# **Notice**

The information in this guide is subject to change without notice.

COMPAQ COMPUTER CORPORATION SHALL NOT BE LIABLE FOR TECHNICAL OR EDITORIAL ERRORS OR OMISSIONS CONTAINED HEREIN; NOR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS MATERIAL.

This guide contains information protected by copyright. No part of this guide may be photocopied or reproduced in any form without prior written consent from Compaq Computer Corporation.

© 1998 Compaq Computer Corporation. All rights reserved. Printed in the U.S.A.

Compaq and Deskpro are registered in the U. S. Patent and Trademark Office.

Microsoft, MS-DOS, Windows, Windows NT, and other names of Microsoft Products referenced herein are trademarks or registered trademarks of Microsoft Corporation.

Product names mentioned herein may be trademarks and/or registered trademarks of their respective companies.

#### Maintenance & Service Guide

#### **Compaq TFT8000 Flat Panel Monitor**

First Edition (December 1998) Part Number 307912-001

#### **Compaq Computer Corporation**

# preface

This *Maintenance & Service Guide* is a troubleshooting guide that can be used for reference when servicing the Compaq TFT8000 Flat Panel Monitor. Only authorized technicians trained by Compaq should attempt to repair this equipment.

Compaq Computer Corporation reserves the right to make changes to the Compaq TFT8000 Flat Panel Monitor without notice.

# **Symbols and Conventions**

The following words and symbols mark special messages throughout this guide:



**WARNING:** Text set off in this manner indicates that failure to follow directions in the warning 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 data.

Text set off in this manner presents commentary, sidelights, clarifying information, or specific instructions.

# **Technician Notes**

**WARNING:** Only authorized technicians trained by Compaq should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module level repair. Because of the complexity of the individual components and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indications of component replacement or printed wiring board modifications may void any warranty.



**CAUTION:** To properly ventilate your monitor, you must provide at least 3 inches (7.6 cm) of clearance at the back of the monitor.

**CAUTION:** The monitor is designed to be electrically grounded. To ensure proper operation, plug the AC power cord into a properly grounded AC outlet only.

# **System Serial Number**

The serial number is displayed on the monitor's back panel.

# **Locating Additional Information**

The following documentation is available to support the monitor:

- User's Guide (hard copy)
- Compaq Service Advisories and Bulletins
- Compaq QuickFind
- Compaq Service Quick Reference Guide

# CONTENTS

#### Preface

Symbols and Conventions	v
Technician Notes	v
System Serial Number	v
Locating Additional Information	vi

#### chapter 1

#### **Removal and Replacement Procedures**

1.1 Electrostatic Discharge	1-1
1.1.1 Preventing Electrostatic Discharge	
1.1.2 Grounding Methods	
1.2 Serial Number	
1.3 Features	1-3
1.4 Front Bezel Assembly Controls and LEDs	1-4
1.5 Disassembly and Assembly Procedures	1-5
1.5.1 Disconnecting the AC Adapter	1-5
1.5.2 Disconnecting the Video Connector	1-6
1.5.3 Separating the Monitor Base from the Monitor Panel	1-6
1.5.4 Replacing the Backlights	
1.5.5 Removing the Back Cover	1-9
1.5.6 Removing the Backlight Bulbs 1	-10

chapter 2	
Illustrated Parts Map	2-1

# chapter ]

# REMOVAL AND REPLACEMENT PROCEDURES

This chapter provides removal and replacement assembly procedures for the Compaq TFT8000.

## **1.1 Electrostatic Discharge**

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

#### 1.1.1 Preventing Electrostatic Discharge

To prevent electrostatic damage, observe the following precautions:

- Avoid hand contact by transporting and storing products in electrostatic-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at electrostatic-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 an electrostatic-sensitive component or assembly.

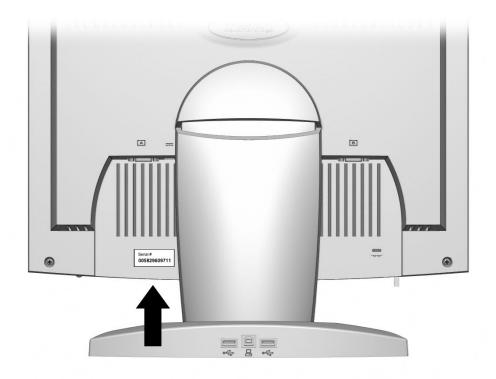
#### 1.1.2 Grounding Methods

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 megohm +/- 10 percent resistance in the ground cords. To provide proper ground, wear the strap snug against the skin.
- Use heel straps, toe straps, or boot straps 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, electrostatic-dissipating work mat.
- If you do not have the suggested equipment for proper grounding, or if you need more information on static electricity or assistance with product installation, contact a Compaq authorized service provider.

# 1.2 Serial Number

The monitor serial number should be given to Compaq when requesting information or ordering Spare parts. The serial number is displayed on the monitor's rear enclosure.



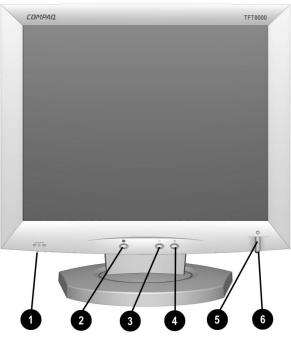
Locating the serial number

# 1.3 Features

- Large 18.1-inch (45.97 cm) viewable area display
- $1280 \times 1024$  resolution, plus full-screen support for lower resolutions
- Wide viewing angle to allow viewing from a sitting or standing position, or moving side-toside
- Removable base for flexible mounting solutions
- Plugs into a standard VGA connector; does not require a special video adapter card
- Plug and play capability if supported by your system
- Universal Serial Bus (USB) bus-powered hub interface—plug and play connectors for use with USB devices (mouse, keyboard, etc.)
- On-Screen Display (OSD) adjustments in six different languages: English, Dutch, French, German, Italian, and Spanish for ease of set-up and screen optimization
- Programmable sleep mode timer
- Security lock slot
- Fault Management and AssetControl
- Energy Saver feature for Energy Star compliance
- Compliant with the following regulated specifications:
  - □ Swedish MPR II 1990
  - □ EPA Energy Star
  - **u** European Union CE Directives
  - □ Swedish TCO 1995

# 1.4 Front Bezel Assembly Controls and LEDs

The controls and LEDs located on the monitor's front bezel assembly are identified below.



Front Bezel Controls and LEDs

No.	Cable/Connector	Function
0	Computer Signal Switch	Selects computer to monitor interface
0	Menu Selection Button	1. Launches on-screen display
		2. Selects function adjustments.
		3. Exits menus and on-screen display.
€	Minus Button	Selects and adjusts the functions.
4	Plus Button	Selects and adjusts the functions
6	Power Button	Turns the monitor on and off.
6	Power LED	1. Green indicates monitor is turned on.
		2. Yellow indicates suspend mode.
		3. Amber indicates sleep mode.
		<ol> <li>Blinking Green/Amber indicates programmable sleep mode.</li> </ol>

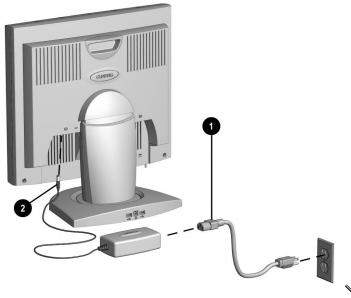
# 1.5 Disassembly and Assembly Procedures

This section provides disassembly and assembly procedures for only the parts that are spared for the Compaq TFT8000. Before you begin any of these procedures, be sure to turn off the power to the monitor, computer system, and other attached devices; then disconnect the power cable from the electrical outlet.

**CAUTION:** As you disassemble the monitor, be sure to place the screws in a safe place, and separate them according to their groupings.

## **1.5.1** Disconnecting the AC Adapter

- 1. Disconnect the power cord **1** from the wall socket.
- 2. Before removing the AC Adapter, disconnect the AC Adapter connector **2** (Spare part nos. 307913-001/Opal, 307913-002/Carbon) from the monitor.



Disconnecting the AC Adapter

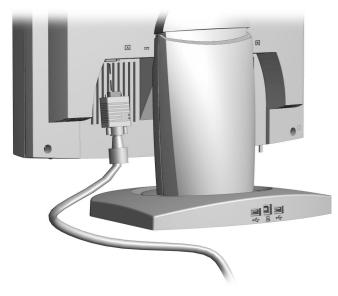
To reconnect the AC adapter, reverse this procedure.

N

Replace the AC adapter if the monitor does not power on and there is power to the AC adapter.

## 1.5.2 Disconnecting the Video Connector

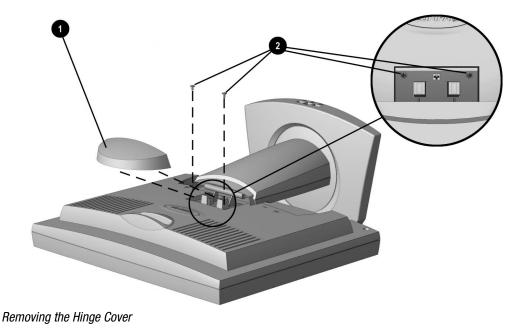
Disconnect the video connector from the monitor panel.



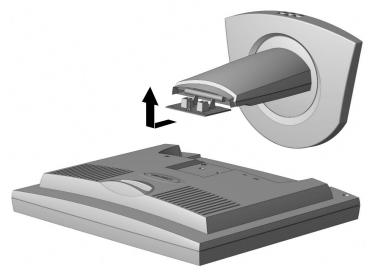
Disconnecting the Video Connector from the Monitor

#### **1.5.3** Separating the Monitor Base from the Monitor Panel

- 1. Lay the front bezel on a soft area to prevent it from getting scratched, defaced, or broken.
- 2. Grasp the hinge cover and press it in on both sides. Then, lift up and pull off the hinge cover. (Spare part nos. 307916-001/Opal, 307916-002/Carbon).
- 3. Remove the two screws **2** as shown below.



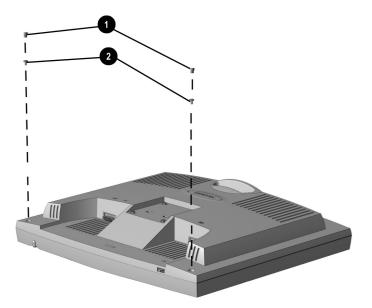
Slide the monitor base (Spare part nos. 307914-001/Opal, 307914-002/Carbon) toward the monitor panel. Then, lift the base up and away from the panel.



Separating the Monitor Base from the Monitor Panel

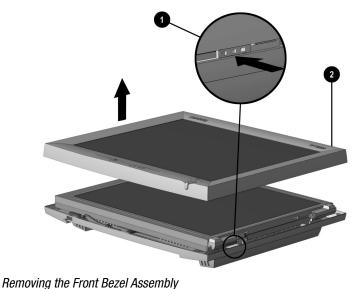
## 1.5.4 Replacing the Backlights

- 1. Use a screwdriver to pry out the two rubber tabs **1** on the back cover.
- 2. Remove the two screws **2** from the back cover.



Removing the Two Screws from the Back Cover

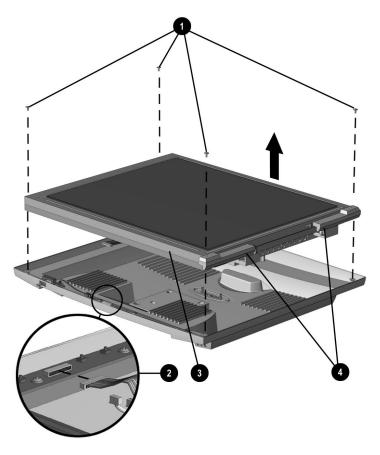
- 3. Turn the monitor over so that the front bezel is facing up.
- 4. Use Tool No. 107823-001 to gently pry open all four sides of the monitor panel. Use the same tool to separate the tabs **①** on the monitor panel. There are two tabs on each side.
- 5. Lift the front bezel **2** up and away from the monitor panel.



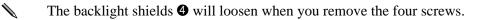
nemoving the riont bezer Assembly

## 1.5.5 Removing the Back Cover

- 1. Remove the four **O** screws.
- 2. Tilt the LCD panel away from the cable connector to access the cable.
- 3. Disconnect the cable  $\boldsymbol{2}$ .
- 4. Lift the LCD panel ③ up and away from the back.
- 5. Remove the backlight shields **4**.

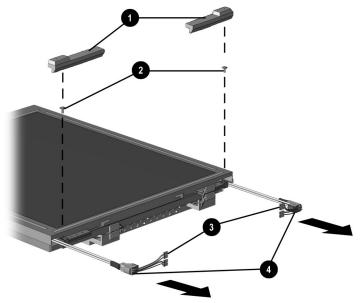


Removing the Back Cover



## 1.5.6 Removing the Backlight Bulbs

- 1. After the removal of the back cover and the backlight shields **①**, remove the two screws **②** that secure the backlight bulbs (Spare part no. 307919-001).
- 2. Disconnect the backlight cables **③** from the inverter board.
- 3. Slide the backlight bulbs out of the LCD panel **4**.
  - $\mathbf{N}$  The backlight shields came off during the removal of the back cover.
  - V If you are replacing the backlight bulbs, slide the new bulbs in and reverse the procedure.



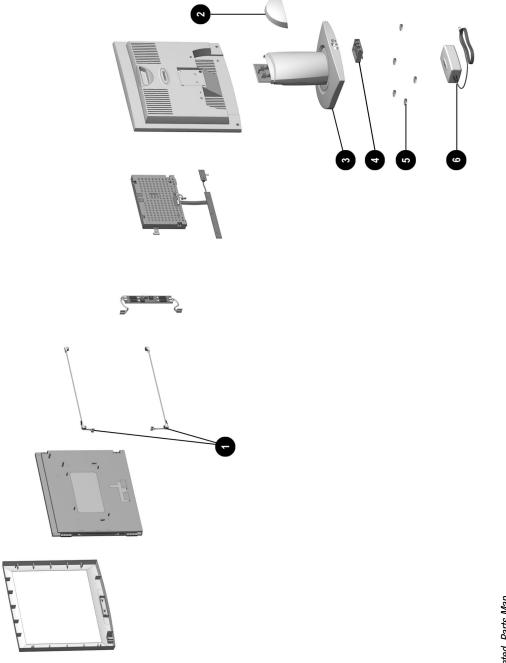
Removing the Backlight Bulbs



# **ILLUSTRATED PARTS MAP**



Compaq TFT8000 Flat Panel Monitor



Illustrated Parts Map

2-2 Illustrated Parts Map

шо <sub>с</sub>	Comuse TET9000 Elet Banel Monitor
Description	Part Number
1. Backlight Bulbs (2)	307919-001
2. Hinge Cover	307916-001, opal 307916-002, carbon
3. Monitor Base	307914-001, opal 307914-002, carbon
4. USB Hub	307937-001
5. Miscellaneous Hardware Kit* (10 of each screw, 5 feet)	307923-001
6. AC Adapter	307913-001, opal 307913-002, carbon
7. Return Kit*	307926-001
8. USB Cable*	325408-001
9. VGA Cable (2)*	307936-001, opal 307936-002, black
*Not included in the illustration	