User Guide

SUMMARY

This guide provides information about components, network connection, power management, security, backing up, and more.

© Copyright 2020 HP Development Company, L.P.

Bluetooth is a trademark owned by its proprietor and used by HP Inc. under license. Intel, Celeron, Pentium, and Thunderbolt are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries. Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries. The microSD logo and microSD are trademarks of SD-3C LLC. USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA) in the United States and other countries. Miracast® is a registered trademark of Wi-Fi Alliance.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

First Edition: October 2020

Document Part Number: M19507-001

Product notice

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

Not all features are available in all editions or versions of Windows. Systems might require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees might apply and additional requirements might apply over time for updates. Go to http://www.microsoft.com for details.

To access the latest user guides, go to http://www.hp.com/support, and follow the instructions to find your product. Then select **Manuals**.

Software terms

By installing, copying, downloading, or otherwise using any software product preinstalled on this computer, you agree to be bound by the terms of the HP End User License Agreement (EULA). If you do not accept these license terms, your sole remedy is to return the entire unused product (hardware and software) within 14 days for a full refund subject to the refund policy of your seller.

For any further information or to request a full refund of the price of the computer, please contact your seller.

Safety warning notice

Reduce the possibility of heat-related injuries or of overheating the computer by following the practices described.

⚠ **WARNING!** To reduce the possibility of heat-related injuries or of overheating the computer, do not place the computer directly on your lap or obstruct the computer air vents. Use the computer only on a hard, flat surface. Do not allow another hard surface, such as an adjoining optional printer, or a soft surface, such as pillows or rugs or clothing, to block airflow. Also, do not allow the AC adapter to come into contact with the skin or a soft surface, such as pillows or rugs or clothing, during operation. The computer and the AC adapter comply with the user-accessible surface temperature limits defined by applicable safety standards.

Processor configuration setting (select products only)

Important information about processor configurations.

IMPORTANT: Select products are configured with an Intel® Pentium® N35xx/N37xx series or a Celeron® N28xx/N29xx/N30xx/N31xx series processor and a Windows® operating system. **If your computer is configured as described, do not change the processor configuration setting in msconfig.exe from 4 or 2 processors to 1 processor.** If you do so, your computer will not restart. You will have to perform a factory reset to restore the original settings.

Table of contents

1 Getting started 1
Best practices 1
More HP resources 1

2 Getting to know your computer 3
Locating hardware 3
Locating software 3
Right side 3
Left side 4
Display 5
Low blue light mode (select products only) 5
Keyboard area 7
Touchpad settings and components 7
Touchpad settings 7
Adjusting touchpad settings 7
Turning on the touchpad 7
Touchpad components 7
Lights 8
Button, speakers, and fingerprint reader 9
Special keys 10
Action keys 11
Bottom 13
Labels 13
Using a SIM card (select products only) 15
Determining the correct SIM card size for your computer 15
Inserting a nano SIM card 15

3 Connecting to a network 16
Connecting to a wireless network 16
Using the wireless controls 16
Airplane mode key 16
Operating system controls 16
Connecting to a WLAN 17
Using HP Mobile Broadband (select products only) 17
Using eSIM (select products only) 18
Using GPS (select products only) 18

Using Bluetooth wireless devices (select products only) ... 18
Connecting Bluetooth devices ... 18
Connecting to a wired network—LAN (select products only) ... 19

4 Enjoying entertainment features ... 20
Using the camera ... 20
Using audio ... 20
Connecting speakers ... 20
Connecting headphones ... 20
Connecting headsets ... 21
Using sound settings ... 21
Sound settings ... 21
Audio settings ... 21
Using video ... 21
Connecting a Thunderbolt device using a USB Type-C cable (select products only) ... 21
Discovering and connecting to Miracast-compatible wireless displays (select products only) ... 22
Using data transfer ... 22
Connecting devices to a USB Type-C port (select products only) ... 23

5 Navigating the screen ... 24
Using touchpad and touch screen gestures ... 24
Tap ... 24
Two-finger pinch zoom ... 24
Two-finger slide (touchpad and precision touchpad) ... 25
Two-finger tap (touchpad and precision touchpad) ... 25
Three-finger tap (touchpad and precision touchpad) ... 25
Four-finger tap (touchpad and precision touchpad) ... 26
Three-finger swipe (touchpad and precision touchpad) ... 26
Four-finger swipe (precision touchpad) ... 26
One-finger slide (touch screen) ... 27
Using an optional keyboard or mouse ... 27
Using an on-screen keyboard (select products only) ... 27

6 Managing power ... 28
Using Sleep and Hibernation ... 28
Initiating and exiting Sleep ... 28
Initiating and exiting Hibernation (select products only) ... 29
Shutting down (turning off) the computer ... 29
Using the Power icon and Power Options ... 30
Running on battery power ... 30

Using HP Fast Charge (select products only) 30
Displaying battery charge 30
Finding battery information in HP Support Assistant (select products only) 30
Conserving battery power 31
Identifying low battery levels 31
Resolving a low battery level 31
Resolving a low battery level when external power is available 31
Resolving a low battery level when no power source is available 32
Resolving a low battery level when the computer cannot exit Hibernation 32
Factory-sealed battery 32
Running on external power 32

7 Maintaining your computer 34

Improving performance 34
Using Disk Defragmenter 34
Using Disk Cleanup 34
Using HP 3D DriveGuard (select products only) 34
Identifying HP 3D DriveGuard status 35
Updating programs and drivers 35
Updating programs and drivers using Windows 10 35
Updating programs using Windows 10 S 35
Updating drivers using Windows 10 S 35
Cleaning your computer 36
Enabling HP Easy Clean (select products only) 36
Removing dirt and debris from your computer 36
Cleaning your computer with a disinfectant 37
Caring for wood veneer (select products only) 37
Traveling with or shipping your computer 38

8 Securing your computer and information 39

Using passwords 39
Setting Windows passwords 39
Setting Setup Utility (BIOS) passwords 40
Using Windows Hello (select products only) 40
Using internet security software 41
Using antivirus software 41
Using firewall software 41
Installing software updates 41
Using HP Device as a Service (select products only) 42
Securing your wireless network 42
Backing up your software applications and information 42

Using an optional security cable (select products only) 42

9 Using Setup Utility (BIOS) 43

Starting Setup Utility (BIOS) 43

Updating Setup Utility (BIOS) 43

Determining the BIOS version 43

Preparing for a BIOS update 44

Downloading a BIOS update 44

Installing a BIOS update 44

10 Using HP PC Hardware Diagnostics 46

Using HP PC Hardware Diagnostics Windows (select products only) 46

Using an HP PC Hardware Diagnostics Windows hardware failure ID code 46

Accessing HP PC Hardware Diagnostics Windows 46

Accessing HP PC Hardware Diagnostics Windows from HP Help and Support 46

Accessing HP PC Hardware Diagnostics Windows from Support Assistant 47

Downloading HP PC Hardware Diagnostics Windows 47

Downloading the latest HP PC Hardware Diagnostics Windows version from HP 47

Downloading the HP PC Hardware Diagnostics Windows from the Microsoft Store 47

Downloading HP Hardware Diagnostics Windows by product name or number (select products only) 47

Installing HP PC Hardware Diagnostics Windows 48

Using HP PC Hardware Diagnostics UEFI 48

Using an HP PC Hardware Diagnostics UEFI hardware failure ID code 48

Starting HP PC Hardware Diagnostics UEFI 48

Downloading HP PC Hardware Diagnostics UEFI to a USB flash drive 49

Downloading the latest HP PC Hardware Diagnostics UEFI version 49

Downloading HP PC Hardware Diagnostics UEFI by product name or number (select products only) 49

Using Remote HP PC Hardware Diagnostics UEFI settings (select products only) 49

Downloading Remote HP PC Hardware Diagnostics UEFI 50

Downloading the latest Remote HP PC Hardware Diagnostics UEFI version 50

Downloading Remote HP PC Hardware Diagnostics UEFI by product name or number 50

Customizing Remote HP PC Hardware Diagnostics UEFI settings 50

11 Backing up, restoring, and recovering 51

Backing up information and creating recovery media 51

Using Windows tools for backing up 51

Using the HP Cloud Recovery Download Tool to create recovery media (select products only) 51

Restoring and recovering your system 51

Creating a system restore 52
Restoring and recovery methods 52
Recovering using HP Recovery media 52
Changing the computer boot order 52
Using HP Sure Recover (select products only) 53

12 Electrostatic discharge 54

13 Specifications 55
Input power 55
Operating environment 56

14 Accessibility 57
HP and accessibility 57
Finding the technology tools you need 57
The HP commitment 57
International Association of Accessibility Professionals (IAAP) 58
Finding the best assistive technology 58
Assessing your needs 58
Accessibility for HP products 58
Standards and legislation 59
Standards 59
Mandate 376 – EN 301 549 59
Web Content Accessibility Guidelines (WCAG) 59
Legislation and regulations 60
Useful accessibility resources and links 60
Organizations 60
Educational institutions 60
Other disability resources 61
HP links 61
Contacting support 61

Index 62

1 Getting started

This computer is a powerful tool designed to enhance your work and entertainment.

Read this chapter to learn about best practices after you set up your computer, fun things to do with your computer, and where to find additional HP resources.

Best practices

After you set up and register the computer, we recommend the following steps to get the most out of your smart investment:

- Back up your hard drive by creating recovery media. See Backing up, restoring, and recovering on page 51.
- If you haven't already done so, connect to a wired or wireless network. See details in Connecting to a network on page 16.
- Become familiar with the computer hardware and software. For more information, see Getting to know your computer on page 3 and Enjoying entertainment features on page 20.
- Update or purchase antivirus software. See Using antivirus software on page 41.
- **Access HP Support Assistant app**—For quick online support, open the HP Support Assistant app (select products only). HP Support Assistant optimizes computer performance and resolves problems using the latest software updates, diagnostic tools, and guided assistance. Type `support` in the taskbar search box, and then select **HP Support Assistant**. Then select **Support**.

More HP resources

To locate resources that provide product details, how-to information, and more, use this table.

Table 1-1 Additional information

Resource	Contents
Setup Instructions	• Overview of computer setup and features
HP support For HP support, go to http://www.hp.com/support, and follow the instructions to find your product. – or – Type `support` in the taskbar search box, and then select **HP Support Assistant**. Then select **Support**. – or – Select the question mark icon in the taskbar search box. Then select **Support**.	• Online chat with an HP technician • Support telephone numbers • Replacement parts videos (select products only) • Maintenance and service guides • HP service center locations
Safety & Comfort Guide To access this guide:	• Proper workstation setup • Guidelines for posture and work habits that increase your comfort and decrease your risk of injury

Table 1-1 Additional information (continued)

Resource	Contents
▲ Type `HP Documentation` in the taskbar search box, and then select **HP Documentation**. – or – ▲ Go to http://www.hp.com/ergo. **IMPORTANT:** You must be connected to the internet to access the latest version of the user guide.	• Electrical and mechanical safety information
Regulatory, Safety, and Environmental Notices To access this document: ▲ Type `HP Documentation` in the taskbar search box, and then select **HP Documentation**.	• Important regulatory notices, including information about proper battery disposal, if needed.
*Limited Warranty** To access this document: ▲ Type `HP Documentation` in the taskbar search box, and then select **HP Documentation**. – or – ▲ Go to http://www.hp.com/go/orderdocuments. **IMPORTANT:** You must be connected to the internet to access the latest version of the user guide.	• Specific warranty information about this computer
*You can find your HP Limited Warranty located with the user guides on your product and/or on the CD or DVD provided in the box. In some countries or regions, HP might provide a printed warranty in the box. For countries or regions where the warranty is not provided in printed format, you can request a copy from http://www.hp.com/go/orderdocuments. For products purchased in Asia Pacific, you can write to HP at POD, PO Box 161, Kitchener Road Post Office, Singapore 912006. Include your product name, and your name, phone number, and postal address.	

2 Getting to know your computer

Your computer features top-rated components. This chapter provides details about your components, where they are located, and how they work.

Locating hardware

To find out what hardware is installed on your computer, type `device manager` in the taskbar search box, and then select the **Device Manager** app.

For information about system hardware components and the system BIOS version number, press fn+esc (select products only).

Locating software

To find out what software is installed on your computer, right-click the **Start** button, and then select **Apps and Features**.

Right side

Identify the components on the right side of the computer.

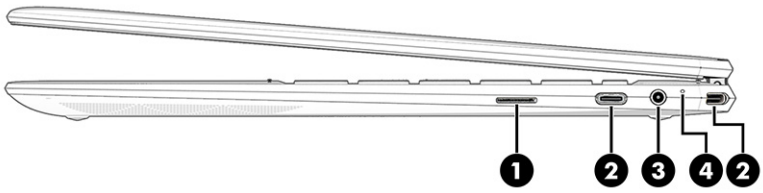

Table 2-1 Right-side components and their descriptions

Component		Description
(1)	microSD™ memory card reader	Reads optional memory cards that enable you to store, manage, share, or access information. To insert a card: 1. Hold the card label-side up, with connectors facing the computer. 2. Insert the card into the memory card reader, and then press in on the card until it is firmly seated. To remove a card: ▲ Press in on the card, and then remove it from the memory card reader.

Table 2-1 Right-side components and their descriptions (continued)

Component		Description
(2)	USB Type-C power connector and Thunderbolt™ ports with HP Sleep and Charge (2)	Connect an AC adapter that has a USB Type-C connector, supplying power to the computer and, if needed, charging the computer battery. – and – Connect a USB device, provide high-speed data transfer, and charge small devices, even when the computer is off. – and – Connect a display device that has a USB Type-C connector, providing DisplayPort™ output. **NOTE:** Your computer might also support a Thunderbolt docking station. **NOTE:** Cables, adapters, or both (purchased separately) might be required.
(3)	Audio-out (headphone)/Audio-in (microphone) combo jack	Connects optional powered stereo speakers, headphones, earbuds, a headset, or a television audio cable. Also connects an optional headset microphone. This jack does not support optional standalone microphones. **WARNING!** To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, see the *Regulatory, Safety, and Environmental Notices*. To access this guide: ▲ Type `HP Documentation` in the taskbar search box, and then select **HP Documentation**. **NOTE:** When a device is connected to the jack, the computer speakers are disabled.
(4)	AC adapter and battery light	• White: The AC adapter is connected and the battery is fully charged. • Blinking white: The AC adapter is disconnected and the battery has reached a low battery level. • Amber: The AC adapter is connected and the battery is charging. • Off: The battery is not charging.

Left side

Identify the components on the left side of the computer.

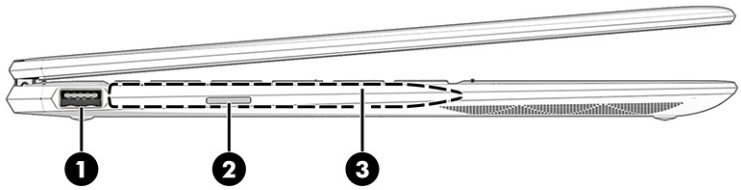

Table 2-2 Left-side components and their descriptions

Component		Description
(1)	USB port with HP Sleep and Charge	Connects a USB device, provides high-speed data transfer, and charges small devices, even when the computer is off.
(2)	Nano SIM card slot (select products only)	Supports a wireless subscriber identity module (SIM) card. For SIM card installation steps, see Using a SIM card (select products only) on page 15.
(3)	Magnetic pen attachment area	Holds an optional pen. With the pen tip facing towards you, place the flat magnetic side of the pen against the left side of the computer near the display. **NOTE:** For more information about the pen, see the documentation provided with the pen.

Display

The computer display can include essential components such as speakers, antennas, cameras, and microphones.

Low blue light mode (select products only)

Your computer display is shipped from the factory in low blue light mode for improved eye comfort and safety. Also, blue light mode automatically adjusts blue light emissions when you are using the computer at night or for reading.

⚠ **WARNING!** To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup and proper posture, health, and work habits for computer users. The *Safety & Comfort Guide* also provides important electrical and mechanical safety information. The *Safety & Comfort Guide* is available on the web at http://www.hp.com/ergo.

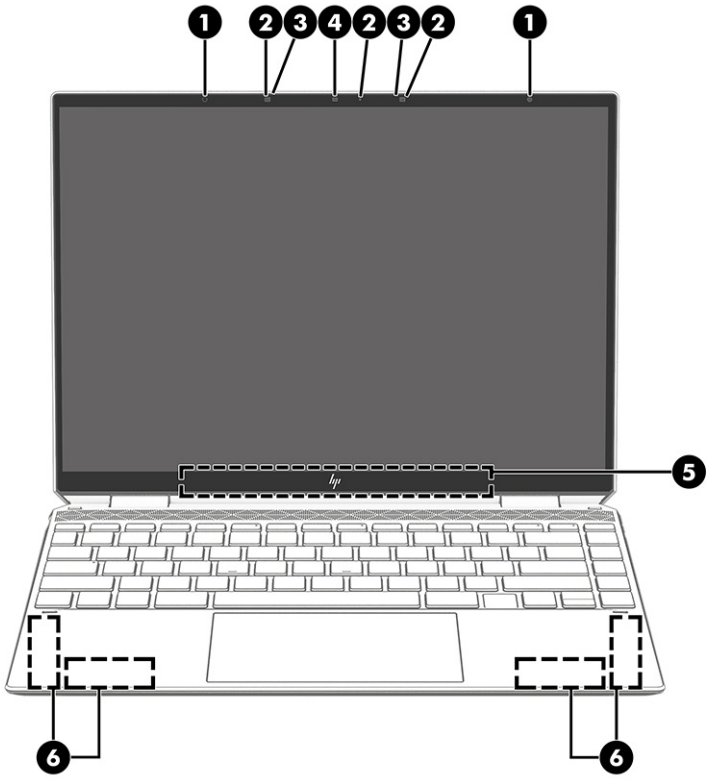

Table 2-3 Display components and their descriptions

Component		Description
(1)	Ambient light sensors (2) (select products only)	Adjusts the brightness of the display, depending on the ambient light.
(2)	Camera light(s)	On: One or more cameras are in use.
(3)	Internal microphones	Record sound.
(4)	Camera	Allows you to video chat, record video, and record still images. To use your camera, see Using the camera on page 20. Some cameras also allow a facial recognition logon to Windows, instead of a password logon. For more information, see Using Windows Hello (select products only) on page 40. **NOTE:** Camera functions vary depending on the camera hardware and software installed on your product.
(5)	WLAN antennas*	Send and receive wireless signals to communicate with wireless local area networks (WLANs).
(6)	WWAN antennas* (select products only)	Send and receive wireless signals to communicate with wireless wide area networks (WWANs).

*The antennas are not visible from the outside of the computer. For optimal transmission, keep the areas immediately around the antennas free from obstructions.

For wireless regulatory notices, see the section of the *Regulatory, Safety, and Environmental Notices* that applies to your country or region.

To access this guide:

▲ Type `HP Documentation` in the taskbar search box, and then select **HP Documentation**.

Keyboard area

Keyboards can vary by language.

Touchpad settings and components

Learn the touchpad settings and components

Touchpad settings

Learn how to adjust touchpad settings.

Adjusting touchpad settings

Use these steps to adjust touchpad settings and gestures.

1. Type `touchpad settings` in the taskbar search box, and then press enter.
2. Choose a setting.

Turning on the touchpad

Follow these steps to turn on the touchpad.

1. Type `touchpad settings` in the taskbar search box, and then press enter.
2. Using an external mouse, click the **touchpad** button.

   If you are not using an external mouse, press the Tab key repeatedly until the pointer rests on the **touchpad** button. Then press the spacebar to select the button.

Touchpad components

Identify the touchpad components.

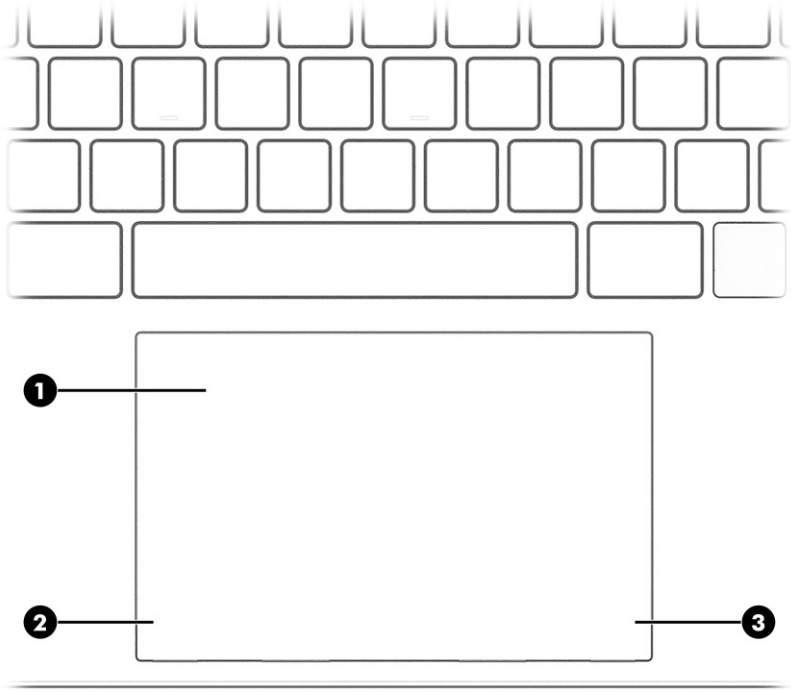

Table 2-4 Touchpad components and their descriptions

Component		Description
(1)	Touchpad zone	Reads your finger gestures to move the pointer or activate items on the screen. **NOTE:** For more information, see Using touchpad and touch screen gestures on page 24.
(2)	Left touchpad button	Functions like the left button on an external mouse.
(3)	Right touchpad button	Functions like the right button on an external mouse.

Lights

Identify the lights on the computer.

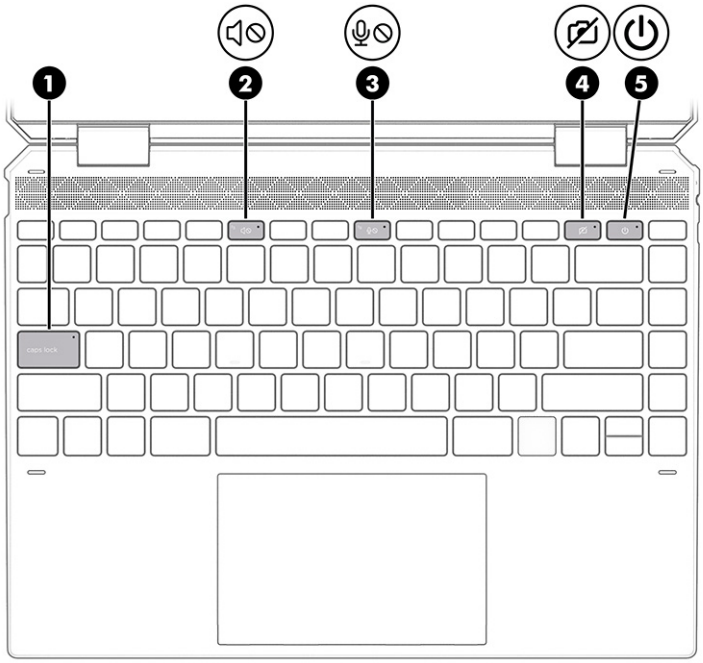

Table 2-5 Lights and their descriptions

Component		Description
(1)	Caps lock light	On: Caps lock is on, which switches the key input to all capital letters.
(2)	Mute light	• On: Computer sound is off. • Off: Computer sound is on.
(3)	Microphone mute light	• On: Microphone is off. • Off: Microphone is on.
(4)	Camera privacy light	• On. The camera is off. • Off. The camera is on.
(5)	Power light	• On: The computer is on.