

User Guide

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About This Guide

This guide provides information on monitor features, setting up the monitor, and technical specifications.

- MARNING! Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.
- A CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.
- **NOTE:** Text set off in this manner provides important supplemental information.

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1 Product Features

HP LCD Monitor

The LCD (liquid crystal display) monitor has an active matrix, thin-film transistor (TFT) panel. The monitor features include:

- LE1852ms model, 47.0 cm (18.5-inch) diagonal viewable area display with 1366 x 768 resolution, plus full-screen support for lower resolutions; includes custom scaling for maximum image size while preserving original aspect ratio
- LED backlight provides better clarity and consumes less energy than traditional CCFL backlights
- DC Power Pass-through for use with HP t150 and HP t200 Zero Client for MultiSeat to support MultiSeat Computing Solution
- AC IN and OUT connectors with AC power cable to provide power to the Thin Client power adapter from the monitor
- HP Quick Release to attach an HP Thin Client to the monitor and create a space saving all-inone form factor
- Wide viewing angle to allow viewing from a sitting or standing position, or moving side-to-side
- Fixed height stand with Thin Client power adapter management system and tilt capability
- Removable stand for flexible monitor panel mounting solutions
- Video signal input to support VGA analog with VGA signal cable provided
- Supports an optional HP speaker bar
- Plug and play capability if supported by the system
- Privacy filter slots to insert filters (purchased separately) to block side screen viewing
- Security slot provision on rear of monitor for optional cable lock
- On-Screen Display (OSD) adjustments in several languages for easy setup and screen optimization
- HP Display Assistant for adjusting monitor settings and enabling the theft deterrence feature
- Software and documentation CD that includes monitor drivers and product documentation
- Energy saver feature to meet requirements for reduced power consumption
- Energy Star® qualified
- Compliant with the following regulated specifications (for additional certifications and agency notices, refer to the HP LCD Monitors Reference Guide on the CD included with this monitor):
 - European Union CE Directives
 - Swedish TCO Requirements

2 Setting Up the Monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices, then follow the instructions below.

Attaching the Monitor Base

- 1. Lift the base from the monitor box and set it on a flat surface such as a table top.
- 2. Using both hands, lift the monitor from its box, position the pedestal over the base, and press down firmly to lock it in place. Be sure the base is securely locked in place and adjust the tilt angle to the desired position.

▲ CAUTION: Do not touch the surface of the LCD panel. Pressure on the panel may cause nonuniformity of color or disorientation of the liquid crystals. If this occurs the screen will not recover to its normal condition.

Figure 2-1 Attaching the Monitor Base



NOTE: To remove the base, press inward on the tab in the center of the underside of the base and pull the base from the pedestal.

Rear Components

Figure 2-2 Rear Components



| Component | | Function |
|-----------|------------------------|---|
| 1 | AC Power Out Connector | Connects the AC power cable to the Thin Client power adapter. |
| 2 | AC Power Connector | Connects the AC power cord to the monitor. |
| 3 | DC Connector | Connects the DC to DC cable to the monitor and to the HP t150 or HP t200 Zero Client for MultiSeat. |
| 4 | VGA Connector | Connects the VGA cable to the monitor. |

Front Panel Controls

Figure 2-3 Monitor Front Panel Controls



Table 2-1 Monitor Front Panel Controls

| Control | | | Function | |
|---------|------------|-----------|--|--|
| 1 | Ð | Menu | Opens, selects or exits the OSD menu. | |
| 2 | _ | Minus | If the OSD menu is on, press to navigate backward through the OSD menu and decrease adjustment levels. | |
| 3 | + | Plus | If the OSD menu is on, press to navigate forward through the OSD menu and increase adjustment levels. | |
| 4 | OK auto | OK/auto | If the OSD menu is on, press to select the highlighted menu item. | |
| | | | If the OSD menu is inactive, press to activate the auto adjustment feature to optimize the screen image. | |
| 5 | ባ | Power | Turns the monitor on or off. | |
| 6 | | Power LED | Blue = Fully powered. | |
| | | | Amber = Sleep mode. | |
| | | | Flashing Amber = Sleep Timer mode. | |

NOTE: To view an OSD menu simulator, visit the HP Customer Self Repair Services Media Library at http://www.hp.com/go/sml.

Adjusting the Monitor

Tilt the monitor's panel forward or backward to set it to a comfortable eye level.

Figure 2-4 Tilting the Monitor

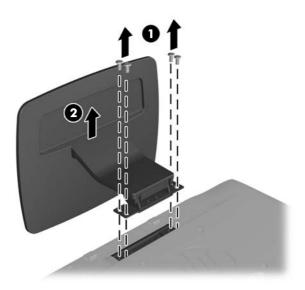


Removing the Monitor Pedestal Base

You can remove the monitor panel from the pedestal base to install the panel on a wall, a swing arm, or other mounting fixture.

- CAUTION: Before beginning to disassemble the monitor, be sure the monitor is turned off and the power and signal cables are both disconnected.
 - 1. Disconnect and remove the signal and power cables from the monitor.
 - 2. Lay the monitor face down on a flat surface covered by a clean, dry cloth.

Remove the four pedestal neck screws (1) and lift the pedestal neck (2) off of the monitor panel.
 Figure 2-5 Removing the Pedestal Neck Screws



Mounting the Monitor

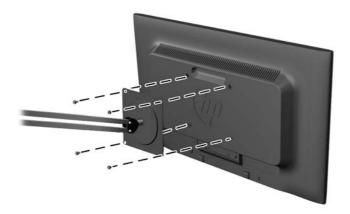
The monitor panel can be attached to a wall, swing arm, or other mounting fixture.

NOTE: This apparatus is intended to be supported by UL or CSA Listed wall mount bracket.

- 1. Remove the monitor panel from the pedestal base. Refer to <u>Removing the Monitor Pedestal</u> <u>Base on page 5</u>.
 - ▲ CAUTION: This monitor supports the VESA industry standard 100 mm mounting holes. To attach a third-party mounting solution to the monitor, four 4 mm, 0.7 pitch, and 10 mm long screws are required. Longer screws must not be used because they may damage the monitor. It is important to verify that the manufacturer's mounting solution is compliant with the VESA standard and is rated to support the weight of the monitor display panel. For best performance, it is important to use the power and video cables provided with the monitor.

2. To attach the monitor to a swing arm, insert four 10mm screws through the holes on the swing arm plate and into the mounting holes on the monitor.

Figure 2-6 Mounting the Monitor



To attach the monitor to other mounting fixtures, follow the instructions included with the mounting fixture to ensure that the monitor is safely attached.

3. Reconnect the cables to the monitor panel.

Mounting the MultiSeat Solution to the Monitor

You can attach an HP t150 or HP t200 Zero Client for MultiSeat to the rear of the monitor.

1. Mount the t150/t200 bracket to the VESA mounting holes on the back of the monitor using the four mounting screws provided.

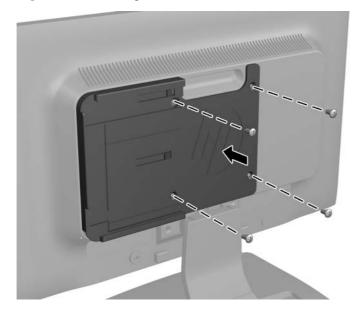
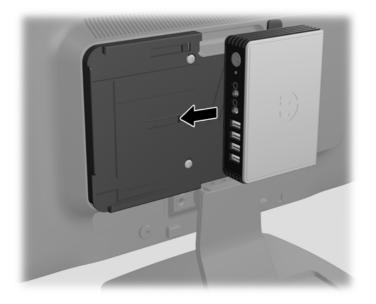


Figure 2-7 Installing the t150/t200 Bracket

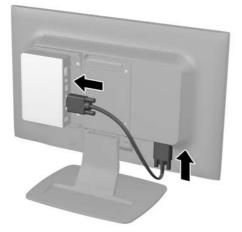
2. Slide the HP t150 or HP t200 Zero Client for MultiSeat onto the bracket.

Figure 2-8 Installing the MultiSeat Solution



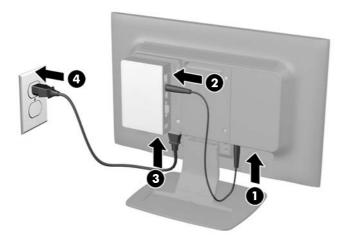
3. Connect the short VGA signal cable from the VGA connector on the MultiSeat Solution to the VGA connector on the monitor.

Figure 2-9 Connecting the VGA Signal Cable



4. Connect the DC power cable to the DC OUT connector on the monitor (1) and into the power connector on the HP t150 or HP t200 Zero Client for MultiSeat (2), and then plug one end of the power cord into the AC power connector on the back of the monitor (3), and the other end into an electrical wall outlet (4).

Figure 2-10 Connecting the DC Power Cable and the Power Cord



MARNING! To reduce the risk of electric shock or damage to the equipment:

Do not disable the power cord grounding plug. The grounding plug is an important safety feature.

Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Disconnect power from the equipment by unplugging the power cord from the electrical outlet.

For your safety, do not place anything on power cords or cables. Arrange them so that no one may accidentally step on or trip over them. Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug.

To operate the HP t150 or t200 Zero Client for MultiSeat, refer to the documentation provided with the HP MultiSeat Desktop Computer.

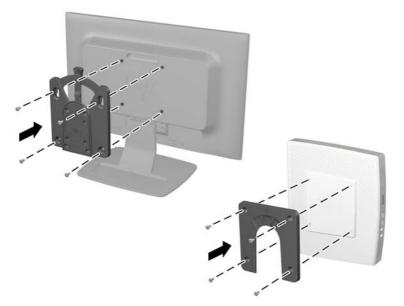
Mounting a Thin Client to the Monitor with the HP Quick Release

You can attach a thin client to the LE1852ms monitor using the HP Quick Release included with the monitor.

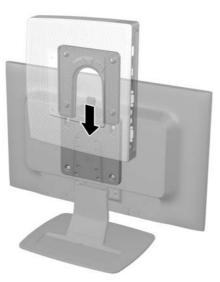
1. Attach the Quick Release to the back of the monitor using the 4 screws to secure the quick release to the VESA mounting holes on the monitor.

2. Attach the mounting bracket to the Thin Client using the 4 screws to mount the bracket to the VESA mounting holes on the Thin Client.

Figure 2-11 Mounting Quick Release and Quick Release Bracket to the Monitor and the Thin Client



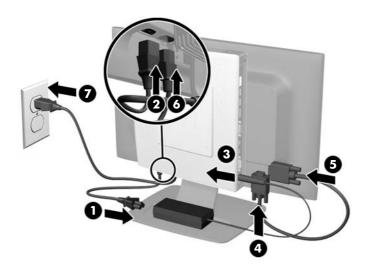
Mount the Thin Client onto the Quick Release on the monitor.
 Figure 2-12 Mounting the Thin Client onto the Quick Release



- 4. Plug one end of the short power cable (provided) into the power adapter (1) and the other end into the AC power connector on the monitor (2).
- 5. Connect the DC power cable from the power adaptor into the Thin Client (3).
- Plug one end of the short VGA cable into the monitor (4) and the other end into the Thin Client (5).

7. Plug one end of the monitor power cord into the monitor (6) and the other end into an electrical wall outlet (7).

Figure 2-13 Connecting the Cables to the Monitor and Thin Client



MARNING! To reduce the risk of electric shock or damage to the equipment:

Do not disable the power cord grounding plug. The grounding plug is an important safety feature.

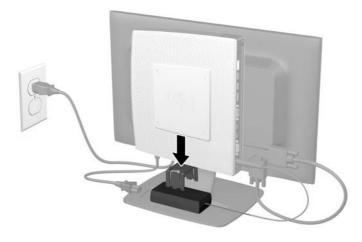
Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Disconnect power from the equipment by unplugging the power cord from the electrical outlet.

For your safety, do not place anything on power cords or cables. Arrange them so that no one may accidentally step on or trip over them. Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug.

8. Secure the Thin Client power adapter by placing the adapter into in the recessed slot in the monitor stand and pushing the adapter bracket down until it engages with the center of the recessed slot.

Figure 2-14 Securing the Thin Client Power Adapter



Turning on the Monitor

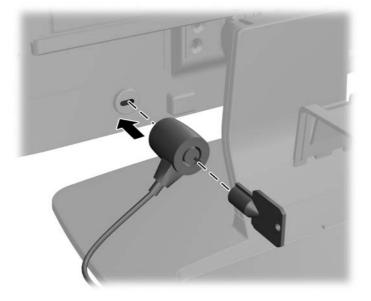
- 1. Press the power button on the computer to turn it on.
- 2. Press the power button on the front of the monitor to turn it on.
- ▲ CAUTION: Burn-in image damage may occur on monitors that display the same static image on screen for a prolonged period of time.* To avoid burn-in image damage on the monitor screen, you should always activate a screen saver application or turn off the monitor when it is not in use for a prolonged period of time. Image retention is a condition that may occur on all LCD screens. Monitors with a "burned-in image" are not covered under the HP warranty.
 - * A prolonged period of time is 12 consecutive hours of non-use.
- **NOTE:** If pressing the power button has no effect, the Power Button Lockout feature may be enabled. To disable this feature, press and hold the monitor power button for 10 seconds.
- **NOTE:** You can disable the power LED in the OSD menu. Press the Menu button on the front of the monitor, then select **Management > Bezel Power LED > Off**.

When the monitor is powered on, a Monitor Status message is displayed for five seconds. The message shows VGA as the current active signal, the current preset display resolution, and the recommended preset display resolution.

Installing a Cable Lock

You can secure the monitor to a fixed object with an optional cable lock available from HP.

Figure 2-15 Installing a Cable Lock



3 Finding More Information

Reference Guide

Refer to the *HP LCD Monitors Reference Guide* included on the CD with your monitor for additional information on:

- Optimizing monitor performance
- Safety and maintenance guidelines
- Installing software from the CD
- Using the OSD menu
- Downloading software from the Web
- Agency and regulatory notices
- Troubleshooting and recommended solutions to common problems

For additional information on using and adjusting your monitor, go to <u>http://www.hp.com/support</u>. Select your country or region, select Product Support & Troubleshooting, and then enter your monitor model in the SEARCH window.

Product Support

NOTE: The monitor user guide, reference guide, and drivers are available at <u>http://www.hp.com/</u> <u>support</u>.

If the information provided in the guide or in the *HP LCD Monitors Reference Guide* do not address your questions, you can contact support. For U.S. support, go to <u>http://www.hp.com/go/contactHP</u>.

For worldwide support, go to <u>http://welcome.hp.com/country/us/en/wwcontact_us.html</u>. Here you can:

• Chat online with an HP technician

NOTE: When support chat is not available in a particular language, it is available in English.

- E-mail support
- Find support telephone numbers
- Locate an HP service center

4 Technical Specifications

NOTE: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

Specifications

| Table 4-1 Specifications | | | |
|---|---------------------------------------|---|--|
| Maximum Weight (Unpacked) | 3.2 kg | 7.05 lbs | |
| Dimensions (include base) Height | 33.46 cm | 13.17 inches | |
| Depth | 19.18 cm 44.93 cm | 7.55 inches 17.69 inches | |
| Width | | | |
| Maximum Graphic Resolution Optimum Graphic Resolution | · · · · · · | 1366 x 768 (60 Hz) analog input | |
| Power Source | 100 – 240 VAC 50/60 Hz | 1366 x 768 (60 Hz) analog input 100 – 240 VAC 50/60 Hz | |
| Input Terminal | One VGA connector with cable included | | |

Recognizing Preset Display Resolutions

The display resolutions listed below are the most commonly used modes and are set as factory defaults. This monitor automatically recognizes these preset modes and they will appear properly sized and centered on the screen.

Factory Preset Modes

| Preset | Pixel Format | Horz Freq (kHz) | Vert Freq (Hz) | | |
|--------|--------------|-----------------|----------------|--|--|
| 1 | 640 × 480 | 31.469 | 59.94 | | |
| 2 | 720 × 400 | 31.469 | 70.087 | | |
| 3 | 800 × 600 | 37.879 | 60.317 | | |
| 4 | 1024 × 768 | 48.363 | 60.004 | | |
| 5 | 1280 × 720 | 45.0 | 60.0 | | |
| 6 | 1280 × 1024 | 63.98 | 60.02 | | |
| 7 | 1366 × 768 | 47.712 | 59.79 | | |

Table 4-2 Factory Preset Modes

Entering User Modes

The video controller signal may occasionally call for a mode that is not preset if:

- You are not using a standard graphics adapter.
- You are not using a preset mode.

It this occurs, you may need to readjust the parameters of the monitor screen by using the on-screen display. Your changes can be made to any or all of these modes and saved in memory. The monitor automatically stores the new setting, then recognizes the new mode just as it does a preset mode. In addition to the factory preset modes, there are at least 10 user modes that can be entered and stored.

Energy Saver Feature

The monitors support a reduced power state. The reduced power state will be entered into if the monitor detects the absence of either the horizontal sync signal and/or the vertical sync signal. Upon detecting the absence of these signals, the monitor screen is blanked, the backlight is turned off, and the power light is turned amber. When the monitor is in the reduced power state, the monitor will utilize .5 watts of power. There is a brief warm up period before the monitor will return to its normal operating mode.

Refer to the computer manual for instructions on setting energy saver features (sometimes called power management features).

NOTE: The above power saver feature only works when connected to computers that have energy saver features.

By selecting the settings in the monitor's Energy Saver utility, you can also program the monitor to enter into the reduced power state at a predetermined time. When the monitor's Energy Saver utility causes the monitor to enter the reduced power state, the power light blinks amber.