User Guide

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Product notice

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

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

To access the latest user guide, go to http://www.hp.com/support, and select your country. Select **Drivers & Downloads**, and then follow the on-screen instructions.

Software terms

By installing, copying, downloading, or otherwise using any software product preinstalled on this tablet, 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 tablet, please contact your seller.

Safety warning notice

⚠ **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 the International Standard for Safety of Information Technology Equipment (IEC 60950).

Processor configuration setting (select models only)

IMPORTANT: Select computer models are configured with an Intel® Atom® processor and a Windows® operating system. On these models, do not change the processor configuration setting in msconfig.exe from 4 or 2 processors to 1 processor. If you do so, your tablet will not restart. You will have to perform a factory reset to restore the original settings.

Table of contents

1 Starting right 1

More HP resources 1

2 Connecting to a network 3

Connecting to a wireless network 3

Using the wireless controls 3

Connecting to a WLAN 4

Using Bluetooth wireless devices (select models only) 4

3 Enjoying entertainment features 5

Using a webcam (select models only) 5

Using audio 5

Connecting speakers 5

Connecting headphones 5

Connecting headsets 6

Using video 6

Connecting video devices using an HDMI cable (select models only) 6

Setting up HDMI audio 7

Connecting digital display devices using a DisplayPort cable (select models only) 7

Connecting Miracast-compatible wireless displays (select models only) 8

4 Navigating the screen 9

Using the touch gestures 9

Tap 9

Two-finger scroll 9

Two-finger pinch zoom 10

Two-finger click 10

Right-edge swipe 10

Left-edge swipe 11

Top-edge swipe and bottom-edge swipe 11

One-finger slide 11

5 Managing power 12

Initiating and exiting Sleep and Hibernation 12

Manually initiating and exiting Sleep 13

Manually initiating and exiting Hibernation (select models only) 13

Setting password protection on wakeup (exiting Sleep or Hibernation) 13
Running on battery power 14
Factory-sealed battery 14
Finding battery information 14
Conserving battery power 14
Running on AC power 15
Troubleshooting power problems 15
Shutting down (turning off) the tablet 16

6 Maintaining your tablet 17
Improving performance 17
Using Disk Cleanup 17
Updating programs and drivers 17
Cleaning your tablet 18
Cleaning procedures 18
Cleaning the display 18
Cleaning the sides or cover 18
Traveling with or shipping your tablet 19

7 Securing your tablet and information 20
Using passwords 20
Setting Windows passwords 20
Setting Setup Utility (BIOS) passwords 21
Using Internet security software 21
Using antivirus software 21
Using firewall software 22
Installing software updates 22
Installing critical security updates 22
Securing your wireless network 22
Backing up your software applications and information 22

8 Using HP PC Hardware Diagnostics (UEFI) 23
Downloading HP PC Hardware Diagnostics (UEFI) to a USB device 24

9 Backup and recovery 25
Backing up your information 25
Performing a system recovery 25
Changing the boot device order 25
Using Windows Refresh or Windows Reset 26

10 Specifications 27
Input power 27
Operating environment 27

11 Electrostatic Discharge 28

Index 29

1 Starting right

This tablet is a powerful tool designed to enhance your work and entertainment. Read this chapter to learn about best practices after you set up your tablet and about where to find additional HP resources.

More HP resources

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

Resource	Contents
Quick Setup	• Overview of tablet setup and features
Help and Support To access Help and Support: ▲ From the Start screen, tap http://www.hp.com/go/contactHP. For worldwide support, go to http://welcome.hp.com/country/us/en/wwcontact_us.html.	• A broad range of how-to information and troubleshooting tips
Worldwide support To get support in your language, go to http://welcome.hp.com/country/us/en/wwcontact_us.html.	• Online chat with an HP technician • Support telephone numbers • HP service center locations
Safety & Comfort Guide To access this guide: 1. From the Start screen, , type `support`, and then select the **HP Support Assistant** app. – or – From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar. 2. Select **My computer**, and then select **User guides**. – or – Go to http://www.hp.com/ergo.	• Proper workstation setup • Guidelines for posture and work habits that increase your comfort and decrease your risk of injury • Electrical and mechanical safety information
Regulatory, Safety and Environmental Notices To access this document: 1. From the Start screen, tap , type `support`, and then select the **HP Support Assistant** app.	• Important regulatory notices, including information about proper battery disposal

Resource	Contents
– or – From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar. 2. Select **My computer**, and then select **User guides**.	
*Limited Warranty** To access this document: 1. From the Start screen, tap , type `support`, and then select the **HP Support Assistant** app. – or – From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar. 2. Select **My computer**, and then select **Warranty and services**. – or – Go to http://www.hp.com/go/orderdocuments.	• Specific warranty information about this tablet

*You can find the expressly provided HP Limited Warranty applicable to your product located with the user guides on your tablet and/or on the CD/DVD provided in the box. In some countries/regions, HP may provide a printed HP Limited Warranty in the box. For countries/regions where the warranty is not provided in printed format, you may request a printed copy from http://www.hp.com/go/orderdocuments or write to:

- **North America**: Hewlett-Packard, MS POD, 11311 Chinden Blvd., Boise, ID 83714, USA
- **Europe, Middle East, Africa**: Hewlett-Packard, POD, Via G. Di Vittorio, 9, 20063, Cernusco s/Naviglio (MI), Italy
- **Asia Pacific**: Hewlett-Packard, POD, P.O. Box 200, Alexandra Post Office, Singapore 911507

When you request a printed copy of your warranty, please include your product number, warranty period (found on your service label), name, and postal address.

IMPORTANT: Do NOT return your HP product to the addresses above. For U.S. support, go to http://www.hp.com/go/contactHP. For worldwide support, go to http://welcome.hp.com/country/us/en/wwcontact_us.html.

2 Connecting to a network

Your tablet can travel with you wherever you go. But even at home, you can explore the globe and access information from millions of websites using your tablet and a wired or wireless network connection. This chapter will help you get connected to that world.

Connecting to a wireless network

Your tablet may be equipped with one or more of the following wireless devices:

- WLAN device—Connects the tablet to wireless local area networks (commonly referred to as Wi-Fi networks, wireless LANs, or WLANs) in corporate offices, your home, and public places such as airports, restaurants, coffee shops, hotels, and universities. In a WLAN, the mobile wireless device in your tablet communicates with a wireless router or a wireless access point.
- Bluetooth device—Creates a personal area network (PAN) to connect to other Bluetooth-enabled devices such as tablets, phones, printers, headsets, speakers, and cameras. In a PAN, each device communicates directly with other devices, and devices must be relatively close together—typically within 10 meters (approximately 33 feet) of each other.

For more information about wireless technology, the Internet, and networking, see the information and website links provided in Help and Support.

▲ From the Start screen, tap , type `help`, and then select **Help and Support**.

– or –

From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

Using the wireless controls

You can control the wireless devices in your tablet using the operating system controls.

The Network and Sharing Center allows you to set up a connection or network, connect to a network, and diagnose and repair network problems.

To use operating system controls:

1. From the Start screen, tap , type `control panel`, and then select **Control Panel**.
2. Select **Network and Internet**, and then select **Network and Sharing Center**.

For more information, see the information provided in Help and Support.

▲ From the Start screen, tap , type `help`, and then select **Help and Support**.

– or –

From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

Connecting to a WLAN

To connect to a WLAN, follow these steps:

1. Be sure that the WLAN device is on.
2. Swipe from the right edge of the Start screen or the Windows desktop, to reveal the charms.
3. Select **Settings**, and then tap the network status icon.
4. Select your WLAN from the list.
5. Tap **Connect**.

   If the WLAN is a security-enabled WLAN, you are prompted to enter a security code. Type the code, and then tap **Next** to complete the connection.

NOTE: If no WLANs are listed, you may be out of range of a wireless router or access point.

NOTE: If you do not see the WLAN you want to connect to, from the Windows desktop, tap and hold the network status icon, and then select **Open Network and Sharing Center**. Tap **Set up a new connection or network**. A list of options is displayed, allowing you to manually search for and connect to a network or to create a new network connection.

6. Follow the on-screen instructions to complete the connection.

After the connection is made, tap the network status icon in the notification area, at the far right of the taskbar, to verify the name and status of the connection.

Using Bluetooth wireless devices (select models only)

A Bluetooth device provides short-range wireless communications that replace the physical cable connections that traditionally link electronic devices such as the following:

- Computers (desktop, notebook, tablet)
- Phones (cellular, cordless, smartphone)
- Imaging devices (printer, camera)
- Audio devices (headset, speakers)
- Mouse
- External keyboard

Bluetooth devices provide peer-to-peer capability that allows you to set up a PAN of Bluetooth devices. For information about configuring and using Bluetooth devices, see the Bluetooth software Help.

3 Enjoying entertainment features

Use your HP tablet as an entertainment hub to socialize via the webcam, enjoy and manage your music, and download and watch movies. Or, to make your tablet an even more powerful entertainment center, connect external devices like a monitor, projector, or TV, or speakers and headphones.

Using a webcam (select models only)

The tablet has an integrated webcam that records video and captures photographs. Some models may allow you to video conference and chat online using streaming video.

- To start the webcam, from the Start screen, tap , type `camera`, and then select **Camera** from the list of applications.

For details about using the webcam, go to Help and Support.

- From the Start screen, tap , type `help`, and then select **Help and Support**.

  – or –

  From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

Using audio

On your tablet, or on select models using an external optical drive, you can play music CDs, download and listen to music, stream audio content from the web (including radio), record audio, or mix audio and video to create multimedia. To enhance your listening enjoyment, attach external audio devices such as speakers or headphones.

Connecting speakers

You can attach wired speakers to your tablet by connecting them to a USB port or to the audio-out (headphone) jack on your tablet or on a docking station.

To connect wireless speakers to your tablet, follow the device manufacturer's instructions. To connect high-definition speakers to the tablet, see Setting up HDMI audio on page 7. Before connecting speakers, lower the volume setting.

Connecting headphones

⚠ **WARNING!** To reduce the risk of personal injury, lower the volume setting before putting on headphones, earbuds, or a headset. For additional safety information, see the *Regulatory, Safety and Environmental Notices*. To access this document, from the Start screen, tap , type `support`, and then select the **HP Support Assistant** app.

You can connect wired headphones to the headphone jack or to the audio-out (headphone)/audio-in (microphone) combo jack on your tablet.

To connect wireless headphones to your tablet, follow the device manufacturer's instructions.

Connecting headsets

WARNING! To prevent possible hearing damage, do not listen at high volume levels for long periods.

Headphones combined with a microphone are called *headsets*. You can connect wired headsets to the audio-out (headphone)/audio-in (microphone) jack on your tablet.

To connect *wireless* headsets to your tablet, follow the device manufacturer's instructions.

Using video

Your tablet is a powerful video device that enables you to watch streaming video from your favorite websites and download video and movies to watch on your tablet when you are not connected to a network.

To enhance your viewing enjoyment, use one of the video ports on the tablet to connect an external monitor, projector, or TV.

IMPORTANT: Be sure that the external device is connected to the correct port on the tablet, using the correct cable. Follow the device manufacturer's instructions.

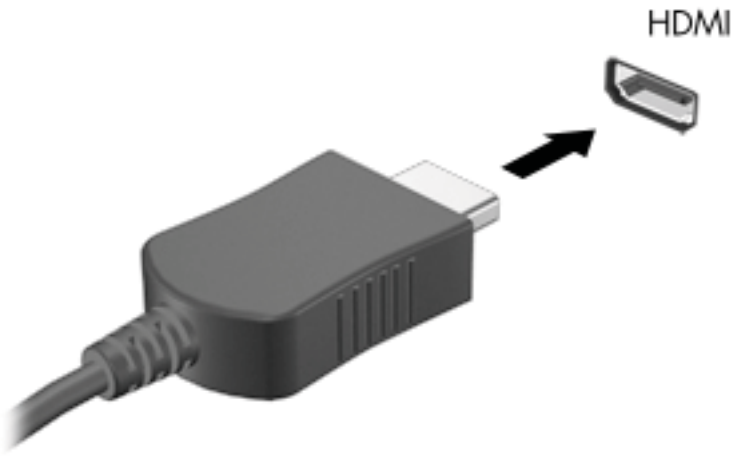
For information on using your video features, refer to Help and Support.

Connecting video devices using an HDMI cable (select models only)

NOTE: To connect an HDMI device to your tablet, you need an HDMI cable, purchased separately.

To see the tablet screen image on a high-definition TV or monitor, connect the high-definition device according to the following instructions:

1. Connect one end of the HDMI cable to the HDMI port on the tablet.



2. Connect the other end of the cable to the high-definition TV or monitor.
3. Press f4 on an optional external keyboard (purchased separately) to alternate the tablet screen image between 4 display states:

- **PC screen only:** View the screen image on the tablet only.
- **Duplicate:** View the screen image simultaneously on both the tablet and the external device.
- **Extend:** View the screen image extended across the tablet and the external device.
- **Second screen only:** View the screen image on the external device only.

Each time you press f4, the display state changes.

NOTE: For best results, especially if you choose the "Extend" option, increase the screen resolution of the external device, as follows. From the Start screen, tap , type `control panel`, and then select **Control Panel**. Select **Appearance and Personalization**. Under **Display**, select **Adjust screen resolution**.

Setting up HDMI audio

HDMI is the only video interface that supports high-definition video and audio. After you connect an HDMI TV to the tablet, you can then turn on HDMI audio by following these steps:

1. From the Windows desktop, tap and hold the **Speakers** icon in the notification area, at the far right of the taskbar, and then select **Playback devices**.
2. On the **Playback** tab, select the name of the digital output device.
3. Tap **Set Default**, and then tap **OK**.

To return the audio stream to the tablet speakers:

1. From the Windows desktop, tap and hold the **Speakers** icon in the notification area, at the far right of the taskbar, and then tap **Playback devices**.
2. On the Playback tab, tap **Speakers**.
3. Tap **Set Default**, and then tap **OK**.

Connecting digital display devices using a DisplayPort cable (select models only)

NOTE: To connect a digital display device to your tablet, you need a DisplayPort (DP-DP) cable, purchased separately.

The DisplayPort connects a digital display device such as a high-performance monitor or projector. The DisplayPort delivers higher performance than the VGA external monitor port and improves digital connectivity.

1. Connect one end of the DisplayPort cable to the DisplayPort on the tablet.

2. Connect the other end of the cable to the digital display device.
3. Press f4 on an optional external keyboard (purchased separately) to alternate the tablet screen image between 4 display states:
   - **PC screen only:** View the screen image on the tablet only.
   - **Duplicate:** View the same screen image simultaneously on both the tablet and the external device.
   - **Extend:** View the screen image extended across the tablet and the external device.
   - **Second screen only:** View the screen image on the external device only.

   Each time you press f4, the display state changes.

NOTE: For best results, especially if you choose the "Extend" option, increase the screen resolution of the external device, as follows. From the Start screen, , type `control panel`, and then select **Control Panel**. Select **Appearance and Personalization**. Under **Display**, select **Adjust screen resolution**.

Connecting Miracast-compatible wireless displays (select models only)

To discover and connect to Miracast-compatible wireless displays, follow the steps below.

To open Miracast:

▲ Point to the upper-right or lower-right corner of the Start screen or the Windows desktop to display the charms, tap **Devices**, tap **Project**, and then follow the on-screen instructions.

– or –

On select tablet models, from the Start screen, tap the **HP Quick Access to Miracast** icon, and then follow the on-screen instructions.

4 Navigating the screen

To quickly return to the Start screen, press the Windows button .

You can navigate the tablet screen in the following ways:

- Touch gestures
- External keyboard and optional mouse (purchased separately)

NOTE: An external USB mouse (purchased separately) can be connected to a USB port on the tablet.

Using the touch gestures

Tap

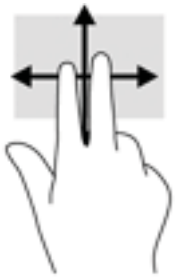
Use the tap/double-tap gesture to select or open an item on the screen.

- Point to an item on the screen, and then tap one finger on the touch screen to select it. Double-tap an item to open it.

Two-finger scroll

Use the two-finger scroll gesture to move up, down, or sideways on a page or image.

- Place two fingers slightly apart on the touch screen and then drag them up, down, left, or right.



Two-finger pinch zoom

Use the two-finger pinch zoom to zoom out or in on images or text.

- Zoom out by placing two fingers apart on the touch screen and then moving your fingers together.
- Zoom in by placing two fingers together on the touch screen and then moving your fingers apart.

Two-finger click

Use the two-finger click gesture to open the menu for an object on the screen.

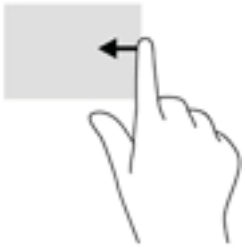
NOTE: The two-finger click performs the same function as right-clicking with a mouse.

- Place two fingers on the touch screen and press down to open the options menu for the selected object.

Right-edge swipe

Use the right-edge swipe to reveal the charms, which let you search, share, start apps, access devices, or change settings.

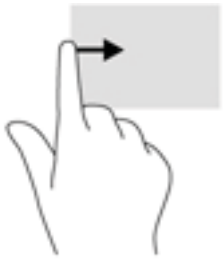
- Gently swipe your finger inward from the right edge of the touch screen to reveal the charms.



Left-edge swipe

Use the left-edge swipe to reveal your open apps so that you can access them quickly.

- Gently swipe your finger inward from the left edge of the touch screen to switch between apps. Without lifting your finger, swipe back toward the left edge to reveal all open apps.

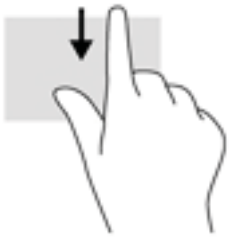


Top-edge swipe and bottom-edge swipe

Use the top-edge swipe or bottom-edge swipe to display command options that allow you to customize an open app.

IMPORTANT: When an app is open, the top-edge swipe varies depending on the app.

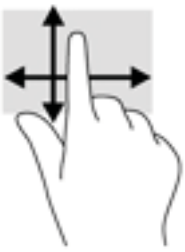
- Gently swipe your finger from the top edge or the bottom edge to reveal the app command options.



One-finger slide

Use the one-finger slide to pan or scroll through lists and pages, or to move an object.

- To scroll across the screen, lightly slide one finger across the screen in the direction you want to move.
- To drag, press and hold an object, and then drag the object to move it.



5 Managing power

Your tablet can operate on either battery power or external power. When the tablet is running on battery power only and an AC power source is not available to charge the battery, it is important to monitor and conserve the battery charge.

Initiating and exiting Sleep and Hibernation

Windows has two power-saving states, Sleep and Hibernation.

- Sleep—The Sleep state is automatically initiated after a period of inactivity. Your work is saved to memory, allowing you to resume your work very quickly. You can also initiate Sleep manually. For more information, see Manually initiating and exiting Sleep on page 13.
- Hibernation—The Hibernation state is automatically initiated if the battery reaches a critical level. In the Hibernation state, your work is saved to a hibernation file and the tablet powers down. You can also initiate Hibernation manually. For more information, see Manually initiating and exiting Hibernation (select models only) on page 13.

CAUTION: To reduce the risk of possible audio and video degradation, loss of audio or video playback functionality, or loss of information, do not initiate the Sleep state while reading from or writing to an external media card.

NOTE: You cannot initiate any type of networking connection or perform any tablet functions while the tablet is in the Sleep state or in the Hibernation state.

Manually initiating and exiting Sleep

You can initiate Sleep in any of the following ways:

- Close the display.
- Swipe from the right edge of the Start screen or the Windows desktop to reveal the charms. Tap **Settings**, select the **Power** icon, and then select **Sleep**.

You can exit Sleep in any of the following ways:

- Briefly press the power button.
- Tap or swipe the touch screen.

When the tablet exits Sleep, the power lights turn on and your work returns to the screen.

NOTE: If you have set a password to be required on exiting Sleep, you must enter your Windows password before your work returns to the screen.

Manually initiating and exiting Hibernation (select models only)

You can enable user-initiated Hibernation and change other power settings and timeouts using Power Options.

1. From the Start screen, tap , type `power options`, and then select **Power options**.
2. In the left pane, tap **Choose what the power button does**.
3. Tap **Change Settings that are currently unavailable**.
4. In the **When I press the power button** area, select **Hibernate**.
5. Tap **Save changes**.

To exit Hibernation:

▲ Briefly press the power button.

When the tablet exits Hibernation, the power lights turn on and your work returns to the screen.

NOTE: If you have set a password to be required on exiting Hibernation, you must enter your Windows password before your work returns to the screen.

Setting password protection on wakeup (exiting Sleep or Hibernation)

To set the tablet to prompt for a password when the tablet exits Sleep or Hibernation, follow these steps:

1. From the Start screen, tap , type `power options`, and then select **Power options**.

   – or –

2. In the left pane, tap **Require a password on wakeup**.
3. Tap **Change Settings that are currently unavailable**.

4. Tap **Require a password (recommended)**.

NOTE: If you need to create a user account password or change your current user account password, tap **Create or change your user account password**, and then follow the on-screen instructions. If you do not need to create or change a user account password, go to step 5.

5. Tap **Save changes**.

Running on battery power

When a charged battery is in the tablet and the tablet is not plugged into external power, the tablet runs on battery power. When the tablet is off and unplugged from external power, the battery in the tablet slowly discharges. The tablet will display a message when the battery reaches a low or critical battery level.

Computer battery life varies, depending on power management settings, programs running on the tablet, screen brightness, external devices connected to the tablet, and other factors.

Factory-sealed battery

To monitor the status of the battery, or if the battery is no longer holding a charge, run Battery Check in the HP Support Assistant app.

1. From the Start screen, tap , type `support`, and then select the **HP Support Assistant** app.

   – or –

   From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

2. Select **Battery and performance**. If Battery Check indicates that your battery should be replaced, contact support.

The battery[ies] in this product cannot be easily replaced by user themselves. Removing or replacing the battery could affect your warranty coverage. If a battery is no longer holding a charge, contact support. When a battery has reached the end of its useful life, do not dispose of the battery in general household waste. Follow the local laws and regulations in your area for battery disposal.

Finding battery information

To access battery information:

1. From the Start screen, tap , type `support`, and then select the **HP Support Assistant** app.

   – or –

   From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

2. Select **Battery and Performance**.

Conserving battery power

To conserve battery power and maximize battery life:

- Lower the brightness of the display.
- Select the **Power saver** setting in Power Options.
- Turn off wireless devices when you are not using them.
- Disconnect unused external devices that are not plugged into an external power source, such as an external hard drive connected to a USB port.
- Stop, disable, or remove any external media cards that you are not using.
- Before you leave your work, initiate Sleep or shut down the tablet.

Running on AC power

For information about connecting to AC power, refer to the *Quick Start* guide provided in the tablet box.

The tablet does not use battery power when the tablet is connected to AC power with an approved AC adapter or an optional docking/expansion device.

⚠ **WARNING!** To reduce potential safety issues, use only the AC adapter provided with the tablet, a replacement AC adapter provided by HP, or a compatible AC adapter purchased from HP.

Connect the tablet to AC power under any of the following conditions:

⚠ **WARNING!** Do not charge the tablet battery while you are aboard aircraft.

- When charging or calibrating a battery
- When installing or modifying system software
- When performing a backup or recovery

When you connect the tablet to AC power:

- The battery begins to charge.
- The screen brightness increases.
- The power meter icon on the Windows desktop changes appearance.

When you disconnect AC power:

- The tablet switches to battery power.
- The screen brightness automatically decreases to save battery life.
- The power meter icon on the Windows desktop changes appearance.

Troubleshooting power problems

Test the AC adapter if the tablet exhibits any of the following symptoms when it is connected to AC power:

- The tablet does not turn on.
- The power lights do not turn on (select models only).

To test the AC adapter:

1. Shut down the tablet.
2. Connect the AC adapter to the tablet, and then plug it into an AC outlet.
3. Turn on the tablet.
    - If the tablet or the power lights turn *on*, the AC adapter is working properly.
    - If the tablet or the power lights remain *off*, check the connection from the AC adapter to the tablet and the connection from the AC adapter to the AC outlet to be sure that the connections are secure.
    - If the connections are secure and the tablet or the power lights remain *off*, the AC adapter is not functioning and should be replaced.

Contact support for information about obtaining a replacement AC power adapter.

Shutting down (turning off) the tablet

CAUTION: Unsaved information is lost when the tablet shuts down. Be sure to save your work before shutting down the tablet.

The Shut down command closes all open programs, including the operating system, and then turns off the display and tablet.

Shut down the tablet under any of the following conditions:

- When you need to access components inside the tablet (select models only)
- When the tablet will be unused and disconnected from external power for an extended period

Although you can turn off the tablet with the power button, the recommended procedure is to use the Windows Shut down command.

NOTE: If the tablet is in the Sleep state or in Hibernation, first exit Sleep or Hibernation by briefly pressing the power button.

1. Save your work and close all open programs.
2. Swipe from the right edge of the Start screen or the Windows desktop to reveal the charms.
3. Tap **Settings**, select the **Power** icon, and then select **Shut down**.

If the tablet is unresponsive and you are unable to use the preceding shutdown procedures, try the following emergency procedures in the sequence provided:

- Press and hold the power button for at least 5 seconds.
- Disconnect the tablet from external power.
- On models with a user-replaceable battery, remove the battery.

6 Maintaining your tablet

It is important to perform regular maintenance to keep your tablet in optimal condition. This chapter explains how to use tools such as Disk Cleanup. It also provides instructions for updating programs and drivers, steps to clean the computer, and tips for traveling with (or shipping) the computer.

Improving performance

You can improve the performance of your computer by performing regular maintenance tasks with tools such as Disk Cleanup.

Using Disk Cleanup

Use Disk Cleanup to search the hard drive for unnecessary files that you can safely delete to free up disk space and help the tablet run more efficiently.

To run Disk Cleanup:

1. From the Start screen, tap , type `disk`, and then select one of the following options to free up space on your tablet.
   - **Apps**—Uninstall apps.
   - **Media and files**—Delete media and/or files.
   - **Recycle Bin**—Empty the Recycle Bin.
2. Follow the on-screen instructions.

Updating programs and drivers

HP recommends that you update your programs and drivers on a regular basis. Updates can resolve issues and bring new features and options to your tablet. For example, older graphics components might not work well with the most recent gaming software. Without the latest driver, you would not be getting the most out of your equipment.

Go to http://www.hp.com/support to download the latest versions of HP programs and drivers. In addition, register to receive automatic notifications when updates become available.

If you would like to update your programs and drivers, follow these instructions:

1. From the Start screen, tap , type `support`, and then select the **HP Support Assistant** app.

   -or-

   From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.
2. Tap **Updates and tune-ups**, and then tap **Check for HP updates now**.
3. Follow the on-screen instructions.

Cleaning your tablet

Use the following products to safely clean your tablet:

- Dimethyl benzyl ammonium chloride 0.3 percent maximum concentration (for example, disposable wipes, which come in a variety of brands)
- Alcohol-free glass-cleaning fluid
- Solution of water and mild soap
- Dry microfiber cleaning cloth or a chamois (static-free cloth without oil)
- Static-free cloth wipes

⚠ **CAUTION:** Avoid strong cleaning solvents that can permanently damage your tablet. If you are not sure that a cleaning product is safe for your tablet, check the product contents to make sure that ingredients such as alcohol, acetone, ammonium chloride, methylene chloride, and hydrocarbons are not included in the product.

Fibrous materials, such as paper towels, can scratch the tablet. Over time, dirt particles and cleaning agents can get trapped in the scratches.

Cleaning procedures

Follow the procedures in this section to safely clean your tablet.

⚠ **WARNING!** To prevent electric shock or damage to components, do not attempt to clean your tablet while it is on.

1. Turn off the tablet.
2. Disconnect AC power.
3. Disconnect all powered external devices.

⚠ **CAUTION:** To prevent damage to internal components, do not spray cleaning agents or liquids directly on any tablet surface. Liquids dripped on the surface can permanently damage internal components.

Cleaning the display

Gently wipe the display using a soft, lint-free cloth moistened with an alcohol-free glass cleaner. Be sure that a display is dry before you close the tablet.

Cleaning the sides or cover

To clean the sides or cover, use a soft microfiber cloth or chamois moistened with one of the cleaning solutions listed previously, or use an acceptable disposable wipe.

NOTE: When cleaning the cover of the tablet, use a circular motion to aid in removing dirt and debris.

Traveling with or shipping your tablet

If you have to travel with or ship your tablet, follow these tips to keep your equipment safe.

- Prepare the tablet for traveling or shipping:
  - Back up your information to an external drive.
  - Remove all external media cards, such as memory cards.
  - Turn off and then disconnect all external devices.
  - Shut down the tablet.
- Take along a backup of your information. Keep the backup separate from the tablet.
- When traveling by air, carry the tablet as hand luggage; do not check it in with the rest of your luggage.

⚠ **CAUTION:** Avoid exposing a drive to magnetic fields. Security devices with magnetic fields include airport walk-through devices and security wands. Airport conveyer belts and similar security devices that check carry-on baggage use X-rays instead of magnetism and do not damage drives.

- If you plan to use the tablet during a flight, listen for the in-flight announcement that tells you when you are allowed to use your tablet. In-flight tablet use is at the discretion of the airline.
- If you are shipping the tablet, use suitable protective packaging and label the package “FRAGILE.”
- The use of wireless devices may be restricted in some environments. Such restrictions may apply aboard aircraft, in hospitals, near explosives, and in hazardous locations. If you are uncertain of the policy that applies to the use of a wireless device in your tablet, ask for authorization to use your tablet before you turn it on.
- If you are traveling internationally, follow these suggestions:
  - Check the tablet-related customs regulations for each country or region on your itinerary.
  - Check the power cord and adapter requirements for each location in which you plan to use the tablet. Voltage, frequency, and plug configurations vary.

    ⚠ **WARNING!** To reduce the risk of electric shock, fire, or damage to the equipment, do not attempt to power the tablet with a voltage converter kit sold for appliances.

7 Securing your tablet and information

Computer security is essential for protecting the confidentiality, integrity, and availability of your information. Standard security solutions provided by the Windows operating system, HP applications, the non-Windows Setup Utility (BIOS), and other third-party software can help protect your tablet from a variety of risks, such as viruses, worms, and other types of malicious code.

IMPORTANT: Some security features listed in this chapter may not be available on your tablet.

Using passwords

A password is a group of characters that you choose to secure your tablet information and to protect online transactions. Several types of passwords can be set. For example, when you set up your tablet for the first time, you were asked to create a user password to secure your tablet. Additional passwords can be set in Windows or in the HP Setup Utility (BIOS) that is preinstalled on your tablet.

You may find it helpful to use the same password for a Setup Utility (BIOS) feature and for a Windows security feature.

To create and save passwords, use the following tips:

- To reduce the risk of being locked out of the tablet, record each password and store it in a secure place away from the tablet. Do not store passwords in a file on the tablet.
- When creating passwords, follow requirements set by the program.
- Change your passwords at least every 3 months.
- An ideal password is long and has letters, punctuation, symbols, and numbers.
- Before you send your tablet for service, back up your files, delete confidential files, and then remove all password settings.

For additional information about Windows passwords, such as screen-saver passwords:

▲ From the Start screen, tap , type `support`, and then select the **HP Support Assistant** app.

-or-

From the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

Setting Windows passwords

Password	Function
User password	Protects access to a Windows user account.
Administrator password	Protects administrator-level access to tablet contents. NOTE: This password cannot be used to access Setup Utility (BIOS) contents.

Setting Setup Utility (BIOS) passwords

Password	Function
Administrator password	• Must be entered each time you access Setup Utility (BIOS). • If you forget your administrator password, you cannot access Setup Utility (BIOS).
Power-on password	• Must be entered each time you turn on or restart the tablet. • If you forget your power-on password, you cannot turn on or restart the tablet.

To set, change, or delete an administrator or power-on password in Setup Utility (BIOS):

NOTE: If you have tablet with a detachable keyboard or keyboard dock, attach it before beginning these steps.

1. Turn off the tablet.
2. Hold the **Volume down** button.
3. While continuing to hold the **Volume down** button, press the power button to turn on the tablet.

   The Startup menu is displayed.
4. Select **Security**, and then follow the on-screen instructions.

Your changes take effect when the tablet restarts.

Using Internet security software

When you use your tablet to access email, a network, or the Internet, you potentially expose your tablet to tablet viruses, spyware, and other online threats. To help protect your tablet, Internet security software that includes antivirus and firewall features may be preinstalled on your tablet as a trial offer. To provide ongoing protection against newly discovered viruses and other security risks, security software must be kept up to date. It is strongly recommended that you upgrade the security software trial offer or purchase the software of your choice in order to fully protect your tablet.

Using antivirus software

Computer viruses can disable programs, utilities, or the operating system, or cause them to function abnormally. Antivirus software can detect most viruses, destroy them, and in most cases, repair any damage they have caused.

To provide ongoing protection against newly discovered viruses, antivirus software must be kept up to date.

An antivirus program may be preinstalled on your tablet. It is strongly recommended that you use the antivirus program of your choice in order to fully protect your tablet.

For more information about tablet viruses, from the Start screen, tap , type `support`, and then select the **HP Support Assistant** app, or from the Windows desktop, tap the question mark icon in the notification area, at the far right of the taskbar.

Using firewall software

Firewalls are designed to prevent unauthorized access to a system or network. A firewall can be software you install on your tablet and/or network, or it can be a combination of both hardware and software.

There are two types of firewalls to consider:

- Host-based firewalls—Software that protects only the tablet it is installed on.
- Network-based firewalls—Installed between your DSL or cable modem and your home network to protect all the computers on the network.

When a firewall is installed on a system, all data sent to and from the system is monitored and compared with a set of user-defined security criteria. Any data that does not meet those criteria is blocked.

Installing software updates

HP, Windows, and third-party software installed on your tablet should be regularly updated to correct security problems and improve software performance. For more information, see Updating programs and drivers on page 17.

Installing critical security updates

⚠ CAUTION: Microsoft sends out alerts regarding critical updates. To protect the tablet from security breaches and computer viruses, install all critical updates from Microsoft as soon as you receive an alert.

You can install these updates manually or automatically.

To view or change the settings:

1. From the Start screen, tap , type `control panel`.
2. Select **System and Security**, select **Windows Update**, select **Change settings**, and then follow the on-screen instructions.

Securing your wireless network

When you set up a WLAN or access an existing WLAN, always enable security features to protect your network from unauthorized access. WLANs in public areas (hotspots) like coffee shops and airports may not provide any security.

Backing up your software applications and information

Regularly back up your software applications and information to protect them from being permanently lost or damaged through a virus attack or a software or hardware failure. For more information, see Backup and recovery on page 25.

8 Using HP PC Hardware Diagnostics (UEFI)

HP PC Hardware Diagnostics is a Unified Extensible Firmware Interface (UEFI) that allows you to run diagnostic tests to determine whether the tablet hardware is functioning properly. The tool runs outside the operating system so that it can isolate hardware failures from issues that are caused by the operating system or other software components.

To start HP PC Hardware Diagnostics (UEFI):

1. Turn off the tablet.
2. Press and hold the **Volume down** button.
3. While continuing to hold the **Volume down** button, press the power button to turn on the tablet.

   The Startup menu is displayed.
4. Press f2 at the bottom of the screen.
5. When the diagnostic tool opens, select the type of diagnostic test you want to run, and then follow the on-screen instructions.

NOTE: If you need to stop a diagnostic test, press esc.

Downloading HP PC Hardware Diagnostics (UEFI) to a USB device

NOTE: Instructions for downloading HP PC Hardware Diagnostics (UEFI) are provided in English only.

There are two options to download HP PC Hardware Diagnostics to a USB device:

Option 1: HP PC Diagnostics homepage— Provides access to the latest UEFI version

1. Go to http://hp.com/go/techcenter/pcdiags.
2. Tap the UEFI **Download** link, and then select **Run**.

Option 2: Support and Drivers pages—Provide downloads for a specific product for earlier and later versions

1. Go to http://www.hp.com.
2. Tap **Support**, located at the top of the page, and then tap **Download Drivers**.
3. In the text box, enter the product name, and then tap **Go**.

   – or –

   Tap **Find Now** to let HP automatically detect your product.
4. In the **Diagnostic** section, tap **HP UEFI Support Environment**.

   – or –

   Tap **Download**, and then select **Run**.

9 Backup and recovery

To protect your information, use Windows backup and restore utilities to back up individual files and folders, back up your entire hard drive, or create system restore points. In case of system failure, you can use the backup files to restore the contents of your tablet.

1. Swipe from the right edge of the touch screen to display the charms, tap **Search**, and then tap the search box.
2. In the search box, type `restore`, and then select from the list of displayed options.

NOTE: For detailed instructions on various backup and restore options, perform a search for these topics in Windows Help and Support.

In case of system instability, HP recommends that you print the recovery procedures and save them for later use.

NOTE: Windows includes the User Account Control feature to improve the security of your tablet. You may be prompted for your permission or password for tasks such as installing software, running utilities, or changing Windows settings. For more information, see Windows Help and Support.

Backing up your information

Recovery after a system failure is as good as your most recent backup. You should create system repair media and your initial backup immediately after initial system setup. As you add new software and data files, you should continue to back up your system on a regular basis to maintain a reasonably current backup.

For more information on the Windows backup features, see Windows Help and Support.

Performing a system recovery

NOTE: If you will be using F11 startup recovery or USB recovery media to recover your system, the tablet battery must have at least 70% battery power remaining before starting the recovery process.

In case of system failure or instability, the tablet provides the following tools to recover your files:

- Windows recovery tools: You can use Windows Backup and Restore to recover information you have previously backed up. You can also use Windows Automatic Repair to fix problems that might prevent Windows from starting correctly.

NOTE: If you are unable to boot (start up) your tablet, contact support.

Changing the boot device order

To change the boot order so that you can boot from an external device:

NOTE: An external flash drive is required to perform this procedure.

1. If possible, back up all personal files.
2. Shut down the tablet.
3. Connect the external flash drive.

4. Press and hold the **Volume down** button.
5. While continuing to hold the **Volume down** button, press the power button to turn on the tablet.

   The Startup menu is displayed.
6. Tap **F9 Boot Options**.
7. Select the external flash drive as the boot device.
8. Restart the tablet.

Using Windows Refresh or Windows Reset

When your tablet is not working properly and you need to regain system stability, the Windows Refresh option allows you to start fresh and keep what is important to you.

The Windows Reset option allows you to perform detailed reformatting of your tablet, or remove personal information before you give away or recycle your tablet. For more information on these features, see Windows Help and Support.

10 Specifications

Input power

The power information in this section may be helpful if you plan to travel internationally with the tablet.

The tablet operates on DC power, which can be supplied by an AC or a DC power source. The AC power source must be rated at 100–240 V, 50–60 Hz. Although the tablet can be powered from a standalone DC power source, it should be powered only with an AC adapter or a DC power source that is supplied and approved by HP for use with this tablet.

The tablet can operate on DC power within the following specifications. Operating voltage and current varies by platform.

Input power	Rating
Operating voltage and current	5 V dc @ 3A - 15W

NOTE: This product is designed for IT power systems in Norway with phase-to-phase voltage not exceeding 240 V rms.

NOTE: The tablet operating voltage and current can be found on the system regulatory label.

Operating environment

Factor	Metric	U.S.
Temperature		
Operating	**5°C to 35°C**	41°F to 95°F
Nonoperating	**-20°C to 60°C**	-4°F to 140°F
Relative humidity (noncondensing)		
Operating	**10% to 90%**	10% to 90%
Nonoperating	**5% to 95%**	5% to 95%
Maximum altitude (unpressurized)		
Operating	**-15 m to 3,048 m**	-50 ft to 10,000 ft
Nonoperating	**-15 m to 12,192 m**	-50 ft to 40,000 ft

11 Electrostatic Discharge

Electrostatic discharge is the release of static electricity when two objects come into contact—for example, the shock you receive when you walk across the carpet and touch a metal door knob.

A discharge of static electricity from fingers or other electrostatic conductors may damage electronic components. To prevent damage to the tablet, damage to a drive, or loss of information, observe these precautions:

- If removal or installation instructions direct you to unplug the tablet, first be sure that it is properly grounded.
- Keep components in their electrostatic-safe containers until you are ready to install them.
- Avoid touching pins, leads, and circuitry. Handle electronic components as little as possible.
- Use nonmagnetic tools.
- Before handling components, discharge static electricity by touching an unpainted metal surface.
- If you remove a component, place it in an electrostatic-safe container.

Index

A
AC adapter, testing 15
antivirus software, using 21

B
backing up software and information 22
battery
  conserving power 14
  discharging 14
  factory-sealed 14
  finding information 14
battery information, finding 14
battery power 14
Bluetooth device 3, 4

C
caring for your tablet 18
cleaning your tablet 18
connecting to a WLAN 4
corporate WLAN connection 4
critical security updates, installing 22

D
Disk Cleanup software 17
DisplayPort
  connecting 7

E
electrostatic discharge 28
external AC power, using 15

F
firewall software 22

G
gestures
  using 9

H
HDMI port
  connecting 6
HDMI, configuring audio 7
headphones, connecting 5
headsets, connecting 6
Hibernation
  exiting 13
  initiating 13
high-definition devices, connecting 6, 7, 8
HP PC Hardware Diagnostics (UEFI)
  downloading 24
HP resources 1

I
initiating Sleep and Hibernation 12
input power 27
installing
  critical security updates 22
Internet security software, using 21

L
left-edge swipe touch screen gesture 11

M
maintenance
  Disk Cleanup 17
  updating programs and drivers 17
Miracast 8

O
one-finger slide touch screen gesture 11
operating environment 27

P
passwords
  Setup Utility (BIOS) 21
  Windows 20
ports
  HDMI 6, 7
  Miracast 8
power
  AC 15
  battery 14
public WLAN connection 4

R
recovery 26
refresh 26
right-edge swipe touch screen gesture 10

S
setting password protection on wakeup 13
Setup Utility (BIOS) passwords 21
shipping the tablet 19
shutdown 16
Sleep
  exiting 13
  initiating 13
Sleep and Hibernation
  initiating 12
software
  Disk Cleanup 17
software updates, installing 22
speakers
  connecting 5
Starting right 1

T
tap touch screen gesture 9
testing an AC adapter 15
top-edge swipe and bottom-edge swipe touch screen gesture 11
touch screen gesture, one-finger slide 11
touch screen gestures
  left-edge swipe 11
  right-edge swipe 10
  tap 9
  top-edge swipe and bottom-edge swipe 11
  two-finger click 10

two-finger pinch/zoom 10
two-finger scroll 9
traveling with the tablet 19
turning off the tablet 16
two-finger click touch screen gesture 10
two-finger pinch/zoom touch screen gesture 10
two-finger scroll touch screen gesture 9

U

unresponsive system 16
updating programs and drivers 17
using external AC power 15
using passwords 20

V

video 6

W

webcam
using 5
Windows
Refresh 26
Windows passwords 20
Wireless Assistant software 3
wireless controls
button 3
operating system 3
Wireless Assistant software 3
wireless light 3
wireless network (WLAN)
connecting 4
corporate WLAN connection 4
public WLAN connection 4
wireless network, securing 22