



# Hardware Reference Guide

HP RP9 G1 Retail System

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## Product notice

This guide describes features that are common to most models. Some features may not be available on your computer.

Not all features are available in all editions of Windows 8. This computer may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8 functionality. See <http://www.microsoft.com> for details.

This computer may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See <http://windows.microsoft.com/en-us/windows7/get-know-windows-7> for details.

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For any further information or to request a full refund of the computer, please contact your local point of sale (the seller).

## About This Book

This guide provides basic information for upgrading this computer model.

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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.

 **NOTE:** Text set off in this manner provides important supplemental information.

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# 1 Product overview

## Standard features



The HP RP9 G1 Retail System includes the following features.

- Integrated All-in-One (AiO) form factor
- Designed for long-term deployment within general retail, hospitality, and other markets
- 15.6" (Model 9015) and 18.5" (Model 9018) base models with Projected Capacitive touch technology and 1366 x 768 resolution
- VESA mounting holes (100 mm x 100 mm)
- Choice of ergonomic stand, compact stand, or no stand (Display Head unit only)
- Optional Integrated HP peripherals:
  - Integrated magnetic strip reader (left mount or right mount options, encryption capable)
  - 2 x 20 LCD customer facing display (rear top mount or bottom mount with extension arm)
  - 7" LCD customer facing display (rear top mount or bottom mount with extension arm)
  - Two integrated barcode scanners (one with left mount or right mount options, and one bottom mount only)
  - Integrated webcam (top mount only)
  - Integrated biometric fingerprint reader (left mount or right mount options)
- DDR4 2133 MHz Memory, up to 32GB maximum RAM
- Operating system choices:
  - Embedded 8.1 Industry ProRetail 64-bit
  - FreeDos 2.0
  - POSReady 7 32-bit

- POSReady 7 64-bit
- Windows 10 IoT Enterprise for Retail 64-bit
- Windows 10 Pro 64-bit
- Windows 10 Pro downgrade to Windows 7 Pro 32-bit
- Windows 10 Pro downgrade to Windows 7 Pro 64-bit
- Windows 10 Pro downgrade to Windows 8.1 Pro 64-bit
- Windows 7 Professional Edition 32-bit
- Windows 7 Professional Edition 64-bit
- Windows 8.1 Pro 64-bit
- One M.2 slot for optional WLAN
- Two USB 2.0 ports and two USB 3.0 ports
- One 24V powered USB port and three 12V powered USB ports, two powered serial ports, and one cash drawer port
- Audio line-in and line-out ports
- One DisplayPort for secondary display
- One 2.5" internal storage bay for SATA HDD or SSD
- Two M.2 internal storage bays
- Cable management features
- ENERGY STAR compliant

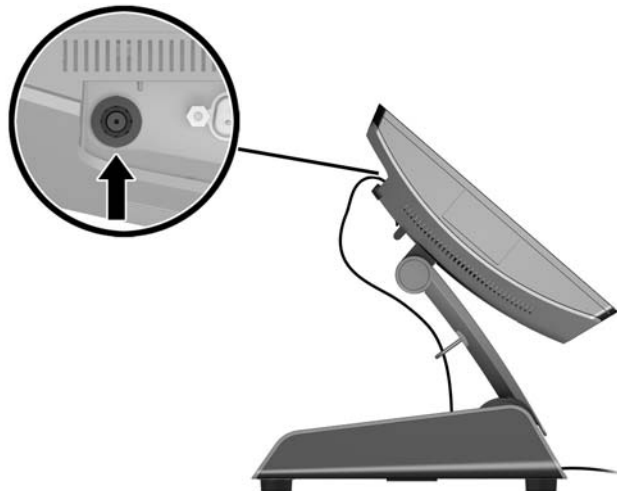
## Unfolding the ergonomic stand

If your model includes an ergonomic stand, the system is shipped with the stand in the folded position. Follow the steps below to unfold the stand.

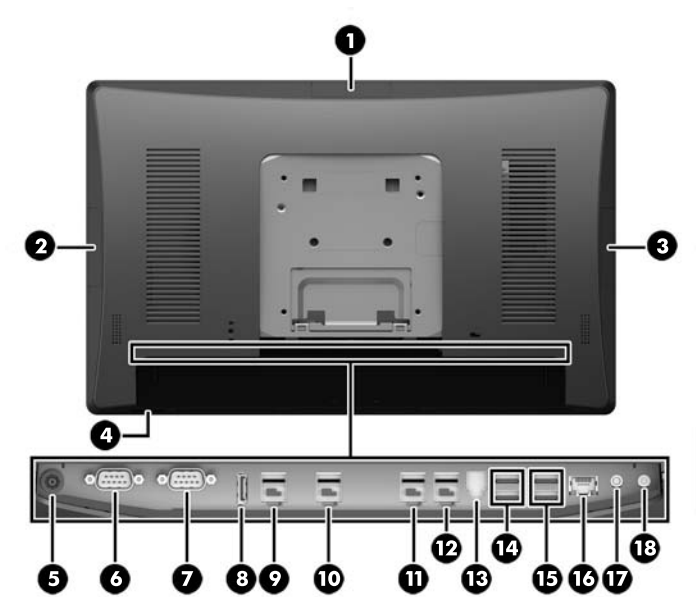
1. Unfold the stand to the desired position.



2. Route the DC power cord through the cable retainer and connect the cord to the rear I/O power connector.



# Rear components



|   |                                                                                                            |    |                                                                                    |
|---|------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------|
| 1 | Top USB port for optional HP integrated USB webcam, 7" CFD, or 2 x 20 CFD (behind rear cover)              | 10 | Powered USB 12V (B) used if the optional bottom mount barcode scanner is installed |
| 2 | Side USB port for optional HP integrated USB barcode scanner, MSR, or biometric reader (behind rear cover) | 11 | Powered USB 12V (C)                                                                |
| 3 | Side USB port for optional HP integrated USB barcode scanner, MSR, or biometric reader (behind rear cover) | 12 | Powered USB 24V                                                                    |
| 4 | Power button                                                                                               | 13 | Cash drawer connector                                                              |
| 5 | DC In power connector                                                                                      | 14 | USB 2.0 ports                                                                      |
| 6 | Powered serial port (COM A)                                                                                | 15 | USB 3.0 ports                                                                      |
| 7 | Powered serial port (COM B)                                                                                | 16 | RJ-45 network connector                                                            |
| 8 | DisplayPort (for secondary display)                                                                        | 17 | Audio line in connector                                                            |
| 9 | Powered USB 12V (A)                                                                                        | 18 | Audio line out connector                                                           |

- NOTE:** The powered serial ports can be configured for 0V, 5V, or 12V.
- NOTE:** The 24-volt Powered USB connector and the 12-volt Powered USB connector are keyed differently as a precaution to prevent connection errors.
- NOTE:** The cash drawer connector is covered by a sticker that must be removed to connect the cash drawer cable.
- CAUTION:** The cash drawer connector is similar in size and shape to a modem jack. To avoid damage to the computer, DO NOT plug a network cable into the cash drawer connector.

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## 2 Hardware upgrades

### Tools needed

A Torx or flat blade screwdriver can be used for procedures described in this guide.

### Warnings and cautions

Before performing upgrades be sure to carefully read all of the applicable instructions, cautions, and warnings in this guide.

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 **WARNING!** To reduce the risk of personal injury from electrical shock, hot surfaces, or fire:

Disconnect the power cord from the wall outlet and allow the internal system components to cool before touching.

Do not plug telecommunications or telephone connectors into the network interface controller (NIC) receptacles.

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

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

To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation, setup, posture, and health and work habits for computer users, and provides important electrical and mechanical safety information. This guide is located on the Web at <http://www.hp.com/ergo>.

 **WARNING!** Energized and moving parts inside.

Disconnect power to the equipment before removing the enclosure.

Replace and secure the enclosure before turning power back on to the device.

 **CAUTION:** Static electricity can damage the electrical 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 [Electrostatic discharge on page 43](#) for more information.

When the computer is plugged into an AC power source, voltage is always applied to the system board. You must disconnect the power cord from the power source and wait approximately 30 seconds before opening the computer to prevent damage to internal components.

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## Removing and attaching the ergonomic and compact stands

The RP9 can be attached to a wall, swing arm, pole-mounted bracket, or other mounting fixture by removing the stand (when ordered attached to the system unit). The RP9 supports the VESA industry standard 100 mm spacing between mounting holes.

This apparatus is intended to be supported by UL or CSA Listed wall mount bracket. HP recommends that you use an HP Quick Release mounting bracket for wall mounting (part number EM870AA).

**CAUTION:** To attach a third-party mounting solution to the RP9, four 4 mm, 0.7 pitch, and 10 mm long screws are required. Longer screws must not be used because they may damage the system. 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 system.

Follow the steps below to remove the stand, mount the RP9 to a wall mount or swing arm, and to install the stand.

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

**CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

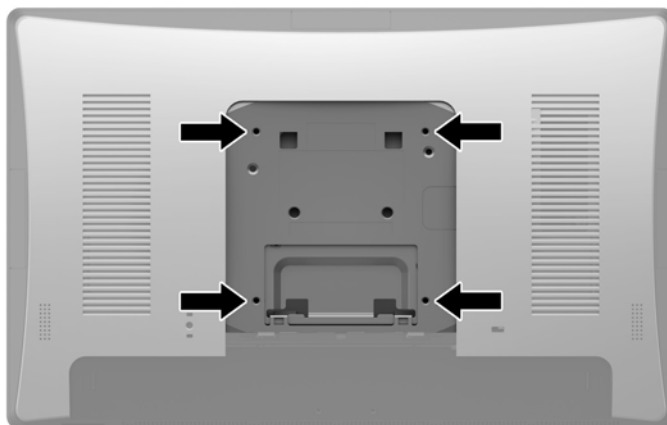
3. Disconnect all cables from the rear I/O connectors.
4. To remove the ergonomic stand, lay the RP9 face down on a flat surface covered by a soft clean cloth. Push up the release latch on the rear of the display head (1), tilt the stand back (2), and then lift up from the display (3).



5. To remove the compact stand, lay the RP9 face down on a flat surface covered by a soft clean cloth. Push up the release latch on the rear of the display head (1), tilt the stand back (2), and then lift up from the display (3).



6. To mount the display head to a wall or swing arm, use the 100 mm x 100 mm VESA mounting holes on the rear of the display head.



7. To attach the ergonomic stand, lay the RP9 face down on a flat surface covered by a soft clean cloth. Slide the tabs on the top of the stand mount into the slots on the display head (1), and then rotate the bottom of the stand mount down onto the display head so that it snaps in place (2).



8. To attach the compact stand, lay the RP9 face down on a flat surface covered by a soft clean cloth. Slide the tabs on the top of the stand mount into the slots on the display head (1), and then rotate the bottom of the stand mount down onto the display head so that it snaps in place (2).



## Routing cables (ergonomic stand)

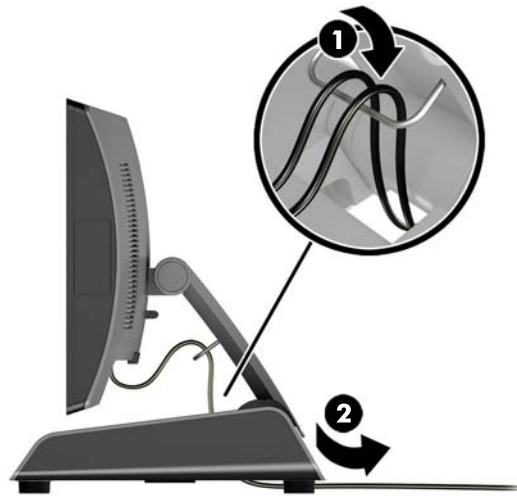
1. Shut down the computer properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet.

**CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

3. Connect the cables to the appropriate rear connectors.

**NOTE:** Tilt the display head back for easy access to the rear connectors.

4. Route the cables from the connectors on the rear panel through the cable retainer on the neck of the stand (1), and then through the hole in the center of the base and out the underside of the base (2).



5. Reconnect the power cord and press the power button.

## Routing cables (compact stand)

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

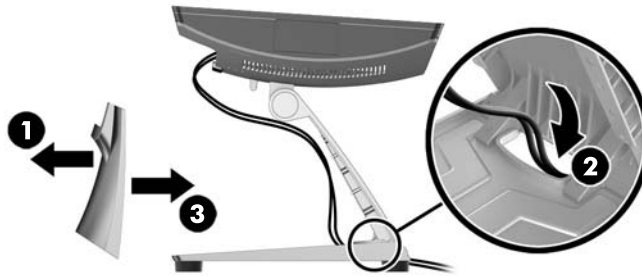
**CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

3. Connect the cables to the appropriate rear connectors.

**NOTE:** Tilt the display head back for easy access to the rear connectors.

4. Snap off the cable routing cover on the neck of the stand (1).
5. Route the cables from the connectors on the rear panel down the neck of the stand, and then through the hole in the center of the base and out the underside of the base (2).

6. Snap the cable routing cover onto the neck of the stand to cover the cables (3).



7. Reconnect the power cord and press the power button.

## Removing and replacing the power supply (ergonomic stand)

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

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

3. Unplug the DC power cable from the connector on the rear of the display head.
4. Pull up on the center of the cover on the right side of the base and rotate the cover upward.



5. Pull up on the center of the cover on the left side of the base and rotate the cover upward.



6. Lay the RP9 face down on a flat surface covered by a soft clean cloth. Lift the pull tab and loosen the screw on the bottom plate of the stand (1), then lift the bottom of the plate up (2), and then pull the plate off the stand (3).



7. Unplug the AC power cord from the side of the power supply (1), and then lift the power supply out of the stand's base (2).



8. Route the fixed side of the new power supply's power cord through the hole in the center of the base and connect it to the DC power connector on the rear panel (1). Place the new power supply into the stand's base (2), and then connect the AC power cord to the side of the power supply (3) and route the cord through the retainer slot on the base.



9. Slide the tabs on the base plate into the slots on the base (1), rotate the plate onto the base (2), and then tighten the base plate screw (3).



10. Snap the right side cover back onto the stand's base.



11. Snap the left side cover back onto the stand's base.



12. Connect the power cord to an electrical outlet.

## Installing an optional HP integrated USB barcode scanner, magnetic strip reader (MSR), biometric reader, or webcam

Only install HP approved integrated USB modules designed for these USB ports. The USB ports do not support optical drives or hard drives.

The integrated barcode scanner, integrated MSR, and integrated biometric reader can be installed on the left or right side of the display head. The integrated webcam can only be installed on the top of the display head. There is a separate integrated barcode scanner that can be installed on the bottom of the display head.

## Installing an optional HP integrated USB module on the sides or top of the display head

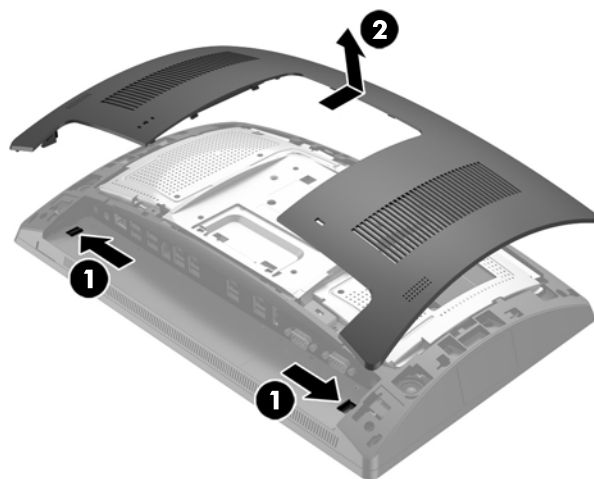
The procedure for installing a module is the same for all modules, whether it is on the left side, the right side, or the top of the display head.

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

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

3. Disconnect all cables from the rear I/O connectors.

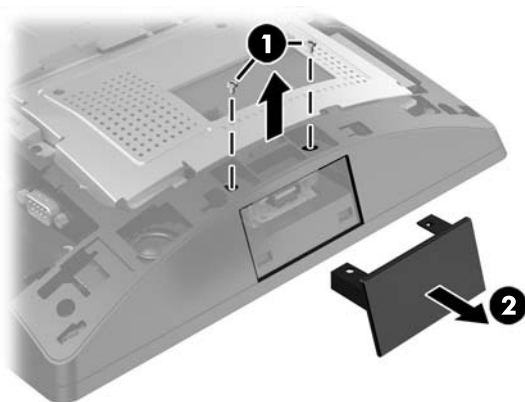
4. Press the two rear cover latches outward (1). Slide the rear cover up, and then lift it off the display head (2).



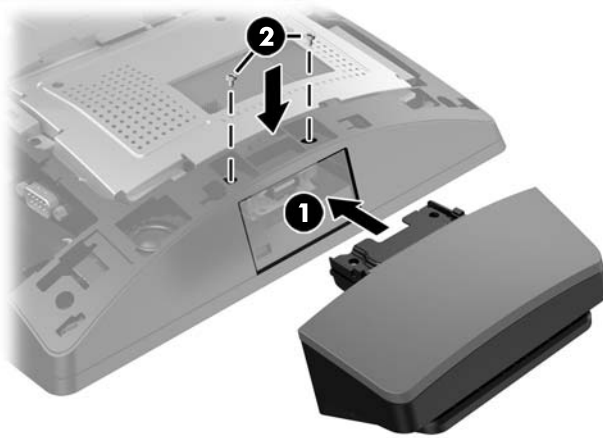
5. Remove the two screws that secure the port cover (1), and then pull the port cover off the display head (2).



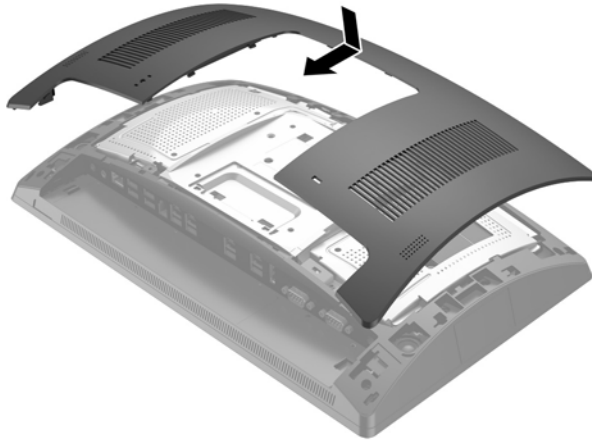
**NOTE:** You may need to gently loosen the port cover from inside of the screw holes with a flat screwdriver.



6. Insert the USB connector on the module into the USB port (1), and then secure the module with the two screws that were previously removed (2).



7. Align the tabs on the rear cover with the slots on the display head while placing the cover on the display head, and then slide the cover down so that it snaps in place.



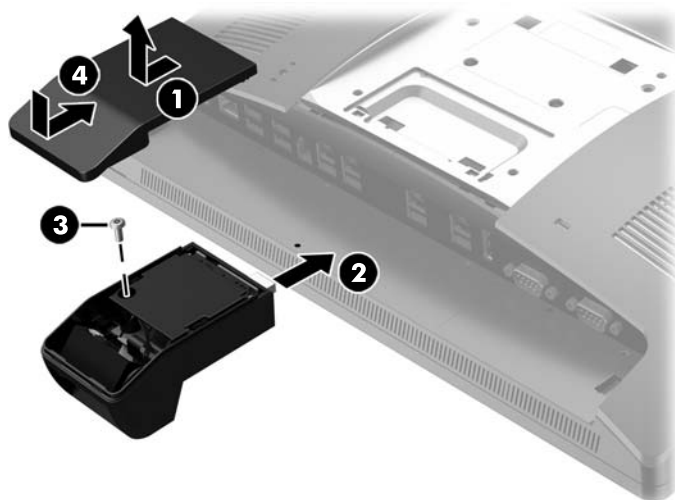
8. Reconnect all cables to the rear I/O connectors.
9. Reconnect the power cord and press the power button.

## Installing an optional HP integrated USB barcode scanner on the bottom of the display head

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

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

3. Disconnect all cables from the rear I/O connectors.
4. Slide the cover on the barcode scanner down and then lift the cover up to remove it (1). Plug the barcode scanner into the rear I/O Powered USB 12V (B) connector (2), and then secure the barcode scanner with the screw provided (3). Replace the barcode scanner cover (4).



5. Reconnect all cables to the rear I/O connectors.
6. Reconnect the power cord and press the power button.

## Installing a 2 x 20 LCD or 7” LCD customer facing display (CFD)

A short extension arm CFD can be attached to the top of the display head or a long extension arm CFD can be attached to the bottom of the stand's base. The procedure for installing a CFD is the same, whether it is a 2 x 20 or 7” LCD.

### Installing a top mount CFD

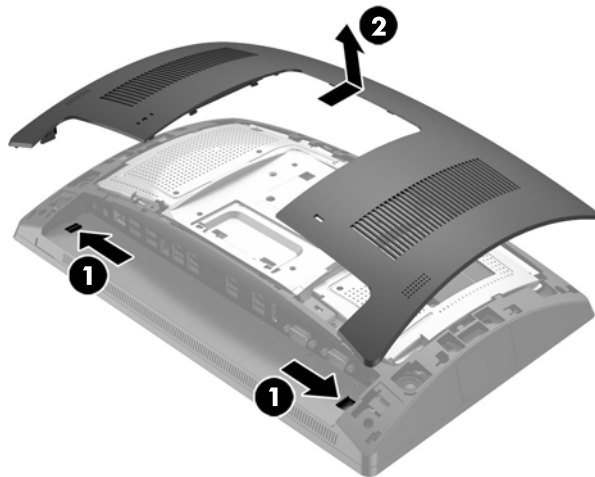
1. Shut down the computer properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet.

---

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

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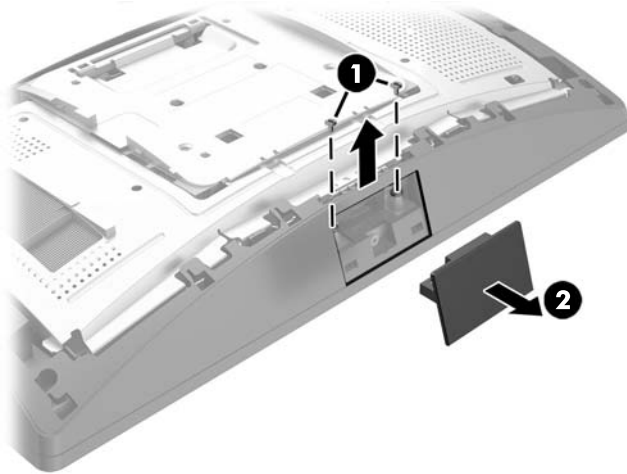
3. Disconnect all cables from the rear I/O connectors.
4. Press the two rear cover latches outward (1). Slide the rear cover up, and then lift it off the display head (2).



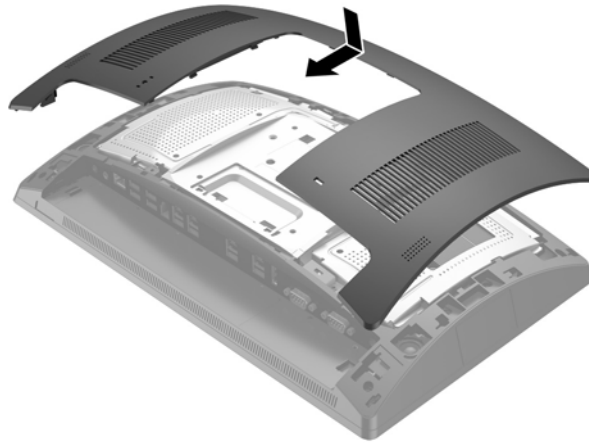
5. Remove the two screws that secure the top port cover (1), and then pull the port cover off the display head (2).



**NOTE:** You may need to gently loosen the port cover from inside of the screw holes with a flat screwdriver.



6. Align the tabs on the rear cover with the slots on the display head while placing the cover on the display head, and then slide the cover down so that it snaps in place.



7. Remove the cover from the CFD arm by pulling back the top of the cover (1) and then the bottom of the cover. Insert the USB connector on the CFD into the USB port (2), and then secure the CFD with the screw provided (3). Replace the arm cover (4) by snapping on the top of the cover and then the bottom of the cover.



8. Reconnect all cables to the rear I/O connectors.
9. Reconnect the power cord and press the power button.

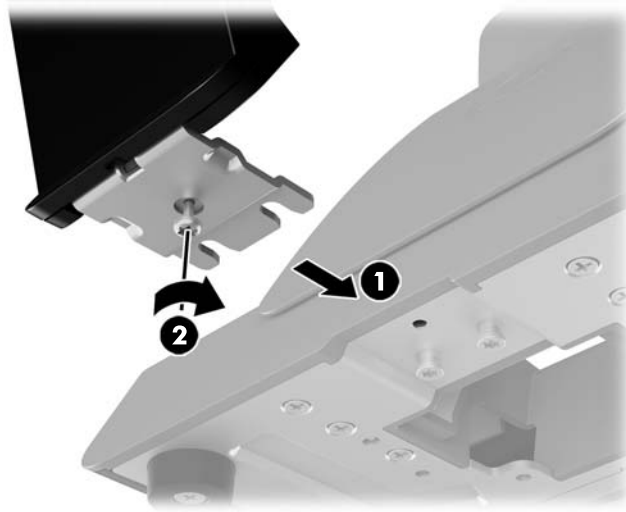
## Installing a bottom mount CFD

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

**CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

3. Unplug the power cable from the connector on the rear of the display head.
4. Lay the RP9 face down on a flat surface covered by a soft clean cloth.

5. Slide the CFD bracket onto the underside of the base (1), and then secure the bracket with the screw (2).



6. Route the CFD cable up through the center hole in the base and connect it to a USB port on the rear I/O.



7. Reconnect the power cord and press the power button.

## Installing memory

The computer comes with at least one preinstalled double data rate 4 synchronous dynamic random access memory (DDR4-SDRAM) small outline dual inline memory module (SODIMM). There are two memory sockets on the system board that can be populated with up to 32GB of memory.

### DDR4-SDRAM SODIMMs

For proper system operation, the SODIMMs must be:

- industry-standard 260-pin
- unbuffered non-ECC PC4-17000 DDR4-2133 MHz-compliant
- 1.2 volt DDR4-SDRAM SODIMMs

The SODIMMs must also:

- support CAS latency 15 DDR4 2133 MHz (15-15-15 timing)
- contain the mandatory Joint Electronic Device Engineering Council (JEDEC) specification

In addition, the computer supports:

- 512-Mbit, 1-Gbit, 2-Gbit, 4-Gbit, and 8-Gbit non-ECC memory technologies
- single-sided and double-sided SODIMMs
- The following SODIMMs are offered:
  - 4GB DDR4-2133 SODIMM (1 x 4GB) RAM
  - 8GB DDR4-2133 SODIMM (2 x 4GB) RAM
  - 8GB DDR4-2133 SODIMM (1 x 8GB) RAM
  - 16GB DDR4-2133 SODIMM (1 x 16GB) RAM
  - 16GB DDR4-2133 SODIMM (2 x 8GB) RAM
  - 32GB DDR4-2133 SODIMM (2 x 16GB) RAM



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**NOTE:** The system will not operate properly if you install unsupported SODIMMs.

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### Removing and installing a SODIMM



**CAUTION:** You must disconnect the power cord and wait approximately 30 seconds for the power to drain before replacing the memory module. Regardless of the power-on state, voltage is always supplied to the memory module as long as the computer is plugged into an active AC outlet. Adding or removing the memory module while voltage is present may cause irreparable damage to the memory module or system board.

The memory module socket has gold-plated metal contacts. When upgrading the memory, it is important to use a memory module with gold-plated metal contacts to prevent corrosion and/or oxidation resulting from having incompatible metals in contact with each other.

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. For more information, refer to [Electrostatic discharge on page 43](#).

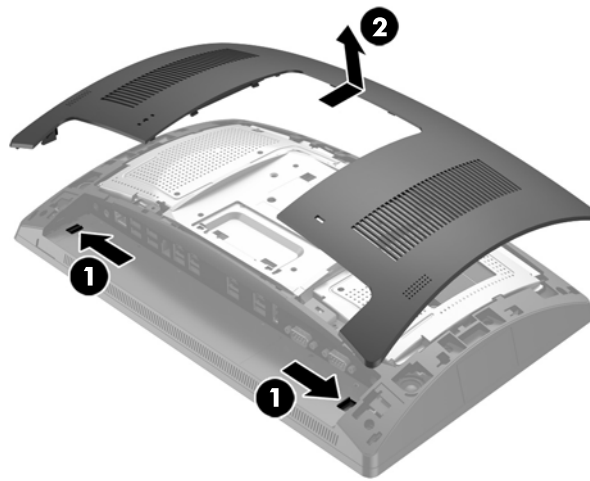
When handling a memory module, be careful not to touch any of the contacts. Doing so may damage the module.

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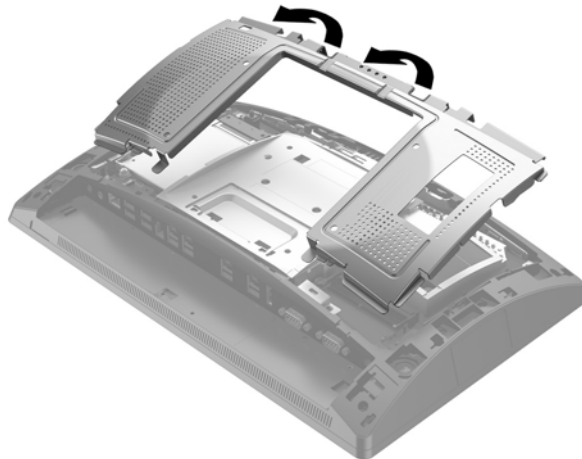
1. Shut down the computer properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet.

**⚠ CAUTION:** You must disconnect the power cord and wait approximately 30 seconds for the power to drain before replacing the memory module. Regardless of the power-on state, voltage is always supplied to the memory module as long as the computer is plugged into an active AC outlet. Adding or removing a memory module while voltage is present may cause irreparable damage to the memory module or system board.

3. Disconnect all cables from the rear I/O connectors.
4. Press the two rear cover latches outward (1). Slide the rear cover up, and then lift it off the display head (2).



5. Use the finger slots on the rear metal shield to pull the top of the shield up, and then lift the shield off the display head.



6. To remove a SODIMM, press outward on the two latches on each side of the SODIMM (1), and then pull the SODIMM out of the socket (2).

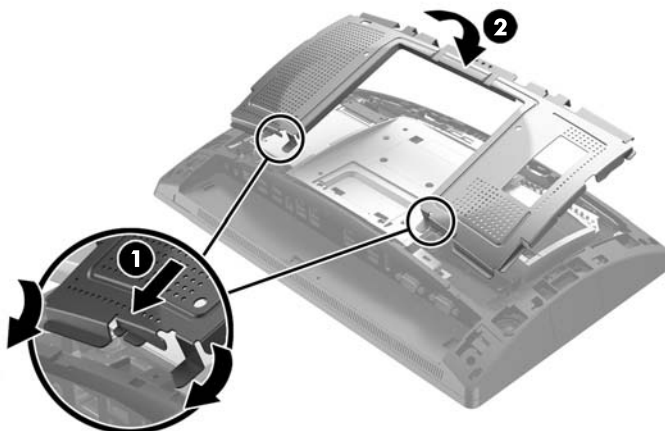


7. To install a SODIMM, slide the new SODIMM into the socket at approximately a 30° angle (1), and then press the SODIMM down into the socket (2) so that the latches lock it in place.

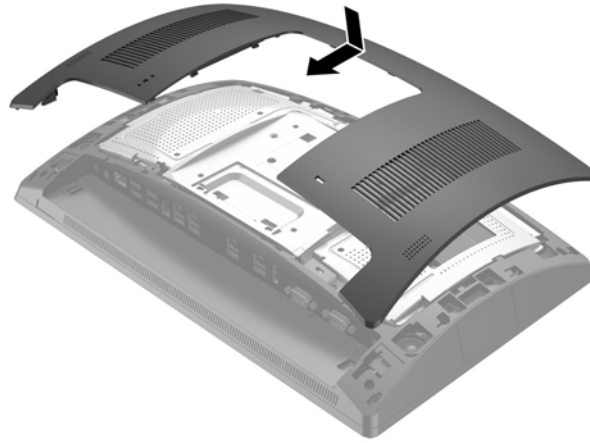


 **NOTE:** A memory module can be installed in only one way. Match the notch on the module with the tab on the memory socket.

8. To replace the rear metal shield, slide the outer tabs on each side of the bottom of the shield under the metal framework on the display head and the center tab on each side above the metal framework (1), and then rotate the top of the shield onto the display head so that it snaps in place (2).



9. Align the tabs on the rear cover with the slots on the display head while placing the cover on the display head, and then slide the cover down so that it snaps in place.



10. Reconnect all cables to the rear I/O connectors.

11. Reconnect the power cord and press the power button.

The computer automatically recognizes the additional memory when you turn on the computer.

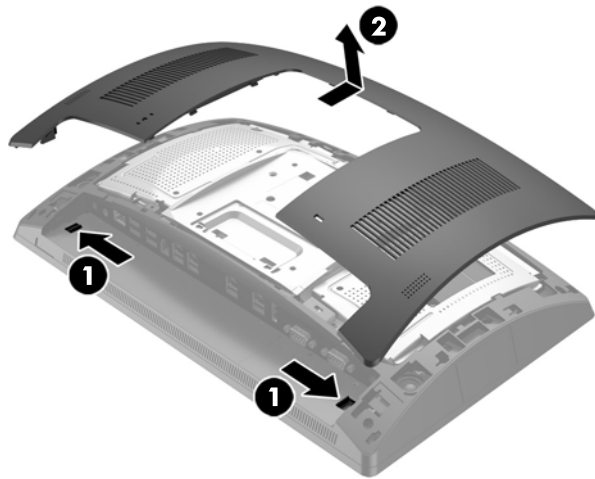
## Removing and installing a 2.5-inch hard drive

**CAUTION:** If you are replacing a hard drive, be sure to back up the data from the old drive so that you can transfer the data to the new drive.

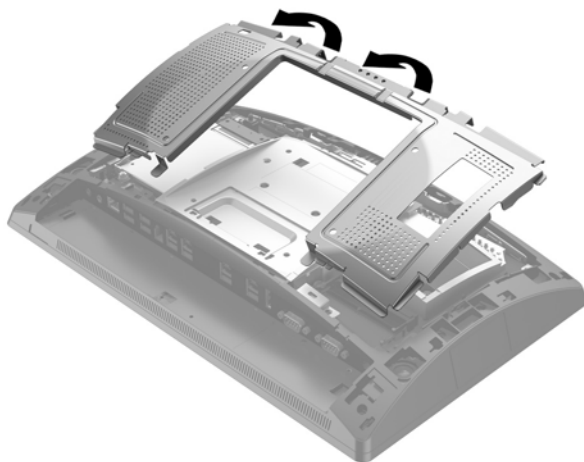
1. Shut down the computer properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet.

**CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

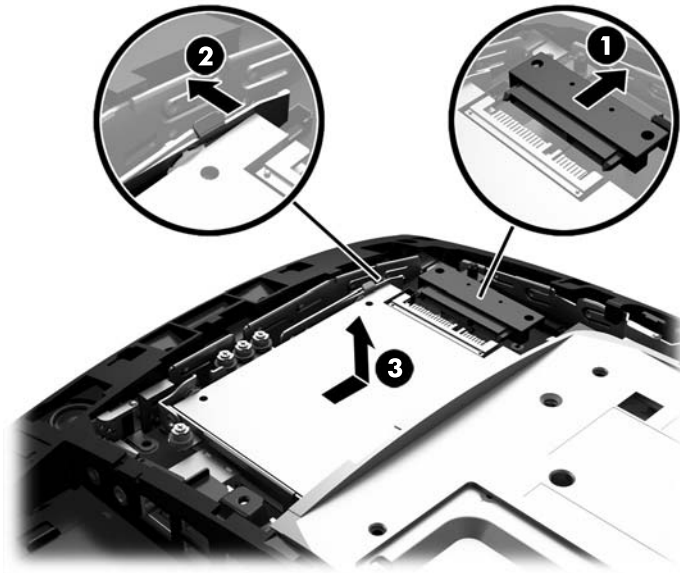
3. Disconnect all cables from the rear I/O connectors.
4. Press the two rear cover latches outward (1). Slide the rear cover up, and then lift it off the display head (2).



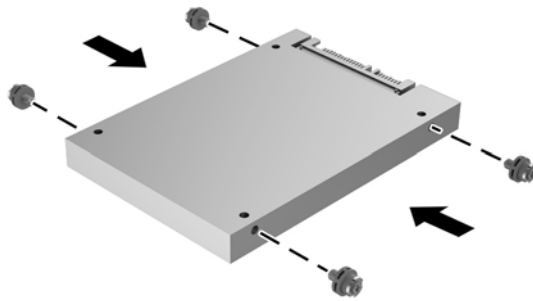
5. Use the finger slots on the rear metal shield to pull the top of the shield up, and then lift the shield off the display head.



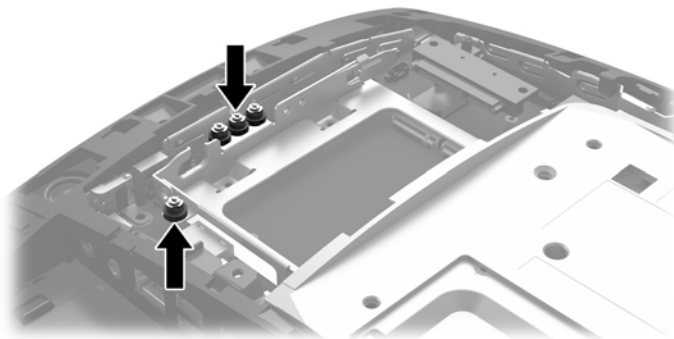
6. Disconnect the cable from the rear of the drive (1), pull the arm back at the rear of the drive (2), and then slide the drive back and lift it out of the drive bay (3).



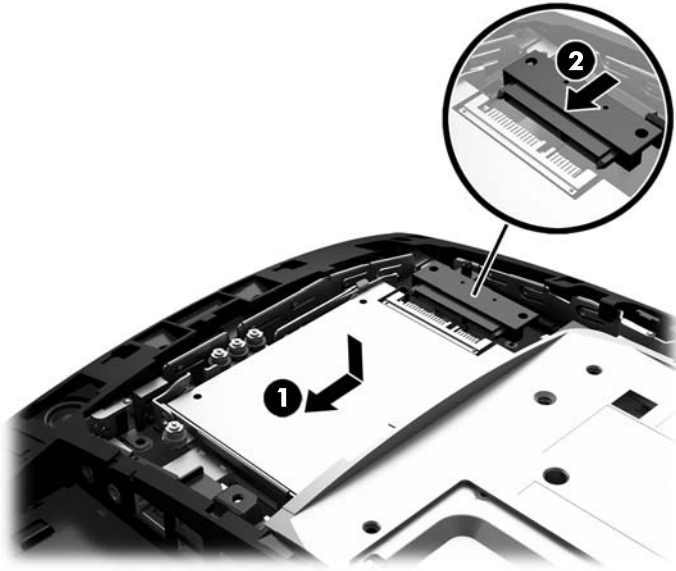
7. If replacing the drive, remove the four mounting screws from the drive and install them in the new drive.



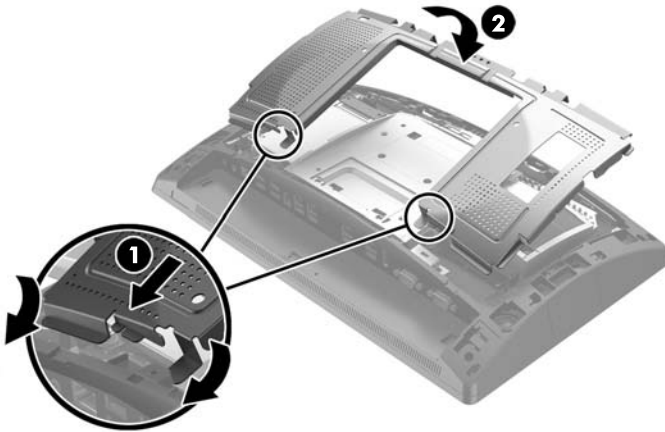
**NOTE:** If you need mounting screws for the drive, four extra mounting screws are installed on the drive bay frame.



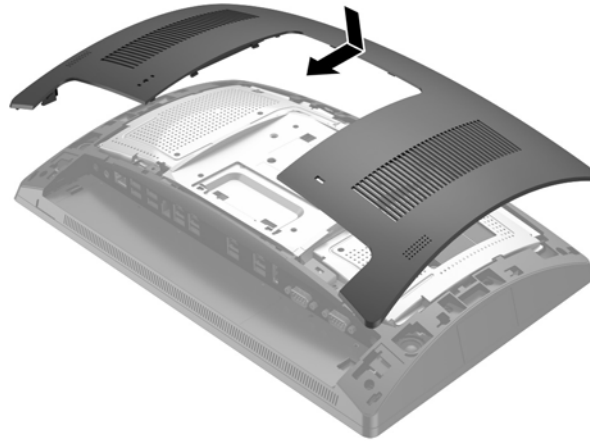
8. Place the drive down into the drive bay, slide the drive forward (1), and then connect the cable to the rear of the drive (2).



9. To replace the rear metal shield, slide the outer tabs on each side of the bottom of the shield under the metal framework on the display head and the center tab on each side above the metal framework (1), and then rotate the top of the shield onto the display head so that it snaps in place (2).



10. Align the tabs on the rear cover with the slots on the display head while placing the cover on the display head, and then slide the cover down so that it snaps in place.



11. Reconnect all cables to the rear I/O connectors.
12. Reconnect the power cord and press the power button.

## Removing and installing an M.2 storage device

There are two M.2 storage device connectors located under the 2.5" drive bay.

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

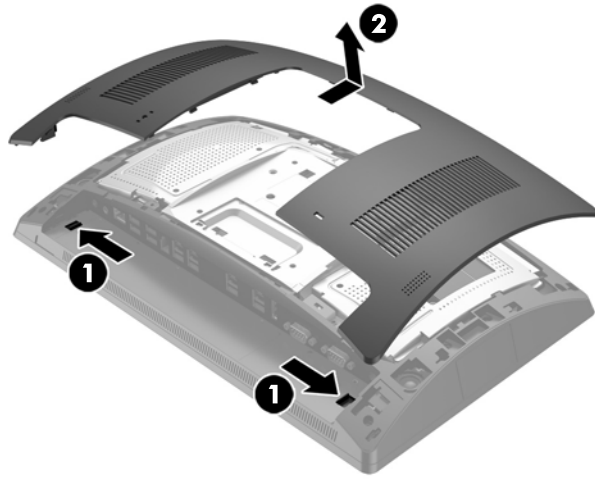
---

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

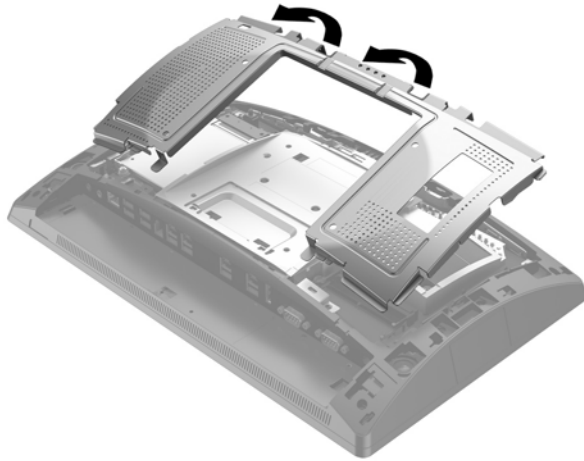
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3. Disconnect all cables from the rear I/O connectors.

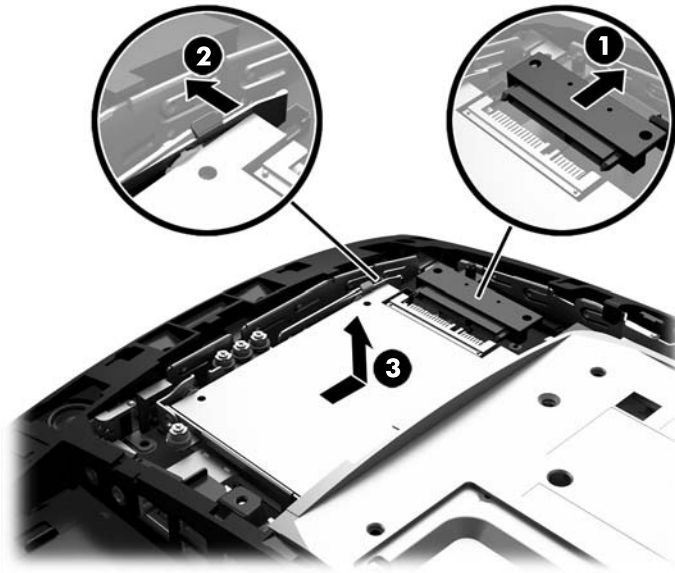
4. Press the two rear cover latches outward (1). Slide the rear cover up, and then lift it off the display head (2).



5. Use the finger slots on the rear metal shield to pull the top of the shield up, and then lift the shield off the display head.



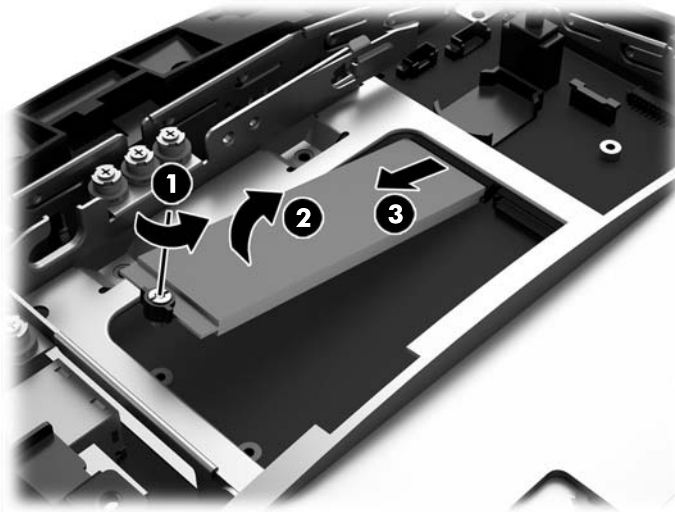
6. Remove the 2.5" drive if one is installed. Disconnect the cable from the rear of the drive (1), pull the arm back at the rear of the drive (2), and then slide the drive back and lift it out of the drive bay (3).



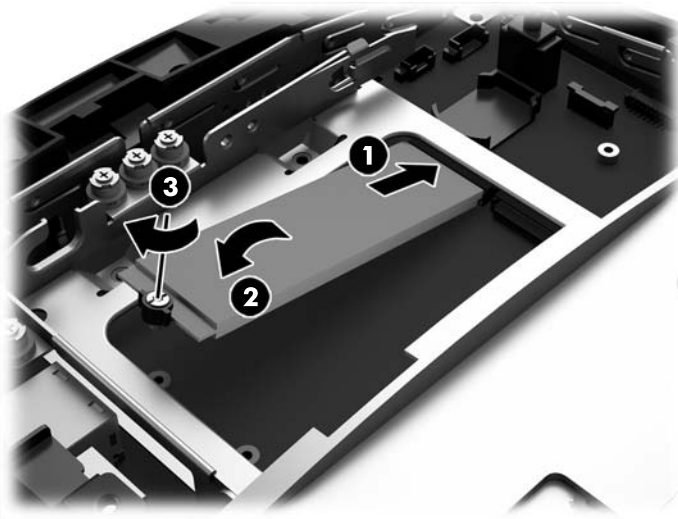
7. To remove an M.2 storage device, remove the screw that secures the device to the system board (1) so that the end pops up (2), and then slide the device out of the connector (3).



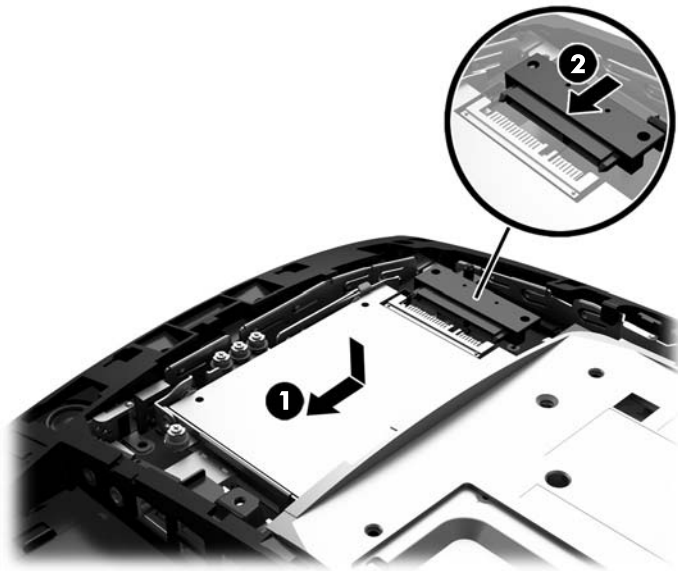
**NOTE:** Due to the small size of the screw, a magnetized screwdriver may be helpful to remove the screw.



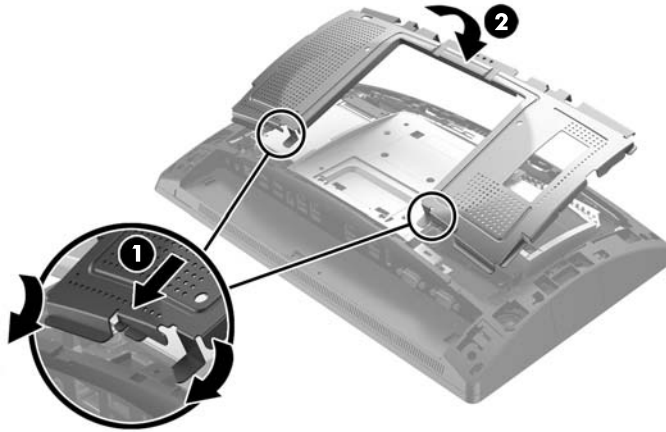
8. To install an M.2 storage device, slide the pins on the storage device into the system board connector while holding the device at approximately a 30° angle (1). Rotate the other end of the device down (2), and then secure the device with the screw that was either previously removed or preinstalled in the screw hole (3).



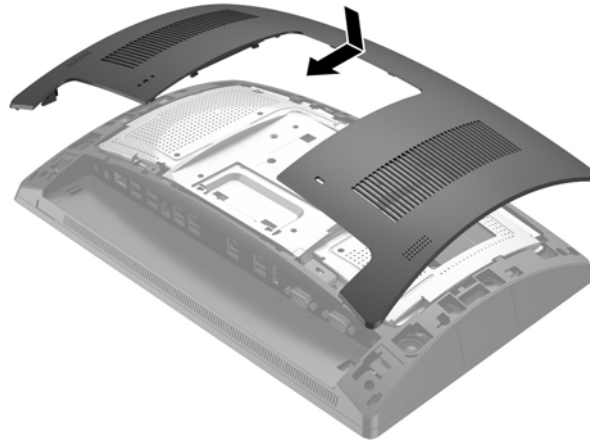
9. Replace the 2.5" drive if it was removed. Place the drive down into the drive bay, slide the drive forward (1), and then connect the cable to the rear of the drive (2).



- 10.** To replace the rear metal shield, slide the outer tabs on each side of the bottom of the shield under the metal framework on the display head and the center tab on each side above the metal framework (1), and then rotate the top of the shield onto the display head so that it snaps in place (2).



- 11.** Align the tabs on the rear cover with the slots on the display head while placing the cover on the display head, and then slide the cover down so that it snaps in place.



- 12.** Reconnect all cables to the rear I/O connectors.
- 13.** Reconnect the power cord and press the power button.

## Replacing the battery

The battery that comes with the computer provides power to the real-time clock. When replacing the battery, use a battery equivalent to the battery originally installed in the computer. The computer comes with a 3-volt lithium coin cell battery.

**⚠ WARNING!** The computer contains an internal lithium manganese dioxide 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 60°C (140°F).

Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.

Replace the battery only with the HP spare designated for this product.

**⚠ CAUTION:** Before replacing the battery, it is important to back up the computer CMOS settings. When the battery is removed or replaced, the CMOS settings will be cleared.

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.

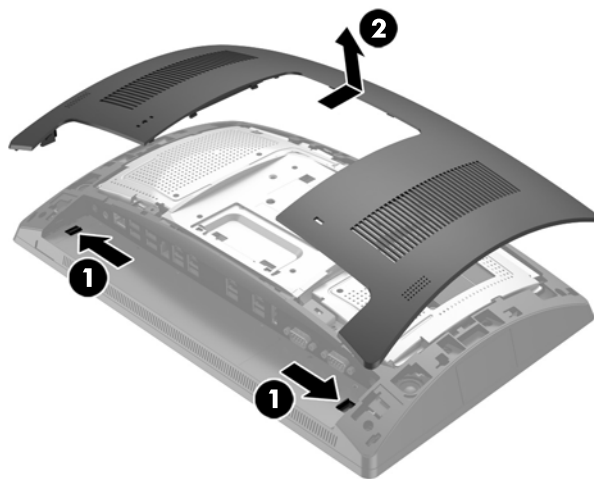
**📝 NOTE:** The lifetime of the lithium battery can be extended by plugging the computer into a live AC wall socket. The lithium battery is only used when the computer is NOT connected to AC power.

HP encourages customers to recycle used electronic hardware, HP original print cartridges, and rechargeable batteries. For more information about recycling programs, go to <http://www.hp.com/recycle>.

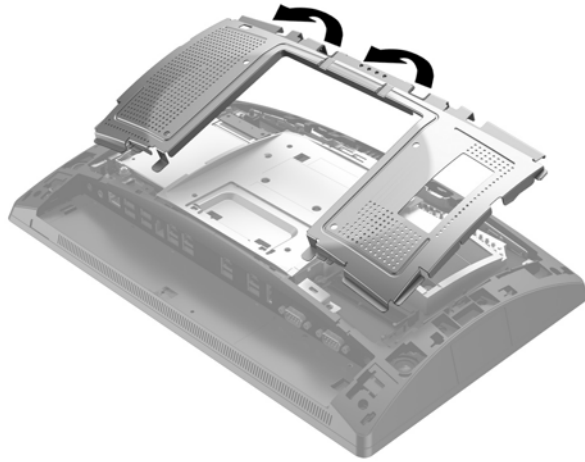
1. Shut down the computer properly through the operating system, then turn off any external devices.
2. Disconnect the power cord from the power outlet.

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

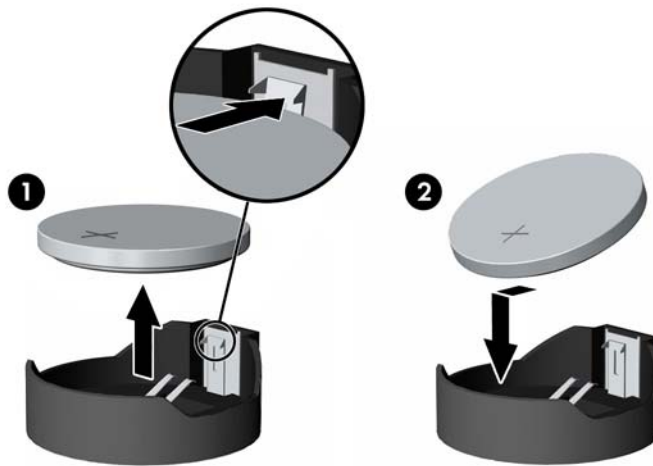
3. Disconnect all cables from the rear I/O connectors.
4. Press the two rear cover latches outward (1). Slide the rear cover up, and then lift it off the display head (2).



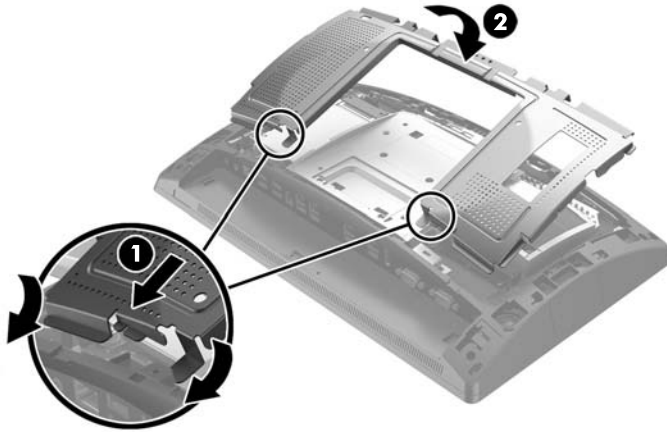
5. Use the finger slots on the rear metal shield to pull the top of the shield up, and then lift the shield off the display head.



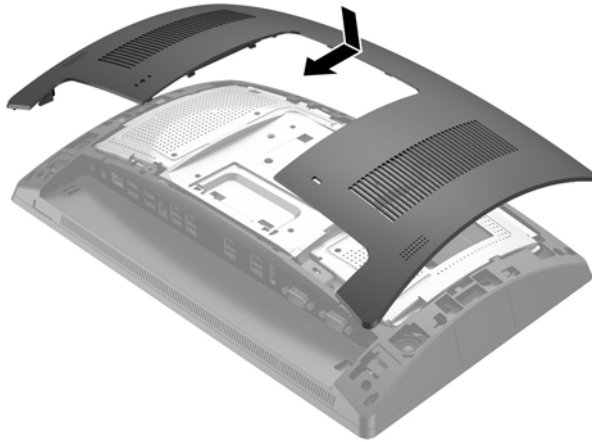
6. To release the battery from its holder, squeeze the metal clamp that extends above one edge of the battery. When the battery pops up, lift it out (1).
7. To insert the new battery, slide one edge of the replacement battery under the lip of the holder with the positive side up. Push the other edge down until the clamp snaps over the other edge of the battery (2).



- 8.** To replace the rear metal shield, slide the outer tabs on each side of the bottom of the shield under the metal framework on the display head and the center tab on each side above the metal framework (1), and then rotate the top of the shield onto the display head so that it snaps in place (2).



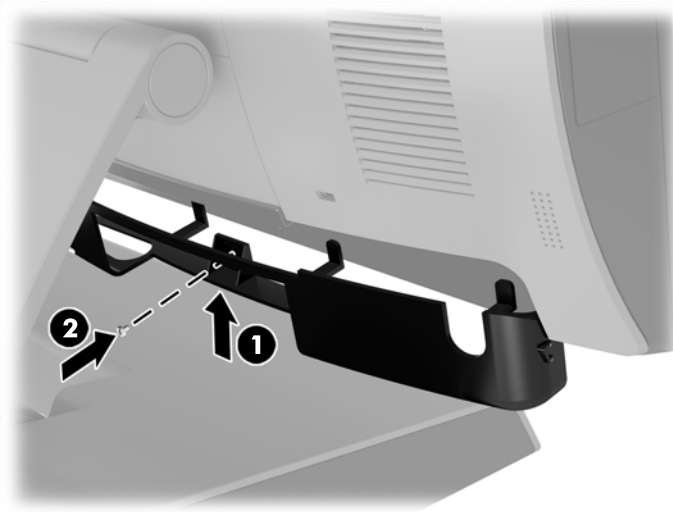
- 9.** Align the tabs on the rear cover with the slots on the display head while placing the cover on the display head, and then slide the cover down so that it snaps in place.



- 10.** Reconnect all cables to the rear I/O connectors.
- 11.** Reconnect the power cord and press the power button.

## Installing a port cover

The rear I/O port cover is available from HP. To install the port cover, snap the port cover onto the rear panel over the ports (1) and secure it with the screw (2).

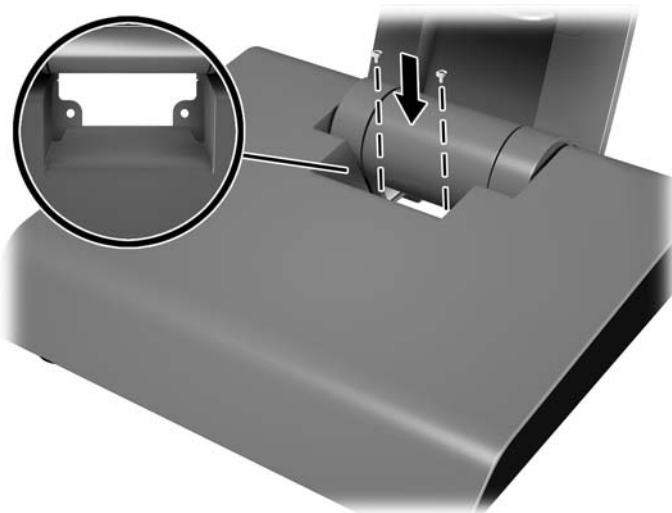


## Securing the RP9 to a counter top

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

**⚠ CAUTION:** Regardless of the power-on state, voltage is always present on the system board as long as the system is plugged into an active AC outlet. You must disconnect the power cord and wait approximately 30 seconds for the power to drain to avoid damage to the internal components of the computer.

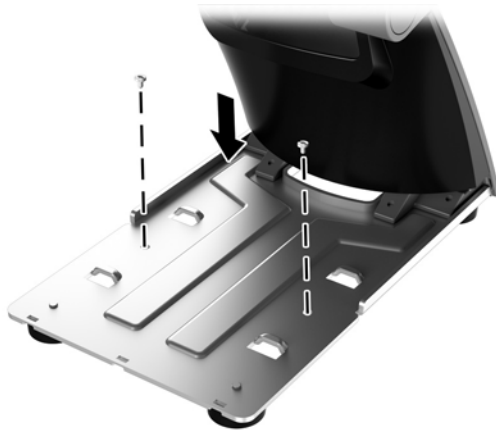
3. If securing an ergonomic stand, there are two screw holes accessible through the center of the stand's base. Fasten the stand to the counter top using the appropriate fastening devices (not provided by HP) for your surface.



4. If securing a compact stand, snap the cover off the neck of the stand (1), and then slide the base cover forward and lift it off the base (2).



5. Fasten the compact stand to the counter top using the appropriate fastening devices (not provided by HP) for your surface.



6. Slide the base cover back onto the base of the compact stand (1), and then snap the neck cover onto the neck of the stand (2).

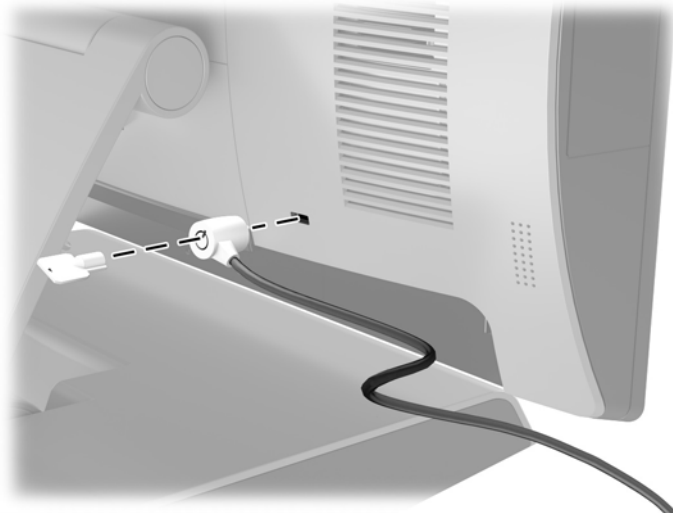


7. Reconnect the power cord and press the power button.

## Installing an external security lock

### Cable lock

A cable lock can be used to secure the RP9 to an external object.



## Padlock

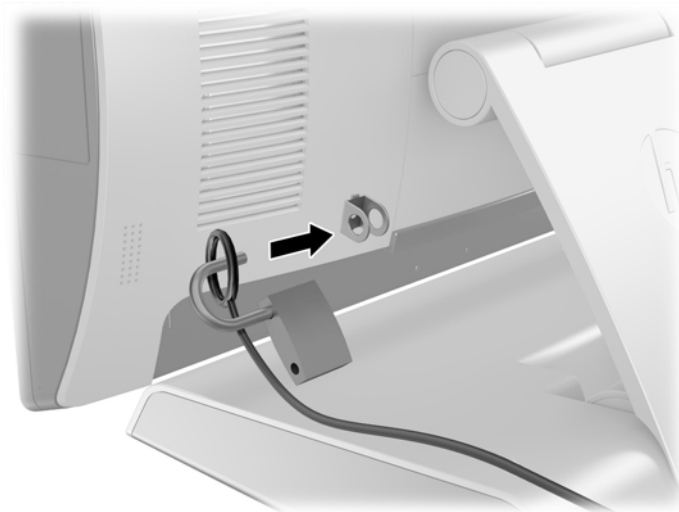
A padlock can be used to secure the RP9 to an external object.

1. Install the padlock security loop on the rear panel. Place the base of the loop into the slots on the rear panel (1), and then secure the loop to the rear panel with the screw (2).

 **NOTE:** The padlock security loop and screw are provided with the RP9.



2. Connect a cable that is attached to an external object to the padlock and insert the padlock into the security loop.



---

## 3 Configuring the software

### Touch screen calibration

HP recommends that you calibrate the touch screen before using the system to ensure that the touch point registers on the screen where the stylus or finger touches the screen. If at any time you find that the touch point is not registering properly, you may need to repeat the calibration process.

#### Calibration for Windows 7 Professional and Embedded POSReady 7

To calibrate the touch module in Windows 7 Professional and Embedded POSReady 7:

1. Open the **Start** menu, tap the **Control Panel** link and type “calibrate” in the Search box. Under **Tablet PC Settings**, tap the **Calibrate the screen for pen or touch input** link. In the **Tablet PC Settings** dialog box, tap the **Calibrate** button, then proceed to step 2.
2. Follow the on-screen instructions to press the target marks on the touch screen. At the end of the calibration process, the touch module should be aligned with the video and the touch points will be accurate.

#### Calibration for Windows 8.1 Professional and Embedded 8.1 Industry Pro Retail

To calibrate the touch module in Windows 8.1 Professional and Embedded 8.1 Industry Pro Retail:

1. Launch the Control Panel. You can type “Control Panel” in the Search box to access it.
2. In the Control Panel type “calibrate” in the Search box. Under **Tablet PC Settings**, tap the **Calibrate the screen for pen or touch input** link. In the **Tablet PC Settings** dialog box, tap the **Calibrate** button, then proceed to step 3.
3. Follow the on-screen instructions to press the target marks on the touch screen. At the end of the calibration process, the touch module should be aligned with the video and the touch points will be accurate.

#### Calibration for Windows 10 Professional and Windows 10 IoT Enterprise for Retail

To calibrate the touch module in Windows 10 Professional and Windows 10 IoT Enterprise for Retail:

1. Launch the Control Panel. You can type “Control Panel” in the Search box to access it.
2. In the Control Panel type “calibrate” in the Search box. Under **Tablet PC Settings**, tap the **Calibrate the screen for pen or touch input** link. In the **Tablet PC Settings** dialog box, tap the **Calibrate** button, then proceed to step 3.
3. Follow the on-screen instructions to press the target marks on the touch screen. At the end of the calibration process, the touch module should be aligned with the video and the touch points will be accurate.

## Configuring all optional HP integrated USB peripheral modules (HP integrated USB barcode scanner, magnetic strip reader (MSR), biometric reader, or webcam)

To configure the integrated USB peripheral, refer to the *HP Point of Sale Configuration Guide* (available in English only). The guide is located with the documentation on your retail computer and at <http://www.hp.com/support>. To access the guide on the retail computer, select **Start > HP Point of Sale Information**.



**NOTE:** Check <http://www.hp.com/support> for updated software or documentation that became available between the time your product was manufactured and the time it was delivered to you.

## Configuring powered serial ports

The serial ports can be configured as standard (non-powered) serial ports or powered serial ports. Some devices use a powered serial port. If the serial port is configured as a powered port, devices that support a powered serial interface do not require an external power source.



**CAUTION:** The system must be powered off before connecting or disconnecting serial port devices.



**NOTE:** The computer ships with all serial ports configured in standard non-powered serial mode (0 Volts) by default.

The serial ports can be configured using the Computer F10 Setup utility. Under the **Onboard Devices** menu, you are given the option to select the following three settings for each individual serial port.

- 0 Volts
- 5 Volts
- 12 Volts



**CAUTION:** Unplug all devices currently connected to the powered serial ports and reboot the computer before changing the serial port voltage settings in the Computer F10 Setup utility.



**NOTE:** To access the Computer F10 Setup utility, restart the computer and press the **F10** key as soon as the HP logo screen is displayed (before the computer boots to the operating system).

---

# A 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 megohm  $\pm$  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 an HP authorized dealer, reseller, or service provider.



**NOTE:** For more information on static electricity, contact an HP authorized dealer, reseller, or service provider.

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## B Computer operating guidelines, routine care and shipping preparation

### Computer operating guidelines and routine care

Follow the guidelines below to properly set up and care for the computer:

- HP recommends a 17 mm clearance from the fins on the rear panel for heat dissipation.
- Keep the HP RP9 Retail System away from excessive moisture, direct sunlight, and extremes of heat and cold.
- Never operate the computer with any access panels removed.
- Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air.
- If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.
- Keep liquids away from the RP9 Retail System.
- Never cover the fins on the rear panel of the computer with any type of material.
- Install or enable power management functions of the operating system or other software, including sleep states.
- Shut down the computer before you do either of the following:
  - Wipe the exterior of the computer with a soft, damp cloth as needed. Using cleaning products may discolor or damage the finish.
  - Occasionally clean the fins on the rear panel to keep them free of lint, dust, and other foreign matter that may inhibit heat dissipation from the fins.



**NOTE:** For more information on your retail system care and maintenance, refer to “Retail Point of Sales Systems - Routine Care and Maintenance” available at <http://www.hp.com/support>.

### Touch screen maintenance

Keep your display and touch sensor clean. The touch sensor requires very little maintenance. HP recommends that you periodically clean the glass touch sensor surface. Be sure to turn off your display before cleaning. Typically, an isopropyl alcohol and water solution ratio of 50:50 is the best cleaning agent for your touch sensor. It is important to avoid using any caustic chemicals on the touch sensor. Do not use any vinegar-based solutions.

Apply the cleaner with a soft, lint-free cloth. Avoid using gritty cloths. Always dampen the cloth and then clean the sensor. Be sure to spray the cleaning liquid onto the cloth, not the sensor, so that drips do not seep inside the display or stain the bezel.

## Shipping preparation

Follow these suggestions when preparing to ship the computer:

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



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

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

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