4-19
4.14 System Board .....	4-20
4.15 I/O Panel .....	4-21

## **5 System Board Jumpers and Switches**

5.1 System Board Jumpers and Switches .....	5-1
5.2 Clearing and Setting Passwords .....	5-2
5.3 Resetting CMOS .....	5-3

## **Index**

---

## Product Description

This chapter describes the model offerings and features of the Compaq Prosignia 340 Series Computer.



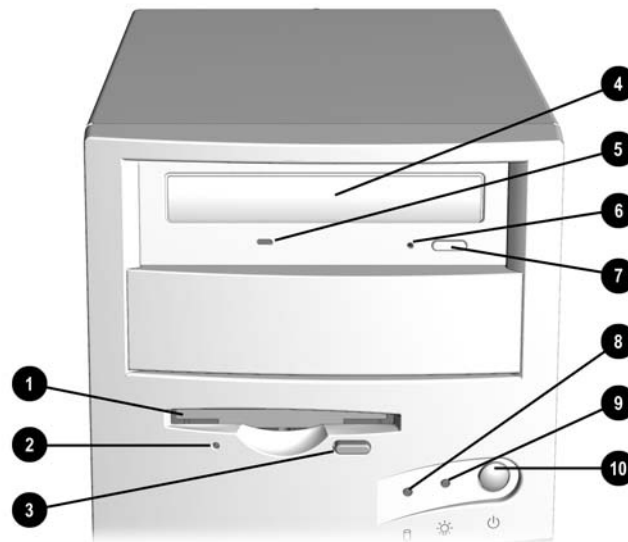
## 1.1 System Design

This section presents a functional descriptions of the key components of the Compaq Prosignia 340 Series Computer. All replaceable components are identified in Chapter 2, and removal and replacement instructions are presented in Chapters 3 and 4.

## 1.2 Computer Features

The Compaq Prosignia 340 Series Computer ships with a mouse and keyboard. A Compaq color monitor or other compatible monitor, which is also required to operate the computer, does not ship with the computer.

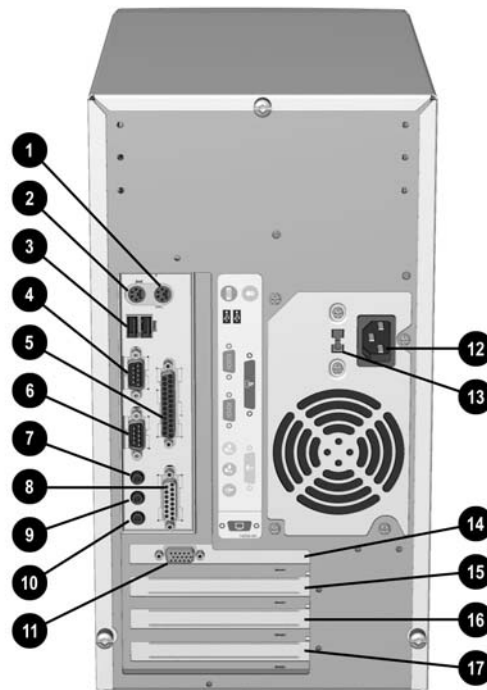
### 1.2.1 Front Panel Controls and LEDs



- ❶ Diskette Drive
- ❷ Activity Light - illuminates when the diskette drive is reading or writing
- ❸ Eject Button
- ❹ \* CD Drive
- ❺ \* CD Drive Activity Light - illuminates when the CD drive is reading
- ❻ \* Manual Eject Hole - for ejecting a CD disk when the eject button fails
- ❼ \* Load/Eject Button
- ❽ Hard Drive Activity Light - illuminates when the hard drive is reading or writing
- ❾ Power on Light
- ❿ Power on Button

\*CD-ROM models only

## 1.2.2 Rear Panel Connectors



- ❶ Mouse
- ❷ Keyboard
- ❸ USB Ports
- ❹ Serial Port
- ❺ Parallel Port
- ❻ 2nd Serial Port
- ❼ Audio Out
- ❽ Game Port
- ❾ Audio In
- ❿ Microphone
- ⓫ Video
- ⓬ AC Power
- ⓭ Voltage Select Switch
- ⓮ AGP Card Slot
- ⓯ PCI Card Slot
- ⓰ PCI Card Slot
- ⓱ PCI/ISA Combination Slot

## 1.3 Serial Number Location

The serial number is located at the rear of the computer, below the power supply.



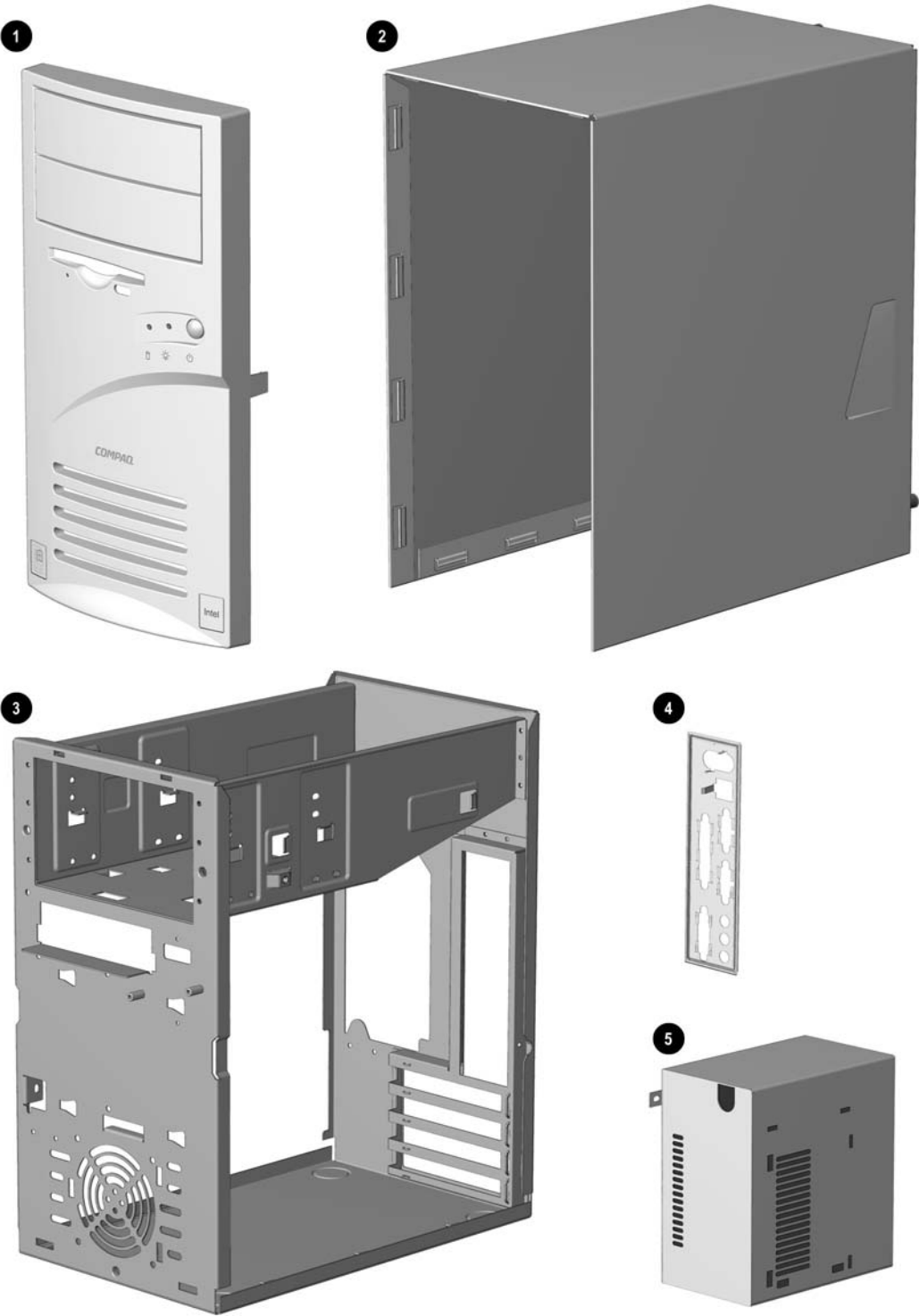


---

## Spare Parts

This chapter provides an illustrated parts breakdown and a listing of spare parts.

## 2.1 System Unit

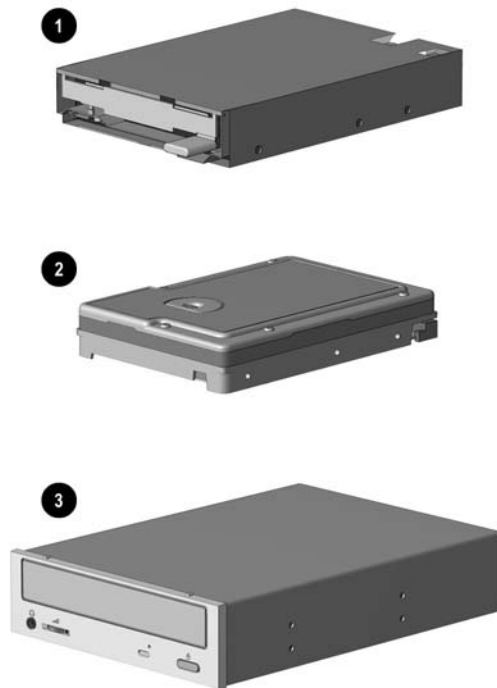


---

**System Unit**

<b>Item</b>	<b>Description</b>	<b>Spare Part</b>
①	Front Bezel with bezel blank and power button	149804-001
②	Hood sssembly	149800-001
③	Chassis	not spared
④	System rear I/O panel	149805-001
⑤	Power supply	136337-001

## 2.2 Mass Storage Devices



---

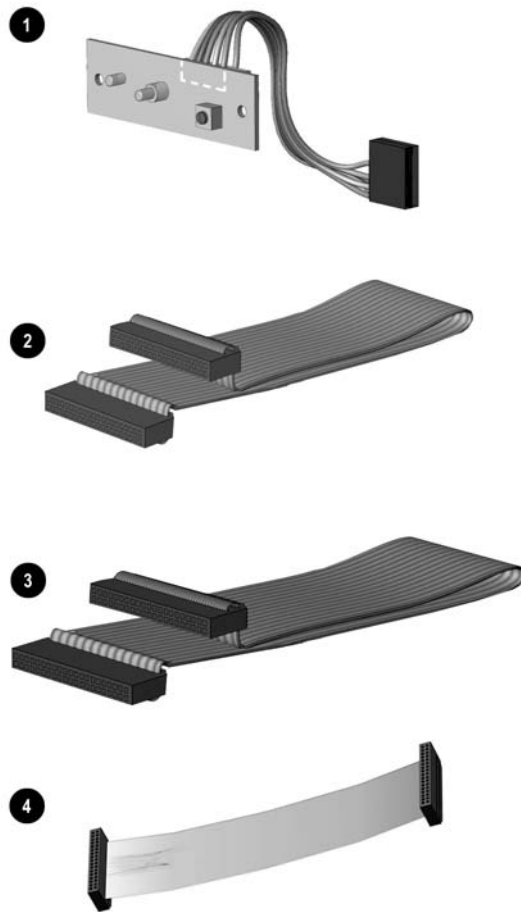
**Mass Storage Devices**


---

<b>Item</b>	<b>Description</b>	<b>Spare Part</b>
①	Diskette drive	136338-001
	Hard drive, 5400 RPM	
②	4.3 GB	161431-001
*	8.4 GB	168027-001
*	13 GB, with mounting screws	161432-001
*	17 GB, with mounting screws	168591-001
	Optical drives	
③	8/4/32C CD-RW drive	294401-001
*	40X CD-ROM drive	400807-001
*	10X DVD drive with mounting screws	386128-001
*	10/40X DVD drive	161430-001
	Other drives	
*	Zip 100 drive	386561-001
*	Zip 250 drive	125776-001
	*Not shown	

---

## 2.3 Cables



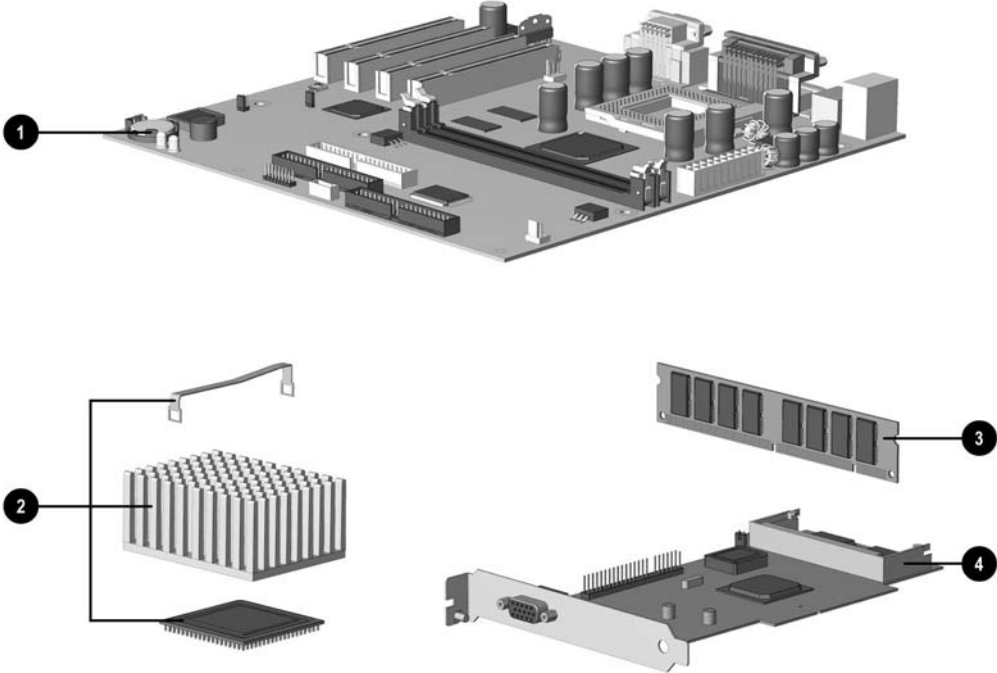
---

**Cables**

<b>Item</b>	<b>Description</b>	<b>Spare Part</b>
❶	Power switch with cable and LEDs	136340-001
*	Power cord, U.S.	142766-001
	Miscellaneous cable kit, includes	146019-001
❷	Hard drive cable, 10.5" (108950-007)	
*	Diskette drive cable , 15.5", (105875-001) (N/A this product)	
*	Dual LED/Power cable (387662-001) (N/A this product)	
*	Dual device hard drive cable (1308950-005) (N/A this product)	
	Miscellaneous cable kit, includes	298856-001
❸	Optical drive cable, 14" (242947-001)	
	Diskette drive cable	
❹	Diskette drive cable	161735-001
	Miscellaneous cable kit, includes	177707-001
*	Audio cable, 21", (288489-002)	
*	IDE cable, 12.5" (179048-001) (N/A this product)	
*	NIC wake up cable (179056-001) (N/A this product)	
	*Not shown	

---

## 2.4 Standard and Optional Boards

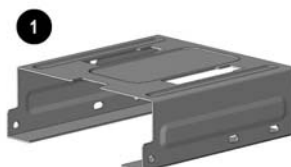




### Standard and Optional Boards

Item	Description	Spare Part
①	System board	187672-001
	Intel processor with heatsink and heatsink retaining clip	
②	466 MHz Celeron	174742-001
	533 MHz Celeron	176220-001
	550 MHz Pentium III	176221-001
	600 MHz Pentium III	176222-001
	Memory module	
③	32 MB	166890-001
*	64 MB	179190-001
*	128 MB	166966-001
	Modems	
④	56K, V.90 International PCI modem	166358-002
*	56K PCI controllerless modem	167491-001
*	56K PCI controllerless modem	146803-001
	Network Interface Cards	
*	PCI 10/100 Base-T NIC with remote wakeup	179167-001
*	Intel Pro 10/100 NIC	116188-001
*	Compaq 10/100 NIC	177454-001
*	11 MB/sec PCI wireless LAN	167132-001
	*Not shown	

## 2.5 Miscellaneous Parts



### Miscellaneous Parts

Item	Description	Spare Part
①	Diskette drive mounting bracket	161734-001
②	Hard drive mounting bracket	149807-001
③	Two-button mouse	166861-001
*	Option slot cover (5 ea)	304284-001
*	Creative Labs SBS52 speakers, Australia	125773-011
*	Creative Labs SBS52 speakers, Europe	125773-021
*	Creative Labs SBS52 speakers, Japan	125773-391
*	Creative Labs SBS52 speakers, U.K.	125773-031
*	Creative Labs SBS52 speakers, U.S.	125773-001
*	Altec ACS 233 speakers, Australia	135426-011
*	Altec ACS 233 speakers, Europe	135426-021
*	Altec ACS 233 speakers, Japan	135426-391
*	Altec ACS 233 speakers, U.K.	135426-031
*	Altec ACS 233 speakers, U.S.	135426-001
*Not shown		

## 2.6 Keyboards

### Keyboards (not illustrated)

<b>Description</b>	<b>Spare Part</b>
Internet keyboard	
Belgian	135510-181
French	135510-051
International	135510-B31
Spanish	135510-071
Swedish	135510-106
Swiss	135510-111
U.K.	135510-031
U.S.	135510-001
Spacesaver keyboard, Japanese	269513-291

## 2.7 Monitors


### Monitors (not illustrated)

<b>Size</b>	<b>Description</b>	<b>Spare Part</b>
24"	Model P1610	305710-001
21"	Model P110	328267-001
17"	Model P75	307815-001
21"	Model V1000	351760-001
19"	Model V900	303514-001
15"	Model V500	308011-001
19"	Model S900	360563-001
17"	Model S700	360513-001



# Removal and Replacement Preliminaries and Routine Care

This chapter provides general service information for the computer. Adherence to the procedures and precautions described in this chapter is essential for proper service.

 **CAUTION:** When the computer is plugged into an AC power source there is always voltage applied to the system board. You must disconnect the power cord from the power source before opening the computer to prevent system board or component damage.

## 3.1 Electrostatic Discharge Information

A sudden discharge of static electricity from your finger or other conductor can destroy static-sensitive devices or microcircuitry. Often the spark is neither felt nor heard, but damage occurs. An electronic device exposed to electrostatic discharge (ESD) may not be affected at all and can work perfectly throughout a normal cycle. The device may function normally for a while, then degrade in the internal layers, reducing its life expectancy.

Networks built into many integrated circuits provide some protection, but in many cases, the discharge contains enough power to alter device parameters or melt silicon junctions.

### 3.1.1 Generating Static

The table below shows how different activities generate static electricity at different electrostatic voltage levels.

**Typical Electrostatic Voltages**

Event	Relative Humidity		
	10%	40%	55%
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of bench worker	6,000 V	800 V	400 V
Removing DIPs* from plastic tube	2,000 V	700 V	400 V
Removing DIPs* from vinyl tray	11,500 V	4,000 V	2,000 V
Removing DIPs* from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCB	26,500 V	20,000 V	7,000 V
Packing PCBs in foam-lined box	21,000 V	11,000 V	5,000 V

\*Dual Inline Packaging (DIP) is the packaging around individual microcircuitry. These are then multi-packaged inside plastic tubes, trays, or Styrofoam. 700 volts can degrade a product.

### 3.1.2 Preventing Electrostatic Damage to Equipment

Many electronic components are sensitive to ESD. Circuitry design and structure determine the degree of sensitivity. The following proper packaging and grounding precautions are necessary to prevent damage to electric components and accessories.

- To avoid hand contact, transport products in static-safe containers such as tubes, bags, or boxes.
- Protect all electrostatic parts and assemblies with conductive or approved containers or packaging.
- Keep electrostatic sensitive parts in their containers until they arrive at static-free stations.
- Place items on a grounded surface before removing them from their container.
- Always be properly grounded when touching a sensitive component or assembly.
- Avoid contact with pins, leads, or circuitry.
- Place reusable electrostatic-sensitive parts from assemblies in protective packaging or conductive foam.

### 3.1.3 Personal Grounding Methods and Equipment

Use the following equipment to prevent static electricity damage to equipment:

**Wrist straps** are flexible straps with a minimum of one-megohm +/- 10% resistance in the ground cords. To provide proper ground, a strap must be worn snug against bare skin. The ground cord must be connected and fit snugly into the banana plug connector on the grounding mat or workstation.

**Heel straps/Toe straps/Boot straps** can be used at standing workstations and are compatible with most types of shoes or boots. On conductive floors or dissipative floor mats, use them on both feet with a minimum of one-megohm +/- 10% resistance between the operator and ground.

#### Static Shielding Protection Levels

Method	Voltage
Antistatic plastic	1,500
Carbon-loaded plastic	7,500
Metallized laminate	15,000

### 3.1.4 Grounding Workstations

To prevent static damage at the workstation, use the following precautions:

- Cover the workstation with approved static-dissipative material. Provide a wrist strap connected to the work surface and properly grounded tools and equipment.
- Use static-dissipative mats, foot straps, or air ionizers to give added protection.
- Handle electrostatic sensitive components, parts, and assemblies by the case or PCB laminate. Handle them only at static-free workstations.
- Turn off power and input signals before inserting and removing connectors or test equipment.
- Use fixtures made of static-safe materials when fixtures must directly contact dissipative surfaces.
- Keep work area free of nonconductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Use conductive field service tools, such as cutters, screwdrivers, and vacuums.

### 3.1.5 Recommended Materials and Equipment

Materials and equipment that are recommended for use in preventing static electricity include:

- Antistatic tape
- Antistatic smocks, aprons, or sleeve protectors
- Conductive bins and other assembly or soldering aids
- Conductive foam
- Conductive tabletop workstations with ground cord of one-megohm +/- 10% resistance
- Static-dissipative table or floor mats with hard tie to ground
- Field service kits
- Static awareness labels
- Wrist straps and footwear straps providing one-megohm +/- 10% resistance
- Material handling packages
- Conductive plastic bags
- Conductive plastic tubes
- Conductive tote boxes
- Opaque shielding bags
- Transparent metallized shielding bags
- Transparent shielding tubes

## 3.2 Routine Care

### 3.2.1 3.2.1 General Cleaning Safety Precautions

- Never use solvents or flammable solutions to clean the computer.
- Never immerse any parts in water or cleaning solutions, apply any liquids to a clean cloth and then use the cloth on the component.
- Always turn off the computer when cleaning with liquids or damp cloths.
- Always turn off the computer before cleaning the keyboard, mouse, or air vents.
- Disconnect the keyboard before cleaning it.
- Wear safety glasses equipped with side shields when cleaning the keyboard.

### 3.2.2 Cleaning the Computer Case

Follow all safety precautions in Section 3.2.1 before cleaning the computer.

To clean the computer case, follow the procedures described below:

- To remove light stains or dirt, use plain water with a clean, lint-free cloth or swab.
- For stronger stains, use a mild dishwashing liquid diluted with water. Rinse well by wiping it with a cloth or swab dampened with clear water.
- For stubborn stains, use isopropyl (rubbing) alcohol. No rinsing is needed as the alcohol will evaporate quickly and not leave a residue.
- After cleaning, always wipe the unit with a clean, lint-free cloth.
- Occasionally, clean the air vents on the computer. Lint and other foreign matter can block the vents and limit the airflow.

### 3.2.3 Cleaning the Keyboard

Follow all safety precautions in Section 3.2.1 before cleaning the keyboard.

To clean the tops of the keys or the keyboard body, follow the procedures described in Section 3.2.2.

When cleaning debris from under the keys, review all rules in Section 3.2.1 before following these procedures:



**CAUTION:** Use safety glasses equipped with side shields before attempting to clean debris from under the keys.

---



- Visible debris underneath or between the keys may be removed by vacuuming or shaking.
- Canned, pressurized air may be used to clean debris from under the keys. Caution should be used as too much air pressure can dislodge lubricants applied under the wide keys.
- If you remove a key, use a specially designed key puller to prevent damage to the keys. This tool is available through many electronic supply outlets.



**CAUTION:** Never remove a wide leveled key (like the space bar) from the keyboard. If these keys are improperly removed or installed, the keyboard may not function properly.

---

- Cleaning under a key may be done with a swab moistened with isopropyl alcohol and squeezed out. Be careful not to wipe away lubricants necessary for proper key functions. Use tweezers to remove any fibers or dirt in confined areas. Allow the parts to air dry before reassembly.

### 3.2.4 Cleaning the Monitor

- Wipe the monitor screen with a clean cloth moistened with water or with a towlette designed for cleaning monitors. Do not use sprays or aerosols directly on the screen; the liquid may seep into the housing and damage a component. Never use solvents or flammable liquids on the monitor.
- To clean the monitor body follow the procedures in Section 3.2.2.

### 3.2.5 Cleaning the Mouse

Before cleaning the mouse, ensure that the power to the computer is turned off.

- Clean the mouse ball by first removing the retaining plate and the ball from the housing. Pull out any debris from the ball socket and wipe the ball with a clean, dry cloth before reassembly.
- To clean the mouse body, follow the procedures in Section 3.2.2.

## 3.3 Service Considerations

Listed below are some of the considerations that you should keep in mind during the disassembly and assembly of the computer.

### 3.3.1 Tools and Software Requirements

To service the computer, you need the following:

- Torx T-15 screwdriver (Compaq screwdriver, part number 161946-001)
- Flat-bladed screwdriver
- Diagnostics software


### 3.3.2 Screws

The screws used in the computer are not interchangeable. They may have standard or metric threads and may be of different lengths. If an incorrect screw is used during the reassembly process, it can damage the unit. Compaq strongly recommends that all screws removed during disassembly be kept with the part that was removed, then returned to their proper locations.

### 3.3.3 Cables and Connectors

Most cables used throughout the unit are flat, flexible cables. These cables must be handled with care to avoid damage. Apply only the tension required to seat or unseat the cables during insertion or removal from the connector. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing the cables, and ensure that the cables are routed in such a way that they cannot be caught or snagged by parts being removed or replaced.

---

 **CAUTION:** When servicing this computer, ensure that cables are placed in their proper location during the reassembly process. Improper cable placement can damage the computer.

---

### 3.3.4 Hard Drives

Handle hard drives as delicate precision components, avoiding all physical shock and vibration. This applies to failed drives as well as replacement spares.

- Use only the packaging provided by Compaq for shipping.
- Do not remove hard drives from the shipping package for storage. Keep hard drives in their protective packaging until they are actually mounted in the computer.
- Avoid dropping drives from any height onto any surface.


### 3.3.5 Plastic Parts

Plastic parts can be damaged by the use of excessive force during disassembly and reassembly. Use care when handling the plastic parts. Do not use a screwdriver or similar tool to pry apart the plastic components, use a flexible device, like a tongue depressor.

### 3.3.6 Lithium Battery

The lithium battery that comes with the computer is replaceable and should be properly disposed of.

---

 **WARNING:** Do not abuse or disassemble the lithium battery, as it may explode if mistreated. Do not disassemble, crush, puncture, short external contacts, dispose of in water or fire, or expose it to temperatures higher than 600C (1400F).


---

---

## Removal and Replacement Procedures

After completing all necessary removal and replacement procedures, run the Diagnostics utility to verify that all components operate properly.

---

 **CAUTION:** When the computer is plugged into an AC power source, there is always voltage applied to the system board. You must disconnect the power cord from the power source before opening the computer to prevent system board or component damage.

---

### 4.1 Preparation for Disassembly


See Chapter 3, “Removal and Replacement Preliminaries and Routine Care,” for initial procedures.

To prepare the computer for disassembly:


1. Remove any diskette or compact disc from the computer.
2. Unlock the computer Smart Cover Lock using Computer Setup.

Turn off the computer and any peripheral devices that are connected to it.

---

 **CAUTION:** Turn off the computer before disconnecting any cables.


---

 **CAUTION:** When the computer is plugged into an AC power source, there is always voltage applied to the system board. You must disconnect the power cord from the power source before opening the computer to prevent system board or component damage.


---

3. Disconnect the power cord from the electrical outlet and then from the computer.
4. Disconnect all peripheral device cables from the computer.

---

 During disassembly, label each cable as you remove it, noting its position and routing. Keep all screws with the units removed.

---

 **CAUTION:** The screws used in the computer are of different thread sizes and lengths; using the wrong screw in a component may damage the unit.

---

## 4.2 Hood

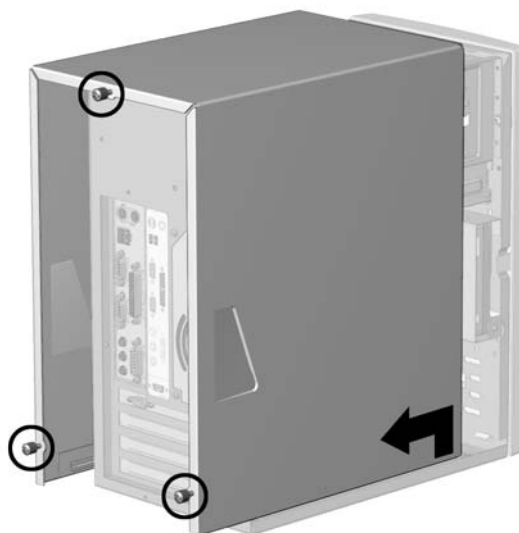
1. Prepare the computer for disassembly.
2. Unscrew the thumbscrews at the back of the computer.



---

The screws will remain attached to the hood.

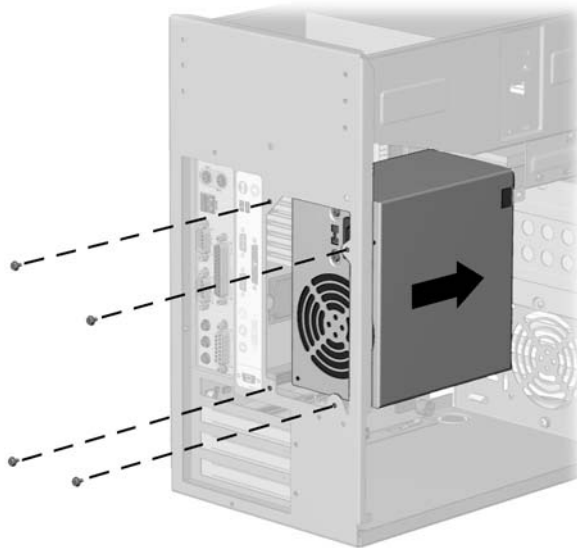
---



3. Grasp the bottom of the hood and pull back slightly while lifting the hood off the computer.  
To replace the hood, reverse this sequence.

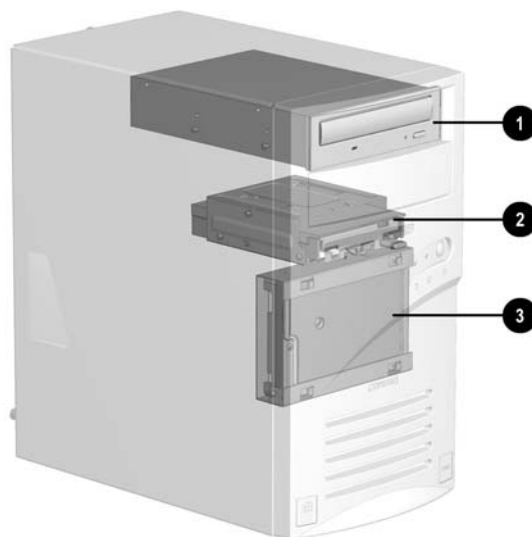
## 4.3 Power Supply

1. Remove the hood.
2. Disconnect all cables connected to the power supply (cables to the hard drive, CD drive, diskette drive, and system board).
3. Remove the four screws that secure the power supply to the rear of the chassis.



4. Slide the power supply to the front of the unit and remove it from the chassis.
- To replace the power supply, reverse this sequence.

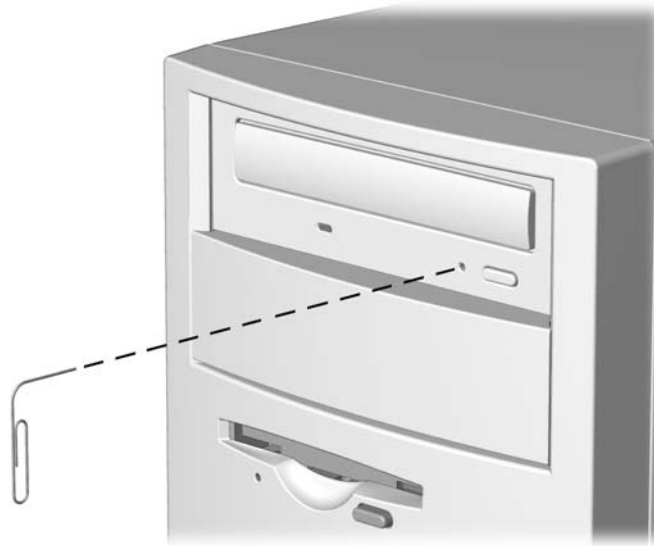
## 4.4 Mass Storage Devices



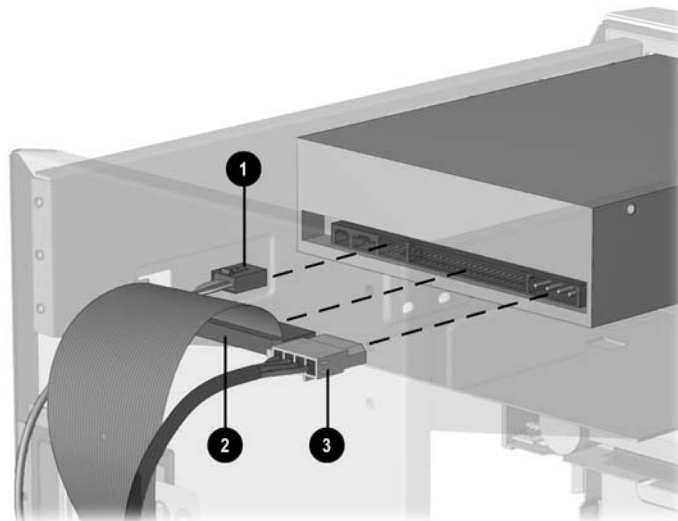
<b>Item</b>	<b>Description</b>
❶	Optical drive
❷	Diskette drive
❸	Hard drive

## 4.4.1 CD (Optical) Drive

If a compact disc is jammed in the drive, insert a straightened paper clip into the manual eject hole and push firmly.



1. Perform the preparation procedures.
2. Remove the hood.
3. Disconnect the audio ❶, data ❷, and power ❸ cables from the CD drive.



4. Remove the four screws from the side of the CD drive.

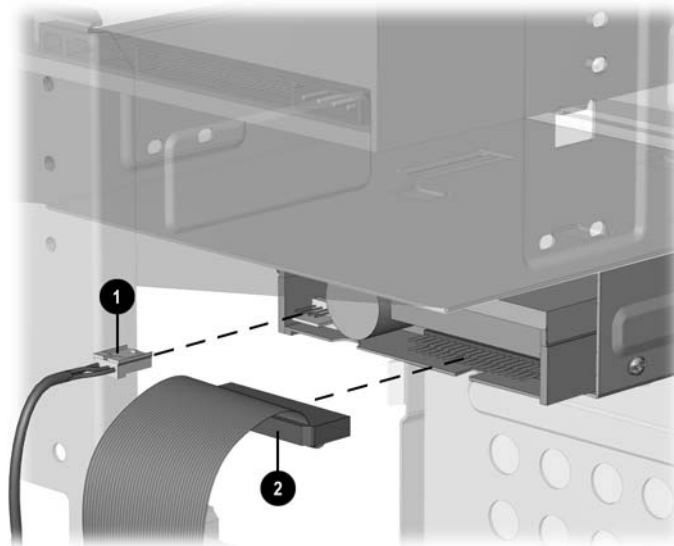


5. Pull the CD drive straight out of the front of the chassis.
- To replace the CD drive, reverse this sequence.

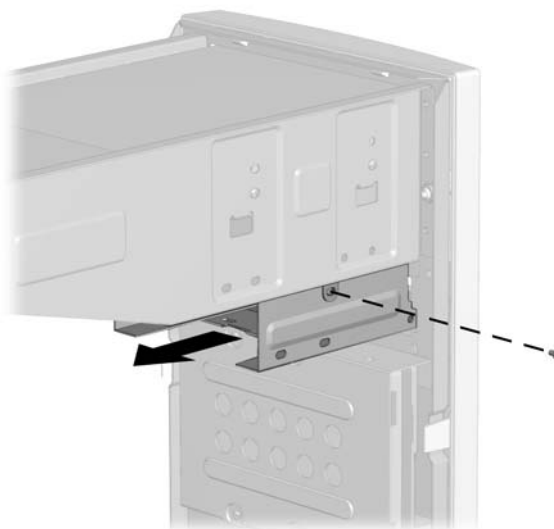


## 4.4.2 Diskette Drive

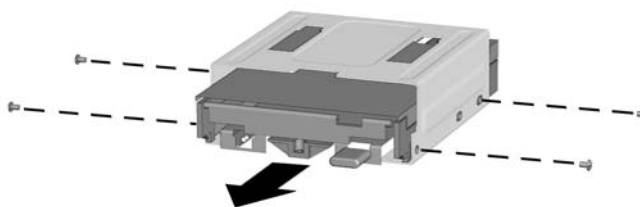
1. Perform the preparation procedures.
  2. Remove the hood.
  3. Remove the power supply. (Section 4.3)
- Disconnect the power ❶ and data ❷ cables from the diskette drive.



4. Remove the screw that holds the diskette drive and bracket to the chassis.



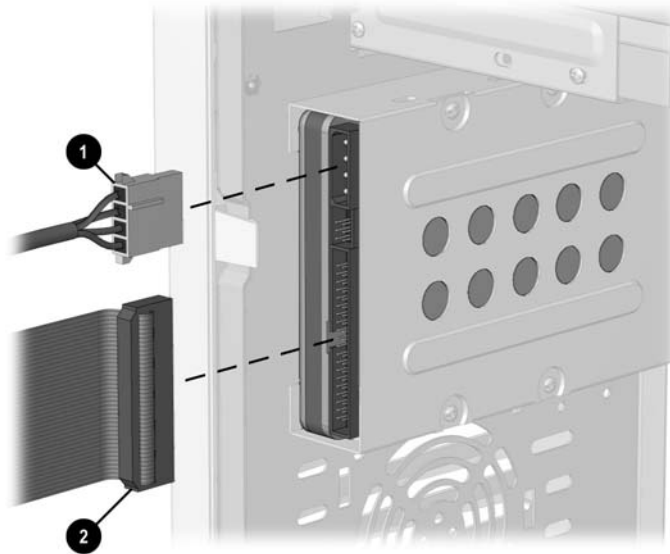
5. Grasp the drive bracket assembly on both sides and pull it towards the rear of the chassis.
6. Remove the four screws from the sides of the bracket to release the drive from the bracket.



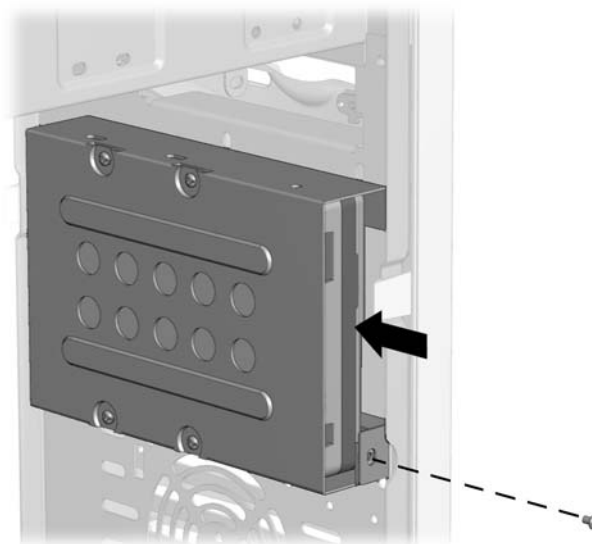
To replace the diskette drive, reverse this sequence.

### 4.4.3 Hard Drive

1. Perform the preparation procedures.
2. Remove the hood.
3. Disconnect the power ❶ and signal ❷ cables from the hard drive.

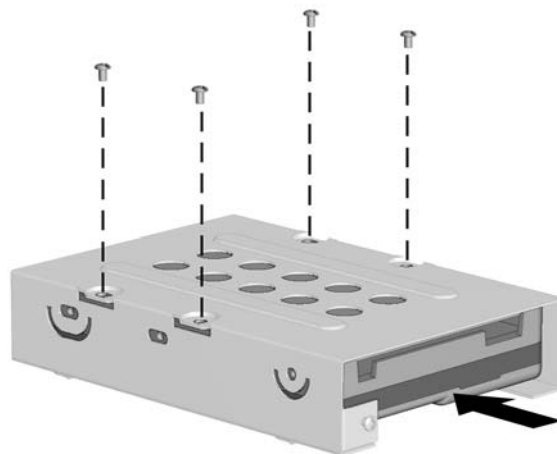


4. Remove the screw holding the hard drive and bracket to the chassis.



5. Carefully push the hard drive and bracket towards the other side of the computer, and lift them out of the chassis.

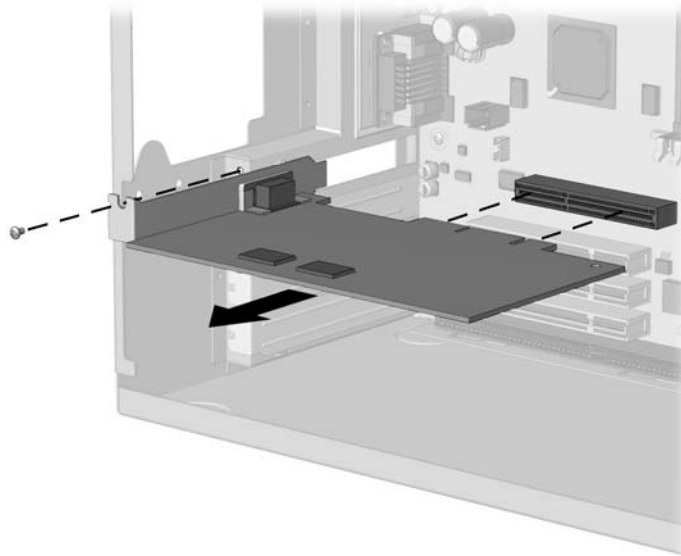
6. Remove the four screws at the bottom of the hard drive bracket to release the hard drive.



To replace the hard drive, reverse this sequence.

## 4.5 Video Card

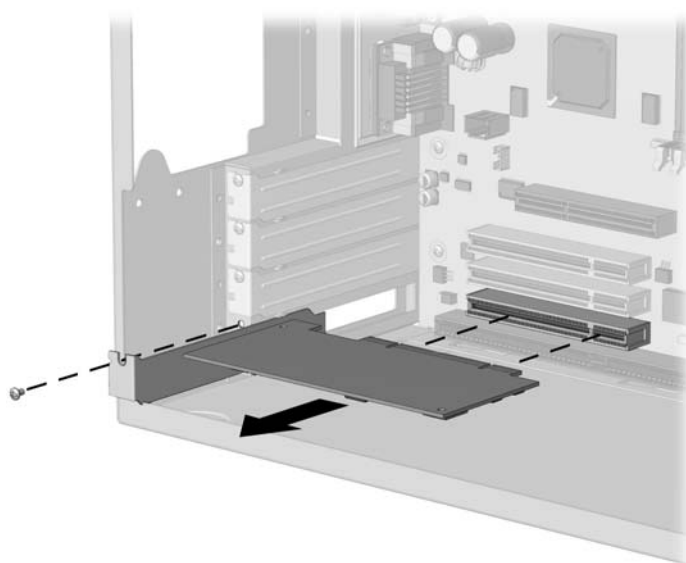
1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the screw holding the video card bracket to the chassis, and pull the video card out of the slot.



To replace the video card, reverse this sequence.

## 4.6 Network Card

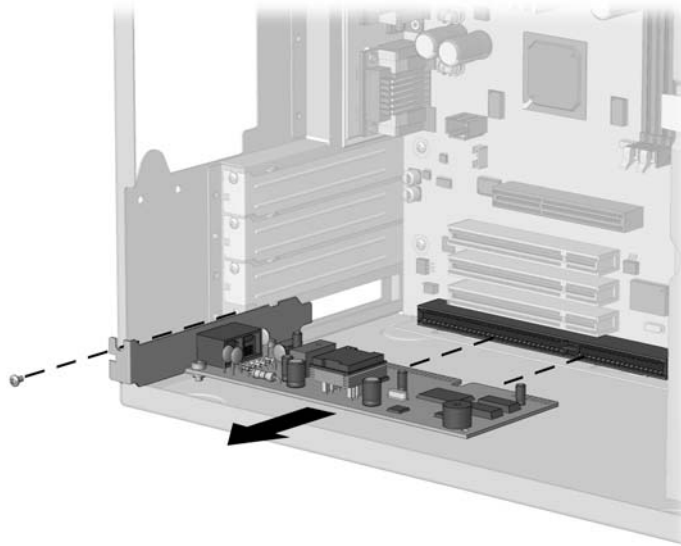
1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the screw holding the network card bracket to the chassis, and pull the network card out of the slot.



To replace the network card, reverse this sequence.

## 4.7 Fax/Modem Card

1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the screw holding the fax/modem bracket to the chassis, and pull the fax/modem card out of the slot.



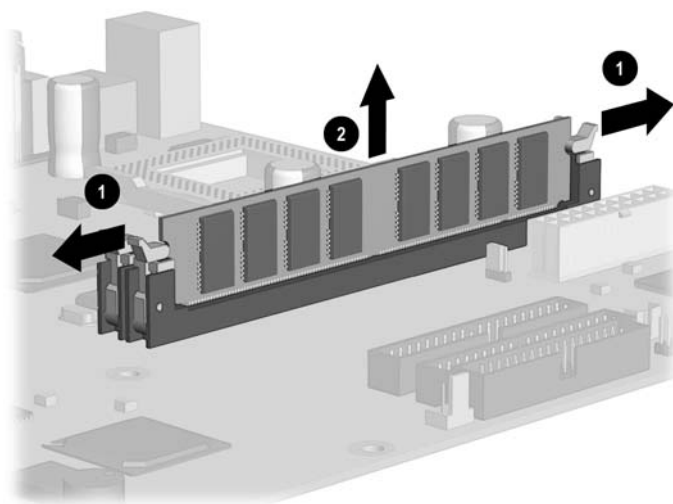
To replace the fax/modem card, reverse this sequence.



**CAUTION:** When replacing the fax/modem, download the latest SoftPaq containing the software from [www.compaq.com](http://www.compaq.com). If QuickRestore is used, it may not have the 56K upgrade software included.

## 4.8 Memory Module

1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the power supply.
4. Release the latches ❶ at each end of the DIMM socket and unplug the DIMM ❷ from the system board.



To replace the memory module, reverse this sequence.

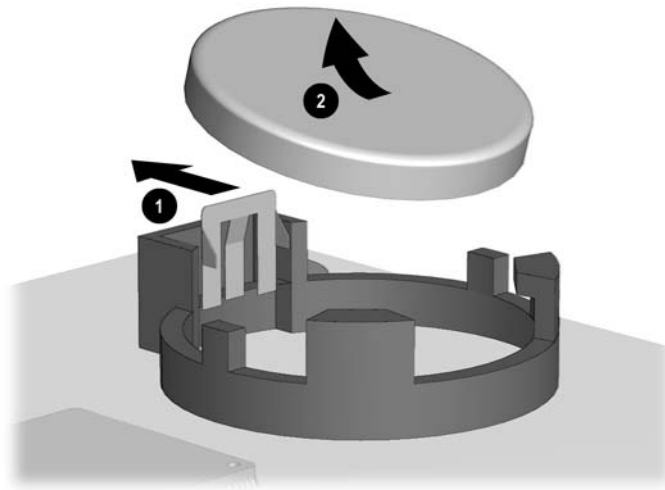


## 4.9 RTC Battery

**WARNING:** This computer contains an internal lithium battery. There is a risk of fire and burns if the battery is not handled properly. To reduce the risk of personal injury:

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

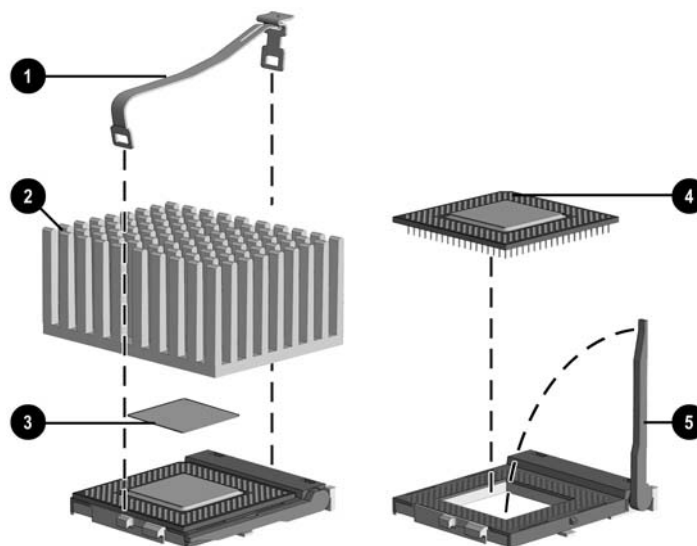
1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the power supply. (Section 4.3)
4. Remove the diskette drive. (Section 4.4.2)
5. Locate the RTC battery.
6. Release the retaining tab and push the battery forward, up, and out of the battery retainer.



To replace the RTC battery, reverse this sequence.

## 4.10 Processor

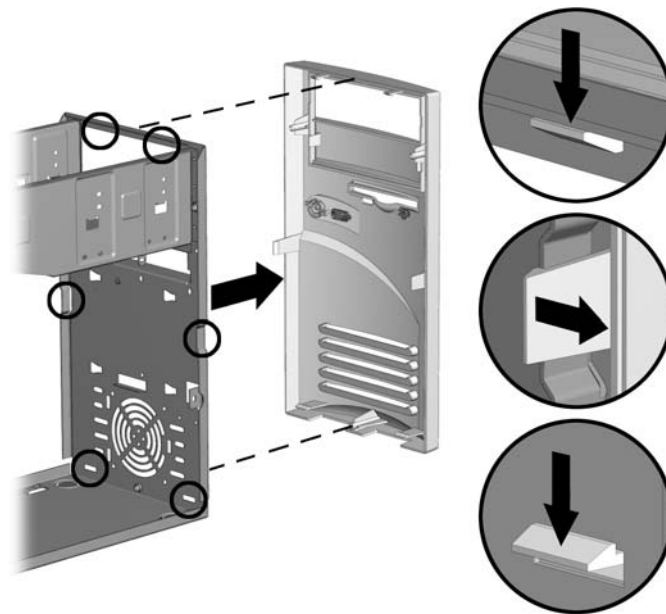
1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the power supply. (Section 4.3)
4. Locate the heatsink ❷ on the system board.



5. Remove the clip ❶ from the heatsink.
  6. Carefully remove the heatsink from the processor ❷ by twisting it before lifting it from the socket (the two are held together by an adhesive strip ❸). Never lift the heatsink straight up from the processor as it may pull the processor from its socket and damage its pins.
  7. Tilt the ZIF socket handle ❺ away from the system board.
  8. Lift the processor directly out of the ZIF socket.
- To replace the processor, reverse this sequence.

## 4.11 Front Bezel

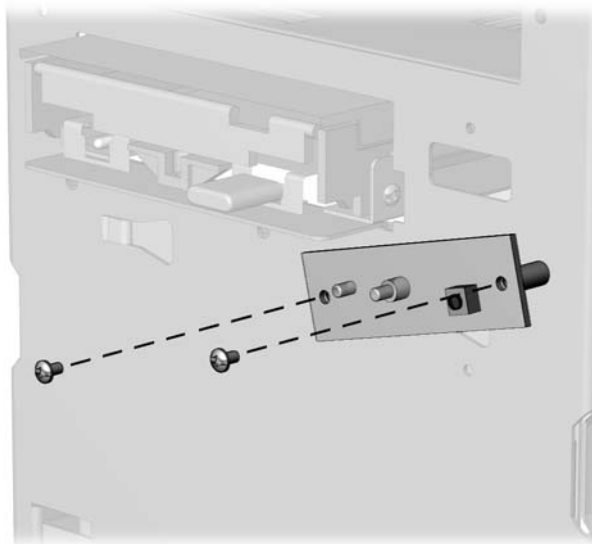
1. Perform the preparation procedures.
2. Remove the hood.
3. Release the latches at the middle and bottom of the bezel, then pivot the bezel up and away from the chassis.



To replace the front bezel, reverse this sequence.

## 4.12 On-Button Board

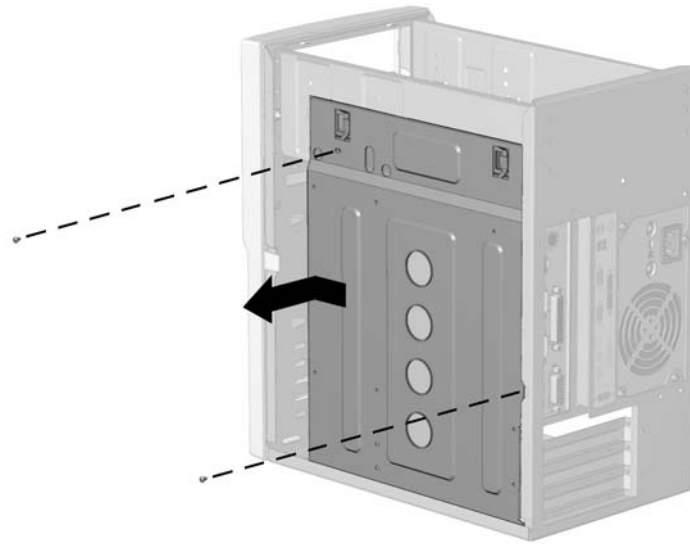
1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the front bezel. (Section 4.11)
4. Disconnect the on-button board connector from the system board.
5. Remove the two screws from the button board assembly, and pull the board off the chassis.



To replace the on-button board, reverse this sequence.

## 4.13 System Board Bracket

1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the modem.
4. Remove the network card.
5. Remove the video card.
6. Remove the screws holding the system board bracket to the chassis.



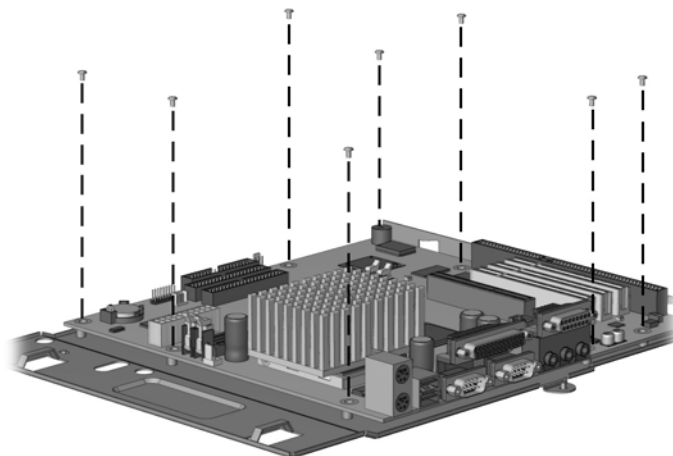
7. Slide the system board bracket toward the front bezel and carefully pull the bracket away from the chassis.
8. Disconnect the CD audio cable and data cable from the system board.
9. Disconnect the cables for the hard drive data, diskette drive, and power button from the system board.
10. To replace the system board bracket, reverse this sequence.



**CAUTION:** When reinstalling the system board bracket, ensure that the fingers of the I/O panel are properly aligned to prevent them from being bent. If the fingers become bent, the system board may get damaged.

## 4.14 System Board

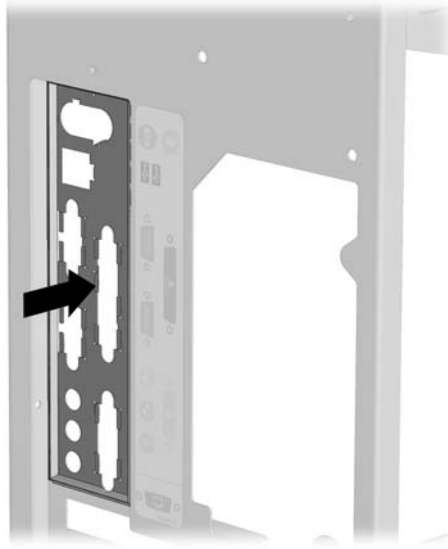
1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the system board bracket. (Section 4.13)
4. Remove all of the cables from the system board.
5. Remove the eight screws that secure the system board to the bracket.



To replace the system board, reverse this sequence.

## 4.15 I/O Panel

1. Perform the preparation procedures.
2. Remove the hood.
3. Remove the system board bracket.
4. Gently push the I/O panel into the chassis from the rear of the unit.



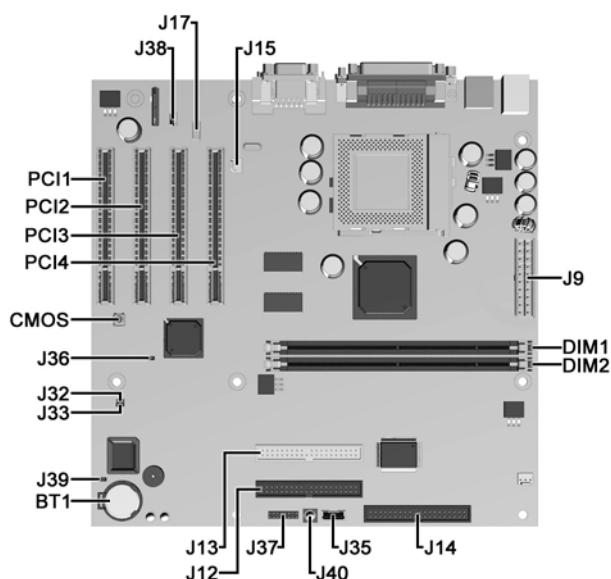
To replace the I/O panel, reverse this sequence.





## System Board Jumpers and Switches

### 5.1 System Board Jumpers and Switches



#### Jumpers and Switches

Item	Description	Item	Description
BT1	Real-Time clock battery socket	J35	Wake on LAN connector
CMOS	CMOS reset button	J36	Password jumper
DIMM1	Memory module socket 1	J37	Power switch/LED cable connector
DIMM2	Memory module socket 2	J38	Internal speaker connector
J9	Power supply connector	J39	Boot block jumper
J12	IDE (ATA) drive connector, primary	J40	SCSI LED connector
J13	IDE (ATA) drive connector, secondary	PCI1	PCI expansion slot
J14	Diskette drive connector	PCI2	PCI expansion slot
J15	Heatsink fan connector	PCI3	PCI expansion slot
J17	CD-ROM audio connection	PCI4	PCI expansion slot
J32	Firmware jumper (do not use)		Processor socket
J33	Firmware jumper (do not use)		

## 5.2 Clearing and Setting Passwords

Setting the Password provides access protection for the Computer Setup utility.

Follow the instructions below to clear the password.

1. Turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet.



**WARNING:** The power cord must be disconnected from the power source before removing the access panel. Stray voltage on the system board may injure you.

---

3. Remove the access panel.
4. Remove the jumper from header J36 from pins 1 and 2. Place the jumper on pin 2 only, in order to avoid losing it.
5. Replace the access panel.
6. Reconnect the power cord and the external equipment
7. Turn the computer on and allow the system to start. This clears the current password and disables the password features.

To establish a new password after the old password has been cleared, follow the instructions below.

1. Turn off the computer and any external devices.
2. Disconnect the power cord from the power outlet.
3. Remove the jumper from header J36 from pin 2. Place the jumper on pins 1 and 2 only.
4. Replace the access panel.
5. Reconnect the power cord and the external equipment
6. Turn the computer on and allow the system to start. Go to Computer Setup (GF10) to establish the new password.

## 5.3 Resetting CMOS

The computer's configuration (CMOS) may occasionally be corrupted. If it is, it is necessary to clear the CMOS memory using the CMOS button on the system board. To clear and reset the configuration, perform the following procedure:

1. Prepare the computer for disassembly.
2. Disconnect the power cord from the power outlet.
3. Remove the access panel.



**WARNING:** The power cord must be disconnected from the power source before removing the access panel. Stray voltage on the system board may injure you.

---

4. Press the CMOS button located on the system board and keep it depressed for 5 seconds.
5. Replace the access panel.
6. Reconnect the power cord.
7. Turn the computer on.
8. Run the Computer Setup (F10) utility to reconfigure the system.



When the CMOS button is pushed the password becomes invalid because it is stored in the configuration memory. You will need to reset the password.

---



**CAUTION:** The power cord must be disconnected from the power source before pushing the CMOS Button. Failure to do so may damage the system board.

---



## A

access panel removal and replacement 4-2  
audio cable spare part number 2-7

## B

battery 3-6  
    removal and replacement 4-15  
    safety precautions 3-6  
bezel blank spare parts number 2-3

## C

cables spare part number 2-7  
CD-ROM cable spare part number 2-7  
CD-ROM drive removal and replacement 4-5  
CD-ROM drive spare part number 2-5  
chassis  
    spare part number 2-3  
cleaning  
    computer 3-4  
    keyboard 3-4  
    monitor 3-5  
    mouse 3-5  
    safety precautions 3-4  
cleaning the keyboard 3-4  
clearing password 5-2  
CMOS setting 5-3  
computer cleaning 3-4  
connectors, rear panel 1-3

## D

disassembly preparation 4-1  
diskette drive  
    cable spare part number 2-7  
    mounting bracket spare part number 2-10  
    removal and replacement 4-7  
    spare part number 2-5  
drive location 4-4  
DVD cable spare part number 2-7  
DVD drive spare part number 2-5

## E

electrostatic discharge 3-1  
expansion card removal and replacement 4-11,  
    4-12, 4-13

expansion card spare part number 2-8

## F

fax/modem card removal and replacement 4-13  
front bezel removal and replacement 4-17  
front bezel spare part number 2-3  
front panel controls and LEDs 1-2

## G

generating static electricity 3-1  
grounding guidelines 3-2  
grounding methods 3-3

## H

hard drive  
    cable spare part number 2-7  
    mounting bracket spare part number 2-10  
    safety precautions 3-6  
    spare part number 2-5  
hard drive removal and replacement 4-7, 4-9  
hood assembly, spare part number 2-3  
hood removal and replacement 4-2

## I

I/O panel removal and replacement 4-21  
I/O panel spare part number 2-3

## K

keyboard cleaning 3-4  
keyboard spare part number 2-11

## M

memory module removal and replacement 4-14  
memory module spare part number 2-9  
microprocessor removal and replacement 4-16  
microprocessor spare part number 2-9  
monitor cleaning 3-5  
monitor spare part number 2-11  
mother board removal and replacement 4-20  
mouse cleaning 3-5  
mouse spare part number 2-10

## N

Network Interface Card (NIC) removal and  
    replacement 4-12

Network Interface Card (NIC) spare part number  
2-9

## O

On-button board removal and replacement 4-18  
optical drive cable spare part number 2-7  
optical drive removal and replacement 4-5  
option slot cover spare part number 2-10

## P

password setting and clearing 5-2  
plastic parts safety precautions 3-6  
power button/LED cable removal and replacement  
4-18  
power cord spare part number 2-7  
power supply removal and replacement 4-3  
power supply spare part number 2-3  
power switch/LED cable spare part number 2-7  
preparation for disassembly 4-1  
preventing static electricity damage 3-2  
processor removal and replacement 4-16  
processor spare part number 2-9

## R

rear panel connectors 1-3  
removal and replacement  
    access panel 4-2  
    battery 4-15  
    diskette drive 4-7  
    DR-ROM drive 4-5  
    expansion card 4-11, 4-12  
    fax/modem card 4-13  
    front bezel 4-17  
    hard drive 4-7, 4-9  
    hood 4-2  
    I/O panel 4-21  
    memory module 4-14  
    microprocessor 4-16  
    mother board 4-20  
    Network Interface Card (NIC) 4-12  
    On-button board 4-18  
    optical drive 4-5  
    power button/LED cable assembly 4-18  
    power supply 4-3  
    preparation 4-1  
    processor 4-16  
    RTC battery 4-15  
    system board 4-20  
    system board bracket 4-19  
    video card 4-11  
RTC battery removal and replacement 4-15

## S

safety precautions 3-6  
    cleaning 3-4  
    hard drives 3-6  
    plastic parts 3-6  
screws used 3-6  
serial number location 1-4  
service tools required 3-5  
setting CMOS 5-3  
setting password 5-2  
spare part number  
    audio cable 2-7  
    bezel blank 2-3  
    cables 2-7  
    CD-ROM cable 2-7  
    CD-ROM drive 2-5  
    diskette drive 2-5  
    diskette drive cable 2-7  
    diskette drive mounting bracket 2-10  
    drives 2-4  
    DVD cable 2-7  
    DVD drive 2-5  
    expansion boards 2-8  
    front bezel 2-3  
    hard drive 2-5  
    hard drive cable 2-7  
    hard drive mounting bracket 2-10  
    hood assembly 2-3  
    I/O panel 2-3  
    keyboard 2-11  
    mass storage devices 2-4  
    memory module 2-9  
    microprocessor 2-9  
    monitor 2-11  
    mouse 2-10  
    Network Interface Card (NIC) 2-9  
    optical drive 2-5  
    optical drive cable 2-7  
    other drive 2-5  
    power cord 2-7  
    power supply 2-3  
    power switch/LED cable 2-7  
    processor 2-9  
    speaker 2-10  
    standard and optional boards 2-8  
    storage devices 2-4  
    system board 2-9  
    system unit 2-3  
    Zip drive 2-5

- 
- spare part number, chassis 2-3
  - speaker spare part number 2-10
  - standard and optional boards spare part number 2-8
  - static electricity 3-1
  - storage devices, location 4-4
  - switches, system board 5-1
  - system board
    - bracket removal and assembly 4-19
    - jumpers and switches 5-1
    - removal and replacement 4-20
  - spare part number 2-9
  - system unit spare part numbers 2-3
- T**
- tools required, service 3-5
- V**
- video card removal and replacement 4-11
- Z**
- Zip drive, spare part number 2-5





## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>