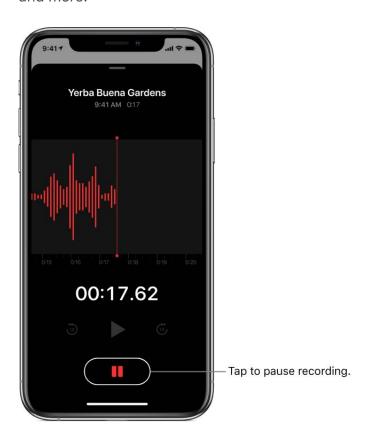
### Voice Memos

### Make a recording in Voice Memos on iPhone

With the Voice Memos app (located in the Utilities folder), you can use iPhone as a portable recording device to record personal notes, classroom lectures, musical ideas, and more. You can fine-tune your recordings with editing tools like trim, replace, and resume. Use Voice Memos with the built-in microphone, an iPhone or Bluetooth headset mic, or a supported external microphone. With Voice Memos in iCloud, you can capture audio anywhere with your device, then open it on your Mac to edit and share recordings, and more.



#### Make a basic recording

1. To begin recording, tap **(a)**, or press the center button on your headset.

To adjust the recording level, move the microphone closer to or farther from what you're recording. For better recording quality, the loudest level should be between –3 dB and 0 dB.

2. Tap • to finish recording.

Your recording is saved with the name Never Reprording or the name of your location, if Location Services is turned on in Settings > Privacy. To change the name, tap the recording, then tap the name and type a new one.

To fine-tune your recording, see Edit a recording in Voice Memos

#### Use the advanced recording features

You can make a recording in parts, pausing and resuming as you record.

1. To begin recording, tap **(a)**, or press the center button on your headset.

To adjust the recording level, move the microphone closer to or farther away from what you're recording. For better recording quality, the loudest level should be between –3 dB and 0 dB.

To see more details while you're recording, swipe up from the top of the waveform.

- 2. Tap to stop recording; tap Resume to continue.
- 3. To review your recording, tap ▶.

You can start listening from any point; to position the playhead, drag the waveform right or left.

4. To save the recording, tap Done.

Your recording is saved with the name New Recording or the name of your location, if Location Services is turned on in Settings ( > Privacy. To change the name, tap the recording, then tap the name and type a new one.

To fine-tune your recording, see Edit or delete a recording in Voice Memos.

#### Mute the start and stop tones

While recording, use the iPhone volume down button to turn the volume all the way down.

#### Use another app while recording

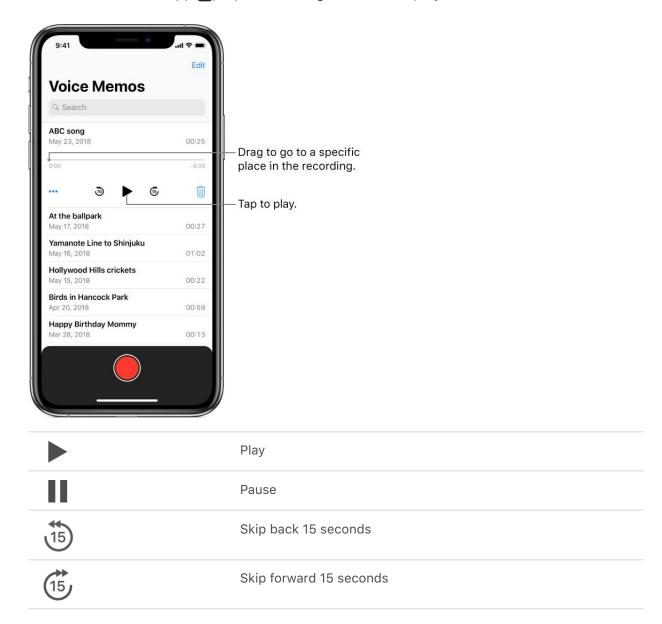
- 1. While recording, you can go to the Home screen and open another app.
- 2. To return to Voice Memos, tap the red bar at the top of the screen.

If Voice Memos is turned on in iCloud settings, your recording is saved in iCloud and shows up automatically on all your devices where you're signed in to iCloud with the same Apple ID.

Recordings using the built-in microphone and one, but you can record stereo using an external stereo microphone that works with iPhone. Look for accessories marked with the Apple "Made for iPhone" or "Works with iPhone" logo.

### Play a recording in Voice Memos on iPhone

In the Voice Memos app , tap a recording and use the playback controls to listen to it.



**Tip:** While the recording is open, you can tap its name to rename it.

### Edit or delete a recording in Voice Memos on iPhone

In the Voice Memos app , you can use the editing tools to fine-tune your recordings. You can remove parts you don't want, record over parts, or replace an entire recording. You can also delete a recording you no longer need.

#### Trim the excess

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- 1. In the Voice Memos list, tap the recording you want to edit, tap •••, then tap Edit Recording.
- 2. Tap \( \sqrt{a}\) at the top right, then drag the yellow trim handles to enclose the section you want to keep or delete.

To check your selection, tap ▶.

- 3. To keep the selection (and delete the rest of the recording), tap Trim, or to delete the selection, tap Delete.
- 4. Tap Save, then tap Done.

#### Replace a recording

- 1. In the Voice Memos list, tap the recording you want to replace, tap •••, then tap Edit Recording.
- 2. Drag the waveform to position the playhead where you want to start recording new audio.
- 3. Tap Replace or press the center button on your headset to begin recording (the waveform turns red while you're recording).

Tap **II** to pause; tap Resume to continue.

- 4. To check your recording, tap ▶.
- 5. Tap Done to save the changes.

#### Delete a recording

Do one of the following:

- In the Voice Memos list, tap a recording, then tap m.
- Tap Edit at the top of the Voice Memos list, select one or more recordings, then tap Delete.

Deleted recordings move to the Recently Deleted folder in the Voice Memos list, where they're kept for 30 days by default. To change how long deleted recordings are kept, go to Settings > Voice Memos > Clear Deleted, then select an option. To erase a recording in the Recently Deleted folder, swipe left on the recording, then tap Erase.

To recover a deleted recording, tap the Recently Deleted folder, tap the recording, then tap Recover. To recover or erase everything in the Recently Deleted folder, tap Edit above the Voice Memos list, then tap Recover All or Erase All.

### Search for or rename a recording of Voice Memos on iPhone

You can search for your recordings in the Voice Memos app **•**, and rename any recording.

#### Search for a recording

- 1. In the Voice Memos list, swipe down to reveal the search field.
- 2. Tap the search field, enter part or all of the recording name, then tap Search.

#### Rename a recording

A recording is initially saved with the name New Recording or the name of your location, if Location Services is turned on in Settings > Privacy.

To change the name, tap the recording, tap the name, then type a new one.

## Share and sync recordings in Voice Memos on iPhone

In the Voice Memos app , you can share individual recordings, save them in iCloud so they're available on your other devices, and sync them with your iTunes library on your computer.

#### Share a recording

- 1. In your Voice Memos list, tap a saved recording.
- 2. Tap •••.
- 3. Tap  $\hat{\Box}$ , then choose a sharing option, or save the recording to iCloud Drive.

#### **Use Voice Memos in iCloud**

Go to Settings (a) > [your name] > iCloud, then turn on Voice Memos.

With Voice Memos turned on in iCloud, your audio recordings are synced across all your devices where you're signed in to iCloud with the same Apple ID (they appear in your Voice Memos list). You can use your iOS device to capture audio, then use your Mac to edit your recordings, incorporate them in other media, share them, and so on.

#### Sync recordings with iTunes

If you choose not to sync your Voice Memos using iCloud, you can sync them to your computer using iTunes.

- 2. Open iTunes on your computer, then select your iPhone near the top-left corner.
- 3. Click Music in the sidebar.
- 4. Select Sync Music, make sure Include Voice Memos is selected, then click Sync.

Voice memos synced from iPhone to your computer appear in the Voice Memos list in iTunes. Voice memos synced from your computer appear in your Voice Memos app on iPhone, but not in the Music app.

### Duplicate a recording in Voice Memos on iPhone

In the Voice Memos app , you can duplicate a recording, which is useful when you need a different version of it. You can make changes to the duplicate, save it, and give it a new name.

In the Voice Memos list, tap a recording, tap •••, then tap Duplicate.

The copy appears right below the original version in the list and has "copy" added to its name. You can tap the name and type a new one.

## Wallet

#### About Wallet on iPhone

Use the Wallet app 
to keep cards and passes in one place for easy access:

- Cards for Apple Pay: (not available in all regions) Apple Pay Cash, credit, debit, store, transit, and prepaid cards
- Passes: Boarding passes, movie and event tickets, coupons, reward cards, student ID cards, and more



(The Apple Pay Cash card is available only in the U.S.)

## Set up Apple Pay in Wallet on iPhone

Using Apple Pay (on supported models) can be simpler than using a physical card, and safer too. With your cards stored in the Wallet app , you can use Apple Pay to make secure payments in stores, for transit, in apps, and on websites that support Apple Pay. In Messages, use Apple Pay to send and receive money from friends and family and to make purchases using Business Chat.

To set up Apple Pay, add your debit, credit, and prepaid cards to Wallet.

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(The Apple Pay Cash card is available only in the U.S.)

#### Add a credit or debit card

- 1. In Wallet, tap  $\oplus$ . You may be asked to sign in to iCloud with your Apple ID.
- 2. Do one of the following:
  - Add a new card: Position iPhone so that your card appears in the frame, or enter the card details manually.
  - Add your previous cards: Select the card associated with your Apple ID, cards you
    use with Apple Pay on your other devices, or cards that you've removed. Tap
    Continue, then enter the CVV number of each card.

Alternatively, you may be able to add your card from the app of the bank or card issuer.

The card issuer determines whether your card is eligible for Apple Pay, and may ask you for additional information to complete the verification process.

#### Set the default card and rearrange your cards

The first card you add to Wallet becomes your default card for payments. To set a different card as the default, move it to the front of the stack.

- 1. In Wallet, choose your default card.
- 2. Touch and hold the card, then drag it to the front of the stack.
- 3. To reposition another card, touch and hold it, then drag it to a new location.

*Note:* Apple Pay may not be available in all regions, and Apple Pay features may vary by region. For more information, see the Apple Support article Countries and regions that support Apple Pay.

## Make contactless payments using Apple Pay on iPhone

With your debit or credit cards stored in the Wallet app on iPhone, use Apple Pay for secure, contactless payments wherever you see one of these symbols:



In Japan, contactless payment terminals may also display the following symbols:







### Pay with your default card on iPhone X and later

- 1. Double-click the side button.
- 2. When your default card appears, glance at iPhone to authenticate with Face ID, or enter your passcode.
- 3. Position the top of iPhone within a few centimeters of the contactless reader until you see Done and a checkmark on the screen.



#### Pay with your default card on iPhone 8 applearlier

- 1. Rest your finger on Touch ID.
- 2. Position the top of iPhone within a few centimeters of the contactless reader until you see Done and a checkmark on the screen.

#### Pay with a different card instead of your default card

- 1. When your default card appears, tap it, then choose another card.
- 2. Authenticate with Face ID, Touch ID, or your passcode.
- 3. Position the top of iPhone within a few centimeters of the contactless reader until you see Done and a checkmark on the screen.

#### Use a rewards card

At participating stores, you can receive or redeem rewards when you use Apple Pay.

- 1. Add your rewards card to Wallet.
- 2. At the payment terminal in the store, present your rewards card by holding iPhone near the contactless reader.

Apple Pay then switches to your default payment card to pay for the purchase. In some stores, you can apply your rewards card and payment card in one step. In other stores, you need to wait until the terminal or cashier asks for payment.

To have your rewards card appear automatically when you're in the store, tap • on the card, then turn on Automatic Selection.

#### Pay for transit

You can pay for your ride with Apple Pay. (If you're using Express Transit, see Pay for your ride with Express Transit.)

- 1. Make sure your device is turned on (it doesn't need to be connected to a network).
- 2. As you approach a fare gate or board the bus, do one of the following:
  - *iPhone X and later:* Double-click the side button, then glance at iPhone to authenticate with Face ID or enter your passcode.
  - Other models: Double-click the Home button with your device on the Lock screen, then rest your finger on Touch ID.
- 3. Position the top of iPhone within a few centimeters of the contactless reader at the transit gate until you see Done and a checkmark on the screen.

#### **Pay for your ride with Express Transit**

With Express Transit (available in certain regions), you don't need to authenticate with Face ID, Touch ID, or your passcode, and you don't need to wake or unlock your device or open an app.

- 1. Set up Express Transit; see Apple Support articles Using Suica on iPhone or Apple Watch in Japan and Use Express Transit with Apple Pay in Beijing and Shanghai.
- 2. As you approach a fare gate or board the bus, make sure your device is turned on (it doesn't need to be connected to a network). On iPhone Xs and iPhone Xs Max, your Express Card may be available even when iPhone needs to be charged.
- 3. Position the top of iPhone within a few centimeters of the contactless reader at the transit gate until you see Done and a checkmark on the screen.

#### **Use Apple Pay at stores in Japan**

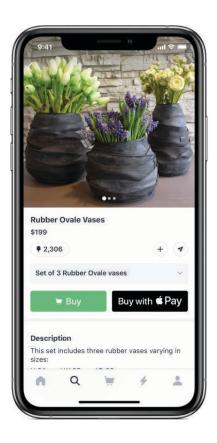
You need an iPhone model that supports Apple Pay in Japan and a card issued by a bank in Japan.

- 1. Tell the cashier what type of card you're using, as shown on the front of your card in Wallet.
- 2. Complete the payment.

*Note:* If you have Location Services turned on, the location of your iPhone at the time you make a payment may be sent to Apple and the card issuer to help prevent fraud. See Set which apps know your location on iPhone.

## Pay in apps or on the web using Apple Pay on iPhone

Use Apple Pay to make purchases in apps and on the web in Safari wherever you see the Apple Pay button.



#### Pay in an app or on the web

- 1. During checkout, tap the Apple Pay button.
- 2. Review the payment information.

You can change the credit card, shipping address, and contact information.

- 3. Complete the payment:
  - *iPhone X and later:* Double-click the side button, then glance at iPhone to authenticate with Face ID, or enter your passcode.
  - Other models: Authenticate with Touch ID or enter your passcode.

#### Shop in Safari on your Mac and pay on iPhone

Before you begin, do the following:

- Sign in to iCloud with the same Apple ID on both devices.
- Turn on Bluetooth on both devices.
- Ensure that iPhone is nearby and connected to a cellular or Wi-Fi network.

When you're ready to checkout, do the following:

1. On your Mac, begin checkout with the Apple Pay payment option.

2. Review the payment information.

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You can change the credit card, shipping address, and contact information.

3. On your iPhone, review the payment summary and complete the payment.

If you don't want to use Apple Pay on your iPhone to make payments on your Mac, go to Settings (a) > Wallet & Apple Pay, then turn off Allow Payments on Mac.

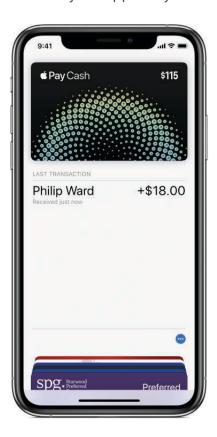
#### Change your default shipping and contact information

- 1. Go to Settings 

  > Wallet & Apple Pay.
- 2. Set any of the following:
  - Shipping address
  - Email
  - Phone

## Set up and manage Apple Pay Cash on iPhone (U.S. only)

When you receive money in Messages, it's added to your Apple Pay Cash card in Wallet. You can use Apple Pay Cash right away wherever you would use Apple Pay. You can also transfer your Apple Pay Cash balance to your bank account.



#### Set up Apple Pay Cash

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Do any of the following:

- Go to Settings (a) > Wallet & Apple Pay, then turn on Apple Pay Cash.
- In Messages, send or accept a payment. See Send and receive money with Apple Pay on iPhone (U.S. only).

#### **Use Apple Pay Cash**

You can use Apple Pay cash wherever you would use Apple Pay. For more information, see the following topics:

- Send and receive money with Apple Pay on iPhone (U.S. only)
- Make contactless payments using Apple Pay on iPhone
- Pay in apps or on the web using Apple Pay on iPhone

#### Manage your Apple Pay Cash

- 1. In Wallet, tap the Apple Pay Cash card.
- 2. Tap , then do any of the following:
  - Add money from a debit card in Wallet.
  - Transfer money from your Apple Pay Cash balance to your bank account.
  - Tap Transactions to view your history and details (including comments sent with payments), manually accept or reject individual payments, and request a statement.
  - Choose to manually or automatically accept all payments. You have 7 days to manually accept a payment before it's returned to the sender.
  - See your suggested PIN. Apple Pay Cash doesn't require a PIN because every
    payment is authenticated by Face ID (iPhone X and later), Touch ID (other
    models), or a secure passcode. However, some terminals may still require you to
    enter a four-digit code to complete the transaction.
  - Verify your identity for account servicing and to increase your transaction limits.
  - Contact Apple Support.

Apple Pay Cash and sending and receiving payments through Apple Pay are services provided by Green Dot Bank, member FDIC.

## Manage Apple Pay cards and activity on iPhone

In Wallet , manage the cards you use for Apple Pay and review your recent transactions.

#### View the information for a card and change its settings

1. In Wallet, tap the card.

*Note:* The last transaction may appear, showing an authorized amount that may differ from the amount of the payment charged to your account. For example, a gas station may request an authorization of \$99, even though you pumped only \$25 worth of gasoline. To see the final charges, see the statement from your card issuer, which includes all Apple Pay transactions.

- 2. Tap , then do any of the following:
  - Tap Transactions to view your recent history. To hide this information, turn off Transaction History. To view all your Apple Pay activity, see the statement from your card issuer.
  - View the last four digits of the card number and Device Account Number—the number transmitted to the merchant.
  - Change the billing address.
  - Remove the card from Wallet.

#### **Change your Apple Pay settings**

- 1. Go to Settings > Wallet & Apple Pay.
- 2. Choose options such as the following:
  - Double-Click Side Button: (iPhone X and later) Gets cards or passes ready from the Lock screen when you double-click the Side button.
  - Double-Click Home Button: (other models) Gets cards or passes ready from the Lock screen when you double-click the Home button.
  - Allow Payments on Mac: Allows iPhone to confirm payments on your nearby Mac.

#### Remove your cards from Apple Pay if your iPhone is lost or stolen

If you turned on Find My iPhone, use it to help locate and secure your iPhone.

To remove your cards from Apple Pay, do any of the following:

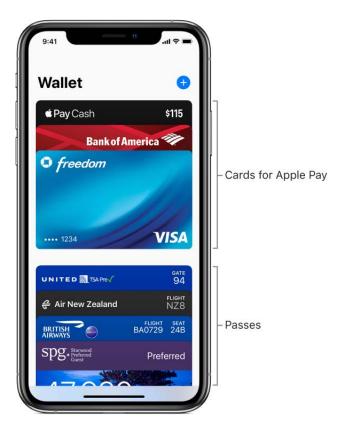
- On a Mac or PC: Sign in to your Apple | Draftcount. In the Devices section, click the lost iPhone. Below the list of cards, click Remove all.
- On an iOS device: Go to Settings ( > [your name], tap the lost iPhone, then tap Remove All Cards (below Apple Pay).
- Call the issuers of your cards.

If you remove cards, you can add them again later.

Note: If you sign out of iCloud in Settings > [your name], all your credit and debit cards for Apple Pay are removed from iPhone. You can add the cards again the next time you sign in to iCloud.

### Add and use passes in Wallet on iPhone

Use the Wallet app to keep boarding passes, movie and event tickets, coupons, reward cards, student ID cards, and more in one place for easy access. Passes can include useful information, such as the balance on your coffee card, a coupon's expiration date, or your seat number for a concert.



#### Add a pass

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You may be asked to add a pass within an app after you perform an action such as purchasing a ticket. Or, you can tap Add to Apple Wallet when you see it from the following:

- Wallet-enabled apps
- Mail or Messages
- Web browser such as Safari
- AirDrop sharing
- Wallet notification after you use Apple Pay at a supported merchant
- QR code or barcode

To scan the code, open the Camera app , then position iPhone so that the code appears on the screen.

#### Use a pass with a QR code or barcode

- 1. If a notification for a pass appears on the Lock screen, tap the notification; if there's no notification, open the Wallet app , then tap the pass.
- 2. Present the QR code or barcode to the reader.



#### Use your contactless student ID card Draft

On supported campuses, you can add your contactless student ID card to Wallet, and then use your iPhone to access locations where your student ID card is accepted like your dorm, the library, and campus events. You can even pay for laundry, snacks, and meals around campus.

- 1. Download the app that supports student ID cards for your school.
- 2. Open the app, sign in, then add your student ID card to Wallet.
- 3. To manage your card, tap the card in Wallet, tap , then do any of the following:
  - See your name and ID number.
  - View your account balance.
  - Contact the card issuer.
  - Turn on Express Mode to use your card without Face ID, Touch ID, or a passcode.
     On iPhone Xs and iPhone Xs Max, your Express Card may be available even when iPhone needs to be charged.
- 4. To present your student ID card at a reader, position the top of iPhone within a few centimeters of the reader until iPhone vibrates.

#### Use a contactless pass

With your pass in Wallet, you can use your iPhone to present your pass at a contactless reader.

- 1. If a notification for a pass appears on the Lock screen, tap the notification. If there's no notification, open the Wallet app , then tap the pass.
- 2. Position the top of iPhone within a few centimeters of the reader until iPhone vibrates.

To see the QR code or barcode (if available), tap ...

## Manage your passes in Wallet on iPhone

In the Wallet app , you can rearrange or delete passes, view pass information, and change the settings.

#### Rearrange your passes

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- 1. In the Wallet stack, touch and hold the pass you want to move.
- 2. Drag the pass to a new place in the stack.

The pass order is updated on all your devices where you're signed in to iCloud with the same Apple ID.

#### View the information for a pass and change its settings

- 1. Tap the pass, then tap ....
- 2. Choose any of the following (not all options are available on all passes):
  - Automatic Updates: Allows the pass to receive updates from the issuer.
  - Suggest on Lock Screen: Shows the pass based on time or location.

To allow location access, go to Settings (§) > Privacy > Location Services > Wallet, then tap While Using the App.

- Automatic Selection: Selects the pass where it's requested.
- Share Pass: Sends the pass to a friend using Mail, Messages, or AirDrop.
- Remove pass: Deletes the pass from all your devices where you're signed in to iCloud with the same Apple ID.
- 3. Scroll down to view other information such as the associated app, usage details, and terms and conditions.

#### Change the settings for all your passes

• Keep your passes up to date on all your iOS devices: Go to Settings , then sign in to iCloud with the same Apple ID on all your devices.

*Note:* This setting applies only to passes in Wallet, not to cards you use with Apple Pay.

- Set notification options: Go to Settings (a) > Notifications > Wallet.
- Prevent passes from appearing on the Lock screen: Go to Settings > Wallet & Apple Pay, then turn off Double-Click Side Button (iPhone X and later) or Double-Click Home Button (other models).

## Check the weather on iPhone

Use the Weather app on your iPhone to check the weather in your current location or in other cities. Weather uses Location Services to get the forecast for your current location. To turn on Location Services, go to Settings > Privacy > Location Services.

**Ask Siri.** Say something like: "What's the weather for today?" or "How windy is it out there?" Learn how to ask Siri.



#### Check the weather forecast and conditions

Open Weather to do any of the following:

- Check local weather conditions: The details for your current location are available when you open Weather.
- View the hourly forecast: Swipe the hourly display left or right.
- See more details including humidity, chance of rain, and air quality (not available in all regions): Scroll to the bottom of the screen.
- Check the weather in other cities: Swipe left or right on the screen, or tap :=.
- Switch between Fahrenheit and Celsius: Tap :≡, scroll to the bottom of the list, then tap °F or °C.

#### Add, delete, and rearrange cities in your weather list

1. Tap  $\equiv$  to see your weather list.



#### 2. Do any of the following:

- Add a city: Tap +, then enter the name of the city, zip code, or airport code.
- Delete a city: Swipe left on the city, then tap Delete.
- Rearrange the order of cities on your list: Touch and hold the city, then move it up or down.

#### Use iCloud to keep your list of cities up to date on all your devices

Go to Settings , then sign in to iCloud with the same Apple ID on all your devices. See Manage Apple ID and iCloud settings on iPhone.

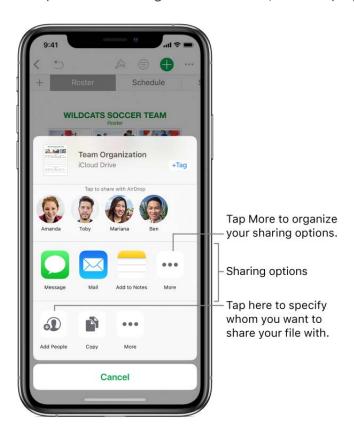
## Sharing

## Share documents from apps on iPhone

On iPhone, you can share a document from any app that supports sharing.

Share documents from an app (except Files). In many apps that support sharing, you can tap Share or ①, then choose how to share. Options vary by app and may include choices from apps you've downloaded. For example, if you download Pinterest, Pinterest becomes another option for sharing. For more information, see Install and manage app extensions on iPhone.

**Share documents from the Files app.** You can send a copy of any document in Files. Open Files on the Home screen, touch and hold the document, tap Share, then choose an option for sending the document (for example, Message, Mail, and so on).



Organize your sharing options. Tap More •••, then touch and drag ≡ to move items to new positions.

## Share files from iCloud Driveron iPhone

With iCloud Drive, you can store files in iCloud and access them from all your devices. Any changes you make appear on all your devices set up with iCloud Drive.

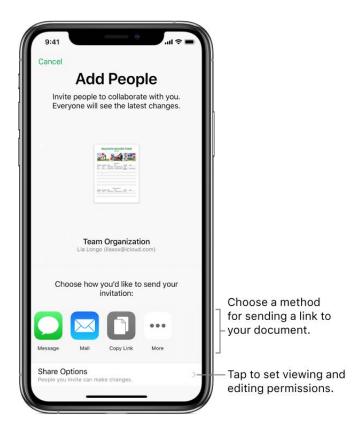
You can also invite others to view and edit a file in iCloud Drive. They can access your shared file by tapping a link you send—you don't need to send the file.

To use iCloud Drive, you must be signed in to iCloud using your Apple ID, and have iCloud Drive turned on.

**Turn on iCloud Drive.** Go to Settings (a) > [your name] > iCloud, then turn on iCloud Drive. See Use iCloud Drive on iPhone.

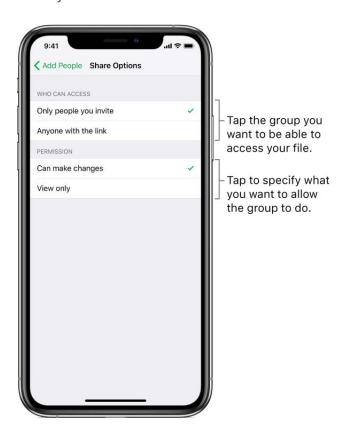
Invite others to view or edit a file. Tap Files ■, then tap Browse > iCloud Drive. Touch and hold a file in iCloud Drive, tap Share, tap ♠, then do one of the following:

• Send a link to the people you want to view and edit the file: Choose a method for sending a link to the file, enter any other requested information, then send or post the invitation. People need an Apple ID to open the file.



- Choose specific permission and access options: Tap Share Options, then select permission settings:
  - Who can open, view, and print the file, but not make changes—only people you
    invite or anyone with the link.

• Who can open, view, print, and maker than ges to the file—only people you invite or anyone with the link.



When you allow people to edit a file, it's updated with everyone's changes automatically.

*Note:* If you don't see ①, the file may be owned by someone else who shared it with you. Tap Show People to see the owner's name.

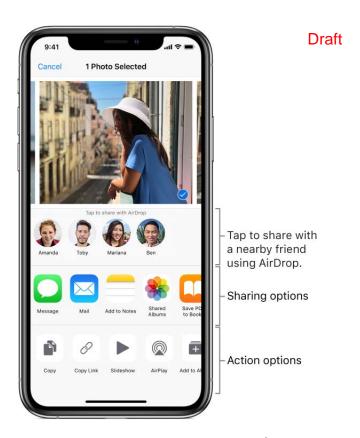
After you set the share options, tap Add People at the top left. Tap a method for sending a link to the file (Message or Mail, for example), enter any other requested information, then send or post the invitation. See Use iCloud Drive on iPhone.

**Important:** When you share a file in iCloud Drive, the link to it includes its filename. Therefore, if the document is confidential, be sure to ask recipients not to forward the link to anyone else.

## Share files using AirDrop on iPhone

With AirDrop you can wirelessly share your photos, videos, websites, locations, and more, with other nearby devices (iOS 7 or later). With iOS 8 or later, you can share with Mac computers with OS X 10.10 or later. AirDrop transfers information using Wi-Fi and Bluetooth—both must be turned on. To use AirDrop, you need to be signed in to iCloud using your Apple ID. Transfers are encrypted for security.

*Note:* You can also use AirDrop to securely share app and website passwords with another iOS device or a Mac. See Share website and app passwords on iPhone.



**Share an item using AirDrop.** Tap 🗓, then tap the name of a nearby AirDrop user.

Receive AirDrop items from others. Open Control Center, then tap (a) (if you don't see (a), tap and hold the top left group of controls, or, on models with 3D Touch, press the top left group of controls). Then choose to receive items from Contacts Only or from Everyone. You can accept or decline each request as it arrives.

For more information, see the Apple Support article How to use AirDrop with your iPhone, iPad, or iPod touch.

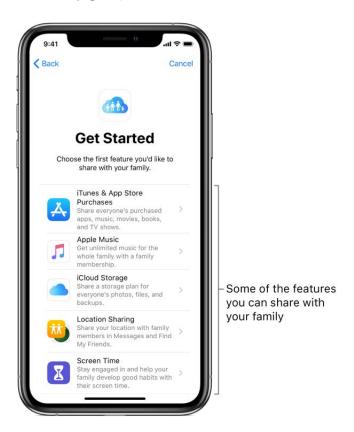
## Share purchases on iPhone with family members

With Family Sharing, up to six family members can share iTunes Store, App Store, and Apple Books purchases; an Apple Music family membership; an iCloud storage plan; Screen Time information; a family calendar; family photos; and more, all without sharing accounts. For more information, see the Apple Support article Family Sharing.

To use Family Sharing, one adult family member (the *organizer*) chooses features for the family to share and invites up to five additional family members to participate. When family members join, Family Sharing is set up on their devices automatically.

Family Sharing requires you to sign in to iCloud with your Apple ID, and to confirm the Apple ID you use for the iTunes Store, the App Store, and Apple Books (you usually use the same Apple ID for everything). Family Sharing is available on iOS devices with iOS 8 or later, Mac computers with OS X 10.10 or later, and PCs with iCloud for Windows 5 or later. You can be part of only one family group at a time.

Set up Family Sharing. Go to Settings Deptatur name] > Set Up Family Sharing, then follow the onscreen instructions. As the family organizer, you choose the features you want to share and invite family members to join. Depending on the features you choose, you may be asked to set up an Apple Music family membership or an iCloud Storage subscription. If you choose to share iTunes Store, App Store, and Apple Books purchases with your family members, you agree to pay for any purchases they initiate while part of the family group.



**Create an Apple ID for a child.** Go to Settings > [your name] > Family Sharing > Add Family Member, then tap Create a Child Account. This adds the child's account to your family until the child is at least 13 years old. For more information, see the Apple Support article Family Sharing and Apple ID for your child.

**Accept an invitation to Family Sharing.** Tap Accept in your invitation. Or, if you are near the organizer during the setup process, you can enter the Apple ID and password you use for iCloud on the organizer's device.

**Share purchases.** When your family shares iTunes Store, App Store, and Apple Books purchases, all items are billed directly to the family organizer's Apple ID. Once purchased, an item is added to the initiating family member's account and is shared with the rest of the family.

Access shared purchases from the iTunes Store. Open the iTunes Store, tap More, then tap Purchased. Choose a family member, tap a category (for example, Music or Movies), then tap a purchased item.

Access shared purchases from the App Stare. Open the App Store, then tap ①, or your profile picture, at the top right. Tap Purchased, choose a family member, then tap a purchased item.

Access shared purchases from Apple Books. Open the Books app, tap ①, or your profile picture, at the top right, then choose a family member.

Use a shared Apple Music family membership. If your family has an Apple Music family membership, you can simply open Apple Music and start listening. Each family member gets their own music library and personal recommendations. Make sure you're signed in with the Apple ID you entered in Family Sharing settings.

**Use a shared iCloud storage plan.** If your family is sharing an iCloud storage plan (200 GB or 2 TB), you can privately use as much storage as you need. You can also purchase or use your own storage plan if you need more space.

**Turn on Ask to Buy.** The family organizer can require young family members to request approval for purchases or free downloads. Go to Settings (a) > [your name] > Family Sharing, then tap the person's name.

*Note:* Age restrictions for Ask to Buy vary by region. In the United States, the family organizer can enable Ask to Buy for any family member under age 18; for children under age 13, it's enabled by default.

Hide your iTunes Store, App Store, and Apple Books purchases. To hide all your purchases from family members, go to Settings > [your name] > Family Sharing, then turn off Share My Purchases. On your computer, you can also hide specific purchases so they aren't available to other family members. For more information, see the Apple Support article Hide and unhide apps for your iPhone, iPad, iPod touch, or Mac.

Share photos or videos with family members. When you set up Family Sharing, a shared album called *Family* is automatically created in the Photos app on all family members' devices. To share a photo or video with family members, open the Photos app, then view a photo or video or select multiple photos or videos. Tap ①, tap Shared Albums, add comments, then share to your shared family album. Members can unsubscribe from the family album, and the family organizer can delete it. See Share photos from your iPhone with Shared Albums in iCloud.

Add an event to the family calendar. When you set up Family Sharing, a shared calendar called *Family* is automatically created in the Calendar app on all family members' devices. To add a family event, open the Calendar app, create an event, then add the event to the family calendar. Members can unsubscribe from the family calendar, and the family organizer can delete it. See Share iCloud calendars on iPhone.

**Set up a family reminder.** When you set up family Sharing, a shared list is automatically created in the Reminders app on all family members' devices. To add a reminder to the family list, open the Reminders app, tap the family list, then add a reminder to the list. Members can unsubscribe from the family reminder list, and the family organizer can delete it. See Make a reminder list on iPhone.

Share your location with family members. Go to Settings > [your name] > iCloud > Share My Location. To find a family member's location, use the Find My Friends app. You can also send or share your location using the Messages app (iOS 8 or later). For more information about using Messages to share your location, see Send and receive text messages on iPhone.

**Set up Screen Time.** You can share Screen Time with your family members so that everyone can see how they're using their devices, and use that information to set allowances and limits for app use. Go to Settings (a) > [your name] > Family Sharing > Screen Time. You can invite family members to join and have them enter their Apple IDs to begin the process. You can also set up Screen Time for a child or other family member. For information on creating a child account for Family Sharing, see the Apple Support article Family Sharing and Apple ID for your child.

*Note:* You can also set up Screen Time for individual family members on their own devices. For more information on Screen Time, see Set screen time, allowances, and limits on iPhone.

**Keep track of your family's devices.** If family members enabled Share My Location in iCloud, you can help them locate missing devices. Open Find iPhone on your device or at iCloud.com. For more information, see Use the Find My iPhone app to locate your device.

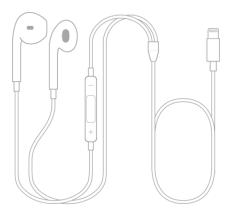
**Leave Family Sharing.** Go to Settings > [your name] > Family Sharing > [your name], then tap Leave Family Sharing. If you're the organizer, tap Stop Family Sharing. For more information, see the Apple Support article Leave Family Sharing.

## Use iPhone with other devices

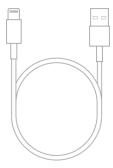
## Accessories included with iPhone

The following accessories are included with iPhone:

**EarPods with Lightning Connector (iPhone 7 and later).** Use the headset to listen to music and videos, and make phone calls. See Use Apple EarPods.



**Lightning to USB Cable.** Use the cable to connect iPhone to the USB power adapter or to your computer.



**Apple USB power adapter.** Use the adapter with the Lightning to USB Cable to charge the iPhone battery. The size of the adapter depends on your iPhone model and region.



**SIM eject tool.** (not included in all regions) Use the tool to eject the SIM card tray. See Install or switch the SIM card in your iPhone.



## Connect Bluetooth devices to iPhone

**WARNING:** For important information about avoiding hearing loss and avoiding distractions that could lead to dangerous situations, see Important safety information for iPhone.

You can use Bluetooth devices such as wireless headphones, speakers, car kits, and more with iPhone.

*Note:* The use of certain accessories with iPhone may affect wireless performance. Not all iOS accessories are fully compatible with iPhone. Turning on airplane mode may eliminate audio interference between iPhone and an accessory. Reorienting or relocating iPhone and the connected accessory may improve wireless performance.

#### Turn Bluetooth on or off

On iPhone, go to Settings 
 (a), then tap Bluetooth.

To quickly disconnect from Bluetooth devices without turning Bluetooth off, open Control Center, then tap \$\mathbb{X}\$.

#### Pair a Bluetooth device

- 1. Follow the instructions that came with the device to put it in discovery mode.
- 2. On iPhone, go to Settings , then tap Bluetooth.
- 3. Tap the device in the Devices list to connect.

iPhone must be within about 33 feet (10 meters) of the Bluetooth device.

If you have AirPods and you set them up with one iOS device or Mac computer, they are automatically set up with your other devices where you're signed in using the same Apple ID (iOS 10, macOS Sierra, watchOS 3, or later required). For more information about setting up AirPods, go to the AirPods Support website.

#### Bypass your Bluetooth device for phone calls

To use the iPhone receiver or speaker for calls, do any of the following:

- Answer a call by tapping the iPhone screen.
- During a call, tap Audio, then choose iPhone or Speaker Phone.
- Turn off the Bluetooth device, unpair it, or move out of range.
- Go to Settings 
   (a), tap Bluetooth, then turn off Bluetooth.

#### Unpair a device

#### Draft

- 1. Go to Settings (a), then tap Bluetooth.
- 2. Tap (i) next to the device, then tap Forget This Device.

If you don't see the Devices list, make sure Bluetooth is on.

If you have AirPods and you tap Forget This Device, they are automatically removed from other devices that are set up through your iCloud account.

### Stream audio and video to other devices from iPhone

Stream content from iPhone to AirPlay-enabled or Bluetooth devices, or mirror your iPhone screen. (Apple TV, AirPlay-enabled devices, and Bluetooth devices are available separately.)

# Stream audio to Apple TV, AirPlay-enabled devices, or a connected Bluetooth device

- 1. On your iPhone, open an audio app such as Music.
- 2. Tap , then choose a playback destination, such as one or more HomePod speakers, Apple TV, or wireless headphones.

While audio is playing, you can change the playback destination from the Lock screen or Control Center.



*Note:* If your AirPlay-enabled devices don't appear as a playback destination, make sure everything is on the same Wi-Fi network.

With a Bluetooth device, the playback destination returns to iPhone if the device moves out of range.

#### Stream photos and video to an Apple TV using AirPlay

- Stream photos: In Photos ●, tap ↑, tap AirPlay, then choose your Apple TV as the playback destination.
- Stream video: In TV or Videos , tap , then choose your Apple TV as the playback destination.

If an AirPlay passcode appears on the TV screen, enter the passcode on your iPhone.

#### Mirror your iPhone screen on an Apple TV

- 1. Open Control Center.
- 2. Tap  $\square$ , then choose your Apple TV as the playback destination.

If an AirPlay passcode appears on the TV screen, enter the passcode on your iPhone.

To switch back to iPhone, tap  $\square$  or  $\square$ , then choose your iPhone.



You can also connect iPhone to a TV, projector, or other external display using the appropriate Apple cable or adapter. For more information, see the Apple Support article About Apple Digital AV Adapters for iPhone, iPad, and iPod touch.

## Control audio on multiple devices with iPhone

With AirPlay 2 and iPhone, you can play audio on multiple AirPlay 2-enabled devices connected to the same Wi-Fi network. For example, you can play a party playlist on HomePod speakers in the living room and kitchen and on an Apple TV in the bedroom.

#### Play audio on multiple AirPlay 2-enabled devices from an app

- 1. In an audio app such as Music or Podcasts, tap Now Playing at the bottom of the screen.
- 2. Tap @, then select each device you want to use.

# Play audio on multiple AirPlay 2-enabled devices from Control Center or the Lock screen

- 1. From Control Center or the Lock screen, press Now Playing (touch and hold it on models without 3D Touch).
- 2. Tap Q, then select each device you want to use.

Note: Devices arranged in a stereo pair are transfed as a single audio device.



## Print from iPhone

Use AirPrint to print wirelessly to an AirPrint-enabled printer from apps such as Mail, Photos, and Safari. Many apps available on the App Store also support AirPrint.

iPhone and the printer must be on the same Wi-Fi network. See the Apple Support article About AirPrint.

#### **Print a document**

Tap ← or 
 (depending on the app you're using), then tap Print.

#### See the status of a print job

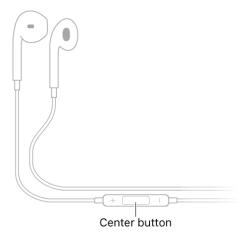
• Open the App Switcher, then tap Print Center.

The badge on the icon shows how many documents are in the queue.

To cancel a print job, select it in Print Center, then tap Cancel Printing.

The EarPods that come with your iPhone feature a microphone, volume buttons, and the center button.

Use the center button to answer and end calls, control audio and video playback, and use Siri, even when iPhone is locked.



#### Control audio with your EarPods

- Pause a song or video: Press the center button. Press again to resume playback.
- *Skip to the next song:* Press the center button twice quickly.
- Return to the previous song: Press the center button three times quickly. (Works only while audio is playing.)
- Fast-forward: Press the center button twice quickly and hold.
- Rewind: Press the center button three times quickly and hold.

#### Manage calls using your EarPods

- Answer an incoming call: Press the center button.
- End the current call: Press the center button.
- Decline an incoming call: Press and hold the center button until two low beeps confirm you declined the call.
- Switch to an incoming or on-hold call, and put the current call on hold: Press the center button. Press again to switch back to the first call.
- Switch to an incoming or on-hold call, and end the current call: Press and hold the center button until two low beeps confirm you ended the first call.

#### Activate Siri from your EarPods

• Ask Siri: Press and hold the center buttonemntil you hear a beep. Let go, then make your request.

## Pair iPhone with Apple Watch

On your iPhone, tap the Apple Watch app (1), then follow the onscreen instructions.

## Use an Apple Wireless Keyboard

You can use an Apple Wireless Keyboard (available separately) to enter text on iPhone. The keyboard connects via Bluetooth, so you must first pair it with iPhone.

*Note:* The Apple Wireless Keyboard may not support keyboard features that are on your device. For example, you can't enable dictation with Apple Wireless Keyboard.

#### Pair an Apple Wireless Keyboard with iPhone

- 1. Turn the keyboard on.
- 2. On iPhone, go to Settings (a), tap Bluetooth, then turn on Bluetooth.
- 3. Tap the keyboard when it appears in the Devices list.

Once it's paired, the keyboard reconnects to iPhone whenever it's in range—up to about 33 feet (10 meters). When it's connected, the onscreen keyboard doesn't appear.

#### **Turn off the Apple Wireless Keyboard**

To save batteries, turn off the wireless keyboard when not in use.

Press and hold the keyboard's On/Off switch until the green light goes off.

## Use wireless charging devices with iPhone

With supported models, you can wirelessly charge the battery by placing iPhone face up on a Qi-certified charger. For more information, see the Apple Support article How to wirelessly charge your iPhone.

### Use Handoff with iPhone Draft

Continue working on one device where you left off on another. You can use Handoff with many Apple apps—for example, Mail, Safari, Pages, Numbers, Keynote, Maps, Messages, Reminders, Calendar, and Contacts—and even some third-party apps. To use Handoff, you must be signed in to iCloud using the same Apple ID on all your devices. Your devices must have Bluetooth on and be within Bluetooth range of one another (about 33 feet or 10 meters).

#### **Switch devices**

- From Mac to iPhone: Open the App Switcher on iPhone. The icon of the app you're using appears at the bottom of the screen. Tap the icon to continue working in the app.
- From iPhone to Mac: The icon of the app you're using appears on your Mac at the left end of the Dock (or the top, depending on the Dock position). Click the icon to continue working in the app.

#### **Disable Handoff on your devices**

- iOS devices: Go to Settings ®, then tap General > Handoff.
- Mac: Choose Apple Menu > System Preferences > General, then turn off "Allow Handoff between this Mac and your iCloud devices."

# Use Universal Clipboard on iPhone

Cut or copy content (a block of text or an image, for example) on your iPhone, then paste it on another iOS device or Mac computer, and vice versa.

For Universal Clipboard to work, you must be signed in to iCloud using the same Apple ID on all your devices. Your devices must be connected to Wi-Fi, be within Bluetooth range of one another (about 33 feet or 10 meters), have Bluetooth on, and have Handoff enabled. Universal Clipboard requires iOS 10 and macOS Sierra.

You must cut, copy, and paste your content within a short period of time.

#### Copy, cut, or paste

#### Draft

- 1. To cut or copy text, touch and hold a word or image to display the selection options, then choose Copy or Cut.
- 2. To paste the text, double-tap to place an insertion point and display the selection options, then choose Paste.

For more information about selecting text or placing the insertion point, see Type and edit text on iPhone.

### Make and receive Wi-Fi calls on other devices

Wi-Fi calling lets you make and receive calls on your iPad, iPod touch, or Mac by relaying calls through your iPhone. To make calls this way, you need iOS 9 or later and OS X 10.10 or later. You must be signed in to iCloud and FaceTime on all your devices using the same Apple ID as on iPhone.

*Note:* Wi-Fi calling on other devices is available with some carriers, and cellular charges may apply.

You must first set up your iPhone, then your other devices. If you log out of iCloud or FaceTime on iPhone, Wi-Fi calling is disabled.

#### Turn on Wi-Fi calls on your iPhone

- 1. Go to Settings (a), then tap Cellular > Wi-Fi Calling.
- 2. Turn on Wi-Fi Calling on This iPhone.

#### Allow Wi-Fi calls on your other devices

- 1. Go to Settings , then tap Cellular > Call on Other Devices.
- 2. Turn on Allow Calls on Other Devices, then select the devices.

#### Turn on Wi-Fi Calling on your iPad or iPod touch

- 1. Go to Settings (a), then tap FaceTime.
- 2. Turn on FaceTime, then turn on Calls from iPhone.

*Note:* If you enable Wi-Fi Calling, emergency calls may be made over Wi-Fi, and your device's location information may be used for emergency calls to aid response efforts, regardless of whether you enable Location Services. Some carriers may use the address you registered with the carrier when signing up for Wi-Fi Calling as your location.

#### Make a phone call on your iPad or iPod tough

• Tap a phone number in Contacts, Calendar, FaceTime, Messages, or Safari.

#### Receive a call on your iPad or iPod touch

• Swipe the notification to answer, ignore, or respond with a quick message.

For more information about Wi-Fi calls, see the Apple Support article Make a call with Wi-Fi Calling.

# Use iPhone as a Wi-Fi hotspot

#### **Use Instant Hotspot**

You can use Instant Hotspot to provide Internet access to your other iOS devices (iOS 8 or later) and Mac computers (OS X 10.10 or later) where you're signed in to iCloud with the same Apple ID. Instant Hotspot uses your iPhone Personal Hotspot, without you having to enter a password or even turn on Personal Hotspot.

- 1. Go to Settings (a), then tap Wi-Fi on your other iOS device.
- 2. Under Personal Hotspots, choose your iPhone network.

On your Mac, go to System Preferences > Network, then choose your iPhone network from your Wi-Fi settings.

When you're not using the hotspot, your devices disconnect to save battery life. For more information, see Share your iPhone Internet connection.

*Note:* This feature may not be available with all carriers. Additional fees may apply. Contact your carrier for more information.

# Share your iPhone Internet connection

Use Personal Hotspot to share your iPhone Internet connection. Computers can share your Internet connection using Wi-Fi, Bluetooth, or a USB cable. Other iOS devices can share the connection using Wi-Fi. Personal Hotspot works only if iPhone is connected to the Internet over the cellular data network.

*Note:* This feature may not be available with all carriers. Additional fees may apply. Contact your carrier for more information.

#### **Share an Internet connection**

Draft

Go to Settings (a), tap Cellular, then tap Personal Hotspot—if it appears—to set up the service with your carrier.

After you turn on Personal Hotspot, other devices can connect in the following ways:

- Wi-Fi: On the device, choose your iPhone from the list of available Wi-Fi networks.
- USB: Connect iPhone to your computer using the cable that came with it. In your computer's Network preferences, choose iPhone, then configure the network settings.
- Bluetooth: On iPhone, go to Settings , tap Bluetooth, then turn on Bluetooth.

To pair and connect iPhone with your Bluetooth device, refer to the documentation that came with your device.

*Note:* When a device is connected, a blue band appears at the top of the iPhone screen. The Personal Hotspot icon appears in the status bar of iOS devices using Personal Hotspot.

#### Change the Wi-Fi password for iPhone

- 1. Go to Settings (a), then tap Personal Hotspot > Wi-Fi Password.
- 2. Enter a password of at least eight characters.

#### Change the name of your Personal Hotspot

You can change the name of your Personal Hotspot by changing the name of your iPhone.

Go to Settings 
 (a), then tap General > About > Name.

#### Monitor your cellular data network usage

• Go to Settings (a), then tap Cellular. See View or change cellular settings on iPhone.

### Transfer files to iPhone with iTunes

You can transfer files between iPhone and your computer or other iOS devices with Files, AirDrop, email attachments, or by connecting iPhone to your computer and using iTunes.

1. Connect iPhone to your computer using the included cable.

- 2. In iTunes on your computer, select iPhone then click File Sharing.
- 3. Use the File Sharing section to transfer documents between iPhone and your computer.

Apps that support file sharing appear in the File Sharing Apps list in iTunes. To delete a file, select it in the Documents list on your computer, then press the Delete key. For more information, see the Apple Support article About File Sharing on iPhone, iPad, and iPod touch.

# CarPlay

### About CarPlay and iPhone

So you can stay focused on the road, CarPlay takes the things you want to do with your iPhone while driving and puts them on your car's built-in display. Connect your iPhone to get turn-by-turn directions, make phone calls, exchange text messages, listen to music, and more. CarPlay uses the contacts on your iPhone to help you make calls, send texts, and find destinations.

*Note:* CarPlay is available only in certain regions (go to the iOS Feature Availability website). Siri must be enabled on your iPhone (see Set up Siri).

CarPlay is available on select automobiles (go to the CarPlay available models website) and on select aftermarket navigation systems.

**WARNING:** For important information about avoiding distractions that could lead to dangerous situations, see Important safety information for iPhone.

### Connect iPhone to CarPlay

Set up CarPlay by connecting your iPhone and your car using your car's USB port or its wireless capability.

#### **Connect using USB**

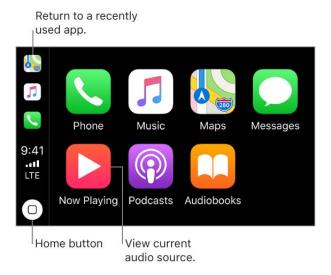
Connect iPhone to your car's USB port using an Apple-approved Lightning to USB cable.

The USB port may be labeled with the CarPlay logo or an image of a smartphone.

#### **Connect wirelessly**

- 1. On a car that supports wireless CarPlay, do one of the following (see your owner's guide for detailed instructions):
  - Press and hold the voice command button on your steering wheel.
  - Make sure your car is in wireless or Bluetooth pairing mode.
- 2. On your iPhone, go to Settings (a) > General > CarPlay > Available Cars.
- 3. Choose your car.

On some car models, the CarPlay Home some automatically when you connect iPhone.



If the CarPlay Home screen doesn't appear, select the CarPlay logo on your car's display.



### Control CarPlay with Siri or your car's built-in controls

CarPlay uses Siri voice control, so you can ask for what you want. CarPlay also works with your car's built-in controls—for example, a touchscreen, a rotary knob, or a touchpad. To learn how to operate your display, see the owner's guide that came with your car.

Use Siri Draft

- 1. To summon Siri, do one of the following until Siri beeps:
  - Press and hold the voice command button on the steering wheel.
  - Touch and hold the Home button on the CarPlay Home screen.
- 2. Ask Siri a question or to do something.

**Ask Siri.** Say something like:

- "Get directions to the nearest coffee shop"
- "Call Eliza"
- "Play more songs like this one"
- "What's my next meeting?"
- "Remind me to pack an umbrella when I get home"

Instead of waiting for Siri to notice that you've stopped talking, you can press and continue to hold the voice command button on the steering wheel while you speak, then release it when you finish.

- Open an app: Tap the app on the touchscreen, or turn the rotary knob to select the app, then press the knob.
- Return to the CarPlay Home screen: Tap the Home button on the touchscreen, or turn the rotary knob to select Home, then press the knob.
  - You can also repeatedly press the Back button near the rotary knob—or press and hold the Back button—until you get back to the Home screen.
- Return to your car's Home screen: Tap the icon with your car's logo if it appears on the Home screen, or press the physical Home button on your radio if your car has one.
- Return to a recently used app: Tap its icon on the edge of the touchscreen, or turn the rotary knob to the icon, then press the knob.
- View additional apps: If you have more than eight apps, some may appear on another page of the Home screen. To view them, swipe left on the touchscreen, or turn the rotary knob.

See Use other apps with CarPlay for information about adding apps.

- Scroll quickly through a list: Tap the letters in the list on the right side of the touchscreen, or turn the rotary knob.
- View and control the current audio source: Select Now Playing to see the current audio app.

#### Rearrange the icons on the CarPlay Home screen

- 1. When you're not operating your car, open Settings on your iPhone, go to General > CarPlay, then select your car.
- 2. Touch and hold any icon, then do one of the following:
  - Move the icon: Drag it.
  - Remove the icon: Tap it. To add it back, tap it again

An icon that can be removed appears with a gray circle in its upper-left corner.

Your icon changes appear on the CarPlay Home screen the next time you connect to CarPlay.

### Use Maps with CarPlay

#### Draft

Use Siri or open Maps to get turn-by-turn directions, traffic conditions, and estimated travel time. CarPlay generates likely destinations using addresses from your email, text messages, contacts, and calendars—as well as places you frequent. You can also search for a location, use locations you saved as favorites, and find nearby attractions and services.

You can use other apps even when getting directions. CarPlay lets you know when it's time to make a turn.

#### Ask Siri. Say something like:

- "Take me home"
- "Get directions to the nearest coffee shop"
- "What's my ETA?"
- "Find a gas station"

Learn how to control CarPlay with Siri

#### Use your car's built-in controls to get directions to likely destinations

Open Maps in CarPlay, select Destinations, then do one of the following:

- Get directions to a destination in the list: Select the destination.
- Get directions to a nearby service: Select a category (such as Gas, Parking, or Coffee), then select a destination.

For availability of nearby suggestions, go to the Maps: Nearby website.

#### Use your car's built-in controls to make a quick detour

- 1. To make a stop while navigating in Maps, select Q.
  - Or you can ask Siri to find you something along the way. Say something like "Find a gas station." Learn how to control CarPlay with Siri.
- 2. Select one of the suggested services (such as Gas Stations).
- 3. Select a destination to add it to your route.

### Make phone calls with CarPlay Draft

Use CarPlay to make phone calls and listen to voicemail from your iPhone.

**Ask Siri.** Say something like: "Call Eliza" or "What voicemails have I gotten?" Learn how to control CarPlay with Siri.

#### Use your car's built in controls to help make call

- 1. Open Phone in CarPlay.
- 2. Select from options to show contacts, favorites, recent calls, voicemail, or a keypad.

### Send and receive text messages with CarPlay

Use Siri to send, hear, and reply to text messages. Or, open Messages with your car's built-in controls.

Ask Siri. Say something like:

- "Text my wife"
- "Tell Eliza I'm in traffic and I'll be 15 minutes late to the meeting"
- "Read my text messages"

Learn how to control CarPlay with Siri

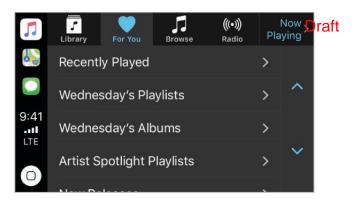
#### Use your car's built-in controls to send and receive messages

Open Messages in CarPlay, then do one of the following:

- Hear unread messages or respond to a thread: Select a conversation.
- Start a new conversation: Select

### Play music with CarPlay

Use Siri or open Music in CarPlay to play music that's available on your iPhone—including songs, artists, albums, playlists, and Radio.



#### Ask Siri. Say something like:

- "Play the new Arcade Fire album"
- "Let's hear the Acoustic playlist"
- "Play more songs like this one"
- "Play more songs by this artist"
- "Play the rest of this album"
- "Create a radio station based on this song"
- "Skip this song"
- "Repeat this song"
- "Shuffle this playlist"

#### Learn how to control CarPlay with Siri

If Siri doesn't find what you asked for, be more specific. For example, say "Play the radio station 'Pure Pop'" rather than saying "Play 'Pure Pop.'"

On some systems, Music displays only a partial list of choices while you're driving. To choose among options not in the list, use Siri by selecting More at the bottom of the list, or by pressing and holding the voice command button on your steering wheel.

#### Use your car's built-in controls to control music playback

Use the controls on your car's steering wheel or the buttons on the Now Playing screen.



II	Pause playback.
<b>&gt;</b>	Play the current song.
<b>&gt;&gt;</b>	Skip to the next song. When pressed and held, fast forward through the current song.
<b>←</b>	Return to the song's beginning. When pressed again, return to the previous song. When pressed and held, rewind through the current song.
<b>⊃</b> \$	Play songs in random order.
<del>***</del>	Continually repeat the current song.
•••	Display controls to create a custom station based on the current song and to rate the current song.
Up Next	Display a list of songs queued for playback. (You can select a song from the list to skip the songs that proceed it.)

### Play podcasts with CarPlay

Use Siri or open Podcasts to play the podcasts that are on your iPhone.

**Ask Siri.** Say something like: "Play 'The Daily' podcast" or "Skip ahead 45 seconds." Learn how to control CarPlay with Siri.

# Use other apps with CarPlay

You can use Siri with CarPlay to access many of the apps on iPhone, including Calendar, Reminders, Clock, and more.

Ask Siri. Say something like:

"What's my next meeting?"

- "Add milk to my grocery list"
- "Set my alarm for 6:00 a.m. tomorrow"

### Learn how to control CarPlay with Siri

CarPlay also works with select third-party apps that you download to your iPhone. Compatible apps—which include audio, navigation, messaging, and voice-calling apps and apps made by your car maker—show up automatically on the CarPlay Home screen.

# Privacy and security

# Privacy

### Set which apps know your location on iPhone

With Location Services, you can choose which location-based apps—for example, Reminders, Maps, Camera, and Wallet—can gather and use data indicating your location. Your approximate location is determined using available information from cellular network data, local Wi-Fi networks (if you have Wi-Fi turned on), and GPS (if available). The location data collected by Apple isn't collected in a form that personally identifies you. When an app is using Location Services,  $\checkmark$  appears in the status bar.

#### **Turn on Location Services**

If you didn't turn on Location Services when you first set up iPhone, go to Settings 
Privacy > Location Services, then turn on Location Services.

#### **Turn off Location Services**

Go to Settings ) > Privacy > Location Services, then choose from the options to turn off Location Services for some apps and services, or for all of them.

If you turn off Location Services, you're asked to turn it on again the next time an app or service tries to use it.

Review the terms and privacy policy for each third-party app to understand how it uses the data it's requesting. For more information, see the Apple Support article About privacy and Location Services.

#### **Change Location Services settings for system services**

Several system services, such as location-based suggestions and location-based ads, use Location Services.

To see the status for each service, to turn Location Services on or off for each service, or to show  $\checkmark$  in the status bar when enabled system services use your location, go to Settings  $\circledcirc$  > Privacy > Location Services > System Services.

#### **Delete significant locations**

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The Maps app keeps track of the places you've recently visited, as well as when and how often you visited them. Maps uses this information to provide you with personalized services like predictive traffic routing. You can delete this information.

- 1. Go to Settings (a) > Privacy > Location Services > System Services > Significant Locations.
- 2. Do one of the following:
  - Delete a single location: Tap the location, tap Edit, then tap .
  - Delete all locations: Tap Clear History. If you're signed in to iCloud, this clears all your significant locations on any devices that are signed in with the same Apple ID.

### Change app access to private data on iPhone

Change which apps and features have access to private information in Contacts, Calendar, Reminders, Photos, Health, Home, and more.

- 1. Go to Settings (S) > Privacy.
- 2. Tap a category of data, such as Contacts, Photos, Microphone, or Motion & Fitness.

The list shows the apps and features that requested access to that data, along with the level of access that you allowed.

3. Tap an app or feature, then choose a different level of access or deny access.

Review the terms and privacy policy for each third-party app to understand how it uses the data it's requesting. For more information, see the Apple Support article About privacy and Location Services.

### Limit ad targeting on iPhone

Turn off location-based ads, reset or limit targeted advertising in App Store and News, and prevent cross-site tracking in Safari.

#### Turn off location-based ads and offers

Go to Settings (a) > Privacy > Location Services > System Services, then turn off Location-Based Apple Ads.

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#### **Reset or limit ad tracking**

Go to Settings (at the bottom of the screen), then do any of the following:

- Clear the data used to determine which ads might be relevant to you: Tap Reset Advertising Identifier.
- Opt out of targeted advertising: Turn on Limit Ad Tracking.

*Note:* When you turn on Limit Ad Tracking, you may still receive the same number of ads, but they may be less relevant to you.

#### View the information Apple uses to deliver targeted ads

Go to Settings ( > Privacy > Advertising > View Ad information.

The information is used by Apple to deliver more relevant ads in the App Store and News. Your personal data isn't provided to other parties.

#### Keep your Safari browsing activities to yourself

While browsing the web, you can prevent cross-site tracking, block cookies, erase your browsing history, and more. See Browse privately in Safari on iPhone for Safari.

For more information, go to Settings (a) > Privacy > Advertising > About Advertising & Privacy.

# Security

### Set a passcode on iPhone

For better security, set a passcode that must be entered to unlock iPhone when you turn it on or wake it. Setting a passcode turns on data protection, which uses your passcode as a key to encrypt Mail messages and attachments stored on iPhone with 256-bit AES encryption. (Other apps may also use data protection.)

#### Set or change the passcode

- 1. Go to Settings .
- 2. Do one of the following:
  - *iPhone X and later*: Tap Face ID & Passcode.
  - Other models: Tap Touch ID & Passcode.
- 3. Tap Turn Passcode On or Change Passcode.

To view options for creating a password, tap Passcode Options. The most secure options are Custom Alphanumeric Code and Custom Numeric Code.

After you set a passcode, you can use Face ID or Touch ID to unlock iPhone (depending on your model). For additional security, however, you must always enter your passcode to unlock your iPhone under the following conditions:

- You turn on or restart your iPhone.
- You haven't unlocked your iPhone for more than 48 hours.
- You haven't unlocked your iPhone with the passcode in the last 6.5 days, and you
  haven't unlocked it with Face ID or Touch ID in the last 4 hours.
- Your iPhone receives a remote lock command.
- There are five unsuccessful attempts to unlock your iPhone with Face ID or Touch ID.
- An attempt to make an emergency SOS call is initiated (see Make emergency calls on iPhone).
- An attempt to view your Medical ID is initiated (see Create a Medical ID in Health on iPhone).

#### Change when iPhone automatically lockpraft

Go to Settings (a) > Display & Brightness > Auto-Lock, then set a length of time.

#### Erase data after 10 failed passcodes

Set iPhone to erase all information, media, and personal settings after 10 consecutive failed passcode attempts.

- 1. Go to Settings (a), then do one of the following:
  - *iPhone X and later*: Tap Face ID & Passcode.
  - Other models: Tap Touch ID & Passcode.
- 2. Turn on Erase Data.

After all data is erased, you must restore your device from a backup or set it up again as new.

#### Turn off the passcode

- 1. Go to Settings (a), then do one of the following:
  - iPhone X and later: Tap Face ID & Passcode.
  - Other models: Tap Touch ID & Passcode.
- 2. Tap Turn Passcode Off.

#### Unlock iPhone with Face ID

Use Face ID (iPhone X and later) to unlock iPhone, authorize purchases and payments, and sign in to many third-party apps by simply glancing at your iPhone.

To use Face ID, you must also set up a passcode on your iPhone.

#### Set up Face ID

- If you didn't set up Face ID when you first set up your iPhone, go to Settings 
   Face ID & Passcode > Set up Face ID, then follow the onscreen instructions.
- To set up an additional appearance for Face ID to recognize, go to Settings > Face ID & Passcode > Set Up an Alternate Appearance, then follow the onscreen instructions.

If you have physical limitations, you can tap Agressibility Options during Face ID set up. When you do this, setting up facial recognition doesn't require the full range of head motion. Using Face ID is still secure, but it requires more consistency in how you look at iPhone.

Face ID also has an accessibility feature you can use if you're blind or have low vision. If you don't want Face ID to require that you look at iPhone with your eyes open, go to Settings > General > Accessibility, then turn off Require Attention for Face ID. This is automatically turned off if you enable VoiceOver when you first set up iPhone. For more information, see Face ID and attention aware features.

#### **Temporarily disable Face ID**

You can temporarily prevent Face ID from unlocking your iPhone.

- 1. Press and hold the side button and either volume button for 2 seconds.
- 2. After the sliders appear, press the side button to immediately lock iPhone.

iPhone locks automatically if you don't touch the screen for a minute or so.

The next time you unlock iPhone with your passcode, Face ID is enabled again.

#### **Turn off Face ID**

- 1. Go to Settings (a) > Face ID & Passcode.
- 2. Do one of the following:
  - Turn off Face ID for specific items only: Turn off one or more options: iPhone Unlock, Apple Pay, iTunes & App Store, or Safari AutoFill.
  - Turn off Face ID: Tap Reset Face ID.

If your device is lost or stolen, you can prevent Face ID from being used to unlock your device with Find My iPhone Lost Mode. (See Use the Find My iPhone app to locate your device.)

For more information about Face ID, see About Face ID advanced technology.

### Unlock iPhone with Touch ID

Use Touch ID (supported models) to unlock iPhone, authorize purchases and payments, and sign in to many third-party apps by pressing the Home button with your finger or thumb.

To use Touch ID, you must also set up a papagede on your iPhone.

#### Turn on fingerprint recognition

- 1. If you didn't turn on fingerprint recognition when you first set up your iPhone, go to Settings 
  > Touch ID & Passcode.
- 2. Turn on any of the options, then follow the onscreen instructions.

If you turn on iTunes & App Store, you're asked for your Apple ID password when you make your first purchase from the iTunes Store, the App Store, or Apple Books. When you make your next purchases, you're asked to use Touch ID.

#### Add a fingerprint

You can add multiple fingerprints (both of your thumbs and forefingers, for example).

- 1. Go to Settings 6 > Touch ID & Passcode.
- 2. Tap Add a Fingerprint.
- 3. Follow the onscreen instructions.

#### Name or delete a fingerprint

- 1. Go to Settings 

  > Touch ID & Passcode.
  - If you added more than one fingerprint, place a finger on the Home button to identify its print.
- 2. Tap the fingerprint, then enter a name (such as "Thumb") or tap Delete Fingerprint.

#### Unlock iPhone by touching instead of pressing the Home button

Go to Settings (a) > General > Accessibility > Home Button, then turn on Rest Finger to Open.

#### **Turn off Touch ID**

Go to Settings > Touch ID & Passcode, then turn off one or more of the options.

### Change access to items when iPhone is locked

By default, some commonly used features (such as Today View and Control Center) are available when iPhone is locked. For security, USB accessories by default can't connect when iPhone is locked. You can change whether any of these items can be accessed from the Lock screen.

Go to Settings > Face ID & Passcode (iPhreffe X and later) or Touch ID & Passcode (other models). Then select your options.

Features that you can control access to while iPhone is locked include the following:

- Today View (see View and organize Today View on iPhone)
- Recent notifications (see View and respond to notifications on iPhone)
- Control Center (see Use and customize Control Center on iPhone)
- Replying with Message (see Send and receive text messages on iPhone)
- Home Control (see A look at Home on iPhone)
- Apple Pay (see Make contactless payments using Apple Pay on iPhone)
- Wallet (see Add and use passes in Wallet on iPhone)
- Returning missed calls (see Make calls with Wi-Fi on iPhone)
- Connecting USB accessories (including when you Connect iPhone to your computer using USB)

### Create website and app passwords on iPhone

When you sign up for services on websites and in apps, you can let iPhone create strong passwords for many of your accounts, or you can create your own passwords. iPhone stores the passwords in iCloud Keychain and fills them in for you automatically, so you don't have to memorize them. If you use the same password in more than one account, iPhone flags it for you to change.

Note: For iPhone to create and store passwords, iCloud Keychain must be turned on. Go to Settings (a) > [your name] > iCloud > Keychain.

#### Create a password for a new account Draft

1. On the new account screen for the website or app, enter a new account name.

For supported websites and apps, iPhone suggests a unique, complex password.

- 2. Do one of the following:
  - Choose the suggested password: Tap Use Strong Password.
  - Make up your own password: Tap Choose My Own Password.
- 3. To later allow iPhone to automatically fill in the password for you, tap Yes when you're asked if you want to save the password.

#### Automatically fill in a saved password

- 1. On the sign-in screen for the website or app, tap the account name field.
- 2. Do one of the following:
  - Tap the suggested account.

The password is filled in. To see the password, tap  $\varnothing$ .

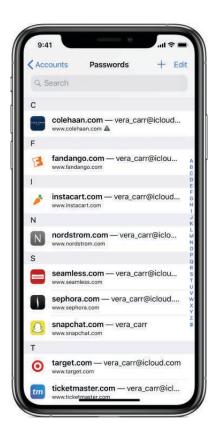
To enter an account or password that isn't saved, tap == on the sign-in screen.

#### View your saved passwords

Ask Siri. Say something like: "Show me my passwords." Learn how to ask Siri.

To view the password for an account, tap it.

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You can also view your passwords without asking Siri. Do one of the following, then tap an account to view its password:

- Go to Settings (a) > Passwords & Accounts > Website & App Passwords.
- On a sign-in screen, tap ?, then tap Other Passwords.

#### Replace a reused password

To help you replace reused passwords with unique ones, reused passwords are flagged in the passwords list.

- 1. Go to Settings 

  > Passwords & Accounts > Website & App Passwords.
- 2. Tap any account flagged with a 1.
- 3. Tap Change Password, then change your password on the website or in the app that appears.

### Prevent iPhone from automatically filling in passwords

Go to Settings 
> Passwords & Accounts, then turn off AutoFill Passwords.

### Share website and app passwords on iPhone

Use AirDrop to securely share passwords with another iOS device or Mac.

#### Send a password

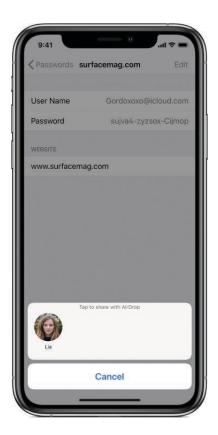
The person you're sharing with must be in your Contacts. To share with someone on an iOS device, ask them to open Control Center and allow AirDrop to receive items. To share with someone on a Mac, ask them to allow themselves to be discovered in AirDrop in the Finder.

- 1. On your iPhone, go to Settings 
  > Passwords & Accounts > Website & App Passwords.
- 2. Tap the account you want to share.
- 3. Tap Password, then tap AirDrop.



4. Tap the contact you want to send the password to.

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#### Receive a password

To receive a password, you must be in the sender's contacts.

- 1. If you haven't already done so, allow AirDrop to receive items.
- 2. When you receive a request to accept a password from someone else, tap Accept.

The password is saved on your iPhone, where you can view it and let iPhone automatically fill it in on the sign-in screen for the account.

### Automatically fill in SMS passcodes on iPhone

When you sign in to some apps and websites, a one-time SMS passcode is sent to your iPhone. As a security measure, you are required to enter the code into the app or website. iPhone can detect the passcode in Messages and display it above the keyboard.

To use the passcode, tap it.

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*Note:* With Continuity, all the SMS/MMS messages you send and receive on iPhone can also appear on your other iOS devices and your Mac. For more information, see the Apple Support article Use Continuity to connect your Mac, iPhone, iPad, iPod touch, and Apple Watch.

### Make your Apple ID more secure from iPhone

Two-factor authentication ensures that only you can access your Apple ID account, even if someone else knows your Apple ID password. Two-factor authentication is built into iOS 9 and later, and OS X 10.11 and later.

For information about how two-factor authentication works, see the Apple Support article Two-factor authentication for Apple ID.

#### Turn on two-factor authentication

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- 1. Go to Settings (a) > [your name] > Password & Security.
- 2. Tap Turn On Two-Factor Authentication, then tap Continue.
- 3. Enter a *trusted phone number*, a phone number where you want to receive verification codes for two-factor authentication (it can be the number for your iPhone).

You can choose to receive the codes by text message or automated phone call.

- 4. Tap Next.
- 5. Enter the verification code sent to your trusted phone number.

To send or resend a verification code, tap "Didn't get a verification code?"

You won't be asked for a verification code again on your iPhone unless you sign out completely, erase your iPhone, sign in to your Apple ID account page in Safari, or need to change your Apple ID password for security reasons.

*Note:* If you use two-step verification and upgrade to iOS 11 or later, your account might be migrated to use two-factor authentication. Your account will have an optional, additional recovery factor: a recovery key that can be generated on iPhone. For more information, see the Apple Support article Switch from two-step verification to two-factor authentication.

# Add another iOS device (iOS 9 or later) or later) or later) as a trusted device

- 1. After you turn on two-factor authentication on one device, use the same Apple ID to sign in to iCloud on another device.
  - Even if you've already signed in, sign in again. (On an iOS device, go to Settings ) > [your name]. On a Mac, choose Apple menu (\*) > System Preferences > iCloud.)
- 2. When you're asked enter a six-digit verification code, do one of the following:
  - Obtain the verification code on your iPhone or another trusted device that's connected to the Internet: Look for a notification on that device, then tap or click Allow to make the code appear on that device. (A trusted device is another iOS device or Mac on which you've already turned on two-factor authentication and which is signed into iCloud with your Apple ID.)
  - Obtain the verification at a trusted phone number: If a trusted device isn't available, tap "Didn't get a verification code?" then choose a phone number.
  - Obtain the verification code on a trusted device that's offline: On a trusted iOS device, go to Settings > [your name] > Password & Security, then tap Get Verification Code. On a trusted Mac, choose Apple menu (\*) > System Preferences > iCloud > Account Details > Security, then click Get Verification Code.
- 3. Enter the verification code on the new device.

You won't be asked for a verification code again unless you sign out completely, erase your device, sign in to your Apple ID account page in Safari, or need to change your Apple ID password for security reasons.

#### Add or remove a trusted phone number

When you enrolled in two-factor authentication, you had to verify one trusted phone number. You should also consider adding other phone numbers you can access, such as a home phone, or a number used by a family member or close friend.

- 1. Go to Settings (a) > [your name] > Password & Security.
- 2. Tap Edit (above the list of trusted phone numbers), then do one of the following:
  - Add a number: Tap Add a Trusted Phone Number.
  - Remove a number: Tap 😑 next to the phone number.

Trusted phone numbers don't automatically receive verification codes. If you can't access any trusted devices when setting up a new device for two-factor authentication, tap "Didn't get a verification code?" on the new device, then choose one of your trusted

#### View or remove trusted devices

1. Go to Settings (a) > [your name].

A list of the devices associated with your Apple ID appears near the bottom of the screen.

- 2. To see if a listed device is trusted, tap it, then look for "This device is trusted and can receive Apple ID verification codes."
- 3. To remove a device, tap it, then tap Remove from Account.

#### Generate a password for an app that signs in to your Apple ID account

With two-factor authentication, you need an app-specific password to sign in to your Apple ID account from a third-party app or service—such as an email, contacts, or calendar app. After you generate the app-specific password, use it to sign in to your Apple ID account from the app and access the information you store in iCloud.

- 1. Sign in to your Apple ID account.
- 2. Tap Generate Password (below App-Specific Passwords).
- 3. Follow the onscreen instructions.

After you generate your app-specific password, enter or paste it into the password field of the app as you would normally.

For more information, see the Apple Support article Using app-specific passwords.

#### Turn off two-factor authentication

- 1. Sign in to your Apple ID account, then tap Security.
- 2. Tap Edit, then tap Turn Off Two-Factor Authentication.

### Set up iCloud Keychain on iPhone

Use iCloud Keychain to keep your website and app passwords, credit card information, Wi-Fi network information, and other account information up to date across all of your approved devices (iOS 7 or later) and Mac computers (OS X 10.9 or later). iCloud Keychain is secured with 256-bit AES encryption during storage and transmission, and its data cannot be read by Apple.

iCloud Keychain can also keep the accounting who use in Mail, Contacts, Calendar, and Messages up to date across all of your iOS devices and Mac computers.

#### Set up iCloud Keychain

If you didn't turn on iCloud Keychain when you first set up your iPhone, go to Settings 
> [your name] > iCloud > Keychain, turn on iCloud Keychain, then follow the onscreen instructions.

When you set up iCloud Keychain, you create an iCloud Security Code, which you can use to authorize additional devices that use your iCloud Keychain. It's also used for verification so that you can perform other iCloud Keychain actions, such as recovering your iCloud Keychain if you lose all your devices.

#### Set up iCloud Keychain on an additional device

When you turn on iCloud Keychain on an additional device, your other devices using iCloud Keychain receive a notification requesting your approval of the additional device.

On one of your other devices, approve the additional device. Your iCloud Keychain automatically begins updating on the additional device.

To approve iCloud Keychain when you don't have access to your other devices, follow the onscreen instructions to use your iCloud Security Code.

#### **Reset or create an iCloud Security Code**

If you enter the wrong iCloud Security Code too many times when using iCloud Keychain, your iCloud Keychain is disabled on that device, and your keychain in iCloud is deleted.

To reset or create a new iCloud Security Code, see the Apple Support article If you enter your iCloud Security Code incorrectly too many times.

To learn more about iCloud Keychain, see the Apple Support article Frequently asked questions about iCloud Keychain.

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# Restart, update, reset, and restore

# Quit and restart an app

If an app isn't working properly, you can quit it and then try to reopen it. Restarting the app may resolve the problem. (Typically, there is no reason to quit an app; quitting it doesn't save battery power, for example.)

To quit the app, open the App Switcher, swipe right to find the app, then swipe up on the app.

To restart the app, go to the Home screen, then tap the app.

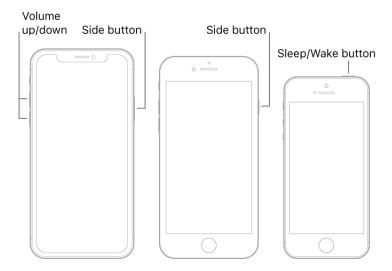
### Restart iPhone

If your iPhone isn't working right, try restarting it.

#### Turn iPhone off and on

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- 1. To turn iPhone off, do one of following:
  - *iPhone X and later:* Simultaneously press and hold the side button and either volume button until the sliders appear, then drag the top slider.
  - Other models: Press and hold the side button or Sleep/Wake button (depending on your model), then drag the slider.
  - All models: Go to Settings @ > General > Shut Down, then drag the slider.

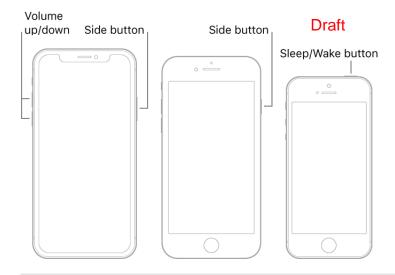


2. To turn iPhone back on, press and hold the side button or Sleep/Wake button (depending on your model) until the Apple logo appears.

#### Force restart iPhone

If iPhone isn't responding, do one of the following until the Apple logo appears:

- *iPhone X and later, iPhone 8, or iPhone 8 Plus:* Press and release the volume up button, press and release the volume down button, then press and hold the side button.
- *iPhone 7 or iPhone 7 Plus:* Press and hold both the volume down button and the Sleep/Wake button.
- *iPhone 6 (all models), iPhone SE, or iPhone 5s:* Press and hold both the Sleep/Wake button and the Home button.



If iPhone still doesn't respond or turn on, see the Apple Support article If your device doesn't respond or won't turn on.

# Update iOS software on iPhone

When you update the iOS software, your data and settings remain unchanged.

*Note:* Set up iPhone to back up automatically, or back up your device manually, before you update.

#### **Update iPhone automatically**

If you didn't turn on automatic updates when you first set up iPhone, go to Settings 
Seneral > Software Update > Automatic Updates, then turn on Automatic Updates.

iPhone automatically installs updates wirelessly. You are notified before the update occurs.

#### **Update iPhone manually**

Go to Settings (a) > General > Software Update > Automatic Updates, then turn off Automatic Updates.

At any time, you can check for and install software updates. Go to Settings ( > General > Software Update.

#### **Update using iTunes**

Sync your device using iTunes.

iTunes checks for available software updates each time you sync.

For more information, see the Apple Supportanticles Update the iOS software on your iPhone, iPad, or iPod touch and If you can't update or restore your iPhone, iPad, or iPod touch.

# Return iPhone settings to their defaults

You can return settings to their defaults without erasing your content.

If you want to save your settings, back up using iCloud or iTunes before returning them to their defaults. For example, if you're trying to solve a problem but returning settings to their defaults doesn't help, you might want to restore your previous settings from a back up.

- 1. Go to Settings > General > Reset.
- 2. Choose an option:

**WARNING:** If you choose the Erase All Content and Settings option, all of your content is removed. See Erase all content and settings from iPhone.

- Reset All Settings: All settings—including network settings, the keyboard dictionary, the Home screen layout, location settings, privacy settings, and Apple Pay cards—are removed or reset to their defaults. No data or media are deleted.
- Reset Network Settings: Only network settings are removed.

When you reset network settings, previously used networks and VPN settings that weren't installed by a configuration profile or mobile device management (MDM) are removed. Wi-Fi is turned off and then back on, disconnecting you from any network you're on. The Wi-Fi and Ask to Join Networks settings remain turned on.

To remove VPN settings installed by a configuration profile, go to Settings > General > Profiles & Device Management, select the configuration profile, then tap Remove Profile. This also removes other settings and accounts provided by the profile. For more information, see Install configuration profiles on iPhone in this guide. To remove network settings installed by MDM, go to Settings > General > Profiles & Device Management, select the management, then tap Remove Management. This also removes other settings and certificates provided by MDM. For more information, see "Mobile device management (MDM)" in the iOS Deployment Reference.

- Reset Keyboard Dictionary: You add wands to the keyboard dictionary by rejecting words iPhone suggests as you type. Resetting the keyboard dictionary erases only the words you've added.
- Reset Home Screen Layout: Returns the built-in apps to their original layout on the Home screen.
- Reset Location & Privacy: Resets the location services and privacy settings to their defaults.

If you want to use iTunes to delete your content along with your settings and then restore iPhone to factory settings, see Restore iPhone to factory settings with iTunes. If you want to completely erase all content and settings, see Erase all content and settings from iPhone.

### Restore iPhone

You can restore content and settings from a backup, or restore iPhone to factory settings.

If you're asked to enter your passcode or Apple ID password and you've forgotten either, see Reset your iPhone passcode or Recover or reset your Apple ID on iPhone.

#### **Erase then restore iPhone from a backup**

**Important:** You must first create a backup of your iPhone. See Back up iPhone using iCloud or iTunes.

- 1. Go to Settings > General > Reset.
- 2. Tap Erase All Content and Settings.
- 3. Follow the setup assistant when iPhone restarts.

The setup assistant gives you the option to restore iPhone from an iCloud or iTunes backup. (See Turn on and set up iPhone.)

#### Restore iPhone from an iTunes backup

**Important:** You must first create a backup of your iPhone in iTunes. See Back up iPhone using iCloud or iTunes.

1. Connect iPhone to the computer you normally back up to.

2. Open iTunes on the computer, then in items choose File > Devices > Restore from Backup.

## Restore iPhone to factory settings with iTunes

Use iTunes to delete all content and settings from your iPhone, restore iPhone to factory settings, and install the latest iOS software.

**Important:** Restoring iPhone to factory settings with iTunes deletes all your content and settings, but doesn't erase it. Deleted information can't be accessed through the iPhone interface, but it remains on your device. For information about erasing all content and settings, see Erase all content and settings from iPhone.

- 1. Connect your device to a computer using USB.
- 2. Open iTunes on the computer.
- 3. Click the iPhone button near the top of the iTunes window.
- 4. In the Summary pane, click Restore iPhone.

For more information, see the Apple Support articles Restore your iPhone, iPad, or iPod touch from a backup and If you can't update or restore your device. For more information about iTunes, refer to the Help in the app.

# Restore purchased items on iPhone

Redownload items from the iTunes Store, the App Store, and Apple Books, without repurchasing them. If you're part of a Family Sharing group, you can download items purchased by other family members, too.

#### Download a purchased item

Tap  $\bigcirc$  next to the item.

#### Find purchased items that don't appear on your iPhone

- *iTunes Store*: Tap More, tap Purchased, tap a category (Music, Movies, or TV Shows) in your purchased list (or a family member's list), then tap Not on this iPhone.
- *App Store*: Tap Updates, tap your profile picture at the top right, then tap Purchased, tap My Purchases (or a family member's purchases), then tap Not on this iPhone.
- Apple Books: Tap Purchased, tap a category in your purchased list (or a family member's list), then tap Not on this iPhone.

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### Download all your purchased ringtones and alerts

Go to Settings > Sounds & Haptics > Ringtone, then tap Download All Purchased Tones.

# Erase all content and settings from iPhone

When you delete data, it's no longer accessible through the iPhone interface, but it isn't erased from iPhone. To remove all of your content and settings, erase iPhone. For example, erase iPhone before you sell it or it give away. If you want to save your content and settings, back up using iCloud or iTunes before erasing iPhone.

- 1. Go to Settings > General > Reset.
  - If you're asked to enter your passcode or Apple ID password and you've forgotten either, see Reset your iPhone passcode or Recover or reset your Apple ID on iPhone.
- 2. Tap Erase All Content and Settings.

When iPhone restarts with all content and settings erased, the setup assistant gives you the option to either set up iPhone as new or restore it from an iCloud or iTunes backup. (See Turn on and set up iPhone.)

# Accessibility

# Get started with accessibility features on iPhone

iPhone provides many accessibility features to support your vision, interaction, hearing, and learning needs. Learn how to configure these features and set up shortcuts for easy access.

## Set up and configure accessibility features

- 1. Go to Settings > General > Accessibility.
- 2. Set up any of the following features:
  - Vision
    - VoiceOver
    - Zoom
    - Magnifier
    - Display accommodations
    - Speak selection, speak screen, and typing feedback
    - Large and bold text
    - Button shapes
    - Increase contrast and reduce transparency
    - Reduce motion
    - On/Off labels
    - Face ID & attention
  - Interaction
    - Reachability
    - Switch Control
    - AssistiveTouch
    - Touch accommodations

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- 3D Touch settings
- Software and hardware keyboard settings
- Call audio routing
- Hearing
  - Hearing devices
  - Live Listen
  - RTT/TTY
  - LED flash for alerts
  - Mono audio and balance
  - Phone noise cancellation
  - Visual voicemail
- Media
  - Subtitles and closed captions
  - Audio descriptions for video
- Learning
  - Guided Access
- Accessibility shortcuts

## Use iTunes on your computer to configure accessibility features for iPhone

In iTunes on your computer, you can enable a limited number of accessibility features, including VoiceOver, Zoom, Invert Colors, Speak Auto-text, mono audio, and "Show closed captions when available."

- 1. On your computer, open iTunes.
- 2. Click Summary.
- 3. At the bottom of the Summary screen, click Configure Accessibility.

Take advantage of the accessibility features in macOS when you use iTunes to sync information and content from your iTunes library to iPhone. For more information, see iTunes Help on your computer.

# Use accessibility shortcuts on iPhone

After you set up accessibility features, you can quickly turn them on or off with any of the methods below.

## Ask Siri to turn on an accessibility feature

Say something like: "Turn on VoiceOver." Learn how to ask Siri.

## Triple-click the side button (iPhone X and later)

- Set up Accessibility Shortcut: Go to Settings > General > Accessibility > Accessibility Shortcut, then select the features you use the most.
- Slow down the double-click or triple-click speed for the side button: Go to Settings 
   General > Accessibility > Side Button.
- Use Accessibility Shortcut: Triple-click the side button.

#### **Triple-click the Home button (other models)**

- Set up Accessibility Shortcut: Go to Settings > General > Accessibility > Accessibility Shortcut, then select the features you use the most.
- Slow down the double-click or triple-click speed for the Home button: Go to Settings
   > General > Accessibility > Home Button.
- Use Accessibility Shortcut: Triple-click the Home button.

#### **Use Control Center**

- Add accessibility features to Control Center: Go to Settings 
   S
- Activate an accessibility feature from Control Center: Open Control Center, then tap the accessibility feature.

## Vision

## VoiceOver

## About VoiceOver on iPhone

With VoiceOver—a gesture-based screen reader—you can use iPhone even if you don't see the screen. Add VoiceOver to Accessibility Shortcut to enable it anywhere in iOS. Hear a description of what's on your screen—from battery level, to who's calling, to which app your finger is on. You can also adjust the speaking rate and pitch to suit you.

VoiceOver tells you about each item you select. The VoiceOver cursor (a black outline) encloses the item and VoiceOver speaks its name or describes it.

When you touch the screen or drag your finger over it, VoiceOver speaks the item your finger is on, including icons and text. To interact with an item, such as a button or link, or to navigate to another item, use VoiceOver gestures.

When you go to a new screen, VoiceOver plays a sound, then selects and speaks the first item on the screen (typically in the upper-left corner). It tells you when the display changes to landscape or portrait orientation, when the screen becomes dimmed or locked, and what's active on the Lock screen when you wake iPhone.

Note: VoiceOver is available in many languages. Go to Settings > General > Language & Region to choose a language.

## Learn VoiceOver gestures on iPhone

**Important:** VoiceOver changes the gestures you use to control iPhone. When VoiceOver is on, you must use VoiceOver gestures to operate iPhone—even to turn VoiceOver off.

When VoiceOver is on, standard touchscreen gestures have different effects, and additional gestures let you move around the screen and control individual items. VoiceOver gestures include two-, three-, and four-finger taps and swipes. For best results using multifinger gestures, let your fingers touch the screen with some space between them.

You can use different techniques to perform VoiceOver gestures. For example, you can perform a two-finger tap using two fingers on one hand, or one finger on each hand. You can even use your thumbs. Some people use a split-tap gesture: instead of selecting an item and double-tapping, touch and hold an item with one finger, then tap the screen with another finger.

Try different techniques to discover which weeks best for you. If a gesture doesn't work, try a quicker movement, especially for a double-tap or swipe gesture. To swipe, try brushing the screen quickly with your finger or fingers.

## **Learn basic VoiceOver gestures**

Here are some key VoiceOver gestures for navigating, selecting, and speaking items:

- *Tap:* Selects and speaks the item.
- Swipe right or left: Selects the next or previous item.
- Swipe up or down: Depends on the rotor setting. See Use the VoiceOver rotor on iPhone.
- Two-finger swipe up: Reads all from the top of the screen.
- Two-finger swipe down: Reads all from the current position.
- Two-finger tap: Stops or resumes speaking.
- Two-finger scrub (move two fingers back and forth three times quickly, making a "z"): Dismisses an alert or returns to the previous screen.
- Three-finger swipe up or down: Scrolls one page at a time.
- Three-finger swipe right or left: Goes to the next or previous page (on the Home screen, for example).
- Three-finger tap: Speaks additional information, such as position within a list or whether text is selected.
- Four-finger tap at top of screen: Selects the first item on the page.
- Four-finger tap at bottom of screen: Selects the last item on the page.

Here are some key VoiceOver gestures for performing actions:

- *Double-tap:* Activates the selected item.
- *Triple-tap:* Double-taps an item.
- *Split-tap:* As an alternative to selecting an item and double-tapping to activate it, touch and hold an item with one finger, then tap the screen with another.
- Double-tap and hold (1 second) + standard gesture: Use a standard gesture. The
  double-tap and hold gesture tells iPhone to interpret the next gesture as standard.
   For example, you can double-tap and hold your finger on the screen until you hear
  three rising tones, and then without lifting your finger, drag your finger on a slider.

- Two-finger double-tap: Initiates an action halts or pauses an action in progress. For example, you can do the following:
  - Answer or end a call.
  - Play or pause in Music, Videos, Voice Memos, or Photos (slideshows).
  - Take a photo in Camera.
  - Start or pause recording in Camera or Voice Memos.
  - Start or stop the stopwatch.
- Two-finger double-tap and hold: Changes an item's label to make it easier to find.
- Two-finger triple-tap: Opens the Item Chooser.
- Three-finger double-tap: Mutes or unmutes VoiceOver. If both VoiceOver and Zoom are enabled, use the three-finger triple-tap gesture.
- Three-finger triple-tap: Turns the screen curtain on or off. If both VoiceOver and Zoom are enabled, use the three-finger quadruple-tap gesture.

## **Practice VoiceOver gestures**

You can practice VoiceOver gestures in a special area without affecting iPhone or its settings.

- 1. Go to Settings > General > Accessibility > VoiceOver.
- 2. Turn on VoiceOver, then tap VoiceOver Practice.
- 3. When you finish practicing, tap Done.

## Operate iPhone with VoiceOver

**Turn VoiceOver on or off.** Summon Siri and say "Turn on VoiceOver" or "Turn off VoiceOver." You can also go to Settings > General > Accessibility > VoiceOver; or use accessibility shortcuts.

#### **Unlock iPhone with your passcode.** From the Lock screen:

- *iPhone X and later:* Drag up from the bottom edge of the screen until you feel a vibration, then enter your passcode.
- Other models: Press the Home button, then enter your passcode.

To avoid having your passcode spoken as you enter it, enable handwriting mode or type onscreen braille.

Unlock iPhone with Face ID. (iPhone X and later) To set up Face ID, go to Settings > Face ID & Passcode. To unlock, wake iPhone and glance at it. If you don't want iPhone to require your attention for unlocking, go to Settings > General > Accessibility, then turn off Require Attention for Face ID. After you unlock with Face ID, drag up from the bottom edge of the screen until you feel a vibration to view the Home screen.

**Unlock iPhone with Touch ID.** (other models) You can unlock iPhone by pressing your finger on the Home button if you set up Touch ID. To use Touch ID by touching instead of pressing the Home button, go to Settings > General > Accessibility > Home Button, then turn on Rest Finger to Open.

**Open an app, toggle a switch, or tap an item.** Tap the item, then double-tap the screen.

**Double-tap the selected item.** Tap three times to invoke a command normally executed by tapping twice on the screen—selecting a word or zooming an image, for example.

**Adjust a slider.** Tap the slider, then swipe up or down with one finger.

**Use a standard gesture.** Double-tap and hold your finger on the screen until you hear three rising tones, then make the gesture. When you lift your finger, VoiceOver gestures resume. For example, to drag a volume slider with your finger instead of swiping up and down, select the slider, double-tap and hold, wait for the three tones, then slide left or right.

Scroll a list or area of the screen. Swipe up or down with three fingers.

- Use the list index: Some lists have an alphabetical table index along the right side. Select the index, then swipe up or down to move through the index. You can also double-tap, hold, then slide your finger up or down.
- Reorder a list: You can change the order of items in some lists, such as the Rotor items in Accessibility settings. Tap == to the right of an item, double-tap and hold until you hear three rising tones, then drag up or down.

#### **Open Control Center.**

- *iPhone X and later:* Drag one finger down from the top edge of the screen until you feel a vibration or hear the second sound. To dismiss Control Center, do a two-finger scrub or drag one finger down from the top edge of the screen until you feel a vibration or hear the second sound.
- Other models: Tap any item in the status bar, then swipe up with three fingers. Or touch and hold the bottom of the screen until you hear a sound, then swipe up. Or touch and hold the top of the screen until you hear a sound, then swipe down. To dismiss Control Center, press the Home button or do a two-finger scrub.

- *iPhone X and later:* Drag one finger down from the top edge of the screen until you feel the second vibration or hear the third sound. To dismiss the notifications screen, do a two-finger scrub.
- Other models: Tap any item in the status bar, then swipe down with three fingers. Or touch and hold the top of the screen until you hear a sound, then swipe down. To dismiss the notifications screen, do a two-finger scrub or press the Home button.

#### Go to the Home screen.

- *iPhone X and later:* Drag one finger up from the bottom edge of the screen until you feel a vibration or hear the second sound, then lift your finger.
- Other models: Press the Home button.

**Search from the Home screen.** Tap anywhere on the Home screen outside the status bar, then swipe down with three fingers.

## Switch apps.

- *iPhone X and later:* Drag one finger up from the bottom edge of the screen until you feel the second vibration or hear the third sound, then lift your finger.
- Other models: Double-click the Home button.

Swipe left or right with three fingers to select an app, then double-tap to switch to it. Or set the rotor to Actions while viewing open apps, then swipe up or down to cycle through the apps.

#### **Rearrange apps on your Home screen.** Use one of the following methods:

- Drag and drop: Tap an icon on the Home screen, then double-tap and hold your finger
  on the screen until you hear three rising tones. The item's relative location is
  described as you drag. Lift your finger when the icon is in its new location. Drag an
  icon to the edge of the screen to move it to another Home screen. You can continue
  to select and move items until you press the side button (iPhone X and later) or Home
  button (other models).
- Move actions: Tap an app, then swipe down to hear available actions. When you hear Arrange Apps, double-tap to start arranging apps. Find the app you want to move, then swipe down to the Move action and double-tap. Move the VoiceOver cursor to the new destination for the app, then choose from the available actions: Cancel Move, Create New Folder, Add to Folder, Move Before, or Move After. You can continue to select and move items until you press the side button (iPhone X and later) or Home button (other models).

**Speak iPhone status information.** Tap the tus bar at the top of the screen, then swipe left or right to hear information about the time, battery state, Wi-Fi signal strength, and more.

**Speak notifications.** Go to Settings > General > Accessibility > VoiceOver, then turn on Always Speak Notifications. Notifications, including the text of incoming text messages, are spoken as they occur, even if iPhone is locked. Unacknowledged notifications are repeated when you unlock iPhone.

**Turn the screen curtain on or off.** Triple-tap with three fingers. When the screen curtain is on, the screen contents are active even though the display is turned off.

**Set audio routing options.** Go to Settings > General > Accessibility > VoiceOver > Audio. Device-specific options are shown if you connect additional devices, such as an instrument amplifier or DJ mixer.

## Use the VoiceOver rotor on iPhone

Use the rotor to choose what happens when you swipe up or down with VoiceOver turned on, or to select special input methods such as Braille Screen Input or Handwriting.

**Operate the rotor.** Rotate two fingers on the screen around a point between them. If you prefer to use one finger on each hand, simultaneously flick up with one finger and flick down with the other.



**Hear confirmation of rotor actions.** Go to Settings ( > General > Accessibility > VoiceOver > Verbosity, then turn on Speak Confirmation.

**Choose your rotor options.** Go to Settings ( > General > Accessibility > VoiceOver > Rotor, then select the options you want to include in the rotor.

The available rotor options and their effects depend on what you're doing. For example, if you're reading an email, you can use the rotor to switch between hearing text spoken word-by-word or character-by-character when you swipe up or down. If you're browsing a webpage, you can set the rotor to speak all the text (either word-by-word or character-by-character), or to jump from one item to another of a certain type, such as headings or links.

When you use an Apple Wireless Keyboard to control VoiceOver, use the rotor to adjust settings such as volume, speech rate, use of pitch or phonetics, typing echo, and reading of punctuation.

## Explore with VoiceOver basics on iPboxie

**Important:** VoiceOver changes the gestures you use to control iPhone. When VoiceOver is on, you must use VoiceOver gestures—even to turn VoiceOver off.

**Explore.** Drag your finger over the screen. VoiceOver speaks each item you touch. Lift your finger to leave an item selected.

- Activate an item: Tap once to select an item, then double-tap to activate it.
- Select the next or previous item: Swipe right or left with one finger. Item order is left-to-right, top-to-bottom.
- Select the first or last item on the screen: Tap with four fingers at the top or bottom of the screen.
- Select an item by name: Triple-tap with two fingers anywhere on the screen to open the Item Chooser. Then type a name in the search field, or swipe right or left to move through the list alphabetically, or tap the table index to the right of the list and swipe up or down to move quickly through the list of items. You can also use handwriting to select an item by writing its name; see Write with your finger using VoiceOver on iPhone. To dismiss the Item Chooser without making a selection, double-tap.
- Change an item's name so it's easier to find: Select the item, then double-tap and hold with two fingers anywhere on the screen.
- Speak the text of the selected item: Set the rotor to characters or words, then swipe down or up with one finger. See Use the VoiceOver rotor on iPhone.
- Use phonetic spelling: Go to Settings > General > Accessibility > VoiceOver > Phonetic Feedback.
- Speak the entire screen, from the top: Swipe up with two fingers.
- Speak from the current item to the bottom of the screen: Swipe down with two fingers.
- Pause speaking: Tap once with two fingers. Tap again with two fingers to resume, or select another item.
- Mute VoiceOver: Double-tap with three fingers; repeat to unmute. If both VoiceOver and Zoom are enabled, triple-tap with three-fingers. If you're using an external keyboard, press the Control key.

• Silence sound effects: Go to Settings Paffeneral > Accessibility > VoiceOver > Audio, then turn off Use Sound Effects.

Use a larger VoiceOver cursor. Go to Settings ⊚ > General > Accessibility > VoiceOver, then turn on Large Cursor.

**Adjust the speaking voice.** You can adjust the VoiceOver speaking voice:

- Adjust the volume: Use the volume buttons on iPhone. You can also add volume to the rotor, then swipe up or down to adjust it. See Use the VoiceOver rotor on iPhone.
- Change the speaking rate: Go to Settings > General > Accessibility > VoiceOver, then drag the Speaking Rate slider. You can also set the rotor to Speaking Rate, then swipe up or down to adjust.
- Adjust the pitch of the speaking voice: Go to Settings > General > Accessibility > VoiceOver > Speech, then drag the Pitch slider.
- Use pitch change: VoiceOver can use a higher pitch when speaking the first item of a group (such as a list or table) and a lower pitch when speaking the last item of a group. Go to Settings > General > Accessibility > VoiceOver > Speech, then turn on Use Pitch Change.
- Control audio ducking: To choose whether audio that's playing is turned down while VoiceOver speaks, set the rotor to Audio Ducking, then swipe up or down.
- Change the language for iPhone: Go to Settings > General > Language & Region. VoiceOver pronunciation of some languages is affected by the Region Format you choose there.
- Change pronunciation: Set the rotor to Language, then swipe up or down. Language
  is available in the rotor only if you select more than one pronunciation in Settings >
  General > Accessibility > VoiceOver > Speech > Rotor Languages.
- Choose which dialects are available in the rotor: Go to Settings 
   Seneral >
   Accessibility > VoiceOver > Speech > Rotor Languages. To adjust voice quality or
   speaking rate, tap a language. To remove languages from the rotor or change their
   order, tap Edit, tap the Delete button or drag ≡ up or down, then tap Done.
- Set the default voice for the current iPhone language: Go to Settings (See > General > Accessibility > VoiceOver > Speech > Voice.
- Download an enhanced quality reading voice: Go to Settings > General >
   Accessibility > VoiceOver > Speech, tap a language, then choose an enhanced voice.
   If you're using English, you can choose to download Alex (869 MB), the same high-quality U.S. English voice used for VoiceOver on Mac computers.

• Specify the pronunciation of certain workst Go to Settings > General > Accessibility > Speech > Pronunciations. Tap +, enter a phrase, then dictate or spell out how you want the phrase to be pronounced.

**Control verbosity.** To control how much VoiceOver tells you, go to Settings (Seneral > Accessibility > VoiceOver > Verbosity. VoiceOver can speak hints, punctuation, uppercase letters, embedded links, and more. You can even have VoiceOver confirm rotor actions.

## Use the onscreen keyboard with VoiceOver on iPhone

When you activate an editable text field, the onscreen keyboard appears (unless you have an Apple Wireless Keyboard attached).

**Activate a text field.** Select the text field, then double-tap. The insertion point and the onscreen keyboard appear.

**Choose a typing style.** Go to Settings > General > Accessibility > VoiceOver > Typing Style. Or, set the rotor to Typing Mode, then swipe up or down.

**Enter text.** Type characters using the onscreen keyboard:

- Standard typing: Select a key on the keyboard by swiping left or right, then doubletap to enter the character. Or move your finger around the keyboard to select a key and, while continuing to touch the key with one finger, tap the screen with another finger. VoiceOver speaks the key when it's selected, and again when the character is entered.
- Touch typing: Touch a key on the keyboard to select it, then lift your finger to enter the character. If you touch the wrong key, slide your finger to the key you want. VoiceOver speaks the character for each key as you touch it, but doesn't enter a character until you lift your finger.
- *Direct Touch typing:* VoiceOver is disabled for the keyboard only, so you can type just as you do when VoiceOver is off.

**Move the insertion point.** Swipe up or down to move the insertion point forward or backward in the text. Use the rotor to choose whether you want to move the insertion point by character, by word, or by line. To jump to the beginning or end, double-tap the text.

VoiceOver makes a sound when the insertion point moves, and speaks the character, word, or line that the insertion point moves across. When moving forward by words, the insertion point is placed at the end of each word, before the space or punctuation that follows. When moving backward, the insertion point is placed at the end of the preceding word, before the space or punctuation that follows it.

Move the insertion point past the punct matien at the end of a word or sentence. Use the rotor to switch back to character mode.

When moving the insertion point by line, VoiceOver speaks each line as you move across it. When moving forward, the insertion point is placed at the beginning of the next line (except when you reach the last line of a paragraph, when the insertion point is moved to the end of the line just spoken). When moving backward, the insertion point is placed at the beginning of the line that's spoken.

**Change typing feedback.** By default, VoiceOver speaks characters as well as words when you type. To hear no feedback, hear characters only, or hear words only, go to Settings > General > Accessibility > VoiceOver > Typing Feedback, then choose an option.

**Use phonetics in typing feedback.** Go to Settings (a) > General > Accessibility > VoiceOver > Phonetic Feedback. Text is read character by character. VoiceOver first speaks the character, then its phonetic equivalent—for example, "f" and then "foxtrot."

**Delete a character.** Use with any of the VoiceOver typing styles. To control whether VoiceOver speaks each character as it's deleted, go to Settings > General > Accessibility > VoiceOver > Verbosity > Deleting Text. If you choose Change Pitch, VoiceOver speaks deleted characters in a lower pitch.

**Select text.** Set the rotor to Edit, swipe up or down to choose Select or Select All, then double-tap. If you choose Select, the word closest to the insertion point is selected when you double-tap. To increase or decrease the selection, do a two-finger scrub to dismiss the pop-up menu, then pinch.

**Cut, copy, or paste.** Set the rotor to Edit, select the text, swipe up or down to choose Cut, Copy, or Paste, then double-tap.

**Undo.** Shake iPhone, swipe left or right to choose the action to undo, then double-tap.

**Enter an accented character.** In standard typing style, select the plain character, then double-tap and hold until you hear a sound indicating alternate characters have appeared. Drag left or right to select and hear the choices. Release your finger to enter the current selection. In touch typing style, touch and hold a character until the alternate characters appear.

Change the keyboard language. Set the rotor to Language, then swipe up or down. Choose "default language" to use the language specified in Language & Region settings. The Language rotor item appears only if you select more than one language in Settings 
> General > Accessibility > VoiceOver > Speech.

Write with your finger using VoiceOveration iPhone

With Handwriting mode, you can enter text by writing characters on the screen with your finger. In addition to normal text entry, use handwriting mode to enter your iPhone passcode silently or open apps from the Home screen.

**Enter handwriting mode.** Use the rotor to select Handwriting. If Handwriting isn't in the rotor, go to Settings > General > Accessibility > VoiceOver > Rotor, then add it.

**Choose a character type.** Swipe up or down with three fingers to choose lowercase, numbers, uppercase, or punctuation.

**Hear the selected character type.** Tap with three fingers.

**Enter a character.** Trace the character on the screen with your finger.

**Enter an alternate character.** To use an alternate character (a character with an accent or umlaut, for example), write the character, then swipe up or down with two fingers until you hear the type of character you want.

**Enter a space.** Swipe right with two fingers.

**Go to a new line.** Swipe right with three fingers.

**Delete the character before the insertion point.** Swipe left with two fingers.

**Select an item on the Home screen.** Start writing the name of the item. If there are multiple matches, continue to spell the name until it's unique, or swipe up or down with two fingers to choose from the current matches.

**Enter your passcode silently.** Set the rotor to Handwriting on the passcode screen, then write the characters of your passcode.

Use a table index to skip through a long list. Select the table index to the right of the table (for example, next to your Contacts list or in the VoiceOver Item Chooser), then write the letter.

**Set the rotor to a web browsing element type.** Write the first letter of a page element type. For example, write "I" to have up or down swipes skip to links, or "h" to skip to headings.

**Exit handwriting mode.** Do a two-finger scrub, or set the rotor to a different selection.

## Type onscreen braille using VoiceOveration iPhone

If you turn on Braille Screen Input, you can use your fingers to enter 6-dot or contracted braille directly on the iPhone screen. Enter braille with iPhone lying flat in front of you (tabletop mode), or hold iPhone with the screen facing away so your fingers curl back to tap the screen (screen away mode).

**Turn on Braille Screen Input.** Use the rotor to select Braille Screen Input. If you don't find it in the rotor, go to Settings > General > Accessibility > VoiceOver > Rotor, then add it.

**Enter braille.** Place iPhone flat in front of you or hold it with the screen facing away, then tap the screen with one or several fingers at the same time.

**Adjust entry dot positions.** To move the entry dots to match your natural finger positions, tap and lift your right three fingers all at once to position dots 4, 5, and 6, followed immediately by your left three fingers for dots 1, 2, and 3.

**Switch between 6-dot and contracted braille.** Swipe to the right with three fingers. To set the default, go to Settings (a) > General > Accessibility > VoiceOver > Braille > Braille > Screen Input.

**Enter a space.** Swipe right with one finger. (In screen away mode, swipe to *your* right.)

**Delete the previous character.** Swipe left with one finger.

**Move to a new line (typing).** Swipe right with two fingers.

**Cycle through spelling suggestions.** Swipe up or down with one finger.

**Select an item on the Home screen.** Start entering the name of the item. If there are multiple matches, continue to spell the name until it is unique, or swipe up or down with one finger to cycle through match suggestions.

**Open the selected app.** Swipe right with two fingers.

**Lock the screen orientation.** Swipe up or down with three fingers.

**Use Exploring Mode.** To have iPhone read dots aloud as they are tapped and released, tap and hold dots, then wait for the timer tones and announcement.

**Turn braille contractions on or off.** Swipe to the right with three fingers.

Translate immediately (when contractions are enabled). Swipe down with two fingers.

Switch to the next keyboard. Swipe up with two fingers.

**Send a text message.** Swipe up with three fingers.

Turn off Braille Screen Input. Do a two-fingaft scrub, or set the rotor to another setting.

Use VoiceOver with an Apple Wireless Keyboard on iPhone

You can control VoiceOver using an Apple Wireless Keyboard paired with iPhone. See Use an Apple Wireless Keyboard. You activate VoiceOver commands on the Apple Wireless Keyboard with keyboard shortcuts.

You can use VoiceOver Help to learn the keyboard layout and the actions associated with various key combinations. VoiceOver Help speaks keys and keyboard commands as you type them, without performing the associated action.

**Choose the modifier keys.** Go to Settings > General > Accessibility > VoiceOver > Modifier Keys. You can choose the Control-Option key combination or the Caps Lock key, abbreviated as "VO" in the following list.

## **VoiceOver keyboard commands**

VO = modifier keys

- Turn on VoiceOver Help: VO-K
- Turn off VoiceOver Help: Esc (Escape)
- Select the next or previous item: VO-Right Arrow or VO-Left Arrow
- Activate the selected item: VO-Space bar
- Go to the Home screen: VO-H
- Touch and hold the selected item: VO-Shift-M
- Move to the status bar: VO-M
- Read from the current position: VO-A
- Read from the top: VO-B
- Pause or resume reading: Control
- Copy the last spoken text to the clipboard: VO-Shift-C
- Search for text: VO-F
- Mute or unmute VoiceOver: VO-S
- Open the notifications screen: Fn-VO-Up Arrow
- Open Control Center: Fn-VO-Down Arrow

Open the Item Chooser: VO-I Draft

- Change the label of the selected item: VO-/
- Start, stop, or pause an action: VO-Hyphen
- Swipe up or down: VO-Up Arrow or VO-Down Arrow
- Adjust the rotor: VO-Command-Left Arrow or VO-Command-Right Arrow
- Adjust the setting specified by the rotor: VO-Command-Up Arrow or VO-Command-Down Arrow
- Turn the screen curtain on or off: VO-Shift-F11
- Return to the previous screen: Esc
- Switch apps: Command-Tab or Command-Shift-Tab

#### **Quick Nav**

Turn on Quick Nav to control VoiceOver using the arrow keys.

- Turn Quick Nav on or off: Left Arrow-Right Arrow
- Select the next or previous item: Right Arrow or Left Arrow
- Select the next or previous item specified by the rotor: Up Arrow or Down Arrow
- Select the first or last item: Control-Up Arrow or Control-Down Arrow
- Tap an item: Up Arrow-Down Arrow
- Scroll up, down, left, or right: Option-Up Arrow, Option-Down Arrow, Option-Left Arrow, or Option-Right Arrow
- Adjust the rotor: Up Arrow-Left Arrow or Up Arrow-Right Arrow

You can also use the number keys on an Apple Wireless Keyboard to dial a phone number in Phone or enter numbers in Calculator.

## Single-key Quick Nav for web browsing

When you view a webpage with Quick Nav on, you can use the following keys on the keyboard to navigate the page quickly. Typing the key moves to the next item of the indicated type. To move to the previous item, hold the Shift key as you type the letter.

- Turn on Single-key Quick Nav: VO-Q
- Heading: H

• Link: L Draft

Text field: R

• Button: B

Form control: C

Image: I

Table: T

Static text: S

• ARIA landmark: W

• List: X

• Item of the same type: M

Level 1 heading: 1

Level 2 heading: 2

• Level 3 heading: 3

• Level 4 heading: 4

• Level 5 heading: 5

• Level 6 heading: 6

## **Text editing**

Use these commands (with Quick Nav turned off) to work with text. VoiceOver reads the text as you move the insertion point.

- Go forward or back one character: Right Arrow or Left Arrow
- Go forward or back one word: Option-Right Arrow or Option-Left Arrow
- Go up or down one line: Up Arrow or Down Arrow
- Go to the beginning or end of the line: Command-Left Arrow or Command-Down Arrow
- Go to the beginning or end of the paragraph: Option-Up Arrow or Option-Down Arrow
- Go to the previous or next paragraph: Option-Up Arrow or Option-Down Arrow

- Go to the top or bottom of the text fiel முடு from and Up Arrow or Command Down Arrow
- Select text as you move: Shift + any of the insertion point movement commands above
- Select all text: Command-A
- Copy, cut, or paste the selected text: Command-C, Command-X, or Command-V
- Undo or redo last change: Command-Z or Shift-Command-Z

## Use a braille display with VoiceOver on iPhone

You can use a Bluetooth braille display to read VoiceOver output, and a braille display with input keys and other controls to control iPhone when VoiceOver is turned on. For a list of supported braille displays, go to the Braille Displays for iOS website.

**Connect a braille display.** Turn on the display, go to Settings (a) > Bluetooth, then turn on Bluetooth. Then, go to Settings (a) > General > Accessibility > VoiceOver > Braille, then choose the display.

**Adjust Braille settings.** Go to Settings > General > Accessibility > VoiceOver > Braille, where you can do the following:

- Choose contracted, uncontracted 8-dot, or uncontracted 6-dot braille input or output
- Turn on the status cell and choose its location
- Turn on Nemeth code for mathematical equations
- Display the onscreen keyboard
- Choose to have the page turned automatically when panning
- Change the braille translation from Unified English
- Change the alert display duration

Output closed captions in Braille during media playback. Go to Settings > Seneral > Accessibility > VoiceOver > Verbosity, then choose Braille or Speech and Braille.

For information about common braille commands for VoiceOver navigation, and for information specific to certain displays, see the Apple Support article Common braille commands for VoiceOver navigation using iPhone, iPad, and iPod touch.

**Set the language for VoiceOver.** Go to Settings @ > General > Language & Region.

If you change the language for iPhone, you may need to reset the language for VoiceOver and your braille display.

You can set the leftmost or rightmost cell of your braille display to provide system status and other information. For example:

- Announcement History contains an unread message
- The current Announcement History message hasn't been read
- VoiceOver speech is muted
- The iPhone battery is low (less than 20% charge)
- iPhone is in landscape orientation
- The screen display is turned off
- The current line contains additional text to the left
- The current line contains additional text to the right

**Set the leftmost or rightmost cell to display status information.** Go to Settings Seneral > Accessibility > VoiceOver > Braille > Status Cell, then tap Left or Right.

**See an expanded description of the status cell.** On your braille display, press the status cell's router button.

# Use VoiceOver in apps on iPhone

You can use VoiceOver to interact with apps such as Maps, Safari, and more.

## Make and receive calls in Phone using VoiceOver

Use VoiceOver to make and receive phone calls.

- Answer or end a call: Double-tap the screen with two fingers.
  - When a phone call is established with VoiceOver on, the screen displays the numeric keypad by default, instead of showing call options.
- *Display call options:* Select the Hide Keypad button in the lower-right corner, then double-tap.
- *Display the numeric keypad again:* Select the Keypad button near the center of the screen, then double-tap.

## Read PDF documents in Apple Books or Files using VoiceOver

 VoiceOver can read detailed information—such as forms, tables, and lists—in PDF documents.

## **Browse the web in Safari using VoiceOver**

- Search the web: Select the search field, double-tap to invoke the keyboard, enter your search, then swipe right or left to move down or up the list of suggested search phrases. Then double-tap the screen to search the web using the selected phrase.
- Skip to the next page element of a particular type: Set the rotor to the element type—such as headings, links, and form controls—then swipe up or down.
- Skip images while navigating: Go to Settings > General > Accessibility > VoiceOver > Navigate Images. You can choose to skip all images or only those without descriptions.
- Reduce page clutter for easier reading and navigation: Select the Reader item in the Safari address field (not available for all pages).

If you pair an Apple Wireless Keyboard with iPhone, you can use single-key Quick Nav commands to navigate webpages. See Use VoiceOver with an Apple Wireless Keyboard on iPhone.

### Read math equations using VoiceOver

VoiceOver can read math equations on the web (encoded using MathML) and in the Apple apps Pages, Numbers, Keynote, and iBooks Author (encoded using MathML or LaTeX).

- Hear an equation: Have VoiceOver read the text as usual. VoiceOver says "math" before it starts reading an equation.
- Explore the equation: Double-tap the selected equation to display it full screen and
  move through it one element at a time. Swipe left or right to read elements of the
  equation. Use the rotor to select Symbols, Small Expressions, Medium Expressions, or
  Large Expressions, then swipe up or down to hear the next element of that size. You
  can continue to double-tap the selected element to "drill down" into the equation to
  focus on the selected element, then swipe left or right, up or down to read one part at
  a time.

Equations spoken by VoiceOver can also be part put to a braille device using Nemeth code, as well as the codes used by Unified English Braille, British English, French, and Greek. See Use a braille display with VoiceOver on iPhone.

## **Navigate in Maps with VoiceOver**

In the Maps app, you can use VoiceOver to explore a region, browse points of interest, follow roads, zoom in or out, select a pin, or get information about a location.

- Control how the map tracks your current location: Double-tap ✓ until you hear the tracking option you want:
  - *Tracking on:* The map automatically centers on your current location.
  - *Tracking on with heading:* The map automatically centers on your current location and rotates so that the heading you're facing is at the top of the screen. In this mode, iPhone speaks street names and points of interest as you approach them.
  - *Tracking off:* The map doesn't automatically center on your current location.
- Explore the map: Drag your finger around the screen, or swipe left or right to move to another item.
- Zoom in or out: Select the map, set the rotor to Zoom, then swipe down or up with one finger.
- Pan the map: Swipe with three fingers.
- Browse visible points of interest: Set the rotor to Points of Interest, then swipe up or down with one finger.
- Follow a road: Hold your finger down on the road, wait until you hear "pause to follow," then move your finger along the road while listening to the guide tone. The pitch increases when you stray from the road.
- Select a pin: Touch a pin, or swipe left or right to select the pin.
- Get information about a location: With a pin selected, double-tap to display the information flag. Swipe left or right to select the More Info button, then double-tap to display the information page.

#### Edit videos and voice memos with VoiceOver

Use VoiceOver gestures to trim Camera videos and Voice Memo recordings.

• *Trim a video:* While viewing a video in Photos, double-tap the screen to display the video controls, then select the beginning or end of the trim tool. Then swipe up to drag to the right, or swipe down to drag to the left. VoiceOver announces the amount

of time the current position will trim from the recording. To complete the trim, select Trim, then double-tap.

Trim a voice memo: Select the memo in Voice Memos, tap Edit, then tap Start
Trimming. Select the beginning or end of the selection, double-tap and hold, then
drag to adjust. VoiceOver announces the amount of time the current position will trim
from the recording. Tap Play to preview the trimmed recording. When you've got it the
way you want it, tap Trim.

## Hear iPhone speak the screen, selected text, and typing feedback

Even if VoiceOver is turned off, you can have iPhone speak selected text or the entire screen. iPhone can also provide feedback and speak text corrections and suggestions as you type.

## **Change the speech settings**

- 1. Go to Settings > General > Accessibility > Speech.
- 2. Choose any of the following:
  - Speak Selection: To hear text you've selected, tap the Speak button.
  - Speak Screen: To hear the entire screen, swipe down with two fingers from the top of the screen.
  - *Highlight Content:* iPhone can highlight words, sentences, or both as they're spoken. You can change the highlight color and style.
  - Typing Feedback: You can configure typing feedback for software and hardware keyboards and choose to have iPhone speak each character, entire words, autocorrections, auto-capitalizations, and typing predictions.
    - To hear typing predictions, you also need to go to Settings ( > General > Keyboards, then turn on Predictive.
  - Voices: Choose a voice and dialect.
- 3. To adjust the speaking rate, drag the Speaking Rate slider.

### **Hear iPhone speak**

Ask Siri. Say something like: "Speak screen." Learn how to ask Siri.

Or do any of the following:

- Hear selected text: Select the text, the ptat Speak.
- Hear the entire screen: Swipe down with two fingers from the top of the screen. Use the controls that appear to pause speaking or adjust the rate.
- Hear typing feedback: Start typing. To hear typing predictions (when turned on), touch and hold each word.

## Zoom in on the iPhone screen

In many apps, you can zoom in or out on specific items. For example, you can double-tap or pinch to look closer in Photos or expand webpage columns in Safari. You can also use the Zoom feature to magnify the screen no matter what you're doing. You can magnify the entire screen (Full Screen Zoom) or magnify only part of the screen with a resizable lens (Window Zoom). And, you can use Zoom together with VoiceOver.

## **Set up Zoom**

- 1. Go to Settings ( ) > General > Accessibility > Zoom, then turn on Zoom and do any of the following:
  - Track your selections, the text insertion point, and your typing: Turn on Follow Focus. Then, for example, if you use VoiceOver, the zoom window magnifies each element on the screen as you select it.
    - To magnify your typing (in Messages or Notes, for example) but not the keyboard, turn on Smart Typing.
  - Show the Zoom Controller: Turn on Show Controller. To adjust the transparency of the Zoom Controller when not in use, tap Idle Visibility.
  - Choose the default Zoom region: Tap Zoom Region, then choose Full Screen Zoom or Window Zoom.
  - Apply a filter to the magnified part of the screen: Tap Zoom Filter, then choose Inverted, Grayscale, Grayscale Inverted, or Low Light.
  - Set the maximum magnification: Drag the Maximum Zoom Level slider.
- 2. To add Zoom to Accessibility Shortcut, go to Settings (a) > General > Accessibility > Accessibility Shortcut, then select Zoom.

Use Zoom Draft

- 1. Double-tap the screen with three fingers or use accessibility shortcuts to turn on Zoom.
- 2. To see more of the screen, do any of the following:
  - Adjust the magnification: Double-tap the screen with three fingers (without lifting your fingers after the second tap), then drag up or down. Or triple-tap with three fingers, then drag the Zoom Level slider.
  - Move the Zoom lens: (Window Zoom) Drag the handle at the bottom of the Zoom lens.
  - Pan to another area: (Full Screen Zoom) Drag the screen with three fingers.
- 3. To adjust the settings with the Zoom menu, triple-tap with three fingers, then do any of the following:
  - Switch between Window Zoom and Full Screen Zoom: Tap Choose Region.
  - Resize the Zoom lens: (Window Zoom) Tap Resize Lens, then drag any of the round handles that appear.
  - Apply a filter: Tap Choose Filter, then choose Inverted, Grayscale, Grayscale Inverted, or Low Light.
  - Show the Zoom Controller: Tap Show Controller.
- 4. To use the Zoom Controller, do any of the following:
  - Show the Zoom menu: Tap the controller.
  - Zoom in or out: Double-tap the controller.
  - Pan: When zoomed in, drag the controller.

While using Zoom with an Apple Wireless Keyboard, the screen image follows the insertion point, keeping it in the center of the display. See Use an Apple Wireless Keyboard.

To turn off Zoom, double-tap the screen with three fingers or use accessibility shortcuts.

On supported models, you can turn on Display Zoom to see larger onscreen controls. Go to Settings 

> Display & Brightness > View.

# Magnify nearby objects with Magnifier on iPhone

Use your iPhone as a magnifying glass to zoom in on objects near you.

## **Set up Magnifier**

1. Go to Settings (a) > General > Accessibility > Magnifier, then turn on Magnifier.

This adds Magnifier to accessibility shortcuts.

2. To automatically adjust the brightness of Magnifier based on ambient light settings, turn on Auto-Brightness.

## Turn on and adjust Magnifier

- 1. Use accessibility shortcuts to turn on Magnifier.
- 2. Make any of the following adjustments:
  - Adjust the magnification level: Drag the Zoom Level slider.

  - Apply color filters: Tap . Tap the different color filters to preview their effects. To adjust the brightness and contrast, drag the sliders. To invert the colors, tap . To apply the selected filter and return to Magnifier screen, tap . again.
  - Freeze the frame: Tap O. To adjust the magnification, drag the Zoom Level slider.
     To save the image, touch and hold the image, then tap Save Image. To unfreeze the frame, tap O again.

To turn off Magnifier, swipe up from the bottom (iPhone X and later) or press the Home button (other models).

# Adjust the display settings on iPhone

If you have color blindness, motion sensitivity, or other vision challenges, you can customize the display settings to make the screen easier to see.

## **Use display accommodations**

#### Draft

- 1. Go to Settings (a) > General > Accessibility > Display Accommodations.
- 2. Choose any of the following:
  - Auto-Brightness: iPhone automatically adjusts the screen brightness for current light conditions using the built-in ambient light sensor.
  - Invert Colors: Choose Smart Invert or Classic Invert. Or use accessibility shortcuts. Smart Invert Colors reverses the colors of the display, except for images, media, and some apps that use dark color styles.
  - Color Filters: Then turn on Color Filters or use accessibility shortcuts. Tap a filter to apply it. To adjust the intensity or hue, drag the sliders.
  - Reduce White Point: This setting reduces the intensity of bright colors.

You can also apply these effects to only the contents of the zoom window. See Zoom in on the iPhone screen.

#### **Enhance text and buttons**

- 1. Go to Settings > General > Accessibility.
- 2. Choose any of the following:
  - Larger Text: Turn on Larger Accessibility Sizes, then adjust the text size using the Font Size slider.
    - iPhone adjusts to your preferred text size in apps that support Dynamic Type, such as Settings, Calendar, Contacts, Mail, Messages, and Notes.
  - *Bold Text:* This setting requires restarting your iPhone.
  - Button Shapes: This setting underlines text you can tap.
  - On/Off Labels: This setting indicates switches turned on with "1" and switches turned off with "0".

## Increase contrast and reduce transpare profit

- 1. Go to Settings (a) > General > Accessibility.
- 2. Choose any of the following:
  - Increase Contrast: This setting improves the contrast and legibility by altering color and text styling.
    - Apps that support Dynamic Type—such as Settings, Calendar, Contacts, Mail, Messages, and Notes—adjust to your preferred text size.
  - Reduce Transparency: This setting reduces the transparency and blurs on some backgrounds.

#### **Reduce motion**

If you have sensitivity to motion effects or screen movement on your iPhone, you can stop or reduce the movement of some screen elements, such as:

- Parallax effect of wallpaper, apps, and alerts
- Screen transitions
- Siri animations
- Typing autocompletion
- Animated effects in Messages
- 1. Go to Settings (a) > General > Accessibility > Reduce Motion, then turn on Reduce Motion.
- 2. To prevent iPhone from automatically playing bubble and full-screen effects in Messages, turn off Auto-Play Message Effects.

To manually play effects in Messages, tap Replay below the message bubble.

## Face ID and attention aware features on iPhone X and later

On iPhone X and later, if you have physical limitations, you can tap Accessibility Options during Face ID setup so that you aren't required to perform the full range of head motion to capture different angles. Face ID is still secure but requires more consistency in how you look at iPhone. To set up Face ID, go to Settings > Face ID & Passcode.

For additional security, iPhone is *attention aware*, meaning it unlocks only when you look at it with your eyes open. iPhone can also reveal notifications and messages, keep the screen lit when you're reading, or lower the volume of an alarm or ringer.

If you don't want iPhone to check for your prefition, go to Settings > Accessibility. Below Attention, you can turn off the following:

- Require Attention for Face ID
- Attention Aware Features

These settings are turned off by default if you turn on VoiceOver when you first set up iPhone.

Note: Requiring attention makes Face ID more secure.

# Interaction

# Bring the screen within reach on iPhone

When you use supported models in Portrait orientation, you can turn on Reachability to bring items at the top of the screen down to the lower half of the screen.



## Turn on and use Reachability

- 1. Go to Settings (a) > General > Accessibility, then turn on Reachability.
- 2. To bring the top of the screen into reach, do the following:
  - *iPhone X and later:* Swipe down on the bottom edge of the screen.
  - Other models: Lightly double-tap the Home button.

To reset the screen, tap the top of the screen.

## Switch Control

## About Switch Control on iPhone

If you have a motor impairment, you can use Switch Control to operate iPhone using one or more connected physical switches. Use any of several methods to perform actions such as selecting, tapping, pressing, dragging, typing, and even freehand drawing. You use a switch to select an item or location on the screen, and then use the same (or different) switch to choose an action to perform on that item or location.

There are three methods of using Switch Control:

- Item scanning (default), which highlights different items on the screen until you select one.
- Point scanning, which lets you use scanning crosshairs to pick a screen location.
- Manual selection, which lets you move from item to item on demand (requires multiple switches).

Whichever method you use, when you select an individual item (rather than a group), a menu appears so you can choose how to act on the selected item (tap, press, drag, or pinch, for example).

If you use multiple switches, you can set up each switch to perform a specific action and customize your item selection method. For example, instead of automatically scanning screen items, you can set up switches to move to the next or previous item on demand.

You can adjust the behavior of Switch Control in a variety of ways, to suit your specific needs and style.

#### Add a switch and turn on Switch Control on iPhone

You can use the following as a switch:

- An external adaptive switch: Choose a Bluetooth switch or a Made For iPhone (MFi) switch that plugs into the lightning port.
- The iPhone screen: Tap the screen to trigger the switch. (Or, on models that support 3D Touch, press the screen.)
- The iPhone front-facing camera: Use head movements while facing the camera to trigger the switch.

Add a switch and choose its action. Go to Settings > General > Accessibility > Switch Control > Switches. If you use only one switch, it is your Select Item switch by default.

If you're adding an external switch, you negrate connect it to iPhone before it will appear in the list of available switches. Follow the instructions that came with the switch. If it connects using Bluetooth, you need to pair it with iPhone—turn on the switch, go to Settings (a) > Bluetooth, tap the switch, then follow the onscreen instructions. For more information, see Connect Bluetooth devices to iPhone.

If you connect a Made For iPhone (MFi) switch, Switch Control sets a Select Item switch and enables it automatically.

**Turn on Switch Control.** Go to Settings > General > Accessibility > Switch Control. Or, use accessibility shortcuts.

**Scan the keyboard.** VoiceOver scans the onscreen keyboard row by row, including the suggestions above the keyboard. To control how the keyboard is navigated, go to Settings Settings

**Turn off Switch Control.** Use any scanning method to select and tap Settings > General > Accessibility > Switch Control, then turn off Switch Control. Or, use accessibility shortcuts.

## Use Switch Control with basic techniques on iPhone

Whether you use item scanning or point scanning, the Switch Control basics are the same.

**Select an item.** While the item is highlighted, trigger the switch you've set up as your Select Item switch. If you're using a single switch, it is your Select Item switch by default.

**Perform an action on the selected item.** Choose a command from the control menu that appears when you select the item. The layout of the menu depends on how you configure tap behavior. (To choose an option, go to Settings > General > Accessibility > Switch Control > Tap Behavior.)

- With Default on: The control menu usually includes only the Tap button and the More button (two dots at the bottom). If you're in a scrollable area of the screen, a Scroll button also appears. To tap the highlighted item, trigger your Select Item button when Tap is highlighted. To see additional action buttons, choose More at the bottom of the menu. If you have multiple switches, you can set one up specifically for tapping.
- With Auto Tap on: To tap the item, do nothing—the item is automatically tapped when the Auto Tap interval expires (0.75 seconds if you haven't changed it). To see the control menu, trigger your Select Item button before the Auto Tap interval expires. The control menu skips the Tap button and goes right to the full set of action buttons.

• With Always Tap on: Tap to select the highlighted item rather than display the control menu. Wait until the end of the scan cycle, then tap a button to display the control menu.

*Note:* Always Tap applies only when you choose item scanning. When point scanning, the default behavior applies.

**Work with recipes.** A recipe lets you temporarily assign a special action to a switch. For example, you can choose a recipe to turn pages in Apple Books or control a game. To create, edit, or launch a recipe, go to Settings (a) > General > Accessibility > Switch Control > Recipes.

**Use Siri Shortcuts.** To create a Siri Shortcut, see Add other suggested shortcuts.

**Dismiss the Scanner menu without choosing an action.** Tap while the original item is highlighted and all the icons in the control menu are dimmed. The menu goes away after cycling the number of times you specify in Settings (a) > General > Accessibility > Switch Control > Loops.

**Perform screen gestures.** Choose Gestures from the Scanner menu.

**Scroll the screen.** Select an item in a scrollable part of the screen, then:

- With Auto Tap off: Choose the Scroll Down button (next to the Tap button) in the Scanner menu. Or, for additional scrolling options, choose More, then choose Scroll.
- With Auto Tap on: Choose Scroll from the control menu. If many actions are available, you might have to choose More first.

**Tap the Home button.** Choose Home from the Scanner menu.

**Perform other hardware actions.** Select any item, then choose Device from the menu that appears. Use the menu to mimic these actions:

- See the App Switcher
- Open the notifications screen or Control Center
- Press the side button or Sleep/Wake button (depending on your model) to lock iPhone
- Rotate iPhone to landscape or portrait orientation
- Flip the Ring/Silent switch
- Press the volume buttons
- Press and hold the side button (iPhone X and later) or Home button (other models) to summon Siri

- Triple-click the side button (iPhone X and later) or Home button (other models)
- Shake iPhone
- Take a screenshot
- Swipe down from the top with two fingers to speak the screen (if you have Speak Screen turned on)
- On models that support 3D Touch, replicate 3D Touch to preview the contents of an email message

**Control media playback.** Choose Media Controls from the Scanner menu to play, pause, or go backward or forward.

**Use Switch Control on another iOS device.** Ensure that you sign in to iCloud with the same Apple ID on the other iOS device, then choose the other device from the menu.

## Select items using item scanning with Switch Control on iPhone

Item scanning alternately highlights each item or group of items on the entire screen until you trigger your Select Item switch. If there are many items, Switch Control highlights them in groups. When you select a group, highlighting continues with the items in the group. When you select a unique item, scanning stops and the control menu appears. Item scanning is the default when you first turn on Switch Control.

You can choose from three scanning styles—auto scanning, manual scanning, and single-switch step scanning. Auto scanning automatically highlights items, one after the other. With manual scanning, you use one switch to highlight an item and another to activate it. Single-switch step scanning uses a switch to move the highlight from item to item. If you take no action after a period of time, the highlighted item activates.

**Select an item or enter a group.** Watch (or listen) as items are highlighted. When the item you want to control (or the group containing the item) is highlighted, trigger your Select Item switch. Work your way down the hierarchy of items until you select the individual item you want to control.

**Back out of a group.** Trigger your Select Item switch when the dashed highlight around the group or item appears.

**Dismiss the control menu without performing an action.** Trigger your Select Item switch when the item itself is highlighted. Or choose Escape from the control menu.

**Hear the names of items as they are highlighted.** Go to Settings > General > Accessibility > Switch Control, then turn on Speech. Or choose Settings from the control menu, then choose Speech On.

Slow down or speed up the scanning. Goto et lings > General > Accessibility > Switch Control > Auto Scanning Time.

Select items using point scanning with Switch Control on iPhone

Point scanning lets you select an item on the screen by pinpointing it with scanning crosshairs.

**Switch to point scanning.** Use item scanning to choose Point Mode from the control menu. The vertical crosshair appears when you close the menu.

**Select an item.** Trigger your Select Item switch when the item you want is within the broad, horizontal scanning band, then trigger again when the fine scanning line is on the item. Repeat for vertical scanning.

**Refine your selection point.** Choose Refine Selection from the control menu.

**Return to item scanning.** Choose Item Mode from the control menu.

**Adjust point scanning settings.** Go to Settings > General > Accessibility > Switch Control. Below Point Scanning, you can adjust the following:

- Selection Style:
  - One Phase: One selection for each dimension.
  - *Two Phase:* One initial selection followed by a more refined selection for each dimension.
  - Three Phase: Similar to Two Phase, with the addition of one more selections at a slower speed for each dimension.
- Gliding Cursor Speed: Tap or + to adjust the speed at which the gliding cursor moves across the screen.

### Adjust Switch Control settings on iPbatte

**Adjust basic settings.** Go to Settings > General > Accessibility > Switch Control, where you can do the following:

- Add switches and specify their function
- Choose, create, and edit recipes
- Choose a scanning style
- Adjust how rapidly items are scanned
- Turn off auto scanning (only if you've added a Move to Next Item switch)
- Set scanning to pause on the first item in a group
- Choose how many times to cycle through the screen before hiding Switch Control
- Choose a tap behavior and set the interval for performing a second switch action to show the control menu
- Choose whether Switch Control resumes scanning at an item you tap or from the beginning
- Set whether a movement action is repeated when you press and hold a switch, and how long to wait before repeating
- Add another action to a switch by pressing and holding the switch for a long duration
- Choose which items appear in menus and the order in which they appear
- Set whether and how long you need to hold a switch down before it's accepted as a switch action
- Have Switch Control ignore accidental repeated switch triggers
- Adjust the point scanning speed
- Turn on sound effects or have items read aloud as they are scanned
- Choose what to include in the Switch Control menu.
- Set whether items should be grouped while item scanning
- Make the selection cursor larger or a different color
- Save custom gestures to the control menu (in Gestures > Saved)

**Fine-tune Switch Control.** Choose Settings from the control menu to:

- Change the location of the control menu
- Turn sound or speech accompaniment on or off
- Turn off groups to scan items one at a time

#### Use AssistiveTouch on iPhone

AssistiveTouch helps you use iPhone if you have difficulty touching the screen or pressing the buttons. You can use AssistiveTouch without any accessory to perform gestures that are difficult for you. You can also use a compatible adaptive accessory (such as a joystick) together with AssistiveTouch to control iPhone. To configure the AssistiveTouch menu, go to Settings (a) > General > Accessibility > AssistiveTouch.

AssistiveTouch lets you perform the following actions and more just by tapping (or the equivalent on your accessory):

- Open the AssistiveTouch menu
- Go to the Home screen
- Double-tap
- Perform multifinger gestures
- Summon Siri
- Access Control Center, notifications, Lock screen, or App Switcher
- Adjust volume on iPhone
- Shake iPhone
- Take a screenshot
- Use 3D Touch to peek at previews and pop open items (on models with 3D Touch)
- Use Apple Pay (on models that support Apple Pay)
- Make an emergency SOS call
- Speak screen
- Control Analytics
- Restart iPhone

Turn on AssistiveTouch. Tell Siri "turn on praistiveTouch;" go to Settings > General > Accessibility > AssistiveTouch; or use Accessibility Shortcut. When AssistiveTouch is on, the floating menu button appears on the screen.

Add more actions to the AssistiveTouch menu. Go to Settings > General > Accessibility > AssistiveTouch > Customize Top Level Menu. The menu can have up to eight actions.

**Show or hide the AssistiveTouch menu.** Tap the floating menu button, or click the secondary button on your accessory.

**Show the Home screen.** Tap the menu button, then tap Home.

Lock or rotate the screen, adjust iPhone volume, or simulate shaking iPhone. Tap the menu button, then tap Device.

**Perform a swipe or drag that uses 2, 3, 4, or 5 fingers.** Tap the menu button, tap Device > More > Gestures, then tap the number of digits needed for the gesture. When the corresponding circles appear on the screen, swipe or drag in the direction required by the gesture. When you finish, tap the menu button.

**Perform a pinch gesture.** Tap the menu button, tap Custom, then tap Pinch. When the pinch circles appear, touch anywhere on the screen to move the pinch circles, then drag them in or out to perform a pinch gesture. When you finish, tap the menu button.

**Create your own gesture.** You can add your own favorite gestures to the control menu (for example, touch and hold or two-finger rotation). Tap the menu button, tap Custom, then tap an empty gesture placeholder. Or go to Settings (a) > General > Accessibility > AssistiveTouch > Create New Gesture.

Example 1: To create the rotation gesture, go to Settings > General > Accessibility > AssistiveTouch > Create New Gesture. On the gesture recording screen that asks you to touch to create a gesture, rotate two fingers on the iPhone screen around a point between them. (You can do this with a single finger or stylus—just create each arc separately, one after the other.) If it doesn't turn out quite right, tap Cancel, then try again. When it looks right, tap Save, then give the gesture a name—maybe "Rotate 90." Then, to rotate the view in Maps, for example, open Maps, tap the AssistiveTouch menu button, and choose Rotate 90 from Custom. When the blue circles representing the starting finger positions appear, drag them to the point around which you want to rotate the map, then release. You might want to create several gestures with different degrees of rotation.

*Example 2:* Let's create the touch-and-hold gesture that you use to start rearranging icons on your Home screen. This time, on the gesture recording screen, touch and hold your finger in one spot until the recording progress bar reaches halfway, then lift your finger. Be careful not to move your finger while recording, or the gesture will be recorded

as a drag. Tap Save, then name the gesture from Custom. When the blue circle representing your touch appears, drag it over a Home screen icon and release.

If you record a sequence of taps or drags, they're all played back at the same time. For example, using one finger or a stylus to record four separate, sequential taps at four locations on the screen creates a simultaneous four-finger tap.

**Exit a menu without performing a gesture.** Tap anywhere outside the menu. To return to the previous menu, tap the arrow in the middle of the menu.

Assign custom actions to the menu button. By default, a single tap on the menu button opens the menu. To assign other actions to the menu button, go to Settings > Seneral > Accessibility > AssistiveTouch. Below Custom Actions, you can assign different actions to a single tap, double tap, long press, or 3D Touch.

Reduce the visibility of the menu button when not in use. Go to Settings 
Seneral > Accessibility > AssistiveTouch > Idle Opacity, then drag the slider.

Move the menu button. Drag it anywhere along the edge of the screen.

#### Use touch accommodations on iPhone

If you have trouble using the touchscreen or buttons, you can change how iPhone responds to your touch.

#### Use touch accommodations

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- 1. Go to Settings (a) > General > Accessibility > Touch Accommodations.
- 2. You can configure iPhone to do any of the following:
  - Respond to touches of a certain duration: Turn on Hold Duration, then tap or
     to adjust the duration (the default is 0.10 seconds).

To perform swipe gestures without waiting for the specified hold duration, tap Swipe Gestures, then turn on Swipe Gestures. You can choose the amount of required movement before a swipe gesture begins.

- Ignore multiple touches: Turn on Ignore Repeat, then tap or + to adjust the amount of time allowed between multiple touches. Then, if you touch the screen several times quickly, iPhone treats the touches as one.
- Respond to the first or last place you touch: Choose Use Initial Touch Location or Use Final Touch Location.

If you choose Use Initial Touch Location, iPhone uses the location of your first tap
—when you tap an app on the Home screen, for example. If you choose Use Final
Touch Location, iPhone registers the tap where you lift your finger. iPhone
responds to a tap when you lift your finger within a certain period of time. Tap

or + to adjust the timing. Your device can respond to other gestures, such as
drags, if you wait longer than the gesture delay.

#### Choose how iPhone responds when you press and hold the side or Home button

- 1. Go to Settings (a) > General > Accessibility > Side Button (iPhone X and later) or Home Button (other models).
- 2. Choose Siri, Voice Control, or Off

#### **Adjust 3D Touch settings**

On models that support 3D Touch, you can control the sensitivity of 3D Touch or turn it off.

- 1. Go to Settings > General > Accessibility > 3D Touch.
- 2. Do one of the following:
  - Choose Light, Medium, or Firm sensitivity to adjust the amount of pressure needed to activate 3D Touch. Light sensitivity reduces the amount of pressure required; firm sensitivity increases it.
  - Turn off 3D Touch.

### Use accessibility features with Staffor Voice Control on iPhone

Siri is often the easiest way to start using accessibility features with iPhone. With Siri, you can open apps, turn many settings on or off (for example, VoiceOver), or use Siri for what it does best—acting as your intelligent personal assistant. Siri knows when VoiceOver is on, so will often read more information back to you than appears on the screen. You can also use VoiceOver to read what Siri shows on the screen.

**Type to Siri.** To type instead of speaking to Siri, go to General > Accessibility > Siri, then turn on Type to Siri. After you summon Siri, interact with Siri by using the keyboard and text field.

Instead of using Siri, you can use Voice Control to make calls and control music playback. For example, you may want to use Voice Control if you can't use Siri because you're not connected to the Internet. See Use Voice Control in place of Siri on iPhone.

### Adjust software and hardware keyboard settings on iPhone

If you have difficulty distinguishing characters on the iPhone keyboard or manipulating a hardware keyboard, you can adjust settings such as the key repeat rate. You can also rotate iPhone to use a larger keyboard for typing in many apps, including Mail, Safari, Messages, Notes, and Contacts.

- 1. Go to Settings > General > Accessibility > Keyboard.
- 2. Do any of the following:
  - Show only uppercase keys on the iPhone keyboard.
  - Adjust the key repeat rate on hardware keyboards.
  - Use Sticky Keys to press and hold modifier keys, such as Command and Option, as you press another key.
  - Use Slow Keys to adjust the time between when a key is pressed and when it's activated.

# Hearing

### Use hearing devices with iPhone

You can use Made for iPhone (MFi) hearing aids or sound processors with iPhone and adjust their settings.

#### Pair a hearing device with iPhone

If your hearing devices aren't listed in Settings (a) > General > Accessibility > MFi Hearing Devices, you need to pair them with iPhone.

- 1. Open the battery door on each hearing device.
- 2. On iPhone, go to Settings @ > Bluetooth, then make sure Bluetooth is turned on.
- 3. Go to Settings (a) > General > Accessibility > MFi Hearing Devices.
- 4. Close the battery doors on your hearing devices.
- 5. When their names appear in the list of devices (this could take a minute), tap the names and respond to the pairing requests.

Pairing can take as long as 60 seconds—don't try to stream audio or otherwise use the hearing devices until pairing is finished. When pairing is finished, you hear a series of beeps and a tone, and a checkmark appears next to the hearing devices in the Devices list.

You need to pair your devices only once (and your audiologist might do it for you). After that, your hearing devices automatically reconnect to iPhone whenever they turn on.

#### Adjust the settings and view the status of year hearing devices

- In Settings: Go to Settings (a) > General > Accessibility > MFi Hearing Devices.
- Use accessibility shortcuts: See Use accessibility shortcuts on iPhone.
- On the Lock screen: Go to Settings S > General > Accessibility > MFi Hearing
  Devices, then turn on Control on Lock Screen. From the Lock screen, you can do the
  following:
  - Check battery status.
  - Adjust ambient microphone volume and equalization.
  - Choose which hearing aids (left, right, or both) receive streaming audio.
  - Control Live Listen.
  - Choose whether call audio and media audio are routed to the hearing aid.
  - Choose to play alert tones through the hearing aid. (Not all hearing aids support this feature.)

#### Use your hearing devices with more than one iOS device

If you pair your hearing devices with more than one iOS device (both iPhone and iPod touch, for example), the connection for your hearing devices automatically switches from one to the other when you do something that generates audio on the other device, or when you receive a phone call on iPhone. Changes you make to hearing device settings on one device are automatically sent to your other iOS devices.

- 1. Sign in to iCloud using the same Apple ID on all the devices.
- 2. Connect all the devices to the same Wi-Fi network.

#### **Turn on Hearing Aid Compatibility**

Hearing Aid Compatibility may reduce interference and improve audio quality with some hearing aid models.

- 1. Go to Settings > General > Accessibility.
- 2. Turn on Hearing Aid Compatibility.

The FCC hearing aid compatibility rules require that certain phones be tested and rated under the American National Standard Institute (ANSI) C63.19 hearing aid compatibility standards.

The ANSI standard for hearing aid compatibility contains two types of ratings:

- M: For reduced radio-frequency interferage to enable acoustic coupling with hearing aids that don't operate in telecoil mode
- T: For inductive coupling with hearing aids operating in telecoil mode

These ratings are given on a scale from one to four, where four is the most compatible. A phone is considered hearing aid compatible under the FCC requirements if it's rated M3 or M4 for acoustic coupling and T3 or T4 for inductive coupling.

For iPhone hearing aid compatibility ratings, see the Apple Support article About Hearing Aid Compatibility (HAC) requirements for iPhone.

Hearing aid compatibility ratings aren't a guarantee that a particular hearing aid works well with a particular phone. Some hearing aids might work well with phones that do not meet the FCC requirements for hearing aid compatibility. To ensure that a particular hearing aid works well with a particular phone, use them together before purchasing.

This phone has been tested and rated for use with hearing aids for some of the wireless technologies it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

## Stream audio to your hearing devices on iPhone

Stream audio from iPhone and its apps to your hearing devices. You can even use Live Listen to stream sound from the microphone to your Made For iPhone (MFi) hearing devices or AirPods.

#### Stream audio to your hearing devices

To stream audio from Phone, Siri, Music, TV, Videos, and more, see Connect Bluetooth devices to iPhone.

#### Route audio calls

You can automatically route the audio of incoming or outgoing calls to your headset, speakerphone, or hearing devices.

 Reroute audio for calls: Go to Settings > General > Accessibility > Call Audio Routing, then choose how you want to hear and speak your calls. • Switch audio routing from your hearing pight a speaker: If a call is routed to your hearing aid, automatically switch to a speaker by removing the hearing aid from your ear. See Use hearing devices with iPhone.

#### Use iPhone as a remote microphone with Live Listen

Stream sound from the microphone on iPhone to your Made For iPhone (MFi) hearing devices or AirPods. This can help you hear better in some situations—for example, when having a conversation in a noisy environment.

- 1. If you're using AirPods, place them in your ears.
- 2. Turn on Live Listen with one of the following methods:
  - - (If you don't see  $\mathfrak{D}$ , add it to Control Center—go to Settings  $\mathfrak{D}$  > Control Center > Customize Controls, then choose Hearing.)
  - Triple-click the side button (iPhone X and later) or triple-click the Home button (other models), tap Hearing Devices, then tap Live Listen.
- 3. Position iPhone near the sound source.

### Set up and use TTY or RTT on iPhone

If you have hearing or speech difficulties, you can communicate by telephone using Teletype (TTY) or real-time text (RTT)—protocols that transmit text as you type and allow the recipient to read the message right away. RTT is a more advanced protocol that transmits audio as you type text. (Only certain carriers support TTY and RTT.)

iPhone provides built-in Software RTT and TTY from the Phone app—it requires no additional devices. If you turn on Software RTT/TTY, iPhone defaults to the RTT protocol whenever it's supported by the carrier.

iPhone also supports Hardware TTY, so you can connect iPhone to an external TTY device with the iPhone TTY Adapter (sold separately in many regions).

**Important:** When making an emergency call in the U.S., iPhone sends special characters or tones to alert the operator. The operator's ability to receive or respond to these tones can vary depending on your location. Apple doesn't guarantee that the operator will be able to receive or respond to an RTT or TTY call.

#### **Set up RTT or TTY**

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- 1. Go to Settings (6) > General > Accessibility.
- 2. Tap RTT/TTY or TTY, then do any of the following:
  - Turn on Software RTT/TTY or Software TTY.
  - Turn on Hardware TTY.
  - Enter the phone number to use for relay calls with Software TTY.
  - Choose to send each character as you type or enter the whole message before you send.
  - Turn on Answer All Calls as TTY.

When RTT or TTY is turned on, appears in the status bar at the top of the screen.

#### Connect iPhone to an external TTY device

If you turned on Hardware TTY in Settings, connect iPhone to your TTY device using the iPhone TTY Adapter. If Software TTY is also turned on, incoming calls default to Hardware TTY. For information about using a particular TTY device, see the documentation that came with it.

#### Start an RTT or TTY call

- 1. In the Phone app, choose a contact, then tap the phone number.
- 2. Choose RTT/TTY Call or RTT/TTY Relay Call.
- 3. Wait for the call to connect, then tap RTT/TTY.

iPhone defaults to the RTT protocol whenever it's supported by the carrier.

If you haven't turned RTT on and you receive an incoming RTT call, tap the RTT button to answer the call with RTT.

#### Type text during an RTT or TTY call

1. Enter your message in the text field.

If you turned on Send Immediately in Settings, your recipient sees each character as you type. Otherwise, tap (1) to send the message.

2. To also transmit audio, tap .

#### Review the transcript of a Software RTT oraftTY call

1. In the Phone app, tap Recents.

RTT and TTY calls have m next to them.

2. Next to the call you want to review, tap (i).

*Note:* Continuity features aren't available for RTT and TTY support. Standard voice call rates apply for both Software RTT/TTY and Hardware TTY calls.

#### Flash the LED for alerts on iPhone

If you can't hear the sounds that announce incoming calls and other alerts, iPhone can flash its LED (next to the camera lens on the back of iPhone). The LED flashes only if iPhone is locked.

**Tip:** LED Flash for Alerts is a useful feature for anyone who might miss the tones associated with calls and other alerts in a noisy environment.

- 1. Go to Settings > General > Accessibility > LED Flash for Alerts, then turn on LED Flash for Alerts.
- 2. To prevent LED flashes when iPhone is in silent mode, turn off Flash on Silent.

### Adjust the volume balance and mono audio on iPhone

You can adjust the audio volume balance between the left and right channels. You can also use Mono Audio to combine the left and right channels into a mono signal played on both channels. This way you can hear everything with either ear, or through both ears with one channel set louder.

- 1. Go to Settings (a) > General > Accessibility.
- 2. To adjust the audio volume balance, drag the Left Right Stereo Balance slider.
- 3. To combine the left and right channels, turn on Mono Audio.

## Control noise cancellation on iPagne

Noise cancellation reduces ambient background noise on phone calls when you're holding the receiver to your ear.

#### Turn noise cancellation on or off

- 1. Go to Settings 

  > General > Accessibility.
- 2. Turn Phone Noise Cancellation on or off.

### Media

### Display subtitles and closed captions on iPhone

When you play video content in the TV or Videos app, you can turn on subtitles and closed captions (if available). iPhone usually shows standard subtitles and captions, but you can also choose special accessible captions—such as subtitles for the deaf and hard of hearing (SDH)—if available.

#### Turn on subtitles and captions in TV or Videos

- 1. While playing video content, tap =.
- 2. Choose from the list of available subtitles and captions.

#### **Customize the subtitles and captions**

- 1. Go to Settings (a) > General > Accessibility > Subtitles & Captioning.
- 2. If you prefer closed captioning or subtitles for the deaf and hard of hearing when available, turn on Closed Captions + SDH.

This also turns on subtitles and captions in TV or Videos.

- 3. Tap Style, then choose an existing caption style or create a new style based on the following:
  - Font, size, and color
  - Background color and opacity
  - Text opacity, edge style, and highlight

### Hear audio descriptions for video content on iPhone

If you have video content that includes audio descriptions of scenes, iPhone can play the descriptions for you.

- 1. Go to Settings 

  Sequence > Accessibility > Audio Descriptions.
- 2. Turn on Prefer Audio Descriptions.

## Use Guided Access on iPhorate

Guided Access helps you stay focused on a task by temporarily restricting iPhone to a single app, and allowing you to control which app features are available. You can do any of the following:

- Disable areas of the screen that aren't relevant to a task, or areas where an accidental gesture might cause a distraction
- Disable the iPhone hardware buttons
- Limit how long someone can use the app

#### **Set up Guided Access**

- 1. Go to Settings (a) > General > Accessibility > Guided Access, then turn on Guided Access.
- 2. Do any of the following:
  - Tap Passcode Settings to set a passcode that controls Guided Access and prevents someone from leaving a session, or turn on Face ID (iPhone X and later) or Touch ID (other models) as a way to end Guided Access.
  - Tap Time Limits to set a sound or have the remaining Guided Access time spoken before the time ends.
  - Set whether other accessibility shortcuts are available during a session.

#### **Start a Guided Access session**

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- 1. Open the app you want to use.
- 2. Turn on Guided Access using one of the following methods:
  - Ask Siri. Say something like: "Turn on Guided Access." Learn how to ask Siri.
  - Use accessibility shortcuts.
- 3. Circle any areas of the screen you want to disable. Drag the mask into position or use the handles to adjust its size.
- 4. Tap Options, then turn on or off any of the following:
  - Sleep/Wake Button
  - Volume Buttons
  - Motion (to prevent iPhone from switching from portrait to landscape or from responding to other motions)
  - Keyboards
  - Touch
  - Time Limit
- 5. Tap Start.

#### **End the Guided Access session**

- *iPhone X and later:* Double-click the side button, then unlock with Face ID (if enabled). Or triple-click the side button, then enter the Guided Access passcode.
- Other models: Double-click the Home button, then unlock with Touch ID (if enabled). Or triple-click the Home button, then enter the Guided Access passcode.

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# Safety, handling, and support

# Important safety information for iPhone

**WARNING:** Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to iPhone or other property. Read all the safety information below before using iPhone.

**Handling** Handle iPhone with care. It is made of metal, glass, and plastic and has sensitive electronic components inside. iPhone or its battery can be damaged if dropped, burned, punctured, or crushed, or if it comes in contact with liquid. If you suspect damage to iPhone or the battery, discontinue use of iPhone, as it may cause overheating or injury. Don't use iPhone with cracked glass, as it may cause injury. If you're concerned about scratching the surface of iPhone, consider using a case or cover.

Repairing Don't open iPhone and don't attempt to repair iPhone yourself. Disassembling iPhone may damage it, result in loss of splash and water resistance (supported models), or cause injury to you. iPhone 8 and later, iPhone 7, and iPhone 7 Plus contain one or more lasers that could be damaged during repair or disassembly, which could result in hazardous exposure to infrared laser emissions that are not visible. If iPhone is damaged or malfunctions, contact Apple or an Apple Authorized Service Provider. Repairs by service providers other than Apple or an Apple Authorized Service Provider may not involve the use of Apple genuine parts and may affect the safety and functionality of the device. You can find more information about repairs and service at the iPhone Repair website.

**Battery** Don't attempt to replace the iPhone battery yourself. The lithium-ion battery in iPhone should be replaced by Apple or an authorized service provider. Improper replacement or repair could damage the battery, cause overheating, or result in injury. The battery must be recycled or disposed of separately from household waste. Don't incinerate the battery. For information about battery service and recycling, go to the Battery Service and Recycling website.

**Distraction** Using iPhone in some circumstances may distract you and might cause a dangerous situation (for example, avoid using headphones while riding a bicycle and avoid typing a text message while driving a car). Observe rules that prohibit or restrict the use of mobile devices or headphones. For more about safety while driving, see Turn on "Do Not Disturb while Driving" on iPhone.

**Navigation** Maps depends on data services. These data services are subject to change and may not be available in all regions, resulting in maps and location-based information that may be unavailable, inaccurate, or incomplete. Compare the information provided in

Maps to your surroundings. Use common sprate when navigating. Always observe current road conditions and posted signs to resolve any discrepancies. Some Maps features require Location Services.

**Charging** Charge iPhone with the included USB cable and power adapter, or (on supported models) by placing iPhone face up on a Qi-certified charger. You can also charge iPhone with "Made for iPhone" or other third-party cables and power adapters that are compliant with USB 2.0 or later and with applicable country regulations and international and regional safety standards, including Standard for Safety Information Technology Equipment (IEC 60950). Other adapters may not meet applicable safety standards, and charging with such adapters could pose a risk of death or injury.

Using damaged cables or chargers, or charging when moisture is present, can cause fire, electric shock, injury, or damage to iPhone or other property. When you use the Apple USB power adapter to charge iPhone, make sure the USB cable is fully inserted into the power adapter before you plug the adapter into a power outlet. It's important to keep iPhone and its power adapter or wireless charger in a well-ventilated area when in use or charging. When using a wireless charger, remove metallic cases and avoid placing metallic foreign objects on the mat (for example, keys, coins, batteries, or jewelry), as they may become warm or interfere with charging.

**Lightning cable and connector** Avoid prolonged skin contact with the connector when the Lightning to USB Cable is connected to a power source because it may cause discomfort or injury. Sleeping or sitting on the Lightning connector should be avoided.

**Prolonged heat exposure** iPhone and its USB power adapter comply with applicable surface temperature standards and limits. However, even within these limits, sustained contact with warm surfaces for long periods of time may cause discomfort or injury. Use common sense to avoid situations where your skin is in contact with a device, its power adapter, or a wireless charger when it's operating or connected to a power source for long periods of time. For example, don't sleep on a device, power adapter, or wireless charger, or place them under a blanket, pillow, or your body, when it's connected to a power source. Take special care if you have a physical condition that affects your ability to detect heat against the body.

**Hearing loss** Listening to sound at high volumes may damage your hearing. Background noise, as well as continued exposure to high volume levels, can make sounds seem quieter than they actually are. Turn on audio playback and check the volume before inserting anything in your ear. For information about how to set a maximum volume limit, see Play music on iPhone. For more information about hearing loss, go to the Sound and Hearing website.

To avoid hearing damage, use only compatible receivers, earbuds, headphones, speakerphones, or earpieces with iPhone. The headsets sold with iPhone 4s or later in China (identifiable by dark insulating rings on the plug) are designed to comply with

Chinese standards and are only compatible with iPhone 4s and later, iPad 2 and later, iPad Pro, iPad mini and later, and iPod touch 5th generation and later.

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

**Radio frequency exposure** iPhone uses radio signals to connect to wireless networks. For information about radio frequency (RF) energy resulting from radio signals, and steps you can take to minimize exposure, go to Settings > tap General > About > Legal > RF Exposure, or go to the RF Exposure website.

Radio frequency interference Observe signs and notices that prohibit or restrict the use of electronic devices. Although iPhone is designed, tested, and manufactured to comply with regulations governing radio frequency emissions, such emissions from iPhone can negatively affect the operation of other electronic equipment, causing them to malfunction. When use is prohibited, such as while traveling in aircraft, or when asked to do so by authorities, turn off iPhone, or use airplane mode or Settings > Wi-Fi and Settings > Bluetooth to turn off the iPhone wireless transmitters.

**Medical device interference** iPhone contains components and radios that emit electromagnetic fields. iPhone also contains magnets and the included headphones also have magnets in the earbuds. These electromagnetic fields and magnets may interfere with medical devices, such as pacemakers and defibrillators. Consult your physician and medical device manufacturer for information specific to your medical device and whether you need to maintain a safe distance of separation between your medical device and iPhone and the earbuds. If you suspect iPhone or the earbuds are interfering with your medical device, stop using iPhone.

**Not a medical device** iPhone and the Health app are not designed or intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease.

**Medical conditions** If you have any medical condition or experience symptoms that you believe could be affected by iPhone or flashing lights (for example, seizures, blackouts, eyestrain, or headaches), consult with your physician prior to using iPhone.

**Explosive and other atmospheric conditions** Charging or using iPhone in any area with a potentially explosive atmosphere, such as areas where the air contains high levels of flammable chemicals, vapors, or particles (such as grain, dust, or metal powders), may be hazardous. Exposing iPhone to environments having high concentrations of industrial chemicals, including near evaporating liquified gasses such as helium, may damage or impair iPhone functionality. Obey all signs and instructions.

**Repetitive motion** When you perform repetitive activities such as typing, swiping, or playing games on iPhone, you may experience discomfort in your hands, arms, wrists, shoulders, neck, or other parts of your body. If you experience discomfort, stop using

**High-consequence activities** This device is not intended for use where the failure of the device could lead to death, personal injury, or severe environmental damage.

**Choking hazard** Some iPhone accessories may present a choking hazard to small children. Keep these accessories away from small children.

## Important handling information for iPhone

**Cleaning** Clean iPhone immediately if it comes in contact with anything that may cause stains, or other damage—for example, dirt or sand, ink, makeup, soap, detergent, acids or acidic foods, or lotions. To clean:

- Disconnect all cables and turn off iPhone by pressing and holding the side button or Sleep/Wake button (depending on your model), then dragging the slider.
- Use a soft, slightly damp, lint-free cloth—for example, a lens cloth.
- Avoid getting moisture in openings.
- Don't use cleaning products or compressed air.

iPhone has a fingerprint-resistant oleophobic (oil-repellant) coating. This coating wears over time with normal usage. Cleaning products and abrasive materials will further diminish the coating and may scratch iPhone.

**Exposure to liquid and dust** If liquid splashes on iPhone or dust gets on it, wipe it off with a soft, lint-free cloth (for example, a lens cloth) and ensure that your iPhone is dry and free of dust before opening the SIM tray. Minimize exposing iPhone to soap, detergent, acids or acidic foods, and any liquids—for example, salt water, soapy water, pool water, perfume, insect repellent, lotion, sunscreen, oil, adhesive remover, hair dye, and solvents. If iPhone comes into contact with any of these substances, follow the instructions above in the Cleaning section.

Supported models are splash, water, and dust resistant and were tested under controlled laboratory conditions with a rating of either IP68 or IP67 under IEC standard 60529. Splash, water, and dust resistance are not permanent conditions and resistance might decrease as a result of normal wear. Liquid damage not covered under warranty. For more information, see the Apple Support article About splash, water, and dust resistance of iPhone 7 and later. To prevent liquid damage on iPhone, avoid the following:

- Swimming or bathing with iPhone
- Exposing iPhone to pressurized water or high velocity water, such as when showering, water skiing, wake boarding, surfing, jet skiing, and so on

- Using iPhone in a sauna or steam room Draft
- Intentionally submerging iPhone in water
- Operating iPhone outside the suggested temperature ranges or in extremely humid conditions
- Dropping iPhone or subjecting it to other impacts
- Disassembling iPhone, including removing screws

If your iPhone has been exposed to liquid, unplug all cables and do not charge your device until it's completely dry. Using accessories or charging when wet may damage your iPhone. Allow at least 5 hours before charging or connecting a Lightning accessory.

To dry iPhone, tap it gently against your hand with the Lightning connector facing down to remove excess liquid. Leave the device in a dry area with sufficient airflow. Placing the device in front of a fan blowing cool air directly into the Lightning connector may help the drying process.

Do not dry your iPhone using an external heat source or insert a foreign object into the Lightning connector such as a cotton swab or a paper towel.

**Using connectors, ports, and buttons** Never force a connector into a port or apply excessive pressure to a button, because this may cause damage that is not covered under the warranty. If the connector and port don't join with reasonable ease, they probably don't match. Check for obstructions and make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.

**Lightning to USB Cable** Discoloration of the Lightning connector after regular use is normal. Dirt, debris, and exposure to moisture may cause discoloration. If your Lightning cable or connector become warm during use or iPhone won't charge or sync, disconnect it from your computer or power adapter and clean the Lightning connector with a soft, dry, lint-free cloth. Do not use liquids or cleaning products when cleaning the Lightning connector.

Certain usage patterns can contribute to the fraying or breaking of cables. The Lightning to USB Cable, like any other metal wire or cable, is subject to becoming weak or brittle if repeatedly bent in the same spot. Aim for gentle curves instead of angles in the cable. Regularly inspect the cable and connector for any kinks, breaks, bends, or other damage. Should you find any such damage, discontinue use of the Lightning to USB Cable.

**Operating temperature** iPhone is designed to work in ambient temperatures between 32° and 95° F (0° and 35° C) and stored in temperatures between -4° and 113° F (-20° and 45° C). iPhone can be damaged and battery life shortened if stored or operated

outside of these temperature ranges. Avoider posing iPhone to dramatic changes in temperature or humidity. When you're using iPhone or charging the battery, it is normal for iPhone to get warm.

If the interior temperature of iPhone exceeds normal operating temperatures (for example, in a hot car or in direct sunlight for extended periods of time), you may experience the following as it attempts to regulate its temperature:

- iPhone stops charging.
- The screen dims.
- A temperature warning screen appears.
- Some apps may close.

**Important:** You may not be able to use iPhone while the temperature warning screen is displayed. If iPhone can't regulate its internal temperature, it goes into deep sleep mode until it cools. Move iPhone to a cooler location out of direct sunlight and wait a few minutes before trying to use iPhone again.

For more information, see the Apple Support article Keeping iPhone, iPad, and iPod touch within acceptable operating temperatures.

# Reset your iPhone passcode

If you enter the wrong passcode six times in a row, you'll be locked out, and a message will say that iPhone is disabled. If you can't remember your passcode, you can erase your device, then set a new passcode. (If you made an iCloud or iTunes backup before you forgot your passcode, you can restore your data and settings from the backup.)

For more information, see the Apple Support article If you forgot the passcode for your iPhone, iPad, or iPod touch or your device is disabled.

## Recover or reset your Apple ID on iPhone

Go to Apple's I Forgot website.

## Reset your iCloud Security Code on iPhone

If you enter the wrong iCloud Security Code too many times when using iCloud Keychain, your iCloud Keychain will be disabled on that device, and your keychain in iCloud will be deleted. Go to the Apple Support article If you enter your iCloud Security Code incorrectly too many times.

# Find more help for iPhone Draft

Comprehensive support information is available online at the iPhone Support website. To contact Apple for personalized support (not available in all regions), go to the Apple Support website.

## Get information about your iPhone

View overall storage availability and storage used per app. Go to Settings > Seneral > iPhone Storage. For more information, see the Apple Support articles Check your storage on your iPhone, iPad, and iPod touch and Manage your iCloud storage.

**See battery usage.** Go to Settings > Battery to see the elapsed time since iPhone has been charged and usage by app. You can also display battery level as a percentage, turn Low Power Mode on or off, and check your battery's health. See Charge and monitor the iPhone battery.

**View call time and cellular usage.** Go to Settings > Cellular. See View or change cellular settings on iPhone in this guide.

**See more information about iPhone.** Go to Settings ( > General > About. The items you can view include:

- Name
- Network addresses
- Number of songs, videos, photos, and apps
- Capacity and available storage space
- iOS version
- Carrier settings. To the right of Carrier, the carrier settings version number appears.
   To see additional carrier-specific information, tap the version number. Contact your carrier for more details.
- Part and model number. To the right of Model, the part number appears. To see the model number, tap the part number.
- Serial number
- Wi-Fi and Bluetooth addresses
- IMEI (International Mobile Equipment Identity)
- ICCID (Integrated Circuit Card Identifier, or Smart Card) for GSM networks

- MEID (Mobile Equipment Identifier) for CPMA networks
- Modem firmware
- Legal (including legal notices and license, warranty, and RF exposure information)

To copy the serial number and other identifiers, touch and hold the identifier until Copy appears.

To see regulatory marks, go to Settings @ > General > Regulatory.

On supported models, you can also find the IMEI on the SIM card tray and the model number in the SIM tray opening.

**View or turn off diagnostic information.** Go to Settings ( > Privacy > Analytics.

To help Apple improve products and services, iPhone sends diagnostic and usage data. This data doesn't personally identify you, but may include location information.

## View or change cellular settings on iPhone

Turn cellular data and roaming on or off, set which apps and services use cellular data, see call time and cellular data usage, and set other cellular options.

*Note:* For help with cellular network services, voicemail, and billing, contact your wireless service provider.

If iPhone is connected to the Internet via the cellular data network, the LTE, 4G, 3G, E, or GPRS icon appears in the status bar.

LTE, 4G, and 3G service on GSM cellular networks support simultaneous voice and data communications. For all other cellular connections, you can't use Internet services while you're talking on the phone unless iPhone also has a Wi-Fi connection to the Internet. Depending on your network connection, you may not be able to receive calls while iPhone transfers data over the cellular network—when downloading a webpage, for example.

- GSM networks: On an EDGE or GPRS connection, incoming calls may go directly to voicemail during data transfers. For incoming calls that you answer, data transfers are paused.
- *CDMA networks:* On EV-DO connections, data transfers are paused when you answer incoming calls. On 1xRTT connections, incoming calls may go directly to voicemail during data transfers. For incoming calls that you answer, data transfers are paused.

Data transfer resumes when you end the call.

If Cellular Data is off, all data services use prefetWi-Fi—including email, web browsing, push notifications, and other services. If Cellular Data is on, carrier charges may apply. For example, using certain features and services that transfer data, such as Siri and Messages, could result in charges to your data plan.

**Turn Cellular Data on or off.** Go to Settings **(SO)** > Cellular. The following options may also be available:

- Turn Voice Roaming on or off (CDMA): Turn Voice Roaming off to avoid charges from using other carrier's networks. When your carrier's network isn't available, iPhone won't have cellular (data or voice) service.
- Turn Data Roaming on or off: Data Roaming permits Internet access over a cellular data network when you're in a region not covered by your carrier's network. When you're traveling, you can turn off Data Roaming to avoid roaming charges.
- Enable or disable 4G/LTE (varies by carrier): Using 4G or LTE loads Internet data faster in some cases but may decrease battery performance. This option is not available in all regions. On iPhone SE, iPhone 6, iPhone 6 Plus, and later, there are options for turning off 4G/LTE or for selecting Voice & Data (VoLTE) or Data Only.
- Voice & Data (some carriers): Choose LTE to load data faster. (This also turns on VoLTE.) Choose slower speeds to increase battery life.
- Set up Personal Hotspot: Personal Hotspot shares the Internet connection on iPhone with your computer and other iOS devices. See Share your iPhone Internet connection in this guide.
- Turn Wi-Fi Assist on or off: If Wi-Fi connectivity is poor, Wi-Fi Assist uses cellular data to boost the signal.

Note: Using data over a cellular network may incur additional fees.

**Set whether cellular data is used for apps and services.** Go to Settings **(a)** > Cellular, then turn Cellular Data on or off for any app that can use cellular data. If a setting is off, iPhone uses only Wi-Fi for that service. The iTunes setting includes both iTunes Match and automatic downloads from the iTunes Store and the App Store.

For more information about GSM, CDMA, and LTE cellular data networks, see the Apple Support article About cellular data networks.

### Use VPN on iPhone

A VPN (virtual private network) provides secure access over the Internet to private networks, such as the network at your organization. You may need to install a VPN app from the App Store that configures your iPhone to access a network. Contact your system administrator for information about the app and settings you need.

# Install configuration profiles on iPhone

Configuration profiles define settings for using iPhone with corporate or school networks or accounts. You might be asked to install a configuration profile that was sent to you in an email, or one that is downloaded from a webpage. iPhone asks for your permission to install the profile, and displays information about what it contains, when you open the file. You can see the profiles you have installed in Settings (S) > General > Profiles & Device Management. If you delete a profile, all of the settings, apps, and data associated with the profile are also deleted.

## Sell or give away your iPhone

Before you sell or give away your iPhone, see the Apple Support article What to do before selling or giving away your iPhone, iPad, or iPod touch, and be sure to perform the following tasks:

- If you paired an Apple Watch with your iPhone, unpair your Apple Watch. (See the Apple Support article Unpair your Apple Watch and iPhone.)
- <u>Back up iPhone using iCloud or iTunes</u>. If you replace one iPhone with another, you can use the setup assistant to restore the backup to your new iPhone.
- Erase all content and settings, which includes your personal information. If you
  previously turned on Find my iPhone, Activation Lock is removed when you erase
  iPhone, making it ready for a new owner.

### Learn more about iPhone software and service

Refer to the following resources to get more iPhone-related safety, software, and service information.

To learn about	Drafto this
Using iPhone safely	See Important safety information for iPhone.
iPhone service and support, tips, forums, and Apple software downloads	Go to the iPhone Support website.
Service and support from your carrier	Contact your carrier or go to your carrier's website.
The latest information about iPhone	Go to the iPhone website.
Managing your Apple ID account	Sign in to your Apple ID account page.
Using iCloud	See iCloud Help.
Using iTunes	Open iTunes, then choose Help > iTunes Help. For an online iTunes tutorial (may not be available in all regions), go to the iTunes Support website.
Using other Apple iOS apps	Go to the Apple Apps Support website.
Finding your iPhone serial number, IMEI, ICCID, or MEID	You can find your iPhone serial number, International Mobile Equipment Identity (IMEI), Integrated Circuit Card Identifier (ICCID), or Mobile Equipment Identifier (MEID) on the iPhone packaging. Or, on iPhone, choose Settings Society Serial > About. For more information, go to the Apple Support article Find the serial number or IMEI on your iPhone, iPad, or iPod touch.
Obtaining warranty service	First follow the advice in this guide, then go to the iPhone Support website.
Viewing iPhone regulatory information	On iPhone, go to Settings   Seneral > Regulatory.
Battery service	Go to the Battery Service and Recycling website.
Battery performance and health	Go to the iPhone Battery and Performance website.
Using iPhone in an enterprise environment	Go to the Apple at Work website.

# FCC compliance statemen Pf6r iPhone

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

*Note:* This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Important:** Changes or modifications to this product not authorized by Apple could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product.

This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference to radios, televisions, and other electronic devices.

Responsible party (contact for FCC matters only):

Apple Inc.

One Apple Park Way, MS 911-AHW

Cupertino, CA 95014

**USA** 

## Canadian regulatory statement for iPhone

This device complies with *Innovation, Science, and Economic Development Canada* licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

La bande 5 150 – 5 250 MHz est réservée uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

CAN ICES-3 (B)/NMB-3(B)

## Class 1 Laser information for iPhone

iPhone 8 and later, iPhone 7 and iPhone 7 Plus are classified as Class 1 Laser products per IEC60825-1:2007 and IEC60825-1:2014. These devices comply with 21 CFR 1040.10 and 1040.11, except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007. Caution: These devices contain one or more lasers. Use other than as described in the user guide, repair, or disassembly may cause damage, which could result in hazardous exposure to infrared laser emissions that are not visible. This equipment should be serviced by Apple or an authorized service provider.

**CLASS 1 LASER PRODUCT** 

## Apple and the environment

At Apple, we recognize our responsibility to minimize the environmental impacts of our operations and products. For more information, go to our Environment website.

# Disposal and recycling information for iPhone

#### Apple Recycling Program (available in some regions)

For free recycling of your old device, a prepaid shipping label, and instructions, go to the Recycling website.



This symbol indicates that this product and/or battery should not be disposed of with household waste. You must dispose of iPhone properly according to local laws and regulations. When iPhone reaches its end of life, contact local authorities to learn about disposal and recycling options, or simply drop it off at your local Apple Retail Store or return it to Apple. The battery will be removed and recycled in an environmentally friendly manner. For more information, go to the Recycling website. (In Australia, go to www.apple.com/au/recycling.)

#### European Union—Disposal Information

The symbol above means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product and/or its battery at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

#### Brasil – Informações sobre descarte e reciclagem

O símbolo acima indica que este produto e/ou sua bateria não devem ser descartados no lixo doméstico. Quando decidir descartar este produto e/ou sua bateria, faça-o de acordo com as leis e diretrizes ambientais locais. Para informações sobre substâncias de uso restrito, o programa de reciclagem da Apple, pontos de coleta e telefone de informações, visite www.apple.com/br/environment.

#### Información sobre eliminación de residuos y reciclaje

El símbolo de arriba indica que este producto y/o su batería no debe desecharse con los residuos domésticos. Cuando decida desechar este producto y/o su batería, hágalo de conformidad con las leyes y directrices ambientales locales. Para obtener información sobre el programa de reciclaje de Apple, puntos de recolección para reciclaje, sustancias restringidas y otras iniciativas ambientales, visite www.apple.com/la/environment o www.apple.com/mx/environment.

#### Turkey environmental information

Türkiye Cumhuriyeti: AEEE Yönetmeliğine Uygundur.

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The lithium-ion battery in iPhone should be serviced by Apple or an authorized service provider, and must be recycled or disposed of separately from household waste. For more information about battery service and recycling, go to the Battery Service and Recycling website.

Dispose of batteries according to your local environmental laws and guidelines.

#### Taiwan battery statement



#### 廢電池請回收

警告:請勿戳刺或焚燒。此電池不含汞。

#### China battery statement

警告: 不要刺破或焚烧。该电池不含水银。

Apple Inc.

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Some apps are not available in all regions. App availability is subject to change.