

Hardware Reference Guide

HP 260 G2 DM Business PC

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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.

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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 the HP Desktop Mini Business PC.

- A WARNING! Indicates a hazardous situation that, if not avoided, **could** result in death or serious injury.
- **CAUTION:** Indicates a hazardous situation that, if not avoided, **could** result in minor or moderate injury.
- **IMPORTANT:** Indicates information considered important but not hazard-related (for example, messages related to property damage). A notice alerts the user that failure to follow a procedure exactly as described could result in loss of data or in damage to hardware or software. Also contains essential information to explain a concept or to complete a task.
- **NOTE:** Contains additional information to emphasize or supplement important points of the main text.
- $\frac{1}{2}$ TIP: Provides helpful hints for completing a task.

Table of contents

1 Pr	roduct features	1
	Standard configuration features	1
	Front panel components	2
	Rear panel components	2
	Serial number location	3
2.11-		
2 n a	ardware upgrades	
	Serviceability features	
	Warnings and cautions	4
	Connecting the power cord	5
	Removing the computer access panel	6
	Replacing the computer access panel	7
	Changing from desktop to tower configuration	8
	Removing and replacing a hard drive	
	Installing additional memory	12
	DDR4-SDRAM SODIMMs	12
	Populating SODIMM sockets	13
	Installing SODIMMs	14
	Replacing the battery	16
	Installing an optional rear port cover	
	Installing a security lock	19
	Cable lock	19
	Padlock	19
	Mounting the computer	20
	Supported mounting options	22
Adde	endix A Electrostatic discharge	
	Preventing electrostatic damage	23
	Grounding methods	
A----	andix P. Computer exercting guidelines, routing says and chipping proparation	24
whhe	computer operating guidelines, routine care and snipping preparation	24
	Computer operating guidelines and routine care	
	Shipping preparation	25
Арре	endix C Accessibility	26
	Supported assistive technologies	26

Contacting support	26
Index	. 27

1 Product features

Standard configuration features

Features may vary depending on the model. For a complete listing of the hardware and software installed in the computer, run the diagnostic utility (included on some computer models only).

NOTE: This computer model can be used in a tower orientation or a desktop orientation. The tower stand is sold separately.



Front panel components

Drive configuration may vary by model.



Front panel components					
1	Audio-out (headphone) jack	4	Hard drive activity light		
2	Audio-in (microphone) jack	5	Power button		
3	USB 3.0 ports				

NOTE: The Power On light is normally white when the power is on. If it is flashing red, there is a problem with the computer and it is displaying a diagnostic code. Refer to the *Maintenance and Service Guide* to interpret the code.

Rear panel components



Rear panel components					
1	Optional antenna cover	6	VGA monitor connector (blue)		
2	Padlock loop	7	USB 3.0 ports (blue)		
3	Security cable slot	8	USB 2.0 ports (black) with keyboard wakeup function		
4	Power connector for the AC adapter	9	RJ-45 (network) jack		
5	HDMI monitor connector	10	Power supply cord retainer clip		

Serial number location

Each computer has a unique serial number and a product ID number that are located on the exterior of the computer. Keep these numbers available for use when contacting customer service for assistance.



2 Hardware upgrades

Serviceability features

The computer includes features that make it easy to upgrade and service.

Warnings and cautions

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

MARNING! 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.

MARNING! Energized and moving parts inside.

Disconnect power to the equipment before removing the enclosure.

Replace and secure the enclosure before re-energizing the equipment.

IMPORTANT: 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 <u>Electrostatic discharge on page 23</u> 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 before opening the computer to prevent damage to internal components.

Connecting the power cord

When connecting the power supply, it is important to follow the steps below to ensure the power supply cord does not pull free from the computer.

- 1. Plug the female end of the power cord into the AC adapter (1).
- 2. Connect the other end of the power cord to an AC outlet (2).
- 3. Connect the round end of the power supply cord to the power connector on the rear of the computer (3).
- **4.** Route the power supply cord through the retainer clip to prevent the cord from becoming disconnected from the computer (4).
- 5. Bundle any excess power supply cord with the supplied strap (5).



IMPORTANT: Failure to secure the power supply cord with the retainer clip may result in the power supply cord becoming disconnected and loss of data.

Removing the computer access panel

To access internal components, you must remove the access panel:

- **1.** Remove/disengage any security devices that prohibit opening the computer.
- 2. Remove all removable media, such as a USB flash drive, from the computer.
- **3.** Turn off the computer properly through the operating system, and turn off any external devices.
- 4. Disconnect the power cord from the AC outlet and disconnect any external devices.
- **IMPORTANT:** 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 to avoid damage to the internal components of the computer.
- 5. If the computer is on a stand, remove the computer from the stand.
- 6. Remove the screw on the rear of the computer (1), and then slide the panel forward and lift if off the computer (2).



Replacing the computer access panel

Place the access panel on the computer and slide it back (1), and then install the screw (2) to secure the panel in place.



Changing from desktop to tower configuration

The computer can be used in a tower orientation with an optional tower stand that can be purchased from HP.

- 1. Remove all removable media, such as a USB flash drive, from the computer.
- 2. Turn off the computer properly through the operating system, and turn off any external devices.
- 3. Disconnect the power cord from the AC outlet and disconnect any external devices.
 - **IMPORTANT:** 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 to avoid damage to the internal components of the computer.
- 4. Orient the computer so that its right side is facing up, and place the computer in the optional stand.



- **NOTE:** To stabilize the computer in a tower orientation, HP recommends the use of the optional tower stand.
- 5. Reconnect the power cord and any external devices, and then turn on the computer.
 - NOTE: Be sure that at least 10.2 centimeters (4 inches) of space on all sides of the computer remain clear and free of obstructions.

Removing and replacing a hard drive

- **IMPORTANT:** Before you remove the old hard drive, be sure to back up the data from the old hard drive so that you can transfer the data to the new hard drive.
 - 1. Remove/disengage any security devices that prohibit opening the computer.
 - 2. Remove all removable media, such as a USB flash drive, from the computer.
 - 3. Turn off the computer properly through the operating system, and turn off any external devices.
 - 4. Disconnect the power cord from the AC outlet and disconnect any external devices.
 - **IMPORTANT:** 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 to avoid damage to the internal components of the computer.
 - 5. If the computer is on a stand, remove the computer from the stand.
 - 6. Remove the computer access panel.
 - Unplug the combined power and data cable from the hard drive (1). Use the pull tab on the cable connector to unplug the cable. Then pull the release lever next to the rear of the hard drive outward (2). While pulling the release lever out, slide the drive back until it stops, and then lift the drive up and out of the bay (3).



8. Remove the silver and blue isolation mounting guide screws from the sides of the old hard drive.



9. Install the silver and blue isolation mounting guide screws in the sides of the new hard drive.



10. Plug the combined power and data cable into the hard drive (1). Align the guide screws with the slots on the chassis drive cage, press the hard drive down into the bay, and then slide the hard drive forward (2) until it stops and locks into place.



- **11.** Replace the access panel.
- **12.** If the computer was on a stand, replace the stand.
- **13.** Reconnect the power cord and any external devices, and then turn on the computer.
- **14.** Lock any security devices that were disengaged when the access panel was removed.

Installing additional 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 32 GB of memory.

DDR4-SDRAM SODIMMs

For proper system operation, the SODIMMs must be:

- industry-standard 288-pin
- unbuffered non-ECC PC4-17000 DDR4-2133 MT/s-compliant
- 1.2 volt DDR4-SDRAM SODIMMs

The SODIMMs must also:

- support CAS latency 15 DDR4 2133 MT/s (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

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

Populating SODIMM sockets

There are two SODIMM sockets on the system board, with one socket per channel. The sockets are labeled DIMM1 and DIMM2. The DIMM1 socket operates in memory channel B. The DIMM2 socket operates in memory channel A.



ltem	Description	System Board Label	Socket Color
1	SODIMM1 socket, Channel B	DIMM1	Black
2	SODIMM2 socket, Channel A	DIMM2	Black

The system will automatically operate in single channel mode, dual channel mode, or flex mode, depending on how the SODIMMs are installed.

- The system will operate in single channel mode if the SODIMM sockets are populated in one channel only.
- The system will operate in a higher-performing dual channel mode if the memory capacity of the SODIMM in Channel A is equal to the memory capacity of the SODIMM in Channel B.
- The system will operate in flex mode if the memory capacity of the SODIMM in Channel A is not equal to the memory capacity of the SODIMM in Channel B. In flex mode, the channel populated with the least amount of memory describes the total amount of memory assigned to dual channel and the remainder is assigned to single channel. If one channel will have more memory than the other, the larger amount should be assigned to channel A.
- In any mode, the maximum operational speed is determined by the slowest SODIMM in the system.

Installing SODIMMs

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

The memory module sockets have gold-plated metal contacts. When upgrading the memory, it is important to use memory modules 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 <u>Electrostatic discharge on page 23</u>.

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

- 1. Remove/disengage any security devices that prohibit opening the computer.
- 2. Remove all removable media, such as a USB flash drive, from the computer.
- **3.** Turn off the computer properly through the operating system, and turn off any external devices.
- 4. Disconnect the power cord from the AC outlet and disconnect any external devices.
- **IMPORTANT:** You must disconnect the power cord and wait approximately 30 seconds for the power to drain before adding or removing memory modules. Regardless of the power-on state, voltage is always supplied to the memory modules as long as the computer is plugged into an active AC outlet. Adding or removing memory modules while voltage is present may cause irreparable damage to the memory modules or system board.
- 5. If the computer is on a stand, remove the computer from the stand.
- 6. Remove the computer access panel.
- 7. 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).



8. Slide the new SODIMM into the socket at approximately a 30° angle (1), and then press the SODIMM down (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.
- **9.** Replace the access panel.
- **10.** If the computer was on a stand, replace the stand.
- **11.** Reconnect the power cord and any external devices, and then turn on the computer.
- 12. Lock any security devices that were disengaged when the computer cover or access panel was removed.

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

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.

IMPORTANT: 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 outlet. 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 <u>http://www.hp.com/recycle</u>.

The battery is located underneath the hard drive. You must remove the hard drive to access the battery.

- 1. Remove/disengage any security devices that prohibit opening the computer.
- 2. Remove all removable media, such as a USB flash drive, from the computer.
- **3.** Turn off the computer properly through the operating system, and turn off any external devices.
- 4. Disconnect the power cord from the AC outlet and disconnect any external devices.
- **IMPORTANT:** 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 to avoid damage to the internal components of the computer.
- 5. If the computer is on a stand, remove the computer from the stand.
- 6. Remove the computer access panel.
- 7. Remove the hard drive. See <u>Removing and replacing a hard drive on page 9</u> for details.

8. Locate the battery and battery holder on the system board.



9. To release the battery from its holder, pull back the metal clamp that extends above one edge of the battery (1). When the battery pops up, lift it out of the holder (2).



 To insert the new battery, make sure the positive side of the battery is facing up and slide one edge of the replacement battery under the metal clamp that was pulled back when removing the old battery. Push the other edge down until the clamp on that side of the battery secures the battery in the holder.



- **11.** Replace the hard drive. See <u>Removing and replacing a hard drive on page 9</u> for details.
- **12.** Replace the access panel.
- **13.** If the computer was on a stand, replace the stand.
- **14.** Reconnect the power cord and any external devices, and then turn on the computer.
- **15.** Reset the date and time, your passwords, and any special system setups using Computer Setup.
- **16.** Lock any security devices that were disengaged when the computer access panel was removed.

Installing an optional rear port cover

To install the optional rear port cover, connect the cables, and then insert the hooks on the port cover into the slots on the rear of the computer and slide the port cover to the right.



Installing a security lock

The security locks displayed below and on the following pages can be used to secure the computer.

Cable lock



Padlock



Mounting the computer

HP recommends mounting the computer in the vertical (tower) orientation, with the power button up.

IMPORTANT: Do not mount the computer with the I/O ports oriented towards the ground.

This computer incorporates four mounting points on the bottom side of the computer. These mounting points follow the VESA (Video Electronics Standards Association) standard, which provides industry-standard mounting interfaces for Flat Displays (FDs), such as flat-panel monitors, flat displays, and flat TVs. The HP Quick Release connects to the VESA-standard mounting points, allowing you to mount the computer in a variety of orientations.

NOTE: When mounting to the computer, use the 15 mm screws supplied with the HP Quick Release.



To use the HP Quick Release:

- 1. Remove four screws from the bottom side of the computer if they are installed.
- 2. Using four 15 mm screws included in the mounting device kit, attach one side of the HP Quick Release to the computer as shown in the following illustration.



3. Attach the other side of the HP Quick Release to the device to which you will mount the computer.



Be sure the release lever points upward.

4. Slide the side of the mounting device attached to the computer (1) over the other side of the mounting device (2) to mount the computer. An audible 'click' indicates a secure connection.



When attached, the HP Quick Release automatically locks in position. You only need to slide the lever to one side to remove the computer.

Supported mounting options

The following illustrations demonstrate some of the supported mounting options for the mounting bracket.

• On the back of a flat panel monitor



• On a wall



• Under a desk, allowing at least 2.5 cm (1 in) clearance



A Electrostatic discharge

A discharge of static electricity from a finger or other conductor may damage system boards or other staticsensitive 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 +/- 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.

B Computer operating guidelines, routine care and shipping preparation

Computer operating guidelines and routine care

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

- Keep the computer away from excessive moisture, direct sunlight, and extremes of heat and cold.
- Operate the computer on a sturdy, level surface. Leave a 10.2-cm (4-inch) clearance on all vented sides of the computer and above the monitor to permit the required airflow.
- Never restrict the airflow into the computer by blocking any vents or air intakes. Do not place the keyboard, with the keyboard feet down, directly against the front of the desktop unit as this also restricts airflow.
- Never operate the computer with the access panel or any of the expansion card slot covers 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 computer and keyboard.
- Never cover the ventilation slots on the monitor with any type of material.
- Install or enable power management functions of the operating system or other software, including sleep states.
- Turn off 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 air vents on all vented sides of the computer. Lint, dust, and other foreign matter can block the vents and limit the airflow.

Shipping preparation

Follow these suggestions when preparing to ship the computer:

- 1. Back up the hard drive files to an external storage device. Be sure that the backup media is not exposed to electrical or magnetic impulses while stored or in transit.
- **NOTE:** The hard drive locks automatically when the system power is turned off.
- 2. Remove and store all removable media.
- 3. Turn off the computer and external devices.
- 4. Disconnect the power cord from the AC outlet, and then from the computer.
- Disconnect the system components and external devices from their power sources, then from the computer.
- **NOTE:** Ensure that all boards are seated properly and secured in the board slots before shipping 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.

C Accessibility

HP designs, produces, and markets products and services that can be used by everyone, including people with disabilities, either on a stand-alone basis or with appropriate assistive devices.

Supported assistive technologies

HP products support a wide variety of operating system assistive technologies and can be configured to work with additional assistive technologies. Use the Search feature on your device to locate more information about assistive features.

NOTE: For additional information about a particular assistive technology product, contact customer support for that product.

Contacting support

We are constantly refining the accessibility of our products and services and welcome feedback from users. If you have an issue with a product or would like to tell us about accessibility features that have helped you, please contact us at (888) 259-5707, Monday through Friday, 6 a.m. to 9 p.m. Mountain Time. If you are deaf or hard-of-hearing and use TRS/VRS/WebCapTel, contact us if you require technical support or have accessibility questions by calling (877) 656-7058, Monday through Friday, 6 a.m. to 9 p.m. Mountain Time.

Index

A

access panel removal 6 replacement 7 accessibility 26

B

battery replacement 16

C

computer operating guidelines 24

E

electrostatic discharge, preventing damage 23

F

front panel components 2

H

hard drive installation 9 removal 9 HP Quick Release 20

I

installation guidelines 4 installing battery 16 computer access panel 7 hard drive 9 memory 12 rear port cover 18

L

locks cable lock 19 padlock 19

Μ

memory installation 12 socket population 13 specifications 12 mounting options on back of monitor 22 on wall 22 under desk 22 mounting the computer 20

P

power cord connection 5 product ID location 3

Q

quick release 20

R

rear panel components 2 removing battery 16 computer access panel 6 hard drive 9

S

security cable lock 19 padlock 19 serial number location 3 shipping preparation 25 supported mounting options 22

Т

tower conversion 8

V

ventilation guidelines 24

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