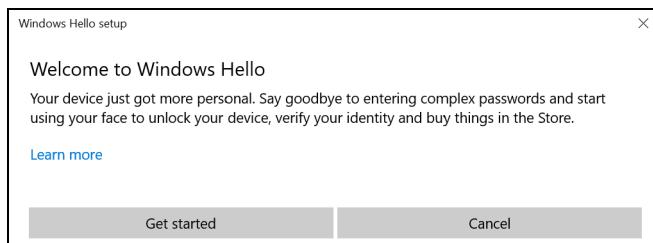
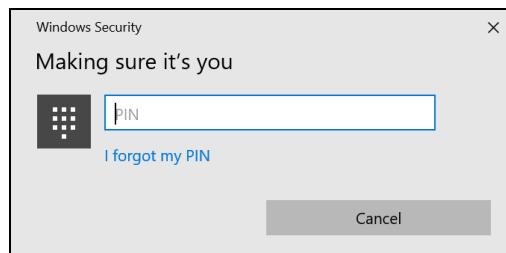


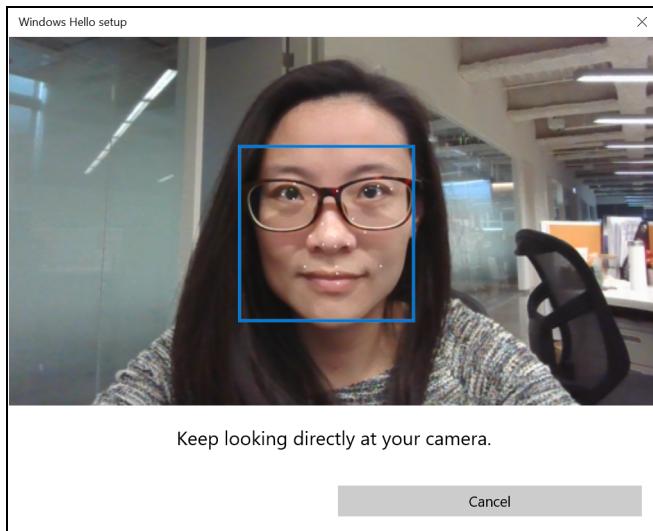
4. In the Windows Hello set up window, select **Get started** to begin the Face Recognition configuration.



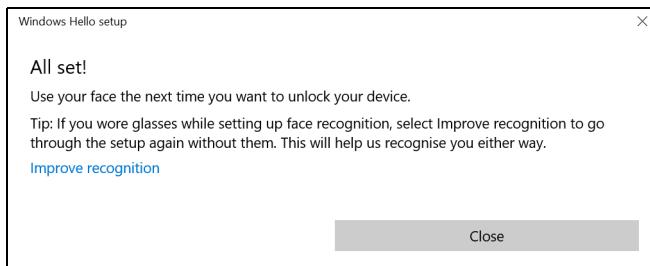
5. Enter your PIN to confirm your identity.



6. When the Windows Hello setup window appears, look directly at the camera and keep your face in the frame. Wait for the process to be complete.



7. Once the face recognition configuration is complete, you will be able to sign in or unlock your computer with your face.



Note

Please click Improve Recognition to improve the recognized images so that Windows Hello can recognize your face in different lighting and if your appearance changes, such as with or without glasses on.

BIOS UTILITY

The BIOS utility is a hardware configuration program built into your computer's BIOS.

Your computer is already properly configured and optimized, and you do not normally need to run this utility. However, if you encounter configuration problems, you may need to run it.

To activate the BIOS utility, press **F2** while the computer logo is being displayed.

Boot sequence

To set the boot sequence in the BIOS utility, activate the BIOS utility, then select **Boot** from the categories listed on the top of the screen.

Setting passwords

To set a password on boot, activate the BIOS utility, then select **Security** from the categories listed on the top of the screen.

Find **Set Supervisor Password** and enter a password to enable this feature. Once you have entered a password for this feature, you may then enable/disable **Password on Boot**.

Remember to select **F10** to properly save and exit the BIOS utility when you are done making changes.

POWER MANAGEMENT

This computer has a built-in power management unit that monitors system activity. System activity refers to any activity involving one or more of the following devices: keyboard, mouse, hard disk, peripherals connected to the computer, and video memory. If no activity is detected for a period of time, the computer stops some or all of these devices in order to conserve energy.

Saving power

Disable Fast startup

Your computer uses Fast startup to start quickly, but also uses a small amount of power to check for signals to start. These checks will slowly drain your computer's battery.

If you prefer to reduce your computer's power requirements and environmental impact, turn off Fast startup:



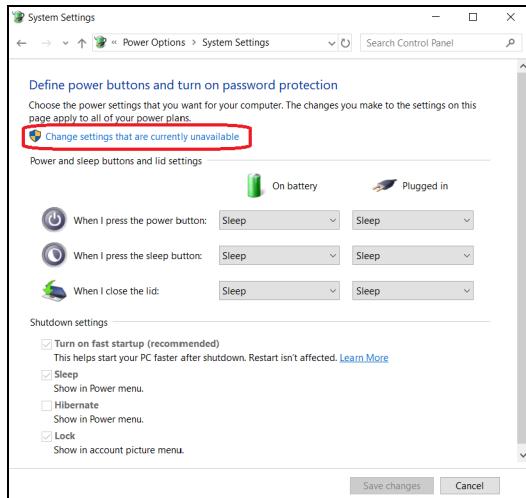
Note

If Fast startup is off, your computer will take longer to start from Sleep.

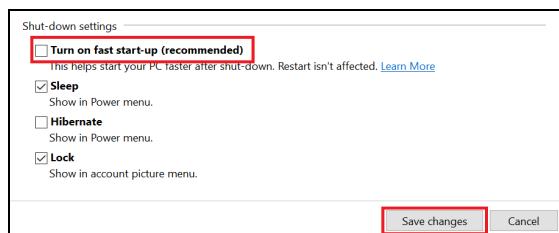
Your computer will also not start if it receives an instruction to start over a network (Wake on LAN).

1. Press the *Windows key* or select the *Windows Start button* then select **Settings > System > Power & sleep**.
2. Select **Additional power settings**.
3. Select **Choose what the power buttons do**.

4. Select **Change settings that are currently unavailable**.



5. Scroll down and disable **Turn on fast startup**.



6. Select **Save changes**.

BATTERY PACK

The computer uses an embedded Lithium battery that gives you long use between charges.

Battery characteristics

The battery is recharged whenever you connect the computer to the AC adapter. Your computer supports charge-in-use, enabling you to recharge the battery while you continue to operate the computer. However, recharging with the computer turned off significantly reduces charge time.

The battery will come in handy when you travel or during a power failure.

Charging the battery

Plug the AC adapter into the computer, and connect to a mains power outlet.



Note

You are advised to charge the battery before retiring for the day. Charging the battery overnight before traveling enables you to start the next day with a fully charged battery.

Conditioning a new battery pack

Before you use a battery pack for the first time, there is a conditioning process that you should follow:

1. Connect the AC adapter and fully charge the battery.
2. Turn on the computer and complete setting up the operating system.
3. Disconnect the AC adapter.
4. Operate the computer using battery power.
5. Fully deplete the battery until the battery-low warning appears.
6. Reconnect the AC adapter and fully charge the battery again.

Follow these steps again until the battery has been charged and discharged three times.

Use this conditioning process for all new batteries, or if a battery hasn't been used for a long time.



Warning

Do not expose battery packs to temperatures below 0° C (32° F) or above 45° C (113° F). Extreme temperatures may adversely affect the battery pack.

The battery conditioning process ensures your battery accepts the maximum possible charge. Failure to follow this procedure will prevent you from obtaining the maximum battery charge, and will also shorten the effective lifespan of the battery.

In addition, the useful lifespan of the battery is adversely affected by the following usage patterns:

- Using the computer on constant AC power.
- Not discharging and recharging the battery to its extremes, as described above.
- Frequent use; the more you use the battery, the faster it will reach the end of its effective life. An embedded battery has a life span of more than 1,000 charge/discharge cycles.

Optimizing battery life

Optimizing battery life helps you get the most out of battery operation, prolonging the charge/recharge cycle and improving recharging efficiency. You are advised to follow the suggestions set out below:

- Use AC power whenever possible, reserving battery for mobile use.
- Remove accessories that are not being used (e.g. a USB disk drive), as they can continue to draw power.
- Store your PC in a cool, dry place. The recommended temperature is 10° C (50° F) to 30° C (86° F). Higher temperatures cause the battery to self-discharge faster.
- Excessive recharging decreases the battery life.
- Look after your AC adapter and battery.

Checking the battery level

The power meter indicates the current battery level. Rest the cursor over the battery/power icon on the taskbar to see the battery's present charge level.

Battery-low warning

When using battery power pay attention to the power meter.



Important

Connect the AC adapter as soon as possible after the battery-low warning appears. Data may be lost if the battery is allowed to become fully depleted and the computer shuts down.

When the battery-low warning appears, the recommended course of action depends on your situation:

Situation	Recommended Action
The AC adapter and a power outlet are available.	1. Plug the AC adapter into the computer, and then connect to the main power supply. 2. Save all necessary files. 3. Resume work. Turn off the computer if you want to recharge the battery rapidly.
The AC adapter or a power outlet is unavailable.	1. Save all necessary files. 2. Close all applications. 3. Turn off the computer.

TRAVELING WITH YOUR COMPUTER

This section gives you tips and hints to consider when moving around or traveling with your computer.

Disconnecting from the desktop

Follow these steps to disconnect your computer from external accessories:

1. Save any open files.
2. Shut down the computer or put it into Sleep or Hibernate mode.
3. Close the display cover.
4. Disconnect the cord from the AC adapter.
5. Disconnect the keyboard, pointing device, printer, external monitor and other external devices.
6. Disconnect the Kensington / Noble lock if you are using one to secure the computer.

Moving around

When you are just moving within short distances, for example, from your office desk to a meeting room.

Preparing the computer

Before moving the computer, close and latch the display cover to place it in Sleep mode. You can now safely take the computer anywhere you go within the building. To wake the computer from Sleep mode, open the display and, if necessary, press and release the power button.

If you are taking the computer to a client's office or a different building, you may choose to shut down the computer:

Press the *Windows* key, click **Power** then select **Shut Down**

Or:

You can put the computer in Sleep mode by pressing the Sleep hotkey or by closing the display.

When you are ready to use the computer again, open the display and, if necessary, press and release the power button.



Note

The computer may enter Hibernation or Deep Sleep mode after being in Sleep mode for a period of time.

What to bring to meetings

If your meeting is relatively short, you probably do not need to bring anything with you other than your computer. If your meeting will be longer, or if your battery is not fully charged, you may want to bring the AC adapter with you to plug in your computer in the meeting room.

If the meeting room does not have an electrical outlet, reduce the drain on the battery by putting the computer in Sleep mode. Press the Sleep hotkey or close the display cover whenever you are not actively using the computer.

Taking the computer home

When you are moving from your office to your home or vice versa.

Preparing the computer

After disconnecting the computer from your desktop, follow these steps to prepare the computer for the trip home:

- Pack the computer in a protective case that can prevent the computer from sliding around and cushion it if it should fall.



Warning

Avoid packing items next to the top cover of the computer. Pressure against the top cover can damage the screen.

What to take with you

Unless you have some items at home, take the following items with you:

- AC adapter and power cord.
- The printed *Setup Guide*.

Special considerations

Follow these guidelines to protect your computer while traveling to and from work:

- Minimize the effects of temperature changes by keeping the computer with you.
- If you need to stop for an extended period of time and cannot carry the computer with you, leave the computer in the trunk of the car to avoid exposing the computer to excessive heat.
- Changes in temperature and humidity can cause condensation. Allow the computer to return to room temperature, and inspect the screen for condensation before turning on the computer. If the temperature change is greater than 10° C (18° F), allow the computer to come to room temperature slowly. If possible, leave the computer for 30 minutes in an environment with a temperature between outside and room temperature.

Setting up a home office

If you frequently work on your computer at home, you may want to purchase a second AC adapter for use at home. With a second AC adapter, you can avoid carrying the extra weight to and from home.

If you use your computer at home for significant periods of time, you might also want to add an external keyboard, monitor or mouse.

Traveling with the computer



Important

Check with your airline for any special requirements for travelling with Lithium batteries.

When you are moving within a larger distance, for instance, from your office building to a client's office building or traveling locally.

Preparing the computer

Prepare the computer as if you were taking it home. Make sure that the battery in the computer is charged. Airport security may require you to turn on your computer when carrying it into the gate area.

What to take with you

Take the following items with you:

- AC adapter
- Additional printer driver files if you plan to use another printer

Special considerations

In addition to the guidelines for taking the computer home, follow these guidelines to protect your computer while traveling:

- Always take the computer as carry-on luggage.
- If possible, have the computer inspected by hand. Airport security X-ray machines are safe, but do not put the computer through a metal detector.

Traveling internationally



Important

Check with your airline for any special requirements for travelling with Lithium batteries.

When you are moving from country to country.

Preparing the computer

Prepare the computer as you would normally prepare it for traveling.

What to bring with you

Bring the following items with you:

- AC adapter.
- Power cords that are appropriate for your destination(s).

- Additional printer driver files if you plan to use another printer.
- Proof of purchase, in case you need to show it to customs officials.
- International Travelers Warranty passport.

Special considerations

Follow the same special considerations as when traveling with the computer.

In addition, these tips are useful when traveling internationally:

- When traveling in another country, check that the local AC voltage and the AC adapter power cord specifications are compatible. If not, purchase a power cord that is compatible with the local AC voltage. Do not use converter kits sold for appliances to power the computer.
- If you are using the modem, check if the modem and connector are compatible with the telecommunications system of the country you are traveling in.

Ports and connectors...

In this section you will find:

- Information on the ports and connectors fitted to your computer

UNIVERSAL SERIAL BUS (USB)

The USB port is a high-speed port which allows you to connect USB peripherals, such as a mouse, an external keyboard, additional storage (external hard disks), or any other compatible device.



Note

Two USB standards are currently available on Acer computers: USB 2.0 (High-speed USB) and USB 3.2 Gen 1 (SuperSpeed USB). USB 2.0 ports on Acer computers have a black tongue in the port, while USB 3.2 Gen 1 ports have a blue tongue. For best performance, USB 3.2 Gen 1 devices should always be plugged into USB 3.2 Gen 1 ports. Consult your device's documentation to see which standard it supports.

You can also charge devices such as tablets, smartphones, or other devices through a USB port. Some USB 3.2 Gen 1 ports support charging devices when the computer is in Hibernate or turned off. Additionally, you can use a USB hub to connect multiple devices to a single USB port.



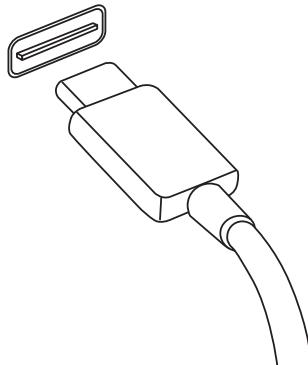
Important

When removing a USB storage device, you should right-click on the USB icon in the Windows task bar and select "Eject <device>" to tell the operating system to stop using the device before removing it. Failure to do this may result in data loss or damage to your peripheral.

USB TYPE-C PORT

A USB Type-C port is a connector that allows you to easily connect USB Type-C peripherals, such as additional storage (e.g. an external drive), or any other compatible device.

The Type-C port is reversable; connectors may be inserted with either side up.



Note

On Acer computers USB Type-C ports support up to USB 3.2 (SuperSpeed USB, 5 Gbps).

Other USB devices with a USB Type-C connector are supported, but transfer speed may be reduced and certain functions will be disabled (such as Thunderbolt video support).



Important

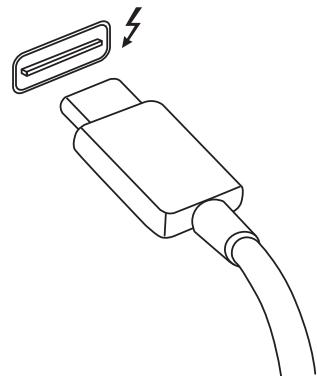
When removing a USB storage device, you should right-click on the USB icon in the Windows task bar and select "Eject <device>" to tell the operating system to stop using the device before removing it. Failure to do this may result in data loss or damage to your peripheral.

74 - USB Type-C port

THUNDERBOLT 4 PORT

A Thunderbolt 4 port allows you to easily connect devices with a Type-C connector to your computer, such as additional storage (e.g. an external drive), displays, or any other compatible device. Up to six devices, including displays, can be connected in series to a single Thunderbolt port.

The Thunderbolt connection uses a USB Type-C port and is compatible with Thunderbolt, USB, DisplayPort and power on USB-C devices. The Type-C port is reversible; connectors may be inserted with either side up.



Displays

Up to two 4K displays or an 8K display can be connected to a single Thunderbolt 4 port. If an adapter is used, DisplayPort or compatible devices, including HDMI, DVI or VGA, can be used.



Note

Thunderbolt 4 ports support transfer speeds up to 40 Gbps, and USB devices with a Type-C connector at lower speeds (typically up to 5 Gbps).

Other USB or older Thunderbolt devices with a USB Type-C connector (or adapter) are supported, but transfer speeds may be reduced and certain functions may be disabled (such as Thunderbolt display support).



Important

When removing a USB storage device, you should right-click on the USB icon in the Windows task bar and select "Eject <device>" to tell the operating system to stop using the device before removing it. Failure to do this may result in data loss or damage to your peripheral.

MICROSD CARD READER

MicroSD (Secure Digital) cards are used in a wide selection of digital cameras, tablets, media players and cellular phones.



Inserting an microSD card

1. Align the card so that the connector points towards the port, with the connectors facing down.
2. Carefully slide the card into the port. If you find you need to use any force to insert the card, try reorientating the card slightly.
3. Push the card until it clicks into place. A few millimetres of the card will extend from beyond the slot.

If the card contains some files, the *Windows AutoPlay* window may appear (this depends on the contents of the card) and ask you if you wish to use a program to access the contents of the card.



Important

When removing an microSD card, you should right-click on the USB icon in the Windows task bar and select "Eject <card name>" to tell the operating system to stop using the device before removing it. Failure to do this may result in data loss or damage to your peripheral.

SD, SDHC and SDXC cards

Different types of SD cards cover different capacities, while using the same overall design. SD cards contain up to 4 GB; SDHC cards contain up to 32 GB; and SDXC cards can contain up to 2048 GB (2 TB). Your computer provides an SDHC or SDXC compatible card reader.



Note

SDXC memory cards can only be used in an SDXC-compatible reader; SD and SDHC cards can be used in either type.

VIDEO AND AUDIO CONNECTORS

Add an external monitor to your computer via a video port. The type of port available depends on your computer's configuration.

Connecting a monitor

1. Check that the computer is powered off and the monitor power switch is turned off.
2. Attach the video cable to the monitor port on the computer.
3. Connect the monitor power cable and plug it into a properly grounded wall outlet.
4. Follow any setup instructions in the monitor's user's guide.
5. Turn on power to the monitor, then the computer.
6. The correct resolution and refresh rate should be detected automatically. If necessary, change the display settings used by the computer.



Note

*To access the display controls, right-click anywhere on the desktop and select **Display settings**.*

Headphones and microphone

One or more 3.5 mm jacks on your computer allow you to connect audio devices.

Use the headphone port to plug in stereo headphones or powered speakers; connecting an audio device to the headphone port disables the built-in speakers.

Use the microphone port to connect an external microphone; connecting a microphone disables the built-in microphone.



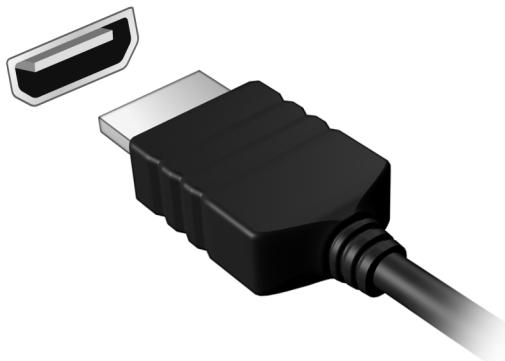
Note

Some computers have a single "combo" port that allows you to use single-pin headsets with a built-in microphone. These headsets are most commonly used with smartphones.

HDMI

HDMI (High-Definition Multimedia Interface) is a high-quality, digital audio/video interface. HDMI allows you to connect any compatible digital audio/video source, such as your computer, a set-top box, DVD player, and audio/video receiver to any compatible digital audio and/or video monitor, such as a digital television (DTV) with a single cable.

The single cable keeps everything neat and tidy while ensuring easy connection and the best audio and visual quality.



Got a question?

In this section you will find:

- Frequently asked questions
- Tips for using Windows 10
- Troubleshooting information
- How to protect yourself while online
- Where to find Acer service center contact information

FREQUENTLY ASKED QUESTIONS

The following is a list of possible situations that may arise during the use of your computer. Easy solutions are provided for each one.

I turned on the power, but the computer does not start or boot up.

Check if power is being supplied to the computer (if your computer has a power indicator, it will be off); if there is no power, check the following:

- If you are using on the battery, it may be low and unable to power the computer. Connect the AC adapter to recharge the battery pack. You may need to wait a few minutes before trying to turn your computer on again.
- Make sure that the AC adapter is properly plugged into the computer and to the power outlet.

If power is being supplied to the computer, check the following:

- Do you have a USB storage device (USB drive, CD drive or smartphone) plugged into your computer? Unplug it and press **Ctrl + Alt + Del** to restart the system.

Nothing appears on the screen.

The computer's power management system automatically blanks the screen to save power. Press any key to turn the display back on.

If pressing a key does not turn the display back on, three things might be the cause:

- The brightness level might be too low. Use the *Brightness up* hotkey to adjust the brightness level.
- The display device might be set to an external monitor. Press the display toggle hotkey to toggle the display back to the computer.
- The computer may be in Sleep or Hibernate mode (if there is a power LED, it will flash). Press and release the power button to resume.

No audio is heard from the computer.

Check the following:

- The volume may be muted. Look at the volume control (speaker)

icon in the taskbar. If it is crossed-out, click the icon and drag the slider to the right to increase the volume.

- The volume level may be too low. Check the volume from the volume control (speaker) icon in the taskbar. You can also use the volume control hotkeys to adjust the volume.
- If headphones, earphones or external speakers are connected to the headphone jack on the computer, the internal speakers automatically turn off.

The keyboard does not respond.

Try attaching an external keyboard to a USB port on the computer. If it works, contact your dealer or an authorized service center as the internal keyboard cable may be loose.

The printer does not work.

- Make sure that the printer is connected to a power outlet and that it is turned on.
- Make sure that the printer cable is connected securely to a USB port and the corresponding port on the printer.

I want to restore my computer to its original settings.



Note

If your system is the multilingual version, the operating system and language you choose when you first turn on the system will be the only option for future recovery operations.

This recovery process helps you restore the C: drive with the original software content that is installed when you purchased your computer.



Warning

Your C: drive will be reformatted and all data will be erased. It is important to back up all data files before using this option.

Before performing a restore operation, please check the BIOS settings.

1. If there is a **D2D Recovery** setting in **Main**, make sure it is **Enabled**.
2. Exit the BIOS utility and save changes. The system will reboot.



Note

*To access the BIOS utility, press **F2** when you see the Acer logo during boot up.*

For more information, [see Restoring your computer on page 28](#).

Requesting service

International Travelers Warranty (ITW)

Your computer is backed by an International Travelers Warranty (ITW) that gives you security and peace of mind when traveling. An ITW passport came with your computer and contains all you need to know about the ITW program. A list of available, authorized service centers is in this handy booklet. Read this passport thoroughly.

Always have your ITW passport on hand, especially when you travel, to receive the benefits from our support centers. Attach your proof-of-purchase to the ITW passport.

If the country you are traveling in does not have an Acer-authorized ITW service site, you can still get in contact with our offices worldwide. Please visit www.acer.com.

Before you call

Please have the following information available when you call Acer for online service, and please be at your computer when you call. With your support, we can reduce the amount of time a call takes and help solve your problems efficiently. If there are error messages or beeps reported by your computer, write them down as they appear on the screen (or the number and sequence in the case of beeps).

You are required to provide the following information:

Name:

Address:

Telephone number:

Machine and model type:

Serial number:

Date of purchase:

Tips and hints for using Windows 10

We know this is a new operating system that will take some getting used to, so we've created a few pointers to help you get started.

How do I get to *Start*?

Press the *Windows* key or select the *Windows Start button* on the lower left-hand corner of the screen. Selecting it will open *Start* where you can launch apps.

How do I see all of my apps?

Press the *Windows* key or select the *Windows Start button* to show a list of installed apps on the computer.

How do I turn off my computer?

Press the *Windows* key or select the *Windows Start button* and select the power icon > **Shut down**. You can also turn off the computer by right-clicking the *Windows Start button* > **Shut down or sign out** > **Shut down**.

Can I turn off notifications?

You can turn off notifications so that you can leave your computer running, but not be disturbed by notifications.

Press the *Windows* key or select the *Windows Start button* and select **Settings** > **System** > **Notifications & actions**. From here you can enable/disable notifications for all of your apps or choose which apps to enable/disable.

How do I unlock my computer?

Press the space bar and select a user account icon to unlock the computer. If your account has a password set, you will need to enter the password to continue.

Can I personalize the Lock screen?

You can personalize the lock screen with a different image, to run a slideshow of images, or to show you quick status and notifications to suit your personal needs.

To change the background, press the *Windows key* or select the *Windows Start button* and select **Settings > Personalization > Lock screen**. From here you can:

- Select a background image for the lock screen
- Turn the *Slideshow* on or off
- Select lock screen apps.

How do I set up the lock screen slideshow?

1. Press the *Windows key* or select the *Windows Start button* and select **Settings > Personalization**.
2. Under Lock screen, select *Slideshow*.
3. Select **Add a folder** and open the folder you wish to use (your *Pictures* folder will open by default). Select **Choose this folder** to add the folder to the lock screen slideshow.
4. Select a folder and select **Remove** to remove the folder from the lock screen slideshow.
5. Change the other settings to suit your needs.

How do I move tiles?

Select a tile and drag it to the place on *Start* that you want it to appear. Other tiles will be moved to accommodate the tile in its new location.

Can I arrange tiles in groups?

Yes, you can. Select an existing tile and drag the tile to arrange *Start* to your liking. Right-click on an app and select **Pin to Start** to create a new group on *Start*. From here, you can drag the tile to an existing group on *Start*. You can give the group(s) a name and arrange the tiles within the groups to suit your needs.

Can I make tiles bigger or smaller?

Yes, you can. Right-click on a tile and select **Resize**. Select a size from the menu that appears.

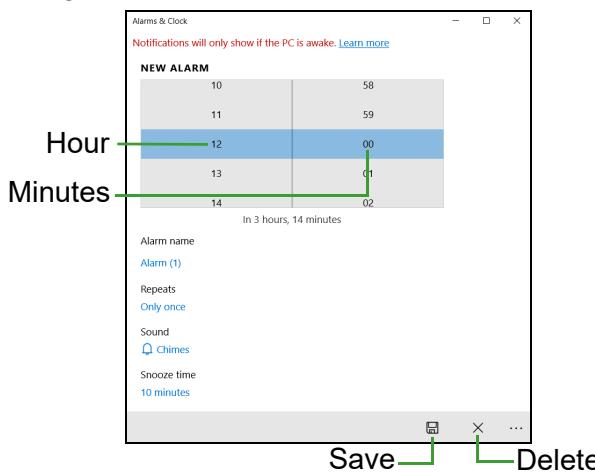
Can I change the screen resolution?

Yes, you can. Move your cursor to the lower left-hand corner of the screen and type 'Resolution' in the text box to display the results; select **Change the resolution of the display**. Alternatively, you can also right-click anywhere on the desktop and select **Display settings > Display**.

How do I set the alarm?

Your computer can act as an alarm clock. Type 'Alarms' to search for the *Alarms & Clock* app.

1. Select an alarm from the list, or select the + in the lower-right corner to create a new alarm.
2. Enter the *Alarm name*.
3. Set the time by choosing the hour and minute.
4. Choose which days the alarm should go off.
5. Select the sound notification.
6. Select the snooze time.
7. Select the **Save** icon in the bottom right-hand corner to save the alarm.
8. Select **On** or **Off** to activate or deactivate the alarm.



Note

The alarm will only sound if your computer is awake at the set time.

Where are my apps?

Move your cursor to the lower left-hand corner of the screen and click search box, start typing the name of the app you would like to open.

How do I make an app appear on Start?

If you're in all apps list and you want to make an app appear on *Start*, right-click an app and select **Pin to Start**.

How do I remove a tile from Start?

Right-click a tile to select it and select **Unpin from Start** to remove the tile from *Start*.

How do I make an app appear on my taskbar?

If you're in all apps list and you want to make an app appear on the taskbar, right-click an app or tile and select **More > Pin to taskbar**.

How do I install apps?

You will need to have a Microsoft ID to purchase and download apps from *Microsoft Store*.

I can't find apps like Notepad and Paint! Where are they?

Move your cursor to the lower left-hand corner of the screen and click search box. Type the name of the app you would like to open. Alternatively, open all apps list and scroll to 'Windows Accessories' to see the list of legacy programs.

What is a Microsoft ID (account)?

A Microsoft account is an email address and password that you use to sign in to Windows. You can use any email address, but it is best if you choose the one you already use to communicate with friends and sign in to your favorite websites. When you sign in to your PC with a Microsoft account, you'll connect your PC to the people, files, and devices you care about.

Do I need one?

You do not need a Microsoft ID to use Windows 10, but it makes life easier because you can sync data across different machines you sign in to using a Microsoft ID.

How do I get one?

If you've already installed Windows 10 and didn't sign in with a Microsoft account or you don't have a Microsoft account and want to get one, press the *Windows* key or select the *Windows Start button* > **Settings** > **Accounts** > **Sign in with a Microsoft account instead**, and follow the onscreen instructions.

How do I check for Windows updates?

Press the *Windows* key or select the *Windows Start button* > **Settings** > **Update & Security** > **Windows Update**. Select **Advanced options** to configure the settings.

Where can I get more information?

For more information please visit the following pages:

- Windows 10 information: www.microsoft.com
- Support FAQs: support.acer.com

Troubleshooting

This chapter shows you how to deal with common system problems. Read it before calling a technician if a problem occurs. Solutions to more serious problems require opening up the computer. Do not attempt to open the computer yourself; contact your dealer or authorized service center for assistance.

Troubleshooting tips

This computer incorporates an advanced design that delivers onscreen error message reports to help you solve problems.

If the system reports an error message or an error symptom occurs, see "Error messages" below. If the problem cannot be resolved, contact your dealer.

Error messages

If you receive an error message, note the message and take the corrective action. The following table lists the error messages in alphabetical order together with the recommended course of action.

Error messages	Corrective action
CMOS battery bad	Contact your dealer or an authorized service center.
CMOS checksum error	Contact your dealer or an authorized service center.
Disk boot failure	Insert a system (bootable) disk, then press Enter to reboot.
Equipment configuration error	Press F2 (during POST) to enter the BIOS utility, then press Exit in the BIOS utility to reboot.
Hard disk 0 error	Contact your dealer or an authorized service center.
Hard disk 0 extended type error	Contact your dealer or an authorized service center.

Error messages	Corrective action
I/O parity error	Contact your dealer or an authorized service center.
Keyboard error or no keyboard connected	Contact your dealer or an authorized service center.
Keyboard interface error	Contact your dealer or an authorized service center.
Memory size mismatch	Press F2 (during POST) to enter the BIOS utility, then press Exit in the BIOS utility to reboot.

If you still encounter problems after going through the corrective measures, please contact your dealer or an authorized service center for assistance.

INTERNET AND ONLINE SECURITY

First steps on the net

Protecting your computer

It is vital to protect your computer from viruses and attacks over the internet (see [Internet security software on page 94](#)).

A comprehensive internet security program is offered when you first start your computer. You should activate this protection as soon as possible, certainly before you connect to the internet.

Choose an Internet Service Provider



Using the internet has become a natural part of daily computing. Just a few simple steps can connect you to a vast collection of knowledge and communication tools. To accomplish these steps you should first select an *Internet Service Provider* (ISP), which supplies the connection between your computer and the internet. You should research the ISPs available in your region, not forgetting to talk to friends and family about their experiences or to check reviews and consumer reports. The ISP you select will provide instructions on how to connect to the internet (you may need additional software or a special 'box' that connects to your phone line).

Connection types

Depending on your computer model, your location and your communication needs, you have several ways to connect to the internet.

Dial-up

Some computers include a telephone dial-up ('modem') connector. This allows you to connect to the internet using your telephone line. With a dial-up connection, you cannot use the modem and the telephone simultaneously on a single phone line. This type of connection is recommended only if you have limited use of the

internet as the connection speed is low and connection time is typically charged per hour.

DSL (e.g. ADSL)

DSL (Digital Subscriber Line) is an 'always-on' connection that runs over the phone line. As DSL and phone do not use the same frequencies, you can use your telephone at the same time you are connected to the internet (this requires a 'micro-filter' on each telephone socket to avoid interference). To be eligible for DSL, you must be located near an DSL-equipped phone exchange (service is sometimes unavailable in rural areas). Connection speeds vary depending on your location, but DSL generally provides very fast and reliable internet connection. As the connection is always-on, it is generally charged at fixed monthly rates.



Note

A DSL connection requires an appropriate modem. A modem is usually provided by the ISP when you register. Many of these modems include an 'router' that provides network and Wi-Fi access.

Cable

A cable connection provides fast and always-on internet service via a cable television line. This service is generally available in large cities. You can use your telephone and watch cable TV at the same time you are connected to the internet.

Cellular

A cellular connection allows you to use cellular networks (such as those used by a mobile phone) to connect to the internet while away from home. The socket for a SIM card may be built in to your computer, or may require an external device, such as a USB modem or even an appropriately equipped mobile phone.



Note

If your computer includes a SIM card slot, you require a compatible SIM card and a contract with a cellular provider.

Before using the cellular features, check with your service provider to see if any additional charges will be incurred, especially roaming charges.

Network connections

A LAN (Local Area Network) is a group of computers (for example, within an office building or home) that share a common communications line and resources. When you set up a network, you can share files, peripheral devices (such as a printer) and an internet connection. You can set up a LAN using wired technologies (such as Ethernet) or wireless technologies (such as Wi-Fi or Bluetooth).

Wireless networks

A wireless LAN or WLAN is a wireless local area network, which may link two or more computers without using wires. Setting up a wireless network is easy and allows you to share files, peripheral devices and an internet connection.

What are benefits of a wireless network?

Mobility

Wireless LAN systems allow you and other users of your home network to share access to files and devices connected to the network, for example a printer or scanner.

Also you can share an internet connection with other computers in your home.

Installation speed and simplicity

Installing a wireless LAN system can be fast and easy and eliminates the need to pull cables through walls and ceilings.

Components of a wireless LAN

To set up your Wireless network at home you need to have the following:

Access point (router)

Access points (routers) are two-way transceivers that broadcast data into the surrounding environment. Access points act as a mediator between wired and wireless network. Most routers have a built-in DSL modem that will allow you access to a high speed DSL internet connection. The ISP (Internet Service Provider) you have chosen normally supplies a modem/router with the subscription to their

services. Read carefully the documentation supplied with your Access point/router for detailed setup instructions.

Network cable(RJ45)

A network cable (also called RJ45 cable) is used to connect the host computer to the access point (see illustration below); this type of cable may also be used to connect peripheral devices to the access point.

Wireless adapter

Most computers feature a wireless module and Wi-Fi button that turns the network connection on or off. You may also turn your wireless network on or off, or control what is shared over the network with the network management options.



Warning

Using wireless devices while flying in aircraft may be prohibited. Switch off all devices before boarding an aircraft; they may be dangerous to the operation of the aircraft, disrupt communications, and even be illegal. After take off, ask the cabin crew if you may enable Wi-Fi.

Surf the Net!

To surf the internet, you need a program called an internet browser. *Microsoft Edge* provides an easy and secure web browsing experience. As soon as you have your internet access installed and you are connected, from the Start Menu, click the Microsoft Edge tile or the icon located in the taskbar and take your internet experience to a new level!



Acer website

To get you started why not visit our website, **www.acer.com**.

Acer is dedicated to provide you with on-going personalized support. Check out our *Support* section to get help tailored to your needs.

www.acer.com is your portal to a world of online activities and services: visit us regularly for the latest information and downloads!

Internet security software

To help you stay ahead of cybercriminals, Acer has partnered with Norton to offer you security for all your devices.

Select Acer computers include protection by Norton Security

Norton Security is pre-installed on select Acer computers, protecting your identity and financial data from viruses, spyware, malware and other online threats. Learn more about how to stay safe online and how to stay protected after your introductory subscription ends.



Note

Specifications vary depending on model or Operating System.

Staying ahead of cybercriminals

Stay ahead of hackers and cybercriminals by understanding the tactics they use to access your private data.

Ensure your software is up to date

Cybercriminals rely heavily upon software or platform vulnerabilities, as they are the easiest way to sneak malware into a user's device unnoticed, sometimes with little action on the user's part. Immediately after a software manufacturer announces an update, hackers are ready with malware that can breach holes in the software that would have been patched if the update was installed.

How to stay safe: Perform any and all software updates as soon as they are available.

Keep a lookout for fake or phishing emails

Beware of emails that appear to be from a friend or business colleague that you know but seem a little odd. Maybe they didn't capitalize your name or there are misspellings. The email might be from cybercriminals who are trying to fool you into sending them your credit card number, social security number, or logging into a fake bank website that looks like yours but really isn't.

How to stay safe: Use a strong antispam filter. If an email looks strange, don't click on anything and delete it immediately. Instead manually launch a browser and type in your bank's website address and log-in yourself.

Don't be fooled if someone calls your phone

A tech support scam is a form of online fraud where people call you on the phone saying they're Technical Support from a trusted company like Norton or Microsoft and that you have a virus. The main motive behind these scams is to extort money from the victim. Cybercriminals can also install malware such as keylogging software or backdoor Trojans in order to gain access to personal information.

How to stay safe: Don't fall for phone calls that tell you your software or computer isn't working. Never give your personal information like social security or credit card numbers to someone that you don't know over the phone.

Common threats cybercriminals use

Now you know a few very common ways cybercriminals try to sneak onto your device or trick you into providing private information to them directly. Here are a few of the types of malware they like to deploy once they've got into a device and what to do if you're ever infected.

Ransomware

A form of malware that will encrypt personal data files on your computer and attached devices. Encryption converts files into another format, that can only be opened with a specific decryption key. Once the ransomware installs itself, it will display a warning message that the computer is now locked. The user is given a specific amount of money to pay as a "fine" and a timeframe in which to pay. Even if paid, the criminal might choose to not unencrypt the files anyway!

What to do if you're infected: Avoid getting infected in the first place by staying protected with internet security software like Norton Security. Also, perform regular backups of all your data either online or to a separate external hard drive that is *only attached* to your computer while performing the backup. Ransomware has been known to lock access to external hard drives attached to the computer.

If you are infected with ransomware, think twice before you pay the ransom. There is no guarantee the cybercriminal will unlock your files and you'll be funding them to prey upon another innocent victim.

Botnets

A botnet is a string of infected, connected computers coordinated together to perform a task. Botnets gain access to your machine through some piece of malicious coding. Once the software is downloaded, the botnet will now contact its master computer and let it know that everything is ready to go. Now your computer, phone, tablet, or IoT device is entirely under the control of the person who created the botnet. Most people who are infected with botnets aren't even aware that their computer's security has become compromised!

What to do if you're infected: If you're infected you probably don't realize it as bots are notoriously quiet. Your Internet Service Provider might send you a notification alerting you that they found a threat on your network and that you need to remove the bot. If you have a bot, use internet security software like Norton Security to scan all of your devices.

Viruses/Malware

"Virus" is the commonplace word for all malicious software programs for years now; however, a virus is just one type of malicious threat. A virus is classified as a self-replicating piece of malicious code that travels by inserting itself into files or programs.

What to do if you're infected: Take steps to avoid infection by staying protected with internet security software like Norton Security. If you subscribed to Norton Security and think you may have a virus, contact Norton's on-call technicians to help eliminate the virus.

Take special precautions when using public Wi-Fi

Public Wi-Fi is available just about everywhere, from the local coffee shop to the hotels and airports you visit while traveling. While public Wi-Fi has made our lives a little easier, it also poses security risks to the personal information available on our laptops and smartphones. A virtual private network (VPN) gives you online privacy and anonymity by creating a private network from a public internet connection. VPNs mask your internet protocol (IP) address so your online actions are virtually untraceable as well as secure. One of the biggest security risks on public Wi-Fi are man-in-the-middle attacks (MITM). These attacks are akin to eavesdropping. Data is sent from point A (computer) to point B (server/website), and an attacker can get in-

between these transmissions. They then set up tools programmed to "listen in" on transmissions, intercept data that is specifically targeted as valuable, and capture the data, such as your login credentials and passwords.

Use a virtual private network (VPN) to ensure your privacy and anonymity are protected when you use public Wi-Fi. VPN services can encrypt all the data that you send and receive while using a public Wi-Fi hotspot, securing your information from hackers and other users of the same connection.

For more tips on how to stay safe

Good security habits can reduce your exposure to online crime. By adopting a few basic behaviors, you can make big strides in reducing cybercrime risk:

- Protect your accounts with strong, unique passwords that use a combination of at least 10 uppercase and lowercase letters, symbols and numbers.
- Don't click on random links or open unsolicited messages and attachments-particularly from people you don't know.
- Don't access any personal information or social media accounts over unprotected Wi-Fi networks.
- Use security software on your devices to help protect yourself from the latest threats.

Protect your computer with Windows security tools

Windows provides a variety of protection applications.

Windows Updates

If you have an active internet connection, Windows can check for important updates for your computer and install them automatically. These updates include security patches and program updates that can improve your computing experience and help protect your computer against new viruses and attacks.

How do I know when my computer is at risk?

If the *Action Center* reports an alert, or if your computer behaves erratically, crashes unexpectedly or if some of your programs do not work correctly, your computer may be infected by malicious software.

However, do not blame every computer problem on a virus! If you suspect your computer is infected, the first thing to do is update, if you have not already done so, and run your antivirus and anti-spyware software.