

nexus one™

User's Guide

Google™

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Nexus One™ phone and Android™ mobile technology platform 2.1-update1

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For more information about your Nexus One phone, visit google.com/phone/support

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About this guide

This guide describes the Google™ Nexus One™ phone, its components and accessories, and how to use release 2.1-update1 of the Android™ mobile technology platform.

Chapter	Describes
"Your phone and accessories" on page 15	Your handset, its parts, preparing it for use, and the accessories that come with it.
"Android basics" on page 27	Starting Android the first time, signing into your Google Accounts so you can take full advantage of Google Apps™, and performing basic Android tasks.
"Connecting to networks and devices" on page 65	Configuring how your phone connects to mobile and Wi-Fi™ networks, to Bluetooth™ devices, and to a computer. This chapter also describes how to secure your connections to virtual private networks (VPNs) and other networks.
"Placing and receiving calls" on page 79	Using your phone to place, receive, and manage multiple calls.
"Contacts" on page 93	Organizing and finding contact information for the people you know.
"Accounts" on page 111	Adding and synchronizing email and other accounts, including Google Accounts and Microsoft™ Exchange ActiveSync™ accounts.
"Gmail" on page 119	Sending and receiving messages using Gmail™ webmail service.
"Google Voice" on page 153	Checking your voicemail and placing calls with Google Voice.
"Calendar" on page 139	Viewing and creating events on your calendar and synchronizing them with the Google Calendar™ calendaring service on the web.
"Google Talk" on page 167	Communicating with friends by using the Google Talk™ instant messaging service.
"Email" on page 179	Configuring your phone so you can send and receive email via a conventional email service.

Chapter	Describes
"Messaging" on page 197	Exchanging text and multimedia messages with other phones.
"Browser" on page 205	Browsing the web on your phone.
"Maps" on page 221	Discovering the world with street and satellite data from the Google Earth™ mapping service, getting directions, finding your location, sharing your location through the Google Latitude™ user location service, navigating with spoken turn-by-turn directions from Google Maps Navigation, and the many other features available on your phone in the Google Maps™ mapping service
"Camera" on page 241	Taking and previewing photos and videos.
"Gallery" on page 249	Viewing, sharing, and uploading your photos and videos to the Picasa™ photo organizing software service and the YouTube™ user-generated content website.
"Goggles" on page 263	Using the Google Goggles™ visual search service to search the web for information about the subjects of photos you take or to get information about nearby businesses.
"YouTube" on page 267	Viewing YouTube videos.
"Music" on page 271	Listening to music by the song, album, or playlist.
"News & Weather" on page 281	Checking the news and weather on your Home screen or in detail.
"Clock" on page 287	Checking the time and setting alarms.
"Car Home" on page 293	Using your phone effectively in the car.
"Calculator" on page 295	Calculating the solutions to math problems.

Chapter	Describes
"Market" on page 297	Finding new applications on Android Market™ downloadable applications service, purchasing paid applications with Google Checkout™ payment and billing service, and installing them.
"Settings" on page 307	Opening the Settings application and its many tools for configuring and customizing your phone.
"Specifications" on page 331	Details about your phone and its features.

Your phone and accessories

Your phone comes with a number of accessories, including a headset and a protective pouch. For safety reasons, the battery is not shipped inside the phone, so you need to insert it and charge it fully before using your phone. This chapter describes the parts of your phone, how to install and charge the battery, how to turn the phone on and off, and other useful information.

In this section

“What’s in the box” on page 16

“Getting to know your phone” on page 17

“Installing the battery, SIM, and microSD card” on page 18

“Charging your phone” on page 22

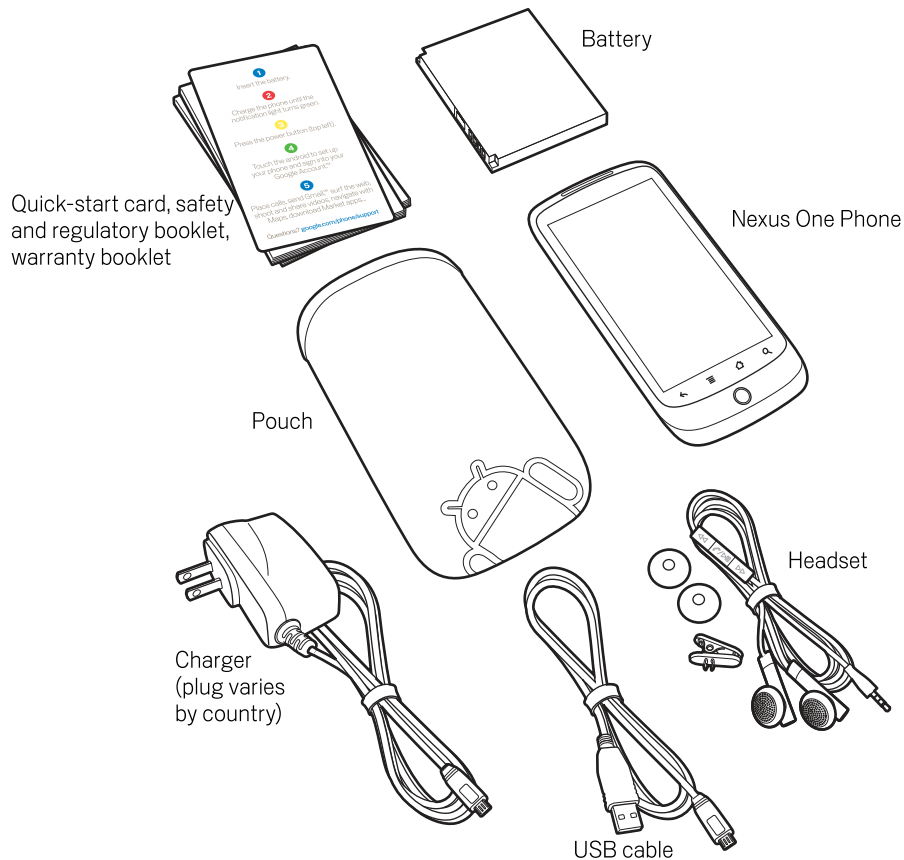
“Using the headset” on page 23

“Monitoring the status and trackball lights” on page 24

“Turning the phone on and off” on page 25

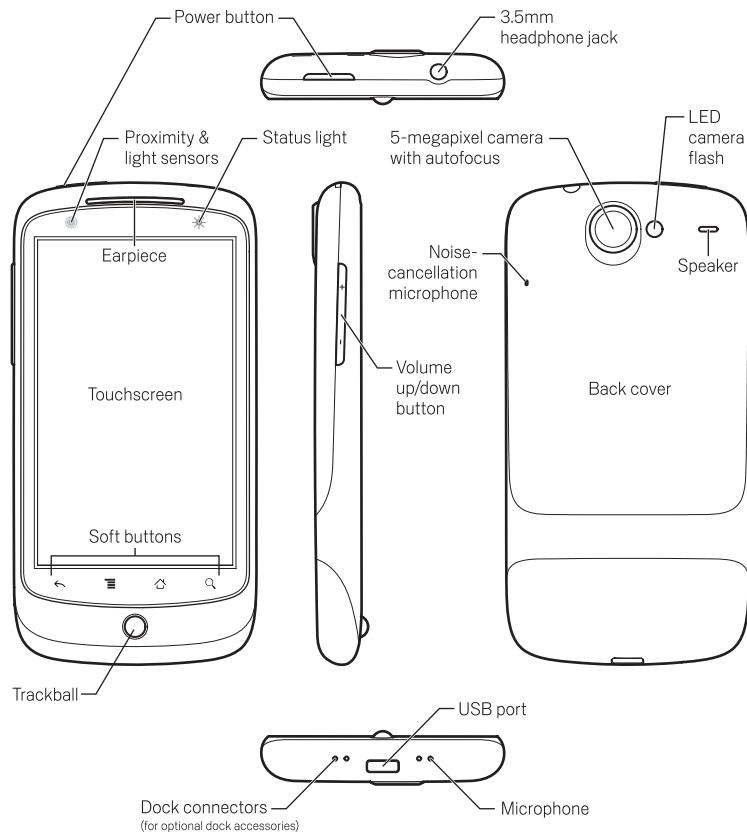
What's in the box

Your Nexus One phone comes with the following accessories.



A 4GB microSD card (not shown) is installed in the phone. If you purchased the phone with a contract with a GSM mobile carrier, a SIM card for your carrier is also installed. See "Installing the battery, SIM, and microSD card" on page 18 to learn how to insert or remove the battery, microSD card, and SIM.

Getting to know your phone



Before you use the phone, insert the battery and charge it fully. (See “Installing the battery, SIM, and microSD card” on page 18 and “Charging your phone” on page 22.)

Other sections in this chapter describe the use and function of the headset and its remote, status light, turning the phone on and off, and so on.

“Android basics” on page 27 describes how to place calls, use the trackball, and take advantage of other basic features of the phone, including turning it on for the first time and signing into your Google Account.

The 5-megapixel camera's lens is underneath a protective lens that is built into the camera's back cover. The camera features an autofocus mechanism and up to 2x digital zoom. Be sure to keep the lens clean with lint-free cloth; smudges and fingerprints will distort your pictures. The camera's LED flash is next to the lens. Taking pictures and shooting videos is described in “Camera” on page 241.

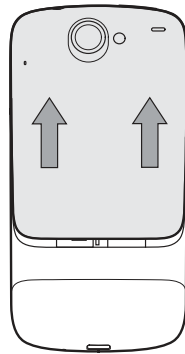
Installing the battery, SIM, and microSD card

To install or replace the battery, SIM, or microSD card, you must remove the phone's back cover.

You must install the battery before you can use the phone. The phone comes with a 4GB microSD card for storage already installed. If you purchased the phone with a contract, it also comes with a SIM card for your carrier installed.

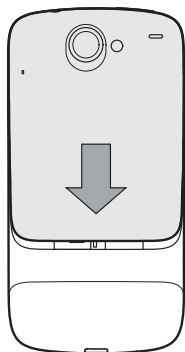
To open the phone's back cover

- ▶ Firmly press your thumbs on either side of the back cover, just below the camera lens, and push the cover up to remove it.



To replace the phone's back cover

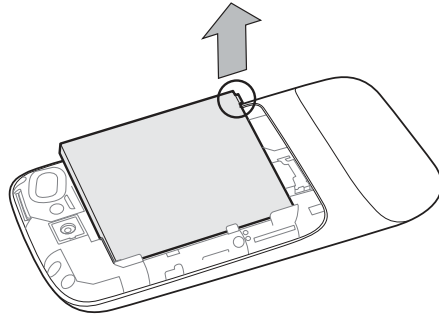
- ▶ Place the cover on the back of the phone and push it down into place.



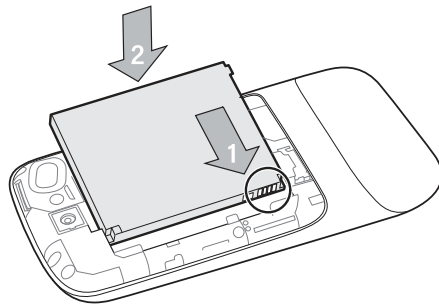
To remove or insert the battery

You must open the phone's back cover to remove or insert the battery.

- ▶ Lift out the battery by slipping your finger under the small corner tab.



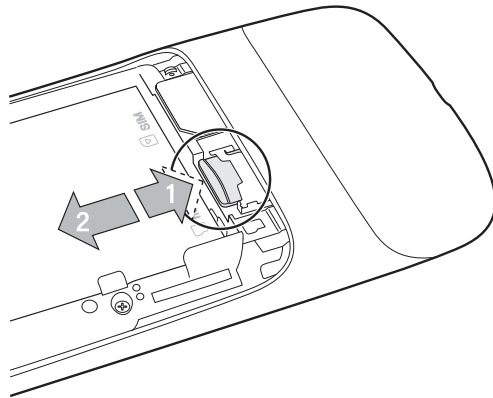
- ▶ Slide the battery into place by aligning the gold contacts on the phone and the battery and then gently pressing the battery into place.



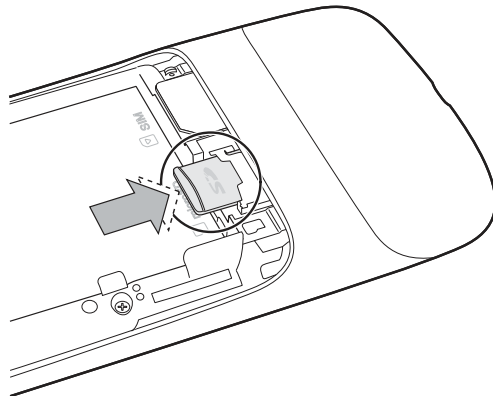
To remove or insert a microSD card

You must open the phone's back cover and remove the battery to remove or insert the microSD card.

- ▶ Remove the microSD card by pressing it toward the bottom of the phone. When you release the card it starts to pop out of its slot, so you can pull it the rest of the way out.



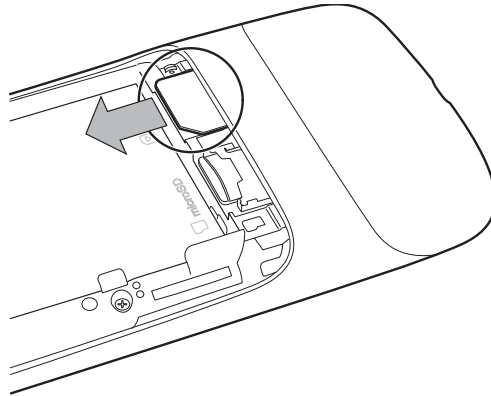
- ▶ Insert the microSD card by aligning it and then sliding it into its slot.



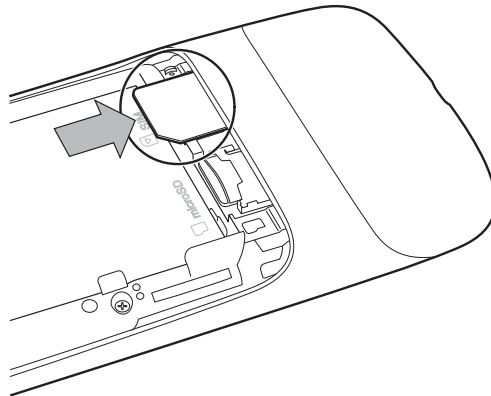
To remove or insert a SIM card

You must open the phone's back cover and remove the battery to remove or insert the SIM card.

- ▶ Remove the SIM card by sliding it out of its slot with the tip of your finger.



- ▶ Insert the SIM card by aligning it (notch to the top left and gold contacts down) and then sliding it into its slot.



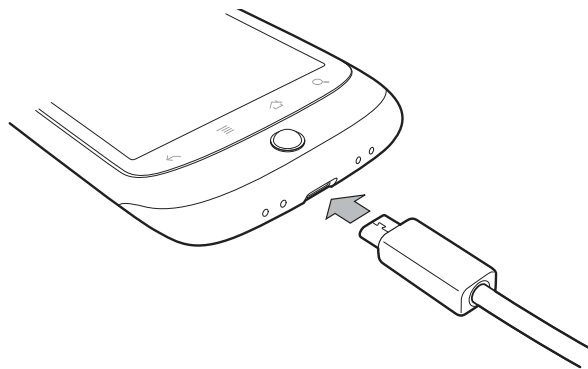
Charging your phone

Before you can use your phone, you must charge it fully, until the status light turns green. See "Monitoring the status and trackball lights" on page 24.

The phone also charges when it is connected to a computer's USB port with the included USB cable, and when inserted in an optional desktop or car dock accessory (available from google.com/phone). For information about connecting the phone to a computer, see "Connecting to a computer via USB" on page 74.

To charge the phone

- 1 Plug one end of the charger into an AC outlet.
- 2 Plug the other end into the USB port on your phone



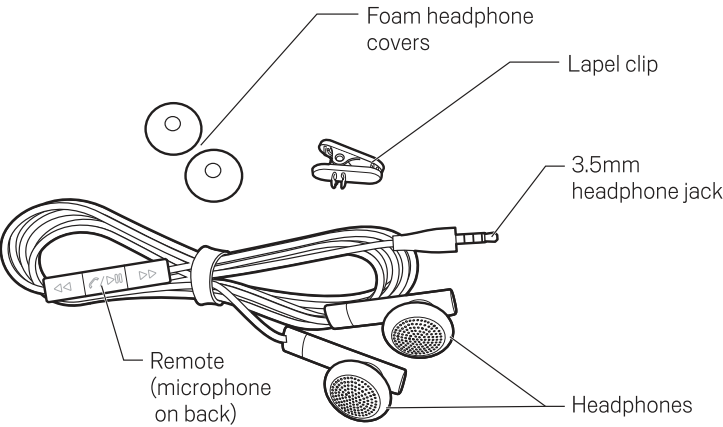
The phone's status light turns orange, indicating that it's charging.
When charging is complete, the status light turns green.

- 3 When the phone is fully charged, disconnect it from the charger.

Using the headset

The headset plugs into the phone's 3.5mm headset jack. It includes a pair of headphones and a remote with a microphone on the back. The remote also includes buttons that you use to manage phone calls and music.

Use the lapel clip to attach the remote high on your shirt, so the microphone is near your mouth.



The remote features a microphone on the back and three buttons on the front.

▶▶	Skip to the next music track.
◀◀	Skip to the previous music track.
📞/▶◻◻	When listening to music, press pause and play. For an incoming call, press to answer. During a phone call, press to mute or unmute the microphone. During a phone call, press & hold to hang up the call.

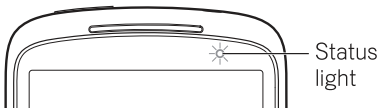
You control the headphones' volume with the phone's **Volume Up/Down** button.

Monitoring the status and trackball lights

The status light (to the right of the earpiece) and the **Trackball** change colors, flash, or glow briefly to inform you of the charging status of the phone and other important information.

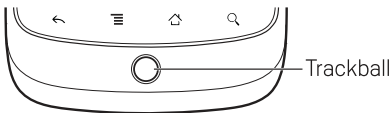
The status bar at the top of the touchscreen also provides information about the phone, as described in “Monitoring your phone’s status” on page 50 and “Managing notifications” on page 52.

Status light



Status light state	Meaning
Green	Fully charged (when connected to charger)
Orange	Charging (when connected to charger)
Flashing red	Battery low

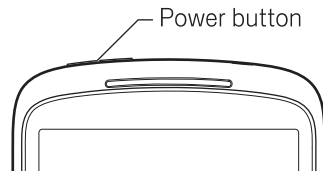
Trackball



Trackball state	Meaning
Flashing white	Incoming call.
Flashing blue	Incoming call when connected to a Bluetooth headset.
White pulse	Notification received. You can configure the trackball to pulse once or repeatedly when you receive a new notification. See “Sound & display settings” on page 314.

Turning the phone on and off

You use the power button to turn the phone on and off.



To turn on the phone

- ▶ Press the **Power** button for a few seconds, until the screen illuminates.
The first time you turn on the phone, you're welcomed to Android and prompted to sign into your Google Account. See "Starting Android for the first time" on page 28.
When you turn on the phone, you may be prompted to enter a personal identification number (PIN) for your SIM card.

To unblock a SIM

If you enter the wrong PIN three times, the SIM card is blocked and you can't use your phone except to dial an emergency number. You must obtain a PIN Unblocking Key (PUK) from your mobile carrier to unblock the SIM and set a new PIN.

- ▶ Dial the following, replacing "PUK" with the PUK from your carrier and replacing both instances of "PIN" with a 4- to 8-digit PIN of your choosing:
`**05*PUK*PIN*PIN#`

To turn off the phone

- 1 Press & hold the **Power** button until a menu opens.
 - 2 Touch **Power off** in the menu.
 - 3 Touch **OK** when asked to confirm that you want to turn off the phone.
- For more about working with the touchscreen and menus, see "Android basics" on page 27.

Android basics

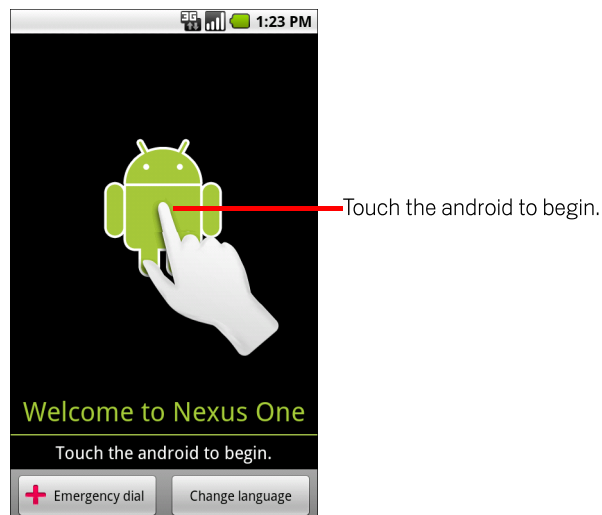
When you first turn on your phone, you have the opportunity to learn more about it and to sign into your Google Account. Then it's a good idea to become familiar with the basics of your phone and how to use it—the Home screen, the touchscreen and buttons, applications, search, and so on.

In this section

- “Starting Android for the first time” on page 28
- “Getting to know the Home screen” on page 32
- “Using the touchscreen” on page 36
- “Using the phone’s buttons” on page 37
- “Using the trackball” on page 38
- “Using the onscreen keyboard” on page 39
- “Entering text by speaking” on page 42
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- “Opening and switching applications” on page 46
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- “Monitoring your phone’s status” on page 50
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- “Searching your phone and the web” on page 54
- “Locking your screen” on page 57
- “Customizing the Home screen” on page 58
- “Connecting quickly with your contacts” on page 61
- “Optimizing battery life” on page 62

Starting Android for the first time

The first time you power on your phone (after setting it up, as described in “Your phone and accessories” on page 15), you’re prompted to touch the Android logo to begin using your phone.



Then you’re offered a chance to learn about your phone, you’re prompted to create or to sign into your Google Account, and you’re asked to make some initial decisions about how you want to use Android and Google features.

If you don’t have a SIM card

If your phone doesn’t have a SIM card installed, you can’t connect to mobile networks for voice and data services, but you can connect to a Wi-Fi network to sign into your Google Account and to use all the features of your phone, except voice calling.

If you start Android the first time without a SIM card, you’re asked if you want to touch **Connect to Wi-Fi** to connect to a Wi-Fi network (instead of to a mobile network) to set up your phone. To learn more, see “Connecting to Wi-Fi networks” on page 68.

Your Google Account

You must sign into a Google Account to use Gmail, Google Talk, Google Calendar, and other Google Apps; to download applications from Android Market; to back up your settings to Google servers; and to take advantage of other Google services on your phone.

If you don't have a Google Account, you're prompted to create one.

If you have an enterprise Gmail account through your company or other organization, your IT department may have special instructions on how to sign into that account.

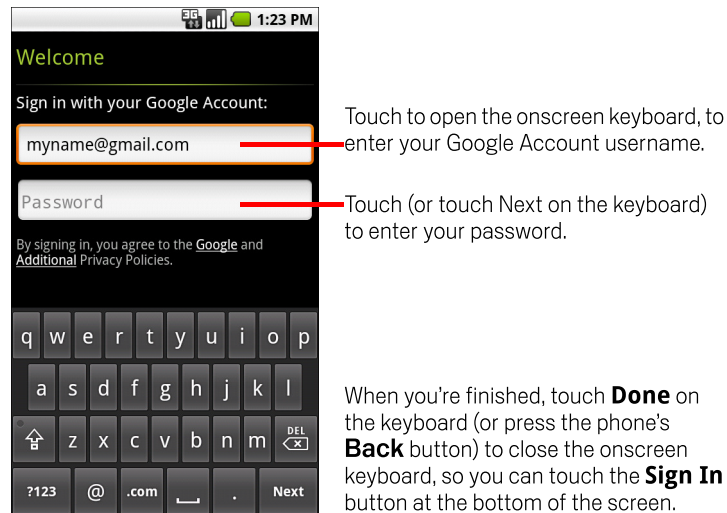
Important Some applications, such as Calendar, work only with the first Google Account you add. If you plan to use more than one Google Account with your phone, be sure to sign into the one you want to use with such applications first.

When you sign in, your contacts, Gmail messages, Calendar events, and other information from these applications and services on the web are synchronized with your phone.

If you don't sign into a Google Account during setup, you are prompted to sign in or to create a Google Account the first time you start an application that requires one, such as Gmail or Android Market.

Important If you want to restore your settings to this phone from another phone that was running Android release 2.0 or later (see "Google services" on page 31), you must sign into your Google Account now, during setup. If you wait until after setup is complete, your settings are not restored.

When you sign in, you're prompted to enter your username and password, using the onscreen keyboard. For information about navigating the touchscreen and entering text, see "Using the touchscreen" on page 36 and "Using the onscreen keyboard" on page 39.



If you have a Google Account but have forgotten your password, you must reset it before you can sign in. Go to <http://www.google.com>, click Sign In, click "Can't access your account?" in the sign-in box, and then follow the instructions for resetting your password.

Additional accounts

After setup, you can add Google, Microsoft Exchange ActiveSync, Facebook, conventional email, and other kinds of accounts to your phone, and sync some or all of their data, as described in "Accounts" on page 111. However, only the first Google Account you sign into is backed up to Google servers, and some applications that only work with a single account, such as Calendar, sync and display data only from the first account that you sign into.

Google services

When you sign in, you're asked whether you want to take advantage of the following Google services.

Location You can choose whether to take advantage of Google's location service, which provides applications with your approximate location without using GPS, and whether to use your location for Google search results and other Google services. For information about changing these settings later, see "Location & security settings" on page 316 and "Privacy settings" on page 321.

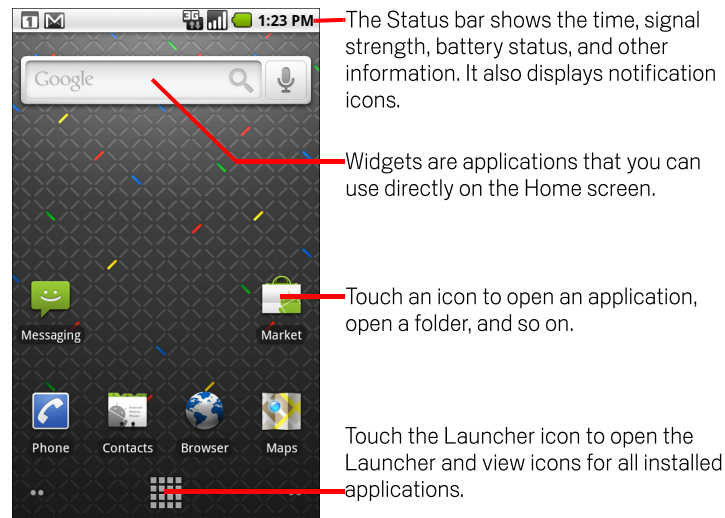
Settings backup You can choose to back up your settings, such as your bookmarks and Wi-Fi passwords, to your Google Account, on Google servers. That way, when you need to replace your phone (when you upgrade or replace a lost phone), your settings are restored to your new phone when you first sign in. For information about changing this setting later, see "Privacy settings" on page 321.

Date and time If you aren't connected to a mobile network, you're prompted to set the date and time on your phone. See "Date & time settings" on page 328.

Getting to know the Home screen

When you sign in, the Home screen opens.

The Home screen is your starting point to access all the features on your phone. It displays application icons, widgets, shortcuts, and other features. You can customize the Home screen with different wallpaper and display the items you want. See “Customizing the Home screen” on page 58.



At the top of the screen, the Status bar displays the time, information about the status of your phone, and icons for notifications that you’ve received. To learn more, see “Monitoring your phone’s status” on page 50 and “Managing notifications” on page 52.

Touch the Launcher icon at the bottom of the screen to view all installed applications. See “Opening and switching applications” on page 46.

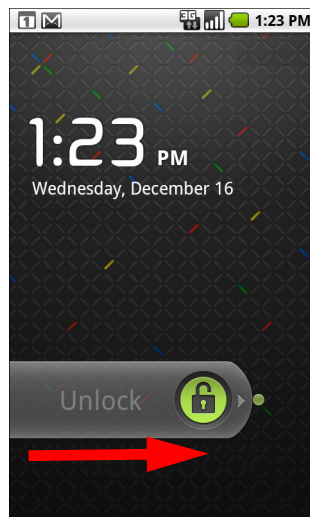
To wake up the phone

If you don't use the phone for a while, the Home screen or other screen you are viewing, is replaced with the lock screen and then the screen darkens, to conserve the battery.

- 1 Press the **Power** button.

If you've locked your screen with a pattern, you must draw the unlock pattern to unlock it. See "Locking your screen" on page 57.

If you haven't locked your screen with a pattern, the lock screen appears.



- 2 Drag the lock icon to the right.
The last screen you were working on opens.

To return to the Home screen

- ▶ Press the **Home**  button at any time, in any application.

To view other parts of the Home screen

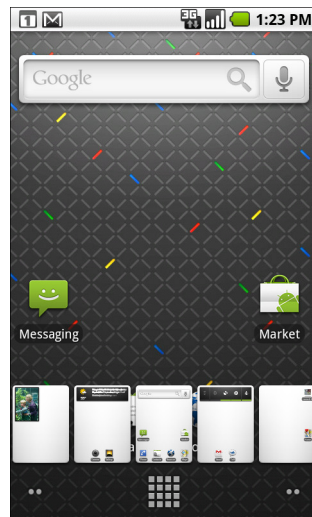
- ▶ Slide your finger left or right across the Home screen.

The two left and two right extensions to the Home screen provide more space for icons, widgets, shortcuts, and other items. For more on sliding, see “Using the touchscreen” on page 36.

Small dots at the lower left and right of the screen indicate which screen you're viewing.



- ▶ Touch & hold the small dots on the lower left or right of the screen to view thumbnails of the Home screen and its extensions, which you can touch to open.



Using the touchscreen

The main way to control Android features is by using your finger to manipulate icons, buttons, menu items, the onscreen keyboard, and other items on the touchscreen. You can also change the screen's orientation.

Touch To act on items on the screen, such as application and settings icons, to type letters and symbols using the onscreen keyboard, or to press onscreen buttons, you simply touch them with your finger.

Touch & hold Touch & hold an item on the screen by touching it and not lifting your finger until an action occurs. For example, to open a menu for customizing the Home screen, you touch an empty area on the Home screen until the menu opens.

Drag Touch & hold an item for a moment and then, without lifting your finger, move your finger on the screen until you reach the target position. You drag items on the Home screen to reposition them, as described in "Customizing the Home screen" on page 58, and you drag to open the Notifications panel, as described in "Managing notifications" on page 52.

Swipe or slide To swipe or slide, you quickly move your finger across the surface of the screen, without pausing when you first touch it (so you don't drag an item instead). For example, you slide the screen up or down to scroll a list, and in some Calendar views you swipe quickly across the screen to change the range of time visible.

Double-tap Tap quickly twice on a webpage, map, or other screen to zoom. For example, you double-tap a section of a webpage in Browser to zoom that section to fit the width of the screen. You can also double-tap to control the Camera zoom, in Maps, and in other applications. Double-tapping after pinching to zoom in some applications, such as Browser, reflows a column of text to fit the width of the screen.

Pinch In some applications (such as Maps, Browser, and Gallery), you can zoom in and out by placing two fingers on the screen at once and pinching them together (to zoom out) or spreading them apart (to zoom in).

Rotate the screen On most screens, the orientation of the screen rotates with the phone as you turn it from upright to its left side and back again. You can turn this feature on and off, as described in "Sound & display settings" on page 314.

Using the phone's buttons

The phone's physical buttons and soft buttons offer a variety of functions and shortcuts. See "Getting to know your phone" on page 17 for a diagram showing the location of the buttons on the phone.

Button	Press	Press & hold
Back 	Opens the previous screen you were working in. If the onscreen keyboard is open, closes the keyboard.	
Menu 	Opens a menu with items that affect the current screen or application.	
Home 	Opens the Home screen. If you're viewing the left or right extended Home screen, opens the central Home screen.	Opens the most recently used applications screen.
Search 	In some applications, opens Quick Search Box for searching the phone and the web. In other applications, opens a search box for just that application. Press twice to open Quick Search Box from any application.	Opens Google search by voice.
Power (top left)	Turns off the screen.	Opens a menu with options for Airplane mode, for Silent mode, and for powering off the phone.
Volume Up / Down (left side)	When a call is in progress, increases or decreases the call volume. When the phone is ringing, silences the ringer. On the Home screen when no call is in progress, increases or decreases the ringtone volume, or sets the phone to be silent or to vibrate instead of ringing. In other applications, controls the volume of music, spoken directions, and other audio.	Quickly increases the ringtone volume to maximum or minimum.

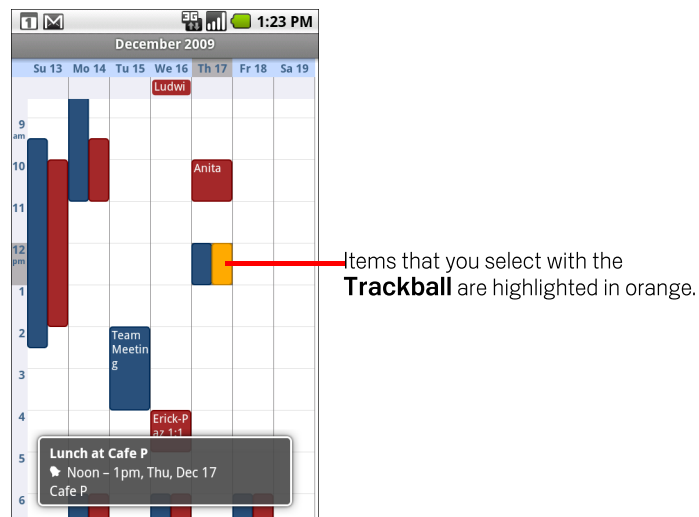
Using the trackball

Some actions are easier using the **Trackball** than your finger, such as:

- Opening an event in a crowded calendar
- Selecting a link or form field on a web page
- Selecting text to edit

To use the trackball

- ▶ Roll the **trackball** to select items on the screen.
The selected item is highlighted in orange.

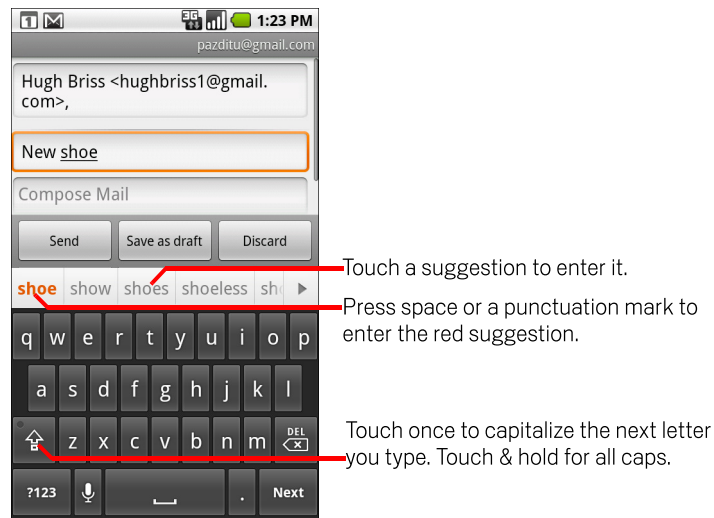


- ▶ Pressing the **trackball** is equivalent to touching the selected item with your finger.
- ▶ Pressing & holding the **trackball** is equivalent to touching & holding the selected item with your finger.

Using the onscreen keyboard

You enter text using the onscreen keyboard. Some applications open the keyboard automatically. In others, you touch a text field where you want to enter text to open the keyboard.

You can also enter text by speaking instead of by typing. See “Entering text by speaking” on page 42.



To enter text

- 1 Touch a text field where you want to type
The onscreen keyboard opens.
For most text fields, the keyboard starts with letter keys. Text fields for phone numbers and other special purposes may display number and symbol keys or custom keyboards, to make it easier to enter the required information.
You can also use the **Trackball** to select a text field and then press the **Trackball** to open the onscreen keyboard.
- 2 Touch the keys on the keyboard to type.
The characters you've entered appear in a strip above the keyboard, with suggestions for the word you are typing to the right. Press the left or right arrow in the strip to view more suggestions.
- 3 Press space or a punctuation mark to enter the red suggested word.
OR
Touch another suggested word to enter it.
OR
Touch & hold the leftmost word to add it to the dictionary.
You can view, edit, or delete the words that you add to the dictionary. See "Language & keyboard settings" on page 324.
- 4 Use the Delete key  to erase characters to the left of the cursor.
- 5 When you're finished typing, press **Back**  to close the keyboard.

To enter numbers, symbols, and other characters

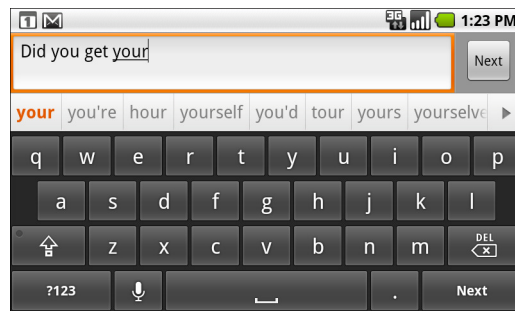
- ▶ Press the Symbols key to switch to the numbers and symbols keyboard. Press the Alt key to view additional symbols; press it again to switch back.
- ▶ Touch & hold a vowel or the C, N, or S key to open a small window where you can touch an accented vowel or other alternate letter.
- ▶ Touch & hold the Period key (.) to open a small window with a set of common symbol keys.
- ▶ Touch & hold a number or symbol key to open a window of additional symbols.
When you touch a key, a larger version displays briefly over the keyboard. Keys with alternate characters display an ellipsis (...) below the character.

To change the keyboard orientation

- ▶ Turn the phone sideways or upright.

The keyboard is redrawn to take best advantage of the new phone orientation.

Many people find the larger horizontal onscreen keyboard easier to use.



You can control whether the screen changes orientation automatically when you turn the phone. See "Language & keyboard settings" on page 324.

Entering text by speaking

You can use voice input to enter text by speaking. Voice input is an experimental feature that uses Google's speech-recognition service, so you must have a data connection to use it.

To turn on voice input

If the onscreen keyboard does not display a Microphone key , voice input is not turned on.

- 1 Press **Home** , press **Menu** , then touch **Settings > Language & keyboard > Android keyboard**.

You can also touch & hold the Symbol key  on the onscreen keyboard; in the dialog that opens, touch **Android keyboard settings**.

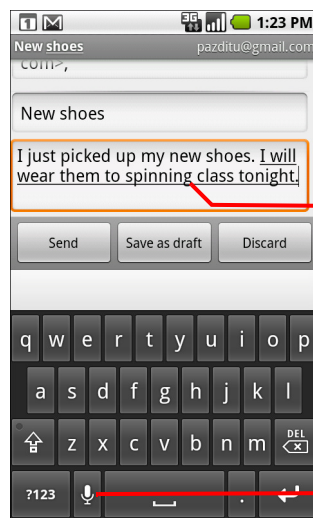
- 2 Check **Voice input**.
- 3 Touch **OK** in the dialog that opens.

To enter text by speaking

You can enter text by speaking, anywhere that you can enter text with the onscreen keyboard.

- 1 Touch a text field.
- 2 Touch the Microphone key  on the keyboard.
Or just swipe your finger across the keyboard from left to right.
- 3 When prompted to “Speak now,” speak what you want to enter.

Say “comma,” “period,” “question mark,” “exclamation mark,” or “exclamation point” to enter punctuation.



Text that you enter by speaking is underlined. You can delete it, or you can continue entering text to keep it.

Touch to enter text by speaking.

When you pause, what you spoke is transcribed by the speech-recognition service and entered in the text field, underlined. You can press the Delete key  to erase the underlined text. If you start typing or entering more text by speaking, the underline disappears.

You can edit the text that you enter by typing or speaking. See “Editing text” on page 44.

Editing text

You can edit the text you enter in text fields and use menu commands to cut, copy, and paste text, within or across applications. Some applications don't support editing some or all of the text they display.

To edit text

- 1 Touch the text field that contains the text to edit.
- 2 Use the **Trackball** to move the cursor to the location where you want to add or delete text.

The cursor is a vertical bar that indicates where text you type or paste will be inserted.
- 3 Type, cut, paste, or delete text.
- 4 Press the **Back**  button when you're finished typing, to close the keyboard.

You may also have a **Next** or **Done** button on the keyboard, depending on the application and text field you're typing in.

To select text

You select text that you want to cut or copy. Selected text is highlighted in orange.

- 1 Touch the text field or other portion of the screen that contains the text to select.
- 2 Use the **trackball** to move the cursor to the beginning or end of the text to select.

You can also touch in the text field to move the cursor in text.
- 3 Press & hold the **trackball**, or touch & hold the text field.

A menu opens with options for cutting, copying, and performing other tasks with the text field.
- 4 Touch **Select text**.

Or touch **Select all** to select all the text in the text field.
- 5 Roll the **trackball** to select the text you want.
- 6 Press & hold the **trackball** again (or touch & hold the text field) to open a menu you can use to cut or copy your selection, select all the text, or stop selecting text.

To cut or copy text

- 1 Select the text to cut or copy.
- 2 Press & hold the **Trackball**, or touch & hold the selected text.
- 3 Touch **Cut** or **Copy** in the menu that opens.

If you touch **Cut**, the selected text is removed from the text field. In either case, the text is stored in a temporary area on the phone, so that you can paste it into another text field.

To paste text

- 1 Copy the text to paste.
- 2 Touch the text field where you want to paste the text.
You can paste text that you copied from one application into a text field in any application.
- 3 Use the **trackball** to move the cursor to the location where you want to paste the text.
- 4 Press & hold the **Trackball**, or touch & hold the text field.
- 5 Touch **Paste** in the menu that opens.

The text is inserted at the cursor. The text that you pasted also remains in a temporary area on the phone, so you can paste that same text in another location.

Opening and switching applications

The Launcher, which you open from the Home screen, holds icons for all of the applications on your phone, including any applications that you downloaded and installed from Android Market or other sources.

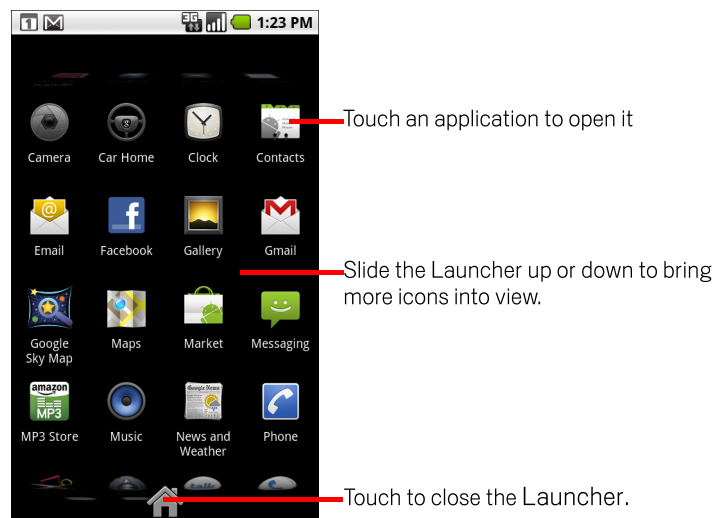
When you open an application, the other applications you've been using don't stop; they keep on running: playing music, rendering webpages, and so on. You can quickly switch among your applications, to work with several at once. The Android operating system and applications work together to ensure that applications you aren't using don't consume resources unnecessarily, stopping and starting them as needed. For this reason, there's no need or facility for quitting applications.

See “Market” on page 297 to learn how to discover and install additional applications and games on your phone.

To open and close the Launcher

- ▶ On the Home screen, touch the Launcher icon  to open it.

If you have more applications than can fit on the Launcher in one view, you can slide the Launcher up or down to view more.



You can add an application icon to the Home screen by touching & holding it on the Launcher until it vibrates and then dragging it to a location on the Home screen.

- ▶ Touch the Home icon on the Launcher or the **Home** button  to close the Launcher.

The Launcher closes automatically if you touch an icon to open its application or if you move an icon from the Launcher to the Home screen.

To open an application

- ▶ Touch an application's icon on the Home screen.

OR

- ▶ Touch an application's icon on the Launcher.

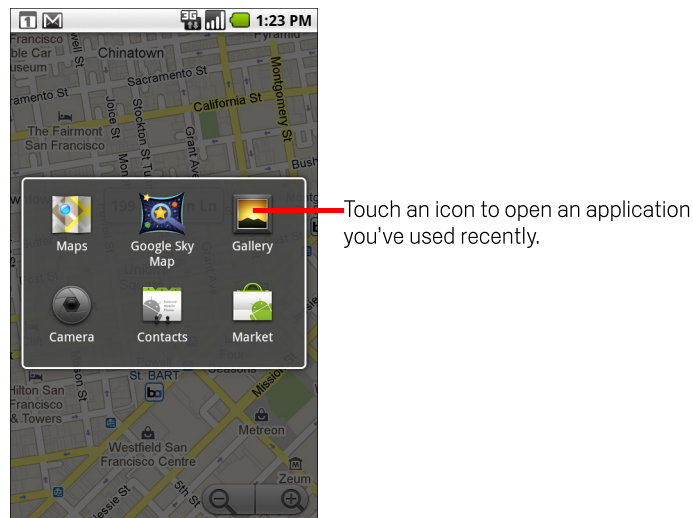
To switch to a recently used application

- 1 Press & hold the **Home** button .

A small window opens, with icons of applications that you've used recently.

- 2 Touch an icon to open its application.

Or press **Back**  to return to the current application.



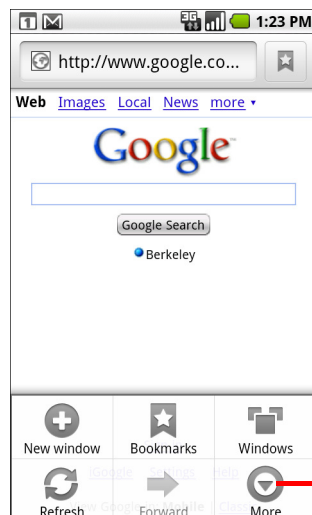
Working with menus

There are two kinds of Android menus: options menus and context menus.

Options menu

Options menus contain tools that apply to the activities of the current screen or application, not to any specific item on the screen. You open options menus by pressing the **Menu** button . Not all screens have options menus; if you press **Menu**  on a screen that has no options menu, nothing happens.

Some screens have more options menu items than can fit in the main menu; you touch **More** to open a menu of additional items.

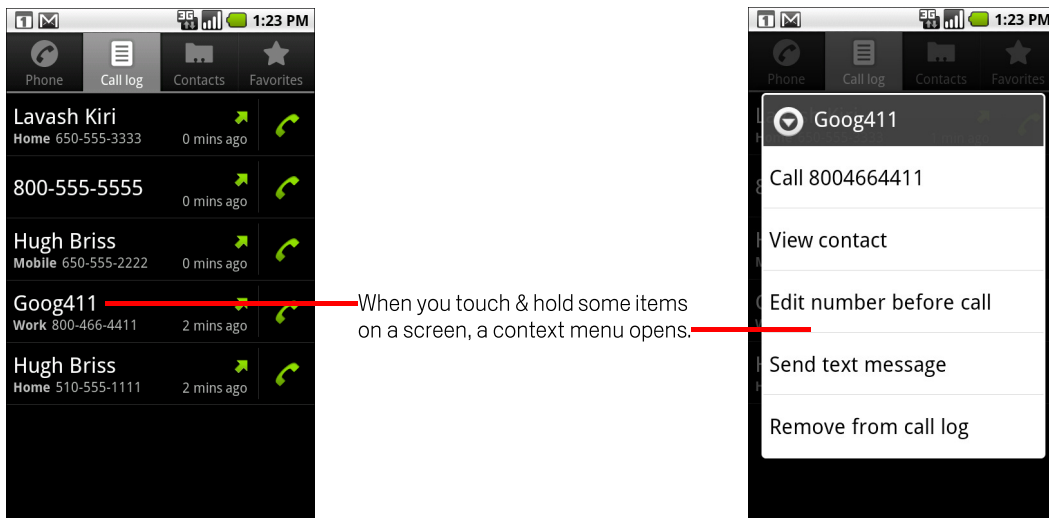


Options menus contain items that apply to the current screen or to the application as a whole.

Touch to open more menu items.

Context menus

Context menus contain tools that apply to a specific item on the screen. You open a context menu by touching & holding an item on the screen. Not all items have context menus. If you touch & hold an item that has no context menu, nothing happens. You can also open a context menu for an item by selecting it with the **trackball** and then pressing the **trackball**.



Monitoring your phone's status

The Status bar appears at the top of every screen. It displays icons indicating that you've received notifications (on the left) and icons indicating the phone's status (on the right), along with the current time.



If you have more notifications than can fit in the status bar, a plus icon  prompts you to open the Notifications panel to view them all. See "Managing notifications" on page 52.

Status icons

The following icons indicate the status of your phone.

	GPRS connected		Roaming
	GPRS in use		No signal
	EDGE connected		No SIM card installed
	EDGE in use		Vibrate mode
	3G connected		Ringer is silenced
	3G in use		Phone microphone is mute
	Connected to a Wi-Fi network		Battery is very low
	Bluetooth is on		Battery is low
	Connected to a Bluetooth device		Battery is partially drained
	Airplane mode		Battery is full
	Alarm is set		Battery is charging
	Signal strength		GPS is on
	Speakerphone is on		Receiving location data from GPS

Notification icons

The following icons indicate that you've received a notification. See "Managing notifications" on page 52 for information about responding to these notifications. In addition these icons, applications you install on your phone may use their own notification icons.

	New Gmail message		3 more notifications not displayed
	New text or multimedia message		Call in progress
	Problem with text or multimedia message delivery		Call in progress using Bluetooth headset
	New Google Talk message		Missed call
	New voicemail		Call on hold
	Upcoming event		Call forwarding is on
	Data is syncing		Uploading data
	Problem with sign-in or sync		Downloading data
	microSD card is full		Download finished
	An open Wi-Fi network is available		Connected to VPN
	Phone is connected via USB cable		Disconnected from VPN
	Song is playing		System update available

Managing notifications

Notification icons report the arrival of new messages, calendar events, and alarms, as well as ongoing events, such as when call forwarding is on or the current call status.

When you receive a notification, its icon appears in the Status bar, along with a summary that appears only briefly. For a table of notification icons, see "Notification icons" on page 51. The trackball light also pulses once or repeatedly when you receive a new notification. See "Sound & display settings" on page 314.

You can open the Notifications panel to view a list of all your notifications. Depending on your settings and the model of your phone, you may also hear a notification sound, the phone may vibrate, and LEDs may blink.

Adjusting sound volume and other general notifications settings is described in "Sound & display settings" on page 314.

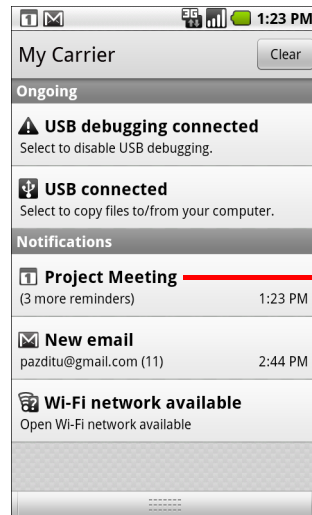
Applications whose activities produce notifications, such as Gmail and Google Talk, have their own settings, which you can use to configure whether and how they send notifications. See the sections on those applications for details.

To open the Notifications panel

- ▶ Drag the Status bar down.

On the Home screen, you can also press **Menu**  and touch **Notifications**.

The Notifications panel displays your wireless provider and a scrolling list of your current notifications. Notifications about ongoing activities are listed first, followed by Notifications about events, such as new mail notifications or Calendar reminders.



Touch a notification to open it in its application.

To respond to a notification

- 1 Open the Notifications panel.
Your current notifications are listed in the panel, each with a brief description.
- 2 Touch a notification to respond to it.
The Notification panel closes. What happens next depends on the notification. For example, new voicemail notifications dial your voicemail box, and network disconnect notifications open the list of configured networks so you can reconnect.

To clear all notifications

- 1 Open the Notifications panel.
- 2 Touch **Clear** at the top right of the panel.
All event-based notifications are cleared; ongoing notifications remain in the list.

To close the Notifications panel

- ▶ Drag the tab at the bottom of the Notifications panel to the top of the screen. Or just press the **Back** button.
The panel also closes when you touch a notification to respond to it.

Searching your phone and the web

You can search for information on your phone and on the web by typing in Quick Search Box for Android, or by speaking, with Google search by voice.

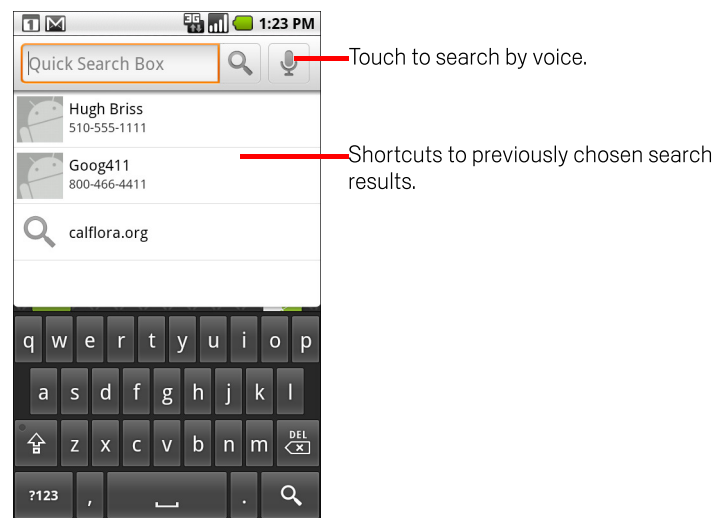
Some applications, such as Contacts, Gmail, and Maps, have their own search services, which you can use to search within those applications.

You can also dial a phone number with the Voice Search application, as described in “Dialing by voice” on page 88.

To search your phone and the web by entering text

- 1 Press the **Search** button .

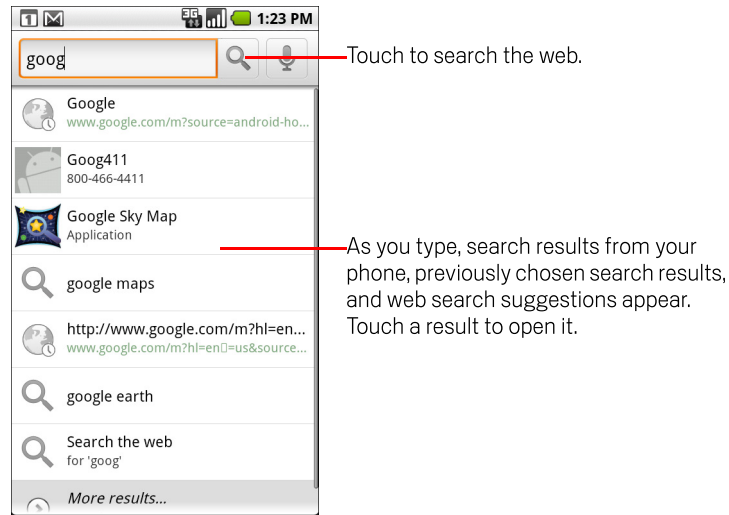
When you press **Search**  on the Home screen or in many other applications, Quick Search Box opens.



In some applications, such as Gmail and Contacts, the application's own search box opens when you press the **Search** button . See the sections about those applications for information about searching in them. To search your phone and the web instead of that application, press **Search**  again to switch to Quick Search Box. That is, no matter what application you're working in, pressing **Search**  twice opens Quick Search Box.

You can also search the web with the Search widget on the Home screen, if you have added it there. See “Customizing the Home screen” on page 58.

- 2 Enter the text you're searching for in Quick Search Box.



As you type, matching items on your phone and suggestions from Google web search are added to the list of previously chosen search results.

You can use the Search preferences to configure some aspects of Google web search (for example, whether it makes suggestions below Quick Search Box as you type), and what phone features you want to include in searches. You can also clear the list of recently chosen searches. See “Search settings” on page 323.

- 3 If what you're searching for is in the list of suggestions, phone search results, or previously chosen search results, touch it in the list.

The item opens in the appropriate application, such as Contacts or the Browser.

- 4 If what you're searching for is not in the list, touch the magnifying glass icon  in Quick Search Box or on the keyboard to search the web.

The Browser opens, displaying results of a Google search on the web. For more information, see “Browser” on page 205.

To search the web by speaking

- ▶ Press & hold the **Search** button 

OR

- ▶ Touch the Microphone icon in Quick Search Box.

If you touch the Microphone icon in an application's search box, you search the application by voice, not the web.

A dialog opens, prompting you to speak the words that you want to search for.

When you're finished speaking, Google search by voice analyzes your speech and displays the results of your search.

If Google search by voice misunderstood you, Quick Search Box presents a list of similar-sounding search terms.

You can also preface your search by speaking special words to take the following actions:

- Say "Call," followed by a name from your contacts, followed by the kind of phone number ("mobile," "work," and so on)—for example, "Call Mike home." If there is a single match, the number is dialed automatically. See "Dialing by voice" on page 88.
- Say "Directions to," followed by an address, name, business name, type of business, or other destination, to get directions to that location from Google Maps.
- Say "Navigate to," followed by an address, name, business name, type of business, or other destination to get spoken, turn-by-turn directions to that destination.
- Say "Map of," followed by an address, name, business name, type of business, or other location, to view that location on Google Maps.

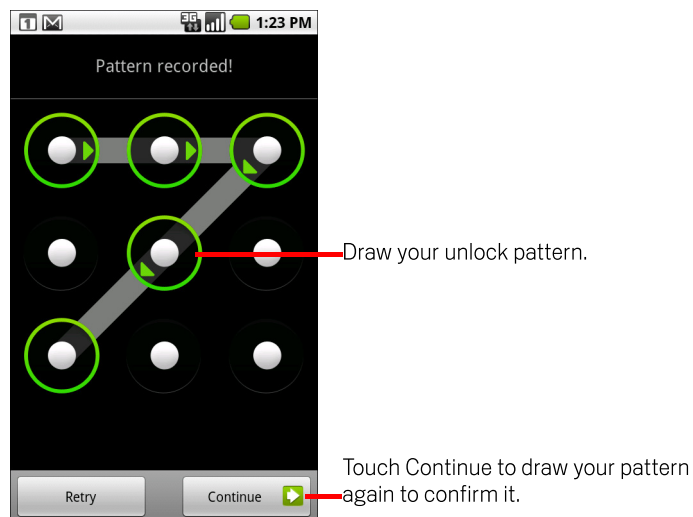
Locking your screen

You can lock your screen so that only you can unlock it to make calls, access your data, buy applications, and so on. See “Location & security settings” on page 316 for other ways to protect your phone and privacy.

To lock your screen

- 1 On the Home screen, press **Menu**  and touch **Location & security**.
- 2 Scroll to the **Screen unlock pattern** section and touch **Set unlock pattern**.

The first time you do this, a short tutorial about creating an unlock pattern appears. You can press **Menu**  and touch **Help** at any time for a refresher. Then you're prompted to draw and redraw your own pattern.



The next time you turn on your phone or wake up the screen, you're prompted to draw your unlock pattern to unlock the screen.

Customizing the Home screen

You can add application icons, shortcuts, widgets, and other items to any part of the Home screen. You can also change the wallpaper.

For an introduction to the Home screen, see “Getting to know the Home screen” on page 32.

To add an item to the Home screen

- 1 Open the Home screen pane where you want to add the item.
For an introduction to working with the Home screen, see “Getting to know the Home screen” on page 32.
- 2 Press **Menu**  and touch **Add**.
Or just touch & hold an empty location on the Home screen.
If there are no empty spots on the Home screen, **Add** is dimmed; you must delete or move an item before you can add another item, or switch to another pane of the Home screen.
- 3 In the menu that opens, touch the type of item to add.

You can add the following types of items to the Home screen.

Shortcuts Add shortcuts to applications, a bookmarked webpage, a favorite contact, a destination in Maps, a Gmail label, a music playlist, and many other items. The shortcuts available depend on the applications you have installed.

Widgets Add any of a variety of miniature applications (widgets) to your Home screen, including a clock, a music player, a picture frame, the Google search bar, a power manager, a calendar that shows upcoming appointments, and a News & Weather widget. You can also download widgets from Android Market.

Folders Add a folder where you can organize Home screen items, or folders that contain all your contacts, contacts with phone numbers, or starred contacts. Your folders' contents are kept up to date automatically.

To move an item on the Home screen

- 1 Touch & hold the item you want to move, until it vibrates. Don't lift your finger.
- 2 Drag the item to a new location on the screen.
Pause at the left or right edge of the screen to drag the item onto another Home screen pane.
- 3 When the item is where you want it, lift your finger.

To remove an item from the Home screen

- 1 Touch & hold the item you want to remove, until it vibrates. Don't lift your finger.
The Launcher icon changes to a trash can.
- 2 Drag the item to the Trash Can icon.
- 3 When the icon turns red, lift your finger.

To change the Home screen wallpaper

- 1 Press **Menu**  and touch **Wallpaper**.
You can also touch & hold an empty area of the home screen and in the menu that opens, touch **Wallpapers**.
- 2 Touch **Live wallpaper**, **Photographs**, or **Wallpaper gallery**.
Touch **Live wallpaper** to open a scrolling list of animated wallpapers installed on your phone. Some live wallpapers change according to the time of day, in response to touching the screen, tell the time, or offer other information. Some live wallpapers have a **Settings** button.
Touch **Photographs** to use a picture that you have captured using the camera or copied to your phone as a wallpaper. You can crop the picture before setting it as a wallpaper. Working with pictures is described in "Gallery" on page 249.
Touch **Wallpaper gallery** to open a screen where you can sample the wallpaper images that come with the phone. Slide the miniature images left and right to view the samples. Touch a sample to view a larger version.
- 3 Touch **Save** or **Set wallpaper**.

To rename a folder

- 1 Touch the folder to open it.
- 2 Touch & hold the folder window's title bar.
- 3 Enter a new name in the dialog that appears.
- 4 Touch **OK**.

Connecting quickly with your contacts

As you build up your list of contacts on your phone, you can use Quick Contact for Android in many applications to quickly start a chat, email, or text message, to place a call, or to locate your contacts. Quick Contact for Android is a special icon that you can touch to open a bubble with options for quickly initiating a connection to that contact.

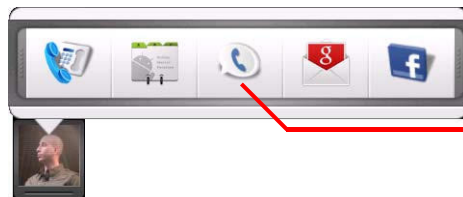
- Identify a Quick Contact icon by its frame.

Contacts that you can access with Quick Contact are displayed differently in different applications, but usually with a picture frame that looks like this:



- Touch a Quick Contact icon to open a bubble with icons for all the ways you can communicate with the contact.

If there are more icons than can fit in the bubble, drag them left and right to view them all.



Touch an icon to start communicating with the contact in that application.

- Touch an icon to open its application, where you can start communicating with your contact right away.

You can also touch an icon to edit the contact's information in Contacts, to view the contact's address in Google Maps, and so on, depending on which applications and accounts are configured on your phone.

You can add a shortcut for a contact to your Home screen, which you can then touch to open Quick Contact for Android for that contact. For more information about adding shortcuts to the Home screen, see "Customizing the Home screen" on page 58.

Optimizing battery life

You can extend your battery's life between charges by turning off features that you don't need. You can also monitor how applications and system resources consume battery power.

To extend the life of your battery

- ▶ Turn off radios that you aren't using.
If you aren't using Wi-Fi, Bluetooth, or GPS, use the Settings application to turn them off. See "Wireless & networks" on page 309 and "Location & security settings" on page 316. (The GPS receiver is only turned on when you're using an application that makes use of it.)
- ▶ Turn down screen brightness and set a shorter screen timeout.
See "Sound & display settings screen" on page 314.
- ▶ If you don't need them, turn off automatic syncing for Gmail, Calendar, Contacts, and other applications.
See "Configuring account sync and display options" on page 115.
- ▶ Use the Power Control widget to check and control the status of radios, the display brightness, and syncing.
Adding widgets is described in "Customizing the Home screen" on page 58.

To check the battery charge level

- ▶ On the Home screen, press **Menu**  and touch **Settings > About phone > Status**.
The battery status (charging, discharging) and level (as a percentage of fully charged) are displayed at the top of the screen.

To monitor and control what uses the battery

The Battery Use screen shows which applications consume the most battery power. You can also use it to turn off applications that you've downloaded, if they are consuming too much power.

- ▶ On the Home screen, press **Menu**  and touch **Settings > About phone > Battery use**.

The Battery Use screen lists the applications that have been using the battery, from greatest to least battery use.

The top of the screen displays the time since you were last connected to a charger or, if you're currently connected to one, how long you were running on battery power before you connected to a charger.

Then each application or service that used battery power during that time is displayed, in order of the amount of power they used.

- ▶ Touch an application in the Battery Use screen to learn details about its power consumption.

Different applications offer different kinds of information. Some applications include buttons that open screens with settings to adjust power use.

Connecting to networks and devices

Your phone can connect to a variety of networks and devices, including mobile networks for voice and data transmission, Wi-Fi data networks, and Bluetooth devices, such as headsets. You can also connect your phone to a computer, to transfer files from your phone's microSD card.

In this section

"Connecting to mobile networks" on page 66

"Connecting to Wi-Fi networks" on page 68

"Connecting to Bluetooth devices" on page 71

"Connecting to a computer via USB" on page 74

"Connecting to virtual private networks" on page 76

"Working with secure certificates" on page 78

Connecting to mobile networks

When you assemble your phone with a SIM card from your wireless service provider (see “Installing the battery, SIM, and microSD card” on page 18), your phone is configured to use your provider’s mobile networks for voice calls and for transmitting data.

Your phone is configured to work with many mobile carriers’ networks. If your phone does not connect to a network when you insert a SIM card and turn it on, contact your carrier to obtain the details of its access point name. See “To edit or create a new access point” on page 71.

Different locations may have different mobile networks available. Initially, your phone is configured to use the fastest mobile network available for data. But you can configure your phone to use only a slower 2G network for data, to extend the life of your battery between charges. You can also configure your phone to access a different set of networks entirely, or to behave in special ways when roaming.

The icons in the Status bar indicate which kind of data network you’re connected to and the voice and data network signal strength.

	Connected to the fastest 3G networks (UMTS or HSDPA)
	Connected to the second-fastest network (EDGE)
	Connected to a 2G network (GPRS)
	The more bars are lit, the stronger the wireless signal
	Connected to another wireless service provider’s network (roaming)

When you’re connected to slower networks, you may want to postpone using your phone for data-intensive tasks until you are connected to a faster network again, or find a Wi-Fi network to connect to. See “Connecting to Wi-Fi networks” on page 68.

To determine what network you’re using

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks** > **Mobile networks** > **Access Point Names**.
The name of the wireless service provider you’re currently registered with is selected in the list.

To disable data when roaming

You can prevent your phone from transmitting data over other carriers' mobile networks when you leave an area that is covered by your carrier's networks. This is useful for controlling expenses if your cell plan doesn't include data roaming.

- 1 Press **Home** , press **Menu** , and touch **Settings**, to open the Settings application.
- 2 Touch **Wireless & networks** > **Mobile networks** and uncheck **Data roaming**.

With **Data roaming** unchecked, you can still transmit data with a Wi-Fi connection. See "Connecting to Wi-Fi networks" on page 68.

To limit your data connection to 2G networks

You can extend your battery life by limiting your data connections to 2G networks (GPRS or EDGE). When you are connected to a 2G network, you may want to postpone activities that transmit a lot of data, such as sending, uploading, or downloading pictures or video, until you are connected to a faster mobile or other wireless network.

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks** > **Mobile networks** and check **Use only 2G networks**.

To edit or create a new access point

If you and your wireless service provider determine that you need to change the settings of your current access point name (APN) or to create a new one, you must obtain the APN and detailed settings from your provider.

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks** > **Mobile networks** > **Access Point Names**.
- 3 Touch an existing APN to edit it. Or press **Menu**  and touch **New APN**.
Enter the APN settings that you obtained from your wireless service provider by touching each setting that you need to edit.
- 4 When you're finished, press **Menu**  and touch **Save**.
- 5 If you created a new APN, touch it in the APNs screen to start using it.

Connecting to Wi-Fi networks

Wi-Fi is a wireless networking technology that can provide Internet access at distances of up to 100 meters, depending on the Wi-Fi router and your surroundings.

To use Wi-Fi on your phone, you access a wireless access point, or "hotspot." Some access points are open and you can simply connect to them. Others are hidden or implement other security features, so you must configure your phone so it can connect to them.

There are numerous systems for securing Wi-Fi connections, including some that rely on secure certificates or other schemes to ensure that only authorized users can connect. For information about installing secure certificates, see "Working with secure certificates" on page 78.

Turn off Wi-Fi when you're not using it, to extend the life of your battery.

The Status bar displays icons that indicate Wi-Fi status.

	Connected to a Wi-Fi network (waves indicate connection strength)
	Notification that an open Wi-Fi network is in range

When you connect to a Wi-Fi network, the phone obtains a network address and other information it needs from the network, using the DHCP protocol. To configure the phone with a fixed IP address and other advanced settings, press **Menu**  and touch **Advanced**. See "Advanced Wi-Fi settings screen" on page 310.

To turn Wi-Fi on and connect to a Wi-Fi network

If you're adding a Wi-Fi network when first setting up your phone, Wi-Fi is turned on automatically, so you can skip to step 4.

- 1 Press **Home** , press **Menu** , and touch **Settings**.
- 2 Touch **Wireless & networks** > **Wi-Fi settings**.

- 3 Check **Wi-Fi** to turn it on.

The phone scans for available Wi-Fi networks and displays the names of those it finds. Secured networks are indicated with a Lock icon.

If the phone finds a network that you connected to previously, it connects to it.

- 4 Touch a network to connect to it.

If the network is open, you are prompted to confirm that you want to connect to that network by touching **Connect**.

If the network is secured, you're prompted to enter a password or other credentials. (Ask your network administrator for details.)

When you're connected to a network, you can touch its name in the Wi-Fi settings screen for details about the speed, security, address, and related settings.

To receive notifications when open networks are in range

By default, when Wi-Fi is on, you receive notifications in the Status bar when your phone detects an open Wi-Fi network.

- 1 Turn on Wi-Fi, if it's not already on.
- 2 In the Wi-Fi settings screen, check **Network notification**.

You can uncheck this option to stop receiving notifications.

To add a Wi-Fi network

You can add a Wi-Fi network so the phone will remember it, along with any security credentials, and connect to it automatically when it is in range. You must also add a Wi-Fi network to connect to it, if it does not broadcast its name (SSID), or to add a Wi-Fi network when you are out of range of it.

To join a secured network, you need to contact the network's administrator to learn what security scheme is deployed on it and to obtain the password or other required security credentials. For more information about installing secure certificates, see "Working with secure certificates" on page 78.

- 1 Turn on Wi-Fi, if it's not already on.

If you're adding a Wi-Fi network when first setting up your phone, Wi-Fi is turned on automatically.

- 2 In the Wi-Fi settings screen, touch **Add Wi-Fi network** (at the bottom of the list of discovered networks).

- 3 Enter the SSID (name) of the network. If the network is secured, touch the Security menu and then touch the type of security deployed on the network.
- 4 Enter any required security credentials.
- 5 Touch **Save**.

The phone connects to the wireless network. Any credentials that you entered are saved, so you are connected automatically the next time you come within range of this network.

To forget a Wi-Fi network

You can make the phone forget about the details of a Wi-Fi network that you added—for example, if you don't want the phone to connect to it automatically or if it is a network that you no longer use.

- 1 Turn on Wi-Fi, if it's not already on.
- 2 In the Wi-Fi settings screen, touch & hold the name of the network.
- 3 Touch **Forget network** in the dialog that opens.

Connecting to Bluetooth devices

Bluetooth is a short-range wireless communications technology that devices can use to exchange information over a distance of about 8 meters. The most common Bluetooth devices are headphones for making calls or listening to music, hands-free kits for cars, and other portable devices, including laptops and cell phones.

There are several Bluetooth profiles that define the features and communications standards for Bluetooth devices. For a list of the profiles supported by your phone, see “Specifications” on page 331.

To connect to a Bluetooth device, you must turn on your phone’s Bluetooth radio. The first time you use a new device with your phone, you must “pair” them, so that they know how to connect securely to each other. After that, you can simply connect to a paired device.

Turn off Bluetooth when you’re not using it, to extend the life of your battery between charges. You may also be required to turn Bluetooth off in some locations. Bluetooth is turned off in Airplane mode.

The Status bar displays icons that indicate Bluetooth status.

	Bluetooth is on
	Connected to a Bluetooth device

To turn Bluetooth on or off

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks**.
- 3 Check or uncheck **Bluetooth** to turn it on or off.

To change your phone's Bluetooth name

Your phone has a generic Bluetooth name by default, which is visible to other devices when you connect them. You can change the name so that it is more recognizable.

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks > Bluetooth settings**.
The Bluetooth settings screen opens.
- 3 If Bluetooth isn't turned on, check **Bluetooth** to turn it on.
- 4 Touch **Bluetooth name**, enter a name, and touch **OK**.

To pair your phone with a Bluetooth device

You must pair your phone with a device before you can connect to it. Once you pair your phone with a device, they stay paired unless you unpair them.

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks > Bluetooth settings**.
- 3 If Bluetooth isn't turned on, check **Bluetooth** to turn it on.
Your phone scans for and displays the IDs of all available Bluetooth devices in range.
- 4 If the device you want to pair with isn't in the list, make it discoverable.
See the documentation that came with your device to learn how to make it discoverable by your phone, and for other instructions for pairing.
- 5 If your phone stops scanning before you make the other device discoverable, touch **Scan for devices**.
- 6 Touch the ID of the other device in the list in Settings to pair them.
The devices pair with each other. If you're prompted to enter a passcode, try entering 0000 or 1234 (the most common passcodes), or consult the documentation that came with the device to learn its passcode.
If the pairing is successful, your phone connects to the device.

To connect to a Bluetooth device

Once paired, you can connect to a Bluetooth device—for example, to switch devices or to reconnect after the phone and the device come back into range.

- 1 Press **Home** , press **Menu** , and touch **Settings** to open the Settings application.
- 2 Touch **Wireless & networks** > **Bluetooth settings**.
- 3 If Bluetooth isn't turned on, check **Bluetooth** to turn it on.
- 4 In the list of devices, touch a paired but unconnected device in the list.
If the device you expected isn't displayed, touch **Scan for devices**.

When the phone and the device are connected, the device is displayed as connected in the list.

To configure the Bluetooth features you want to use

Some Bluetooth devices have multiple profiles. Profiles can include the ability to transmit your phone conversations, to play music in stereo, or to transfer files or other data. You can select which profiles you want to use with your phone.

- 1 Touch & hold the device in the Bluetooth settings screen.
- 2 Touch **Options** in the menu that opens.
A screen opens with a list of the device's profiles.
- 3 Check or uncheck a profile to use it or not.
- 4 When you're finished, press **Back** .

To disconnect from a Bluetooth device

- 1 Touch the device in the Bluetooth settings screen.
- 2 Touch **OK** to confirm that you want to disconnect.

To unpair a Bluetooth device

You can unpair a Bluetooth device to erase all pairing information about it.

- 1 Touch & hold the device in the Bluetooth settings screen.
- 2 Touch **Unpair** or **Disconnect & unpair** in the menu that opens.

Connecting to a computer via USB

You can connect your phone to a computer with a USB cable, to transfer music, pictures, and other files between your phone's microSD card and the computer.

Warning! When connecting your phone to a computer and mounting its microSD card, you must follow your computer's instructions for connecting and disconnecting USB devices, to avoid damaging or corrupting the files on your microSD card.

To connect your phone to a computer via USB

- 1 Use the USB cable that came with your phone to connect the phone to a USB port on your computer.

You receive a notification that the USB is connected.

- 2 Open the Notifications panel and touch **USB connected**.

For details on working with the Notifications panel, see "Managing notifications" on page 52.

- 3 Touch **Mount** in the dialog that opens to confirm that you want to transfer files.

When the phone is connected as USB storage, you receive a notification.

Your phone's microSD card is mounted as a drive on your computer. You can now copy files to and from the microSD card. For more information, see the documentation for your computer.

During this time, you can't access the microSD card from your phone, so you can't use applications that rely on the microSD card, such as Camera, Gallery, and Music.

To disconnect your phone from the computer

Warning! Carefully follow your computer's instructions to unmount the microSD card and disconnect USB devices correctly, to avoid losing information on the card.

- 1 Unmount the microSD card on your computer.
- 2 Open the Notifications panel and touch **Turn off USB storage**.
- 3 Touch **Turn off** in the dialog that opens.

To safely remove the microSD card from your phone

You can safely remove the microSD card from your phone any time the phone is turned off, as described in "Your phone and accessories" on page 15. If you need to remove the microSD card while the phone is on, you must unmount the storage card from the phone first, to prevent corrupting or damaging the storage card.

- 1 Press **Home** , press **Menu** , and touch **Settings**, to open the Settings application.
- 2 Touch **SD card & phone storage**.
- 3 Touch **Unmount SD card**.

You can now safely remove the microSD card from the phone.

To format a microSD card

If you purchase a new microSD card, you may need to format it before you can use it with your phone. You can also format a microSD card to erase its contents.

- 1 Press **Home** , press **Menu** , and touch **Settings**, to open the Settings application.
- 2 Touch **SD card & phone storage**.
- 3 If necessary, touch **Unmount SD card**.

You can format a microSD card only when it is unmounted.

- 4 Touch **Format SD card**. On the screen that warns you that formatting the microSD card will erase its contents, touch **Format SD card**.

Connecting to virtual private networks

Virtual private networks (VPNs) allow you to connect to the resources inside a secured local network, from outside that network. VPNs are commonly deployed by corporations, schools, and other institutions so that their users can access local network resources when not on campus, or when connected to a wireless network.

There are numerous systems for securing VPN connections, including some that rely on secure certificates or other schemes to ensure that only authorized users can connect. For information about installing secure certificates, see “Working with secure certificates” on page 78.

To configure VPN access from your phone, you must obtain the details from your network administrator.

To add a VPN

- 1 Press **Home** , press **Menu** , and touch **Settings**, to open the Settings application.
- 2 Touch **Wireless & networks > VPN settings**.
- 3 Touch **Add VPN**.
- 4 Touch the type of VPN to add.
- 5 In the screen that opens, follow the instructions from your network administrator to configure each component of the VPN settings.
- 6 Press **Menu**  and touch **Save**.
The VPN is added to the list on the VPN settings screen.

To connect to a VPN

- 1 Open the Settings application.
- 2 Touch **Wireless & networks > VPN settings**.
The VPNs you've added are listed on the VPN settings screen.
- 3 Touch the VPN to which you want to connect.
- 4 In the dialog that opens, enter any requested credentials and touch **Connect**.
When you're connected to a VPN, you receive an ongoing notification in the Status bar. If you are disconnected, you receive a notification that you can use to return to the VPN settings screen so that you can reconnect to it. See “Managing notifications” on page 52.

To disconnect from a VPN

- ▶ Open the Notifications panel and touch the ongoing notification for the VPN connection.

To edit a VPN

- 1 Open the Settings application.
- 2 Touch **Wireless & networks > VPN settings**.
The VPNs you've added are listed on the VPN settings screen.
- 3 Touch & hold the VPN whose settings you want to edit.
- 4 In the dialog that opens, touch **Edit network**.
- 5 Edit the VPN settings you want.
- 6 Press **Menu**  and touch **Save**.

To delete a VPN

- 1 Open the Settings application.
- 2 Touch **Wireless & networks > VPN settings**.
The VPNs you've added are listed on the VPN settings screen.
- 3 Touch & hold the VPN you want to delete.
- 4 In the dialog that opens, touch **Delete network**.
- 5 Touch **OK** in the dialog that asks you to confirm you want to delete the VPN.

Working with secure certificates

If your organization's VPN or Wi-Fi networks rely on secure certificates, you must obtain the certificates (in files that conform to the PKCS #12 standard) and store them in your phone's secure credential storage, before you can configure access to those VPN or Wi-Fi networks on your phone.

If your network administrator instructs you to download the certificates from a website, you're prompted to set a password for the credential storage when you download the certificates.

For more information about working with credential storage, see "Location & security settings" on page 316.

To install a secure certificate from the microSD card

- 1 Copy the certificate from your computer to the root of the microSD card (that is, not in a folder).

See "Connecting to a computer via USB" on page 74 for information about connecting your phone to a computer and copying files to the microSD card.

- 2 Press **Home** , press **Menu** , and touch **Settings**, to open the Settings application.

- 3 Touch **Location & security**.

- 4 Touch **Install from SD card**.

- 5 Touch the file name of the certificate to install.

Only the names of certificates that you have not already installed on your phone are displayed.

- 6 If prompted, enter the certificate's password and touch **OK**.

- 7 Enter a name for the certificate and touch **OK**.

If you have not already set a password for your phone's credential storage, you're prompted to enter a password for it twice and then touch **OK**. For more information about credential storage, see "Location & security settings" on page 316.

You can now use the certificate that you installed when connecting to a secure network. For security, the certificate is deleted from the microSD card.

Placing and receiving calls

You can place a phone call by dialing a phone number. You can also touch a number in your contacts, on web pages, and other places. When you're on a call, you can answer incoming calls or send them to your voicemail box. You can even set up conference calls with several participants.

You can also use Google Voice to manage your voicemail and to place calls from your phone, as described in "Google Voice" on page 153.

In this section

"Placing and ending calls" on page 80

"Answering or rejecting calls" on page 82

"Working with the Call log" on page 84

"Calling your contacts" on page 86

"Listening to your voicemail" on page 87

"Dialing by voice" on page 88

"Options during a call" on page 89

"Managing multiple calls" on page 91

Placing and ending calls

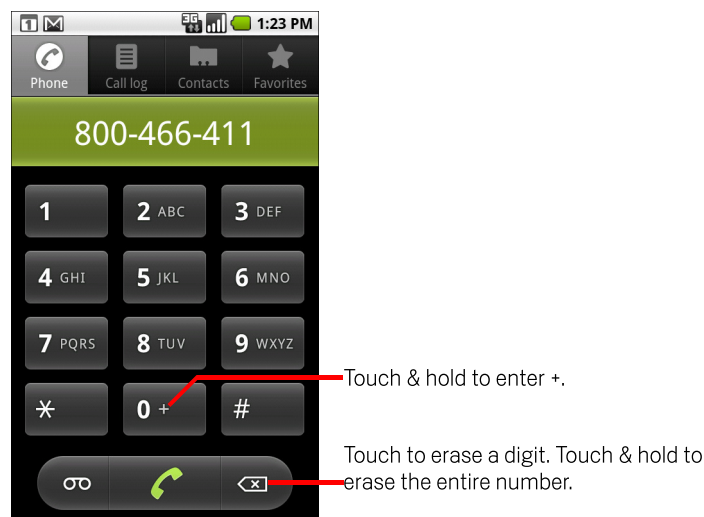
You can place calls with the Phone application. You can also place calls when working in the Call log (see “Working with the Call log” on page 84) or in Contacts (see “Communicating with your contacts” on page 104).

To open Phone

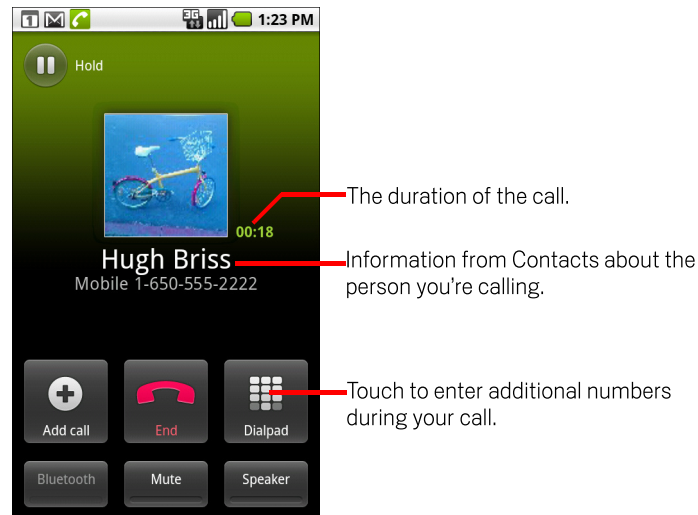
- ▶ Touch the Phone icon  on the Home screen or in the Launcher.
- OR**
- ▶ If you're already working with Contacts or the Call log, touch the **Phone** tab.

To place a call by dialing

- 1 Open Phone.



- 2 Touch the keys on the Phone tab to enter the phone number.
If you enter a wrong number, touch  to erase digits one by one.
To erase the entire number, touch & hold .
To dial an international number, touch & hold the **0** key to enter the plus (+) symbol. Then enter the international prefix for the country, followed by the full phone number.
- 3 Touch the green phone icon  to dial the number that you entered.



You can switch applications during a call—for example, to look up information by using the Browser. The green phone icon appears in the Status bar while the call is underway.

Press the **Volume Up / Down** button to adjust the call volume.

Use the onscreen buttons to place the current call on hold, to add a caller, and for other options, as described in “Options during a call” on page 89.

To end a call



► Touch End

To disable phone calls (Airplane mode)

Some locations may require you to turn off your phone's mobile, Wi-Fi, and Bluetooth wireless connections. You can turn off all wireless connections at once by placing your phone in Airplane mode.

- 1 Press & hold the **Power** button
- 2 Touch **Airplane mode**.

You can also use the Settings application to turn Airplane mode on and off and to configure other mobile and network settings. See “Wireless & networks” on page 309.

Answering or rejecting calls

When you receive a phone call, the Incoming Call screen opens with the caller ID and any additional information about the caller that you have entered in Contacts. See “Contacts” on page 93.

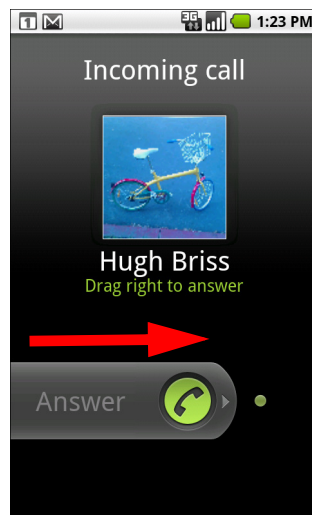
All incoming calls are recorded in the Call log. See “Working with the Call log” on page 84. If you miss a call, you receive a notification. See “Managing notifications” on page 52.

To answer a call

- ▶ Drag the green phone icon to the right.

If you were already on a call, the first call is placed on hold while you answer the new call.

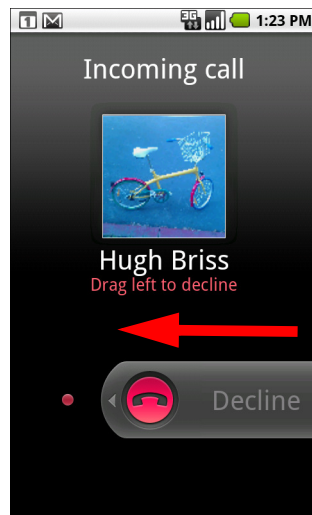
To silence the ringer before answering the call, press the **Volume Down** button.



Drag the green phone to the right to answer the call.

To decline a call and divert it to voicemail

- ▶ Drag the red phone button to the left.
The caller is sent directly to your voicemail box to leave a message.



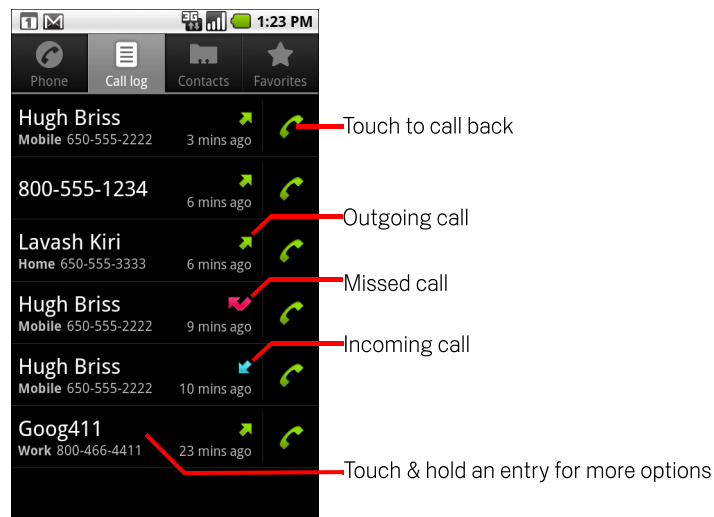
Drag the red phone to the left to send the caller directly to your voicemail box.

Working with the Call log

The Call log is a list of all the calls you've placed, received, or missed. It offers a convenient way to redial a number, return a call, or add a number to your Contacts.

To open the Call log

- ▶ Press the **Call** button.
Or, if you have the **Phone** or **Contacts** tab open, touch the **Call log** tab.
Calls are listed with the most recent at the top. Scroll to view earlier entries in the log.



To dial a number in the Call log

- ▶ Touch the green phone icon  at the right of the entry.
You can also touch & hold the entry to open a menu with options for communicating with that contact in other ways.

To add an entry's number to your Contacts

- 1 Touch & hold the entry.
- 2 Touch **Add to contacts** in the menu that opens.
- 3 In the list of contacts that opens, touch **Create new contact** at the top, or scroll to find and then touch an existing contact to which you want to add the number.

For more information about creating and editing contacts, see "Contacts" on page 93.

To take other actions on a Call log entry

- ▶ Touch a Call log entry to open a screen where you can call the contact again, send the contact a message, add the number to your Contacts, and learn more about the original call.
- ▶ Touch & hold a Call log entry to open a menu where you can call the contact, view contact information, edit the number before you redial, and more.

To clear the Call log

- ▶ While viewing the Call log, press **Menu**  and touch **Clear call log**.
You can also touch & hold an entry in the log. In the menu that opens, touch **Remove from call log** to remove just that entry from the log.

Calling your contacts

Instead of entering the number in the Phone tab, you can touch a phone number to dial it.

You can also quickly call a contact by using Quick Contact. See “Connecting quickly with your contacts” on page 61.

Adding, editing, and performing other tasks with your contacts is described in “Contacts” on page 93. If you have contacts on the web, they’re synchronized with your phone when you first connect to your Google Account.

To call a contact

- 1 Open your contacts.
For example, on the Home screen, touch the Contacts icon . Or in Phone, touch the **Contacts** tab.
- 2 Touch the contact to call.
You can search for or scroll to find a contact.
- 3 Touch the phone number to use to call the contact.
See “Communicating with your contacts” on page 104 for more options.

To call a favorite contact

- 1 Open your list of favorites.
For example, on the Home screen, touch the Contacts icon  and then touch the **Favorites** tab.
The list of your favorite contacts is followed by a list of the numbers that you call most often.
You can add and remove favorites by touching the star next to their names, while you’re viewing information about the Contact. See “Adding a contact to your favorites” on page 99.
- 2 Touch the favorite to call.
- 3 Touch the phone number to use to call the contact.

Listening to your voicemail

When you have a new voicemail message, the voicemail icon  appears in the Status bar.

If you have not set up your voicemail number, or if you need to change it, you can do that with the Call settings. See “Call settings” on page 312.

To listen to your voicemail

- ▶ Open the Notifications panel and touch **New voicemail**.
Responding to notifications is described in “Managing notifications” on page 52.

OR

- ▶ Open Phone and touch the voicemail icon  on the Phone tab.
Opening Phone is described in “Placing and ending calls” on page 80.
Typically, your carrier’s voicemail system guides you through the process of listening to and managing your voicemail. The first time you call your voicemail, it also guides you through the process of recording greetings, setting a password, and so on.

Dialing by voice

You can search for and dial a contact by speaking, rather than by using the Phone tab or touching a contact's number.

To place a call by speaking

You can call a contact by using Google search by voice.

- 1 Press & hold the **Search** button .

You're prompted to speak.

- 2 Say "Call" followed by the name of the contact to call.

If Google search by voice finds a match, it dials the contact's default number.

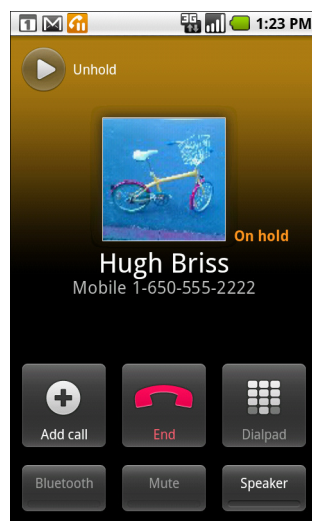
For details about setting a contact's default number, see "Editing contact details" on page 101.

Options during a call

When a call is in progress, you can put a call on hold, create a phone conference, mute your microphone, and more. See “Managing multiple calls” on page 91.

To place a call on hold

- ▶ Touch the Hold icon .



The current call screen indicates that you have a call on hold.

A Hold  icon appears in the Status bar to remind you that you have a call on hold. From any other application, you can open the Notifications panel and touch the entry for the call on hold to return to the current call screen.

Take the call off hold by touching the Unhold button.

To mute the microphone during a call

- ▶ Touch Mute.

The Mute button lights up green to indicate that the microphone is muted.

The Mute icon appears in the Status bar to remind you that the microphone is turned off.

When viewing the current call screen, you can unmute the microphone by touching the Mute icon again.

The microphone is unmuted automatically when the current call ends.

To turn the speakerphone on or off

- ▶ Touch Speaker.

The Speaker button lights up green to indicate that the speakerphone is on.

The Speaker icon appears in the Status bar and the sound from your call is played through the phone's speaker.

When viewing the current call screen, you can turn the speakerphone off by touching the Speaker icon again.

The speaker is turned off automatically when your current call ends.

Warning! To avoid damage to your hearing, do not hold the phone against your ear when the speakerphone is turned on.

To switch between a Bluetooth headset and the phone

When a Bluetooth headset is paired and connected to your phone, you can conduct all calls on the headset for hands-free conversation.

For details about configuring the phone to use a Bluetooth headset, see "Connecting to Bluetooth devices" on page 71.

When using the Bluetooth headset during a call, the current call screen has a blue border and the Ongoing Call icon turns blue in the Status bar.

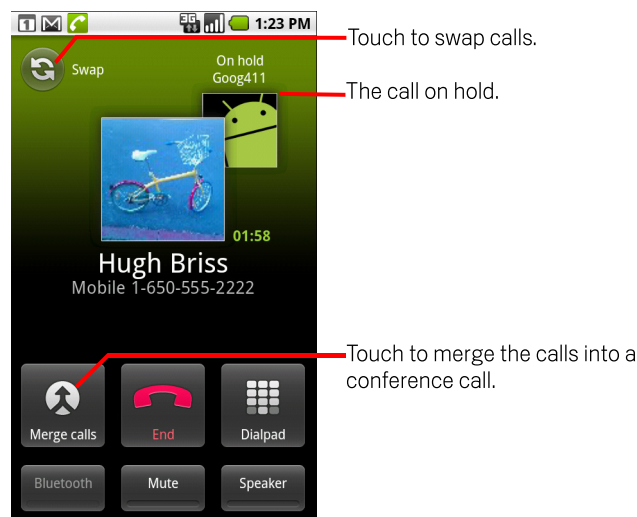
- ▶ Touch the Bluetooth icon to switch from the headset to the phone or vice versa.

Managing multiple calls

If you accept a new call when you're already on a call, you can switch between the two callers or merge the two calls into a single conference call. You can also set up a conference call with multiple callers.

To switch between current calls

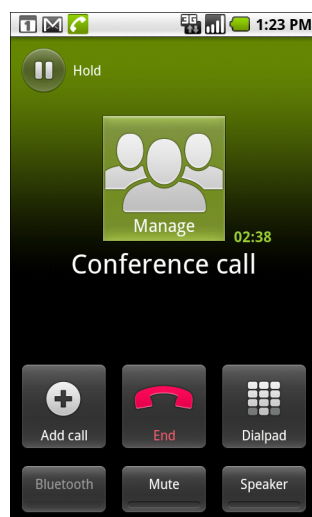
- ▶ Touch the Swap icon .
- The current call is put on hold and you join the other call.



To set up a conference call

Contact your wireless service provider to learn whether they support conference calls and how many participants you can include.

- 1 Place a call to the first participant.
- 2 When you're connected, touch **Add call**.
The first participant is put on hold and you're prompted to dial the second caller.
- 3 Place the next call, using the Phone tab, the Call log, or your contacts.
- 4 When you're connected, touch **Merge calls**.
The participant is added to the conference call.



You can add as many callers as your carrier supports.

During a conference call, touch **Manage** to drop a conference call participant or to talk privately with one of the participants.

To end a conference call and disconnect all callers

- ▶ Touch **End**.

Contacts

Contacts gives you quick and easy access to the people you want to reach. When you first turn on your phone and sign into your Google Account, any existing Google contacts are downloaded to your phone. After that, changes to your contacts are synchronized. Information about your contacts is shared with other applications, such as Gmail, Google Talk, Messaging, Gallery (for sharing photos and videos), and so on.

If you have more than one account with contact information, Contacts merges duplicate contacts into a single entry. You can also manage that process manually.

In this section

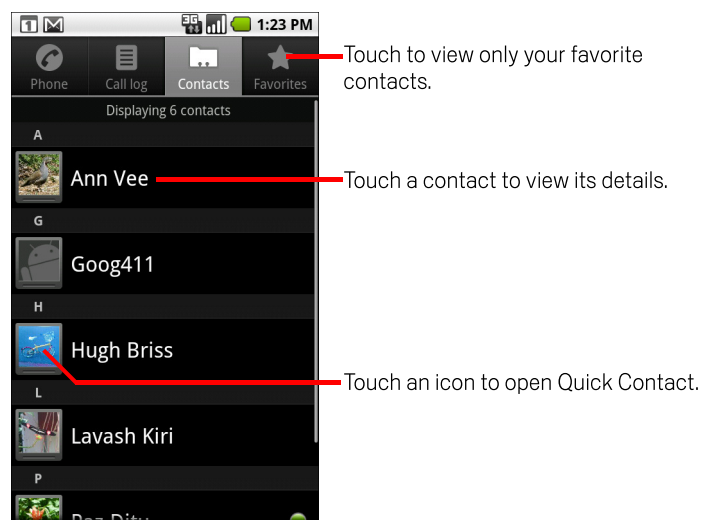
- “Opening your contacts” on page 94
- “Adding contacts” on page 96
- “Importing, exporting, and sharing contacts” on page 97
- “Adding a contact to your favorites” on page 99
- “Searching for a contact” on page 100
- “Editing contact details” on page 101
- “Communicating with your contacts” on page 104
- “Changing which contacts are displayed” on page 106
- “Joining contacts” on page 108
- “Separating contact information” on page 109

Opening your contacts

Open Contacts to add, view, and communicate with your friends and acquaintances.

To open your contacts

- ▶ Touch the Contacts icon  on the Home screen or in the Launcher.
You can also open Contacts by using Quick Contact. See “Connecting quickly with your contacts” on page 61.
All of your contacts are displayed alphabetically in a scrolling list. Each contact is followed by the default phone number.
If you have a new phone and haven’t added any contacts yet, Contacts displays a message with hints on how to start adding contacts to your phone.



You can drag the list up or down to scroll it, or slide your finger up or down to scroll quickly. Either way, a tab briefly appears to the right of the list, which you can drag up and down to scroll very quickly, while displaying the letter of the alphabet for the contacts you’re scrolling past.

To open a list of your favorite contacts

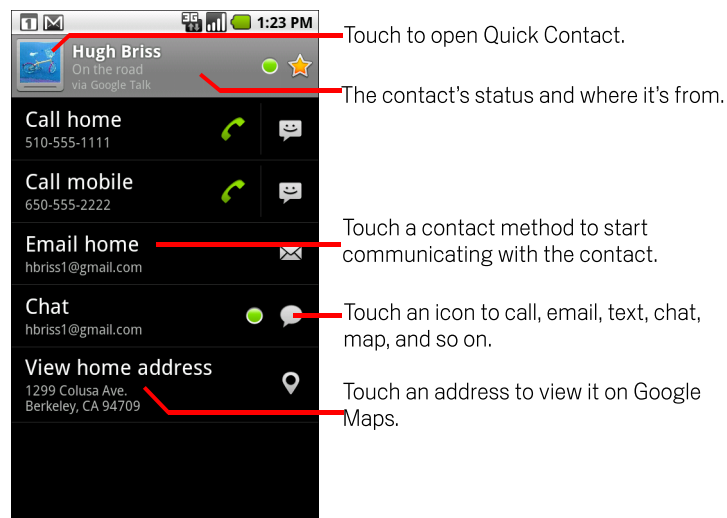
- ▶ Open your contacts and touch the **Favorites** tab.

The Favorites tab lists the contacts you've added to the list (see "Adding a contact to your favorites" on page 99), followed by a list of your most frequently called contacts.

To view details about a contact

- 1 Open your contacts.
- 2 Touch the contact whose details you want to view.

Entries for communicating with the contact are followed by details.



Touch a communication method to start dialing, texting, or emailing the contact by using the listed number, address, and so on.

Touch an address to view it on Google Maps. See "Maps" on page 221.

You can also press **Menu** and touch **Edit contact** to edit the contact's information (see "Editing contact details" on page 101), or touch **Delete contact** to delete all information about the contact.

Adding contacts

You can add contacts on your phone and synchronize them with the contacts in your Google Account, Microsoft Exchange ActiveSync account, or other accounts that support syncing contacts.

When you reply to or forward an email message to an email address that is not in Contacts, the email address is added as a contact. Contacts tries to join new addresses with existing contacts, to create a single entry. You can also manage that process manually. See "Joining contacts" on page 108 and "Separating contact information" on page 109.

To add a new contact

- 1 Open your contacts.
- 2 Press **Menu**  and touch **New contact**.
- 3 If you have more than one account with contacts, touch the account to which you want to add the contact.

- 4 Enter the contact's name.
- 5 Touch a category of contact information, such as phone numbers and email addresses, to enter that kind of information about your contact.

Scroll the page to view all categories.

- 6 Touch a category's plus button  to add more than one entry for that category—for example, to add both work and home numbers.

Touch the button to the left of the item of contact information to open a menu with preset labels, such as **Mobile** and **Work** for a phone number, or touch **Custom** in the menu to create your own label.

- 7 Touch the Picture Frame icon to select a picture to display next to the name in your lists of contacts and in other applications.



- 8 When you're finished, touch **Done**.

Importing, exporting, and sharing contacts

If you have contacts stored in vCard format on a microSD card or SIM, you can import them into Contacts on your phone. You can export contacts in vCard format onto a microSD card, to back them up to a computer or other device. And you can send a contact via email.

To import contacts from your SIM card

Your service provider may store some contacts on your SIM card, such as customer care and voicemail numbers. You may also have stored contacts on the SIM card if you're moving it from another phone. You can add some or all of these contacts to the Contacts application.

- 1 Open your contacts.
- 2 Press **Menu**  and touch **Import/Export**.
- 3 Touch **Import from SIM**.
- 4 If you have more than one account on your phone, touch the account into which you want to import the contacts.
A list of the contacts on the SIM appears.
- 5 Touch & hold a contact and touch **Import** in the menu that opens. Or press **Menu**  and touch **Import all**.

To import contacts from your microSD card

You can copy individual or group contacts in vCard format onto your microSD card and then import them into one of your accounts on the phone. See "Connecting to a computer via USB" on page 74 for details about copying files to a microSD card from your computer.

You may also have contacts stored on a microSD card from another device. See "Your phone and accessories" on page 15 for details about working with microSD cards.

- 1 Open your contacts.
- 2 Press **Menu**  and touch **Import/Export**.

- 3 Touch **Import from SD card**.
- 4 If you have more than one account on your phone, touch the account into which you want to import the contacts.
- 5 If you have more than one vCard file on the microSD card, touch the option to import a single contact file, multiple contact files, or all of the contact files on the microSD card.

The contacts are imported.

To export contacts to your microSD card

You can export all of the contacts on your phone to your microSD card, as a group vCard file. You can then copy this file to a computer or another device that can work with files in this format, such as an address book application. See "Connecting to a computer via USB" on page 74)

- 1 Open your contacts.
- 2 Press **Menu**  and touch **Import/Export**.
- 3 Touch **Export to SD card**.
- 4 Touch **OK** to confirm.

Contacts creates a file with the .vcf extension on your microSD card. This file contains all of your contacts.

To share a contact

You can share a contact with someone by emailing it to them in vCard format.

- 1 Open Contacts.
- 2 Open the contact you want to share.
- 3 Press **Menu**  and touch **Share**.

A Gmail compose message screen opens, with the contact attached as a vCard (.vcf) file.

Address, write, and send the email, as described in "Composing and sending a message" on page 125.

Adding a contact to your favorites

The Favorites tab contains the contacts you've starred as favorites followed by the short list of the contacts you communicate with most frequently.

To add a contact to your favorites

- 1 Open your contacts.
- 2 Touch a contact to view its details.
- 3 Touch the star to the right of the contact's name.
The star turns gold ★.

To remove a contact from your favorites list

- 1 Open your contacts and touch the **Favorites** tab.
- 2 Touch a contact to view its details.
- 3 Touch the gold star to the right of the contact's name.
The star turns gray and the contact is removed from your favorites.

Searching for a contact

You can search for a contact by name.

To search for a contact

- 1 Open your contacts.
- 2 Press the **Search** button .
- 3 Start entering the name of the contact you're searching for.
As you type, contacts with matching names appear below the search box.
- 4 Touch a matching contact in the list to open its Details screen. Or touch the Magnifying Glass  icon to open a screen with a list of matching contacts.

Editing contact details

You can change or add details about your contacts. You can also set the ringtone for when a specific contact calls, or divert all calls from a contact to your voicemail.

Some contact entries contain information from multiple sources: information that you added manually, information that Contacts joined from multiple accounts to consolidate duplicates, and so on. When you edit a contact entry, the information from each source is grouped in its own color-coded, labeled section. If you find duplicate entries in Contacts, you can join them into a single entry, as described in “Joining contacts” on page 108. If you find information from unrelated contacts was joined in error, you can separate them, as described in “Separating contact information” on page 109.

Changes that you make to information from one source do not affect the information from other sources. For example, if you have information about a contact from a Google Account and an Exchange ActiveSync account and both are configured to sync contacts, edits to the information from the Google Account are synced to that account on the web, but the information from the Exchange ActiveSync account remains unchanged.

For more information about working with multiple accounts, see “Accounts” on page 111.

To edit contact details

- 1 Open your contacts or favorites.
- 2 Touch & hold the contact whose details you want to edit; In the menu that opens, touch **Edit contact**.
You can also press **Menu**  and touch **Edit contact** while viewing a contact's details.
- 3 Edit the contact information, using the same controls as when you create a contact.
See “Adding contacts” on page 96.
- 4 Touch **Done**.

To change a contact's default phone number

A default phone number appears below the contact's name in the Contacts list. The default phone number is used when you initiate a call or send a text message from the list by touching & holding a contact.

- 1 Open your contacts or favorites.
- 2 Touch the name of a contact in the list to view its details.
- 3 Touch & hold the phone number to use as the contact's default phone number.
- 4 Touch **Make default number** in the menu that opens.
The default phone number is marked with a checkmark ☒.

To divert all of a contact's calls to your voicemail

- 1 Open your contacts or favorites.
 - 2 Touch the name of a contact in the list to view its details.
 - 3 Press **Menu**  and touch **Options**.
 - 4 Check **Incoming calls**.
 - 5 Press **Back** .
- When this contact calls you, your phone doesn't ring and the caller is sent directly to your voicemail.

To set a ringtone for a contact

- 1 Open your contacts or favorites.
- 2 Touch the name of a contact in the list to view its details.
- 3 Press **Menu**  and touch **Options**.
- 4 In the scrolling list of ringtones that opens, touch the one to play when the contact calls.
The ringtone plays a sample.
- 5 Touch **OK**.

To delete a contact

- 1 Open your contacts or favorites.
- 2 Touch the name of a contact in the list to view its details.
- 3 Press **Menu**  and touch **Delete contact**.

If you delete a contact from Google Contacts (or another account with editable contacts), the contact is also deleted from Contacts on the web the next time you sync your phone.

You can't delete contacts from a read-only account, such as Facebook. Instead, a dialog informs you that the contact will be hidden. To restore hidden contacts from a read-only account, you must delete that account from your phone and then add it again.

If the contact contains information from both editable accounts (such as Contacts) and from a read-only account (such as Facebook), a dialog informs you that the information from the read-only account will be hidden, not deleted.

- 4 Touch **OK** to confirm that you want to delete the contact.

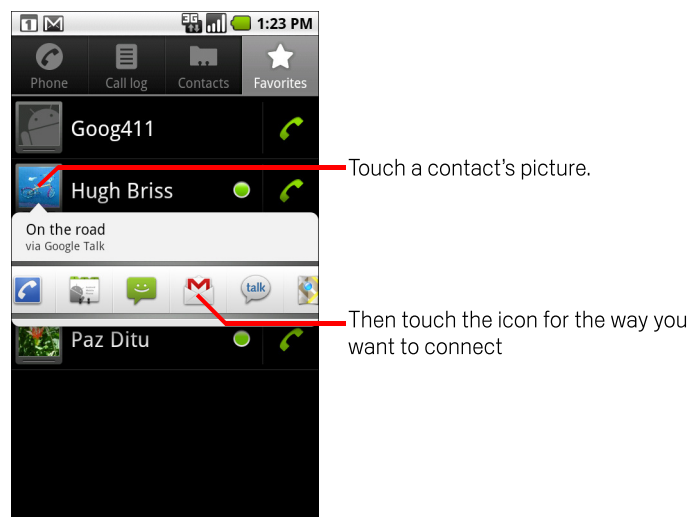
Communicating with your contacts

From the Contacts or Favorites tab, you can quickly call or send a text (SMS) or multimedia message (MMS) to a contact's default phone number. You can also open details to view a list of all the ways you can communicate with that contact.

This section describes ways to initiate communication when viewing your list of contacts. The Contacts application shares your contacts with many other applications, such as Gmail (see "Gmail" on page 119) and Messaging (see "Messaging" on page 197).

To connect by using Quick Contact for Android

- 1 Touch a contact's picture to open Quick Contact for Android.



- 2 Touch the icon for the way you want to connect.

The icons available depend on the information you have for the contact and the applications and accounts on your phone.

For more information, see "Connecting quickly with your contacts" on page 61.

To communicate with a contact

- 1 Open your contacts or favorites.
- 2 Touch the contact with whom you want to communicate.
You can also just touch the Green Phone icon in the list of favorites or in the Call log to call the displayed number.
- 3 In the contact's details screen, touch the way to start communicating with the contact.
For phone numbers, you switch automatically to the Phone application as the number is called. For other kinds of communication, you switch automatically to the appropriate application, with the contact's address entered.

To call a contact's default number

- 1 Open your contacts or favorites.
- 2 Touch & hold the entry for the contact to call.
- 3 Touch **Call** in the menu that opens.
The actual menu item depends on the default number you set for your contact, so it may be **Call Mobile**, **Call Work**, and so on.
You switch to the Phone application automatically as the number is called. For more information about placing phone calls, see "Placing and receiving calls" on page 79.

To send a text or multimedia message to a contact's default number

- 1 Open your contacts or favorites.
- 2 Touch & hold the contact to call.
- 3 Touch **Text contact** in the menu that opens.
You switch automatically to the Messaging application, with the contact's phone number entered in a new message. For more information about sending text and multimedia messages, see "Messaging" on page 197.
You can also use Quick Contact to start sending a text or multimedia message. See "Connecting quickly with your contacts" on page 61.

Changing which contacts are displayed

You can hide contacts that don't have phone numbers. You can also configure which groups of contacts, for each account, you want to display in the Contacts list.

To set whether contacts without phone numbers are displayed

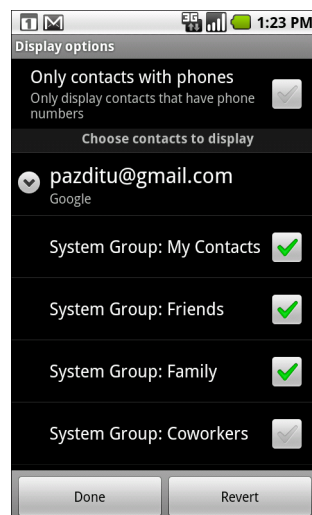
If you use your list of contacts only to call people, you can hide any contacts that don't have phone numbers.

- 1 Open your list of contacts.
- 2 Press **Menu**  and touch **Display options**.
- 3 Check or uncheck **Only contacts with phones**.

To change what groups are displayed

- 1 Open your list of contacts.
- 2 Press **Menu**  and touch **Display options**.
- 3 Touch an account to open its list of groups.

An account's groups depend on the kind of account.



- 4 Check or uncheck the groups whose contacts you want to view in Contacts.
This action affects only the display of groups of contacts with this screen. Your sync settings are not affected.
- 5 Touch **Done**.
A message appears while your changes are made. If your change affects a great many contacts, this can take a short while.

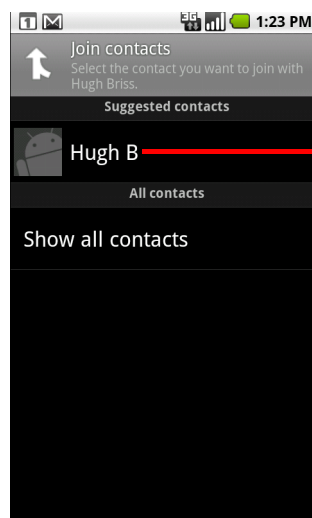
Joining contacts

When you add an account or add contacts in other ways, such as by exchanging emails, Contacts attempts to avoid duplication by joining any new contact information with existing contacts under a single entry. You can also join contacts manually.

To join contacts

- 1 Open your contacts or favorites.
- 2 Touch the contact entry to which you want to add information.
This is the contact you will see in Contacts after the join.
- 3 Press **Menu** ☰ and touch **Edit contact**.
- 4 Press **Menu** ☰ and touch **Join**.

Likely contacts are displayed at the top of the screen. You can touch Show all contacts to pick a contact from your full list of contacts.



Touch the contact whose information you want to join.

- 5 Touch the contact whose information you want to join with the first contact.
The information from the second contact is added to the first contact, and the second contact is no longer displayed in the Contacts list.
See “Editing contact details” on page 101 for details about how to view where a contact’s information came from, including automatic and manually joined information. See “Separating contact information” on page 109 for information about how to separate contacts joined in error.

Separating contact information

Each contact entry on your phone may contain information from a variety of sources—you may have entered it, Contacts may have joined information automatically when you added an account, you may have joined contacts, and so on.

If contact information from different sources was joined in error, you can separate the information back into individual contacts on your phone.

To separate contact information

- 1 Open your contacts or favorites.
- 2 Touch the contact entry whose information you want to separate.
- 3 Press **Menu**  and touch **Edit contact**.
- 4 Press **Menu**  and touch **Separate contact**.

The contact information is separated into individual contacts in the list of contacts.

Accounts

You can sync contacts, email, and other information to your phone from multiple Google Accounts, Microsoft Exchange ActiveSync accounts, or other kinds of accounts, depending on the applications installed on your phone.

For example, you could start by adding your personal Google Account, so your personal email, contacts, and calendar are always available. Then you could add an Exchange ActiveSync account from work, so you can read your work email and have your work contacts handy. You can even add multiple Google Accounts and other accounts.

In this section

“Adding and removing accounts” on page 112

“Configuring account sync and display options” on page 115

Adding and removing accounts

You can add multiple Google Accounts and Exchange ActiveSync accounts. You may also be able to add other kinds of accounts, depending on your applications.

When you add an account, Contacts compares any new contacts that you sync to your phone with your existing contacts and attempts to join duplicates into a single entry in Contacts. This does not join that data for the accounts themselves; it just presents it as a single contact.

See “Joining contacts” on page 108 for information about joining contacts manually. See “Configuring account sync and display options” on page 115 to learn how to separate contact information that was joined incorrectly.

To add an account

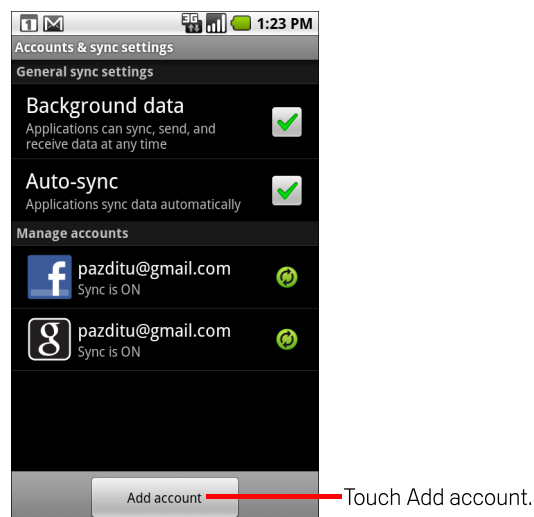
To add some accounts, you may need to obtain details from an IT support representative about the service to which the account connects. For example, you may need to know the account's domain or server address.

- 1 Open the Accounts & Sync Settings screen.

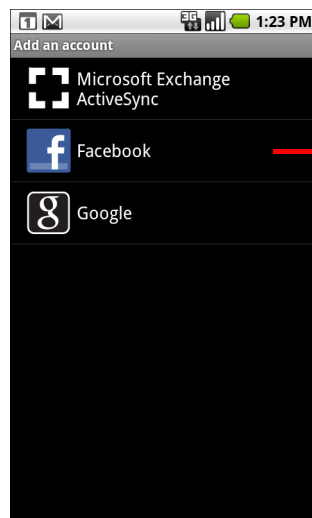
You can do this in Contacts by pressing **Menu** ≡ and touching **Accounts**, or directly in the Settings application.

The Accounts & Sync Settings screen displays your current sync settings and a list of your current accounts.

See “Configuring account sync and display options” on page 115.



- 2 Touch **Add account**.
- 3 Touch the kind of account to add.



- 4 Follow the onscreen steps to enter the required and optional information about the account.

Most accounts require a username and password, but the details depend on the kind of account and the configuration of the service you're connecting to.

For details about adding accounts based on Microsoft Exchange ActiveSync, see "Adding and editing email accounts" on page 189 and the detailed tables in "Changing email account settings" on page 191. These sections also describe how to add an email account based on IMAP, POP3, or SMTP, using the Email application.

- 5 Configure the account.

Depending on the kind of account, you may be asked to configure what kinds of data you want to sync to the phone, name the account, and other details.

When you're finished, the account is added to the list in the Accounts & Sync Settings screen. Depending on how you configured the account, email, contacts, and other information start syncing to your phone.

See "Configuring account sync and display options" on page 115 for details about changing how the account is configured.

To remove an account

You can remove an account to delete it and all information associated with it from your phone, including email, contacts, settings, and so on.

You can't remove some accounts, such the first Google Account you signed into on the phone, except by deleting all personal information from your phone. See "Privacy settings" on page 321 to learn how to do that.

- 1 Open the Accounts & Sync Settings screen.

You can do this in Contacts by pressing **Menu**  and touching **Accounts**, or directly in the Settings application.

The Accounts & Sync Settings screen displays your current sync settings and a list of your current accounts.

- 2 Touch the account to delete.
- 3 Touch **Remove account**.
- 4 Confirm that you want to remove the account.

Configuring account sync and display options

You can configure background data use and synchronization options for all of the applications on your phone. You can also configure what kinds of data you synchronize for each account. Some applications, such as Gmail and Calendar, have their own synchronization settings.

Some applications, such as Contacts and Gmail, can sync data from multiple applications. Others, such as Calendar, sync data only from the first Google Account you sign into on your phone, or from an account associated specifically with that application.

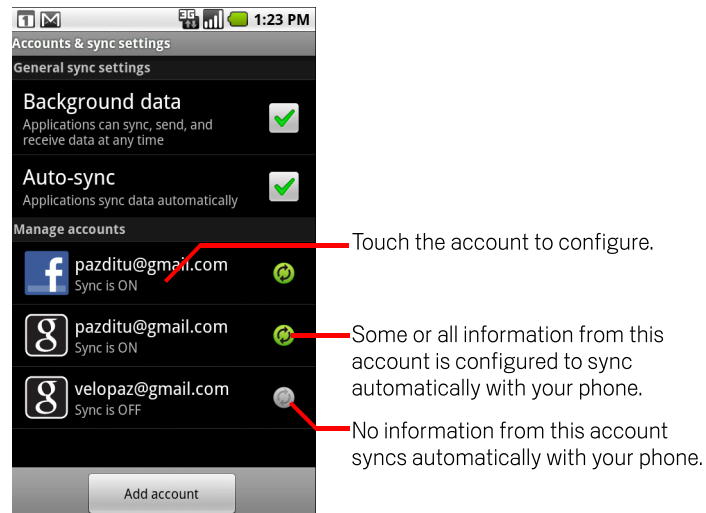
For some accounts, syncing is two-directional; changes that you make to the information on your phone are made to the copy of that information on the web. Your Google Account works this way. Other accounts support only one-way sync; the information on your phone is read-only.

You can use the Contacts display options to configure the kinds of contacts that are displayed, as described in “Changing which contacts are displayed” on page 106.

To configure general sync settings

- 1 Open the Accounts & Sync Settings screen.
You can do this in Contacts by pressing **Menu**  and touching **Accounts**, or directly in the Settings application (press **Home** , press **Menu** , and touch **Settings**).

The screen displays your current sync settings and a list of your current accounts.



 indicates that some or all of an account's information is configured to sync automatically with your phone.

 indicates that none of an account's information is configured to sync automatically with your phone.

- 2 Check or uncheck **Background data** to control whether applications and services can transmit data when you are not working with them directly (that is, when they are running in the background).
If you uncheck this option, Gmail stops receiving new mail, Calendar stops syncing events, and so on, until you touch the **Refresh** menu item or send an email.
- 3 Check or uncheck **Auto-sync** to control whether changes you make to information on the phone or on the web are automatically synced with each other.
For example, when this option is checked, changes that you make in Contacts on the phone are automatically made in Google Contacts on the web.
If you uncheck this option, you may be able to use an application's tools to sync data manually. See "To sync information manually" on page 117.

To sync information manually

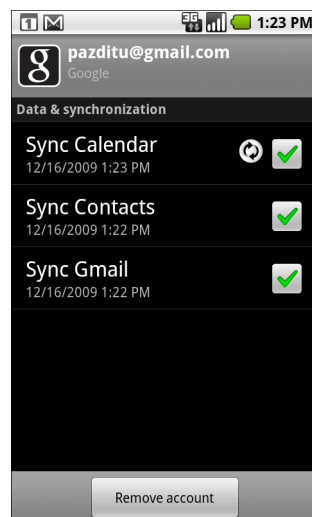
- 1 Open the Accounts & Sync Settings screen.
- 2 Touch the account whose data you want to sync.
- 3 Press **Menu**  and touch **Sync now**.

To change an account's sync settings

- 1 Open the Accounts & Sync Settings screen.
- 2 Touch the account whose sync settings you want to change.

The Data and Synchronization screen opens, displaying a list of the kinds of information the account can sync.

Checked items are configured to sync to your phone.



- 3 Check or uncheck the kinds of information you want to sync to the phone.

Unchecking an option does not remove the information from your phone; it simply stops it from syncing automatically. To remove the information previously synced for the account, you must remove the account.

Gmail

Gmail is Google's web-based email service. When you first set up your phone, you configured it to use an existing Gmail account, or you created a new account. The first time you open the Gmail application on your phone, your Inbox contains the messages from your Gmail account on the web.

In this section

- "Gmail is different" on page 120
- "Opening Gmail and your Inbox" on page 121
- "Reading your messages" on page 123
- "Composing and sending a message" on page 125
- "Replying to or forwarding a message" on page 126
- "Working with conversations in batches" on page 127
- "Labeling a conversation" on page 128
- "Starring a message" on page 129
- "Viewing conversations by label" on page 130
- "Reporting spam" on page 131
- "Searching for messages" on page 132
- "Archiving conversations" on page 133
- "Synchronizing your messages" on page 134
- "Appending a signature to your messages" on page 136
- "Changing Gmail settings" on page 137

Gmail is different

Gmail is web-based Your messages are stored on Google servers, but you read, write, and organize messages by using the Gmail application on your phone or by using a web browser on a computer. Because your mail is stored on Google servers, you can search your entire message history, backed by the speed and power of Google search.

Actions that you take in one place are reflected everywhere. For example, if you read a message in Gmail on your phone, it's marked as read in a web browser. And a message that you send using a browser, or even a draft of a message, is visible in Gmail on the phone.

Gmail is conversation-based Each message and all replies to it are grouped in your Inbox as a single conversation. In other email applications, replies to messages are spread across your Inbox, typically by date received, so a message and the replies to it are separated by other messages. Gmail makes it easy to follow the thread of a conversation.

Gmail is organized by labels, not by folders By tagging messages with labels, you can organize your conversations in many different ways. In other email applications, each message can live in only one folder. For example, with Gmail you can label a conversation with your mother about your brother's birthday present with both "Mom" and "Dave." Later, you can look for the message under either label. Using folders, you'd have to store the message in the "Mom" folder or the "Dave" folder, not both.

Gmail for the phone is optimized for mobile: for advanced tasks, use a web browser The best place to organize and learn about Gmail is the web. For example, you can't use the Gmail application on the phone to create the labels and filters that you use to organize your messages, but you can label a message on the phone. Gmail on the web offers complete information about the service, so it's the best place to learn about all of the features of Gmail.

Gmail is for Gmail Of course you can use Gmail to send email to any email address, and anyone can send email to you at your Gmail address. But if you want to read messages from another email service provider (using your AOL, Yahoo!, or other email account), you use the Email application. See "Email" on page 179.

Opening Gmail and your Inbox

When you open Gmail, the most recent conversations are displayed in your Inbox. When you return to Gmail after using other applications, the last screen you were working with is displayed.

To open Gmail

- ▶ Touch the Gmail icon  on the Home screen or in the Launcher.
See "Opening and switching applications" on page 46 to learn more about opening and switching applications.

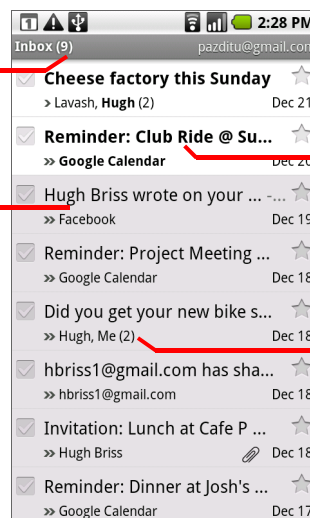
Your Inbox displays conversations with the newest messages at the top. All of your conversations are displayed in your Inbox unless you delete, archive, or filter them.

The current Google Account is displayed at the top right of the Inbox. If you have more than one account, you can switch accounts to view the messages in each Inbox, as described in "To switch accounts" on page 122. Adding and working with accounts is described in "Accounts" on page 111.

Conversations with new messages have bold subject lines. To read a message in a conversation, touch its subject. See "Reading your messages" on page 123.

The number of unread messages in your Inbox.

Touch a conversation to open it and read its messages.



Your account.

Bold subject lines indicate conversations with new (unread) messages.

There are 2 messages in this conversation.

» indicates messages sent directly to you.

» indicates messages that you were CC'd on.

Other messages were sent to you as part of a group.

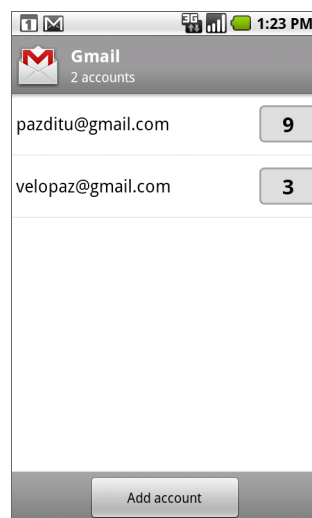
To open your Inbox when Gmail is running

- ▶ Press **Back** ← until you return to your Inbox.
- OR**
- ▶ When reading a message, press **Menu** ≡ and touch **Back to Inbox**.
- OR**
- ▶ When viewing a list of labeled conversations, press **Menu** ≡ and touch **More > Back to Inbox**.

To switch accounts

Gmail displays conversations and messages from one Google Account at a time. If you have more than one account, you can open the Accounts screen to view how many unread messages you have in each account and to switch accounts.

- 1 From your Inbox, press **Menu** ≡ and touch **Accounts**.



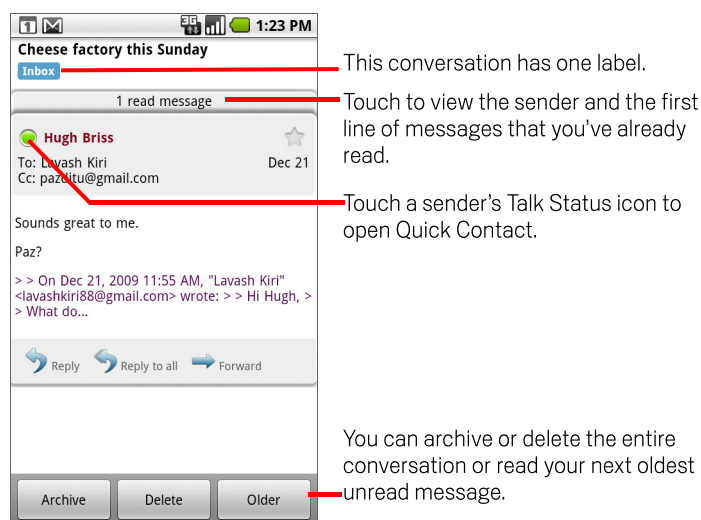
- 2 Touch the account that contains the email you want to read.

Reading your messages

When viewing a list of conversations in your Inbox or in any list of labeled conversations, you can open a conversation to read its messages.

To read a message

- ▶ Touch a conversation that contains the message you want to read.
A conversation opens to the first new (unread) message, or to the first starred message, if you've previously starred a message in the conversation. See "Starring a message" on page 129.



The Google Talk online status is shown next to the name of the sender of each message. Touch that status indicator to open Quick Contact. See "Connecting quickly with your contacts" on page 61.

When reading messages in a conversation, you can use the buttons at the bottom of the screen to archive the entire conversation (see "Archiving conversations" on page 133) or to delete it. If you delete a conversation, you can touch **Undo** in the yellow bar at the top of the screen to undelete it.

You can also touch **Older** to read the next oldest unread message in a conversation in your Inbox (or the conversation list you're working in). Press the **Back** button to reread the last message that you read.

You can scroll to the bottom of a message to view buttons for replying to or forwarding the message, as described in "Replying to or forwarding a message" on page 126.

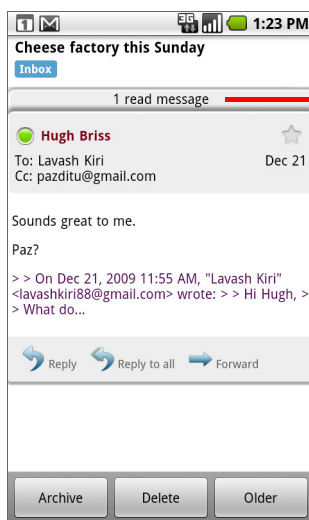
To reread a message

When you open a conversation, messages that you've already read are hidden, in a tab that indicates the number of hidden messages.

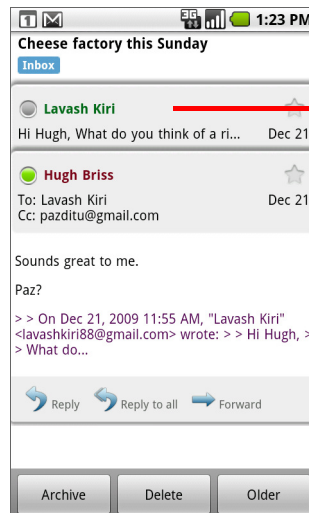
- 1 Touch the tab that indicates the number of previously read messages.

The tab expands into tabs that list the sender and the first line of each read message.

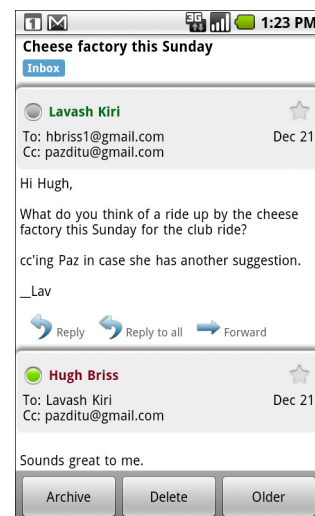
- 2 Touch an expanded tab to reread the message.



Touch the tab that indicates the number of unread messages to view their summary tabs.



Touch the tab of a message you've already read to open it, so you can read it again.



When reading a message or when its tab is selected, you can press **Menu**  and touch **Mark unread** to return a read message to the unread state—for example, to remind yourself to read it again later.

Composing and sending a message

You can compose and send a message to people or groups with Gmail addresses or other email addresses.

To compose and send a message

- 1** Press **Menu**  and touch **Compose**.
- 2** Address the message.
As you enter text, matching addresses are offered from your Contacts list. See “Contacts” on page 93. You can touch a suggested message or enter a new one.
- 3** Press **Menu**  and touch **Add Cc/Bcc** to address a copy or a blind copy of the message.
- 4** Enter a subject for the message.
- 5** Enter the text of the message.
For information about entering and editing text, see “Using the onscreen keyboard” on page 39 and “Editing text” on page 44.
- 6** Press **Menu**  and touch **Attach** to send a photo with the message.
See “Gallery” on page 249 to learn about working with photos.

Important Do not delete the original of an attachment before the message is completely sent (that is, it has the Sent label, not the Outbox label), or the attachment will not be sent.

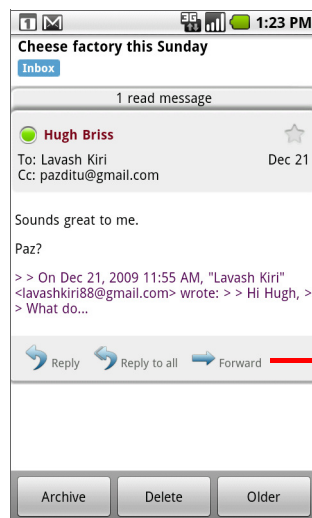
- 7** Touch **Send**.
If you're not ready to send the message, touch **Save as draft** instead. You can read your drafts by opening messages with the Draft label. See “Viewing conversations by label” on page 130.
Touch **Discard** to abandon the message, including any saved drafts.
If you aren't connected to a network—for example, if you're working in Airplane mode—the messages that you send are stored on your phone with the Outbox label until you connect to a network again.

Replying to or forwarding a message

You can continue an email conversation by replying to a message or by forwarding it.

To reply to or forward a message

- 1 Scroll to the bottom of a message.
- 2 Touch **Reply**, **Reply to all**, or **Forward**.



Touch **Reply** to reply just to the sender of the message. Touch **Reply to all** to include all recipients of the message. Touch **Forward** to send the conversation to someone new.

Replying to or forwarding messages without changing the subject adds your reply to the current conversation. Changing the subject starts a new conversation.

The message opens in a new screen where you can add or remove addresses, edit the subject, and add or remove text or attachments, as described in "Composing and sending a message" on page 125.

You can add one or more people to an ongoing conversation by replying to all and then adding the new people's addresses to the reply.

All of the messages in the conversation, up to the one you are replying to or forwarding, are included in the new message; any messages that follow the message you forward are omitted.

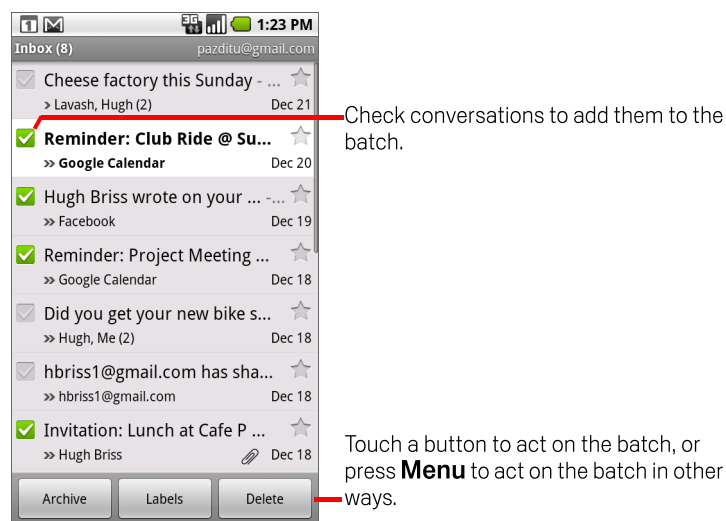
- 3 Touch **Send**.

Working with conversations in batches

You can archive, label, delete, or perform other actions on a batch of conversations at once, in your Inbox or in another labeled list of conversations.

- 1 In the Inbox or other conversation list, check the conversations that you want to work with as a batch.

When you check a conversation, the **Archives**, **Labels**, and **Delete** buttons appear at the bottom of the screen.



- 2 Touch **Archive**, **Labels**, or **Delete**. Or press **Menu** ☰ and touch **Add star**, **Report spam**, **Mute**, **Mark read/Mark unread**, or **Deselect all**.

Your action affects the entire batch of messages.

If you delete a batch of conversations, you can touch **Undo** in the yellow bar at the top of the screen to undelete them. You can also use **Undo** after muting, archiving, and reporting spam.

If you never work with batches of messages, you can hide the checkboxes to leave more room for the subjects of conversations. See “Changing Gmail settings” on page 137.

Labeling a conversation

You organize conversations by labeling them. Gmail has several built-in labels. You can also add your own by using Gmail on the web.

Viewing labeled conversations is described, along with a list of standard labels, in "Viewing conversations by label" on page 130.

To label a conversation

- 1 When reading a conversation's messages, press **Menu**  and touch **Change labels**.
- 2 In the dialog that opens, check the labels to assign to the conversation.

To label a batch of conversations at once

You can assign or change the labels of one or more conversations at once.

- 1 In your Inbox or other conversation list, check the conversations to label.
See "Working with conversations in batches" on page 127.
- 2 Touch the **Labels** button at the bottom of the screen.
- 3 In the dialog that opens, check the labels to assign to the conversation.
- 4 Touch **OK**.

To change a conversation's labels

- 1 When reading a conversation's messages, press **Menu**  and touch **Change labels**.
You can also change the labels of a batch of conversations, in the same way that you label a batch of conversations, by touching the **Labels** button.
- 2 In the dialog that opens, check or uncheck the labels.
- 3 Touch **OK**.

Starring a message

You can star an important message to make it easy to locate again. Conversations with starred messages display a star in your Inbox and other conversation lists. To view just conversations with starred messages, see “Viewing conversations by label” on page 130.

To star a message

- ▶ When reading a message, touch the star  in its header.
- OR**
- ▶ When viewing a conversation, touch its star  to star the newest message in the conversation.

To unstar a message

- ▶ Touch its star again.

To unstar all messages in a conversation

- ▶ Touch a star in a conversation list.

Viewing conversations by label

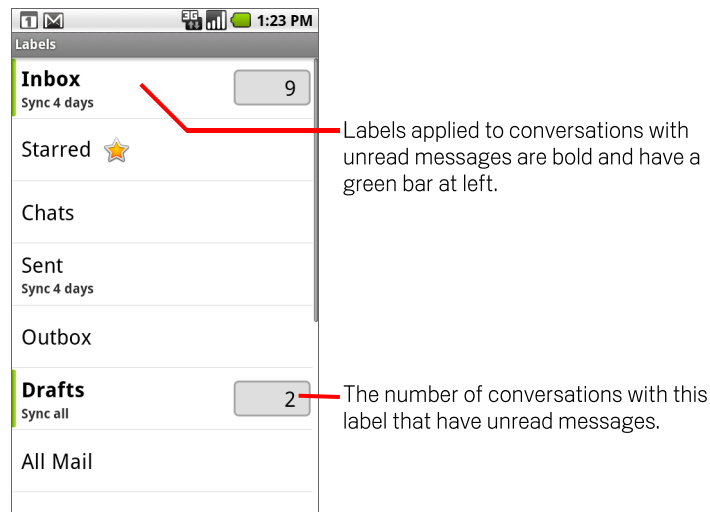
You can view a list of the conversations that have the same label, including conversations with starred messages.

You can control how many conversations are kept current on your phone, by label and by time, as described in “Synchronizing your messages” on page 134.

See “Labeling a conversation” on page 128 or “Starring a message” on page 129 for information about assigning labels and stars.

- 1 When viewing your Inbox or another conversation list, press **Menu**  and touch **View labels**.

Your labels are presented in a scrolling list.



- 2 Touch a label to view a list of conversations with that label.

The conversation list resembles your Inbox, but the label replaces “Inbox” in the title bar. You work with labeled conversation lists in the same way that you work with your Inbox.

Reporting spam

The Gmail webmail service is quite effective at preventing spam (junk mail) from reaching your Inbox. But when spam does make it through, you can help improve the Gmail service by reporting the conversation as spam.

To report a conversation as spam

- ▶ While reading the conversation's messages, press **Menu**  and touch **More** > **Report spam**.

OR

- ▶ Check one or a batch of conversations in your Inbox or other conversation list, press **Menu** , and touch **Report as spam**.

See "Working with conversations in batches" on page 127.

When you report a conversation as spam, the conversation and all its messages are removed from your Inbox. You can view the messages you've marked as spam by viewing messages with the Spam label. See "Viewing conversations by label" on page 130.

Searching for messages

You can search for messages that contain one or more words in their contents or in their addresses, subjects, labels, and so on. When you search for messages, all of the messages in your Gmail account on the web are included (except those labeled Trash or Spam), not just those that you've synchronized onto your phone.

You can also use the advanced search options that are described on the Gmail website.

- 1 In the Inbox, press **Menu**  and touch **Search**.

Or press the **Search** button .

- 2 Enter the word or words to search for and touch **Search**.

A conversation list opens, displaying all of the conversations with messages that contain the words you searched for. The words you searched for are displayed in the title bar.

You work with the conversations in this list just as you would with the conversations in your Inbox or any other conversation list.

Archiving conversations

You can archive conversations, to move them out of your Inbox without deleting them. Archived conversations are assigned the All Mail label, and they retain any other labels you've assigned to them. See "Viewing conversations by label" on page 130. They're also included in search results. If someone replies to a message that you've archived, its conversation is restored to your Inbox.

- ▶ While viewing a list of conversations, touch & hold a conversation and touch **Archive** in the menu that opens.

OR

- ▶ Check one or a batch of conversations in your Inbox or other conversation list and touch **Archive**.

See "Working with conversations in batches" on page 127.

OR

- ▶ When reading a message, touch **Archive** at the bottom of the screen.

Synchronizing your messages

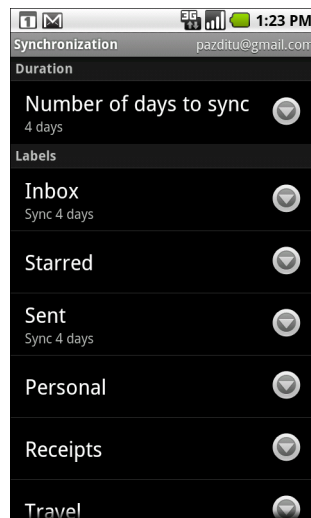
The Gmail webmail service has the resources to store all the messages you've ever sent or received; your phone does not. To save space, Gmail downloads only some of your messages to your phone. You can set which conversations are kept current on your phone, by label, and what portion of those conversations, by time.

You use the Settings application to control how and when applications synchronize their data. See "Accounts & sync settings" on page 320.

To select which conversations to synchronize

- 1 Open your Inbox.
- 2 Press **Menu**  and touch **Settings > Labels**.

The Synchronization settings screen opens, displaying a scrolling list of your Gmail labels. Below each label is its current synchronization setting: **Sync all**, **Sync 4 days**, or no label. (Conversations with no label are not synchronized.)



- 3 Touch a conversation label whose synchronization settings you want to change. A dialog for that conversation label opens, with three options:
 - Sync none** Don't download any conversations that have only this label.
 - Sync 4 days** Download the previous 4 (or number of days you set) of conversations.
 - Sync all** Download all conversations with this label.

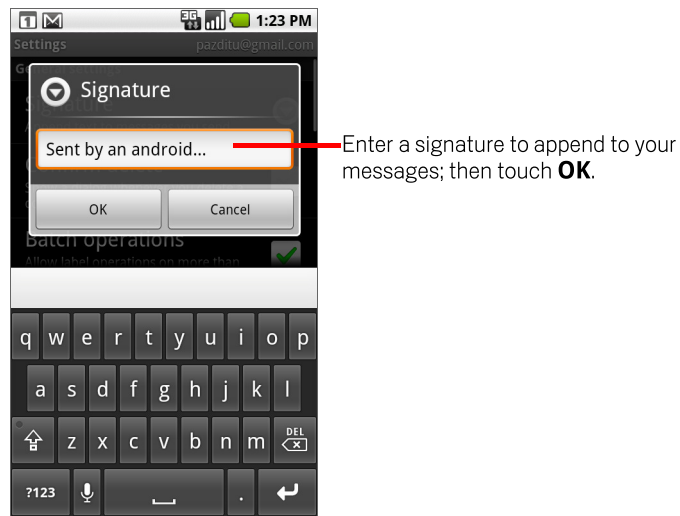
To set how many days of conversations to synchronize

- 1 Open your Inbox.
- 2 Press **Menu**  and touch **Settings** > **Labels**.
- 3 Touch **Number of days to sync**.
- 4 Enter the number of days and touch **OK**.

Appending a signature to your messages

You can append one or a few lines of text to every message you send, such as your name, contact information, or even "Sent by an android."

- 1 Open your Inbox or another labeled list of conversations.
- 2 Press **Menu**  and touch **Settings > Signature**.



- 3 Enter a signature or other information.
- 4 Touch **OK**.

Changing Gmail settings

You can change a number of settings for Gmail. Each Gmail account has its own settings, so your changes affect only the current account. See “To switch accounts” on page 122.

Notification volumes and some synchronization settings are changed in the Settings application. See “Settings” on page 307.

► To change Gmail settings, open your Inbox, press **Menu** , and touch **Settings**.

General Settings

Signature Opens a dialog where you can enter text to append to every message you send. See “Appending a signature to your messages” on page 136.

Confirm delete When checked, opens a dialog each time you delete messages, asking you to confirm that you want to delete them.

Batch operations When checked, adds a check box to the left of each conversation, so you can add it to a batch. See “Working with conversations in batches” on page 127.

Clear search history Touch to remove the history of the results you've touched when searching for messages.

Labels Opens the Labels screen, where you can manage which conversations are synchronized. See “Synchronizing your messages” on page 134.

Notification settings

Email notifications When checked, you receive a notification whenever you receive new email. See “Managing notifications” on page 52.

Select ringtone Opens a dialog where you can select the ringtone to sound when you receive a new email notification.

Vibrate When checked, the phone vibrates when you receive a new email notification.

Calendar

Calendar on the phone works with the Google Calendar calendaring service for creating and managing events, meetings, and appointments.

When you first set up your phone, you configured it to use an existing Google Account, or you created a new account. The first time you open the Calendar application on your phone, it displays any existing calendar events from your Google Account on the web.

Calendar on the phone is optimized for the phone. Some Calendar features, such as creating Calendars, are only available in Google Calendar on the web. Visit <http://calendar.google.com> to learn about the features of the web version of Calendar.

In this section

“Viewing your calendar and events” on page 140

“Working in Agenda view” on page 142

“Working in Day view” on page 143

“Working in Week view” on page 144

“Working in Month view” on page 145

“Viewing event details” on page 146

“Creating an event” on page 147

“Editing or deleting an event” on page 148

“Setting an event reminder” on page 149

“Responding to an event reminder” on page 150

“Displaying and synchronizing calendars” on page 151

“Changing Calendar settings” on page 152

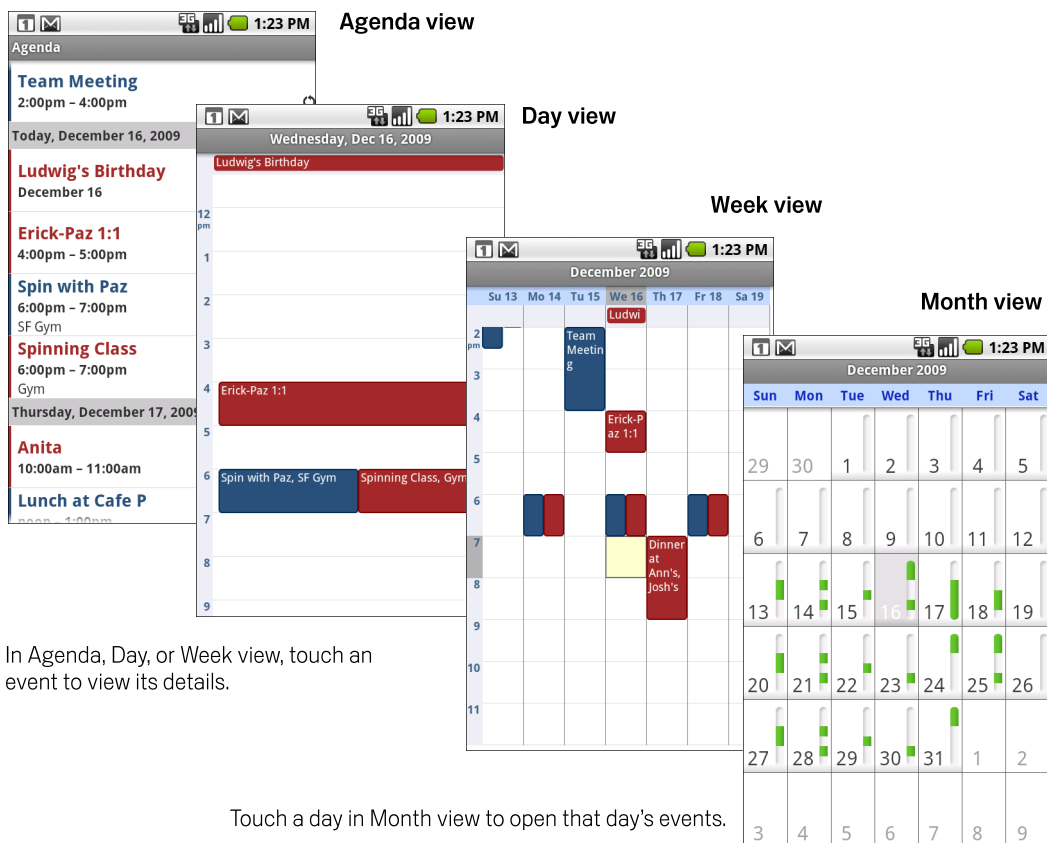
Viewing your calendar and events

Open Calendar to view the events you have scheduled in the coming days, weeks, or months.

To open your calendar

- ▶ Touch the Calendar icon  on the Home screen or in the Launcher.
- See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

If you have created or subscribed to more than one calendar by using Google Calendar on the web, events from each calendar are displayed in a different color. For information about which calendars are displayed on your phone, see “Displaying and synchronizing calendars” on page 151.



To change your calendar view

- ▶ Press **Menu**  and touch **Agenda**, **Day**, **Week**, or **Month**.

Each view displays the events in your calendar for the period of time that you specify. For details, see:

"Working in Agenda view" on page 142

"Working in Day view" on page 143

"Working in Week view" on page 144

"Working in Month view" on page 145

- ▶ To view more information about an event in Agenda view, touch the event.
- ▶ To view more information about an event in Day or Week view, touch the event to open a quick view summary. Touch the quick view for even more information.
- ▶ To view the events of a day in Month view, touch a day.

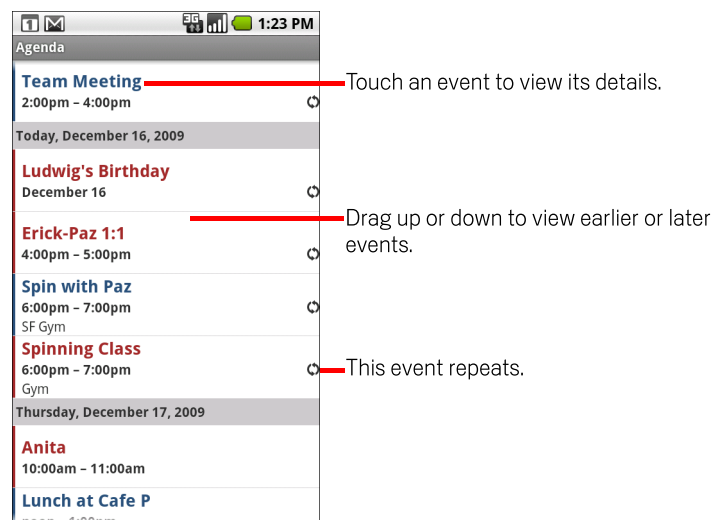
You can also use the **trackball** to quickly select events in Agenda, Day, or Week view, and to select days in Month view. Press the **trackball** for more information about the selected event or day.

Working in Agenda view

Agenda view is a list of your events in chronological order. All-day and multiday events are listed at the start of each day.

To switch to Agenda view

- ▶ Press **Menu**  and touch **Agenda**.



To learn more about events in Agenda view

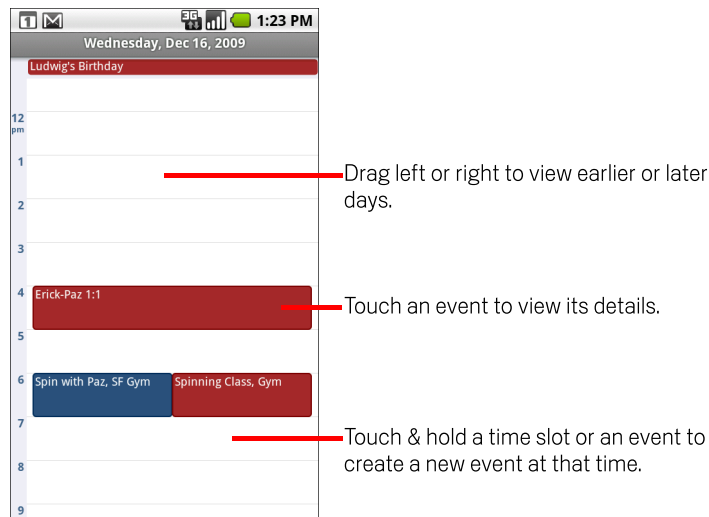
- ▶ Touch an event.
A screen with details about the event opens. See “Viewing event details” on page 146.

Working in Day view

Day view displays a chart of the events of one day, in a table of one-hour rows. All-day and multiday events are displayed at the top. Part of the title of each event is displayed in the rows that correspond to when it occurs.

To switch to Day view

- ▶ Press **Menu**  and touch **Day**.



To learn more about events in Day view

- ▶ Touch an event to view its details.
See "Viewing event details" on page 146.
- ▶ Touch & hold an event to open a menu with options for viewing, editing, or deleting the event and for creating a new event at that time.

To add an event in Day view

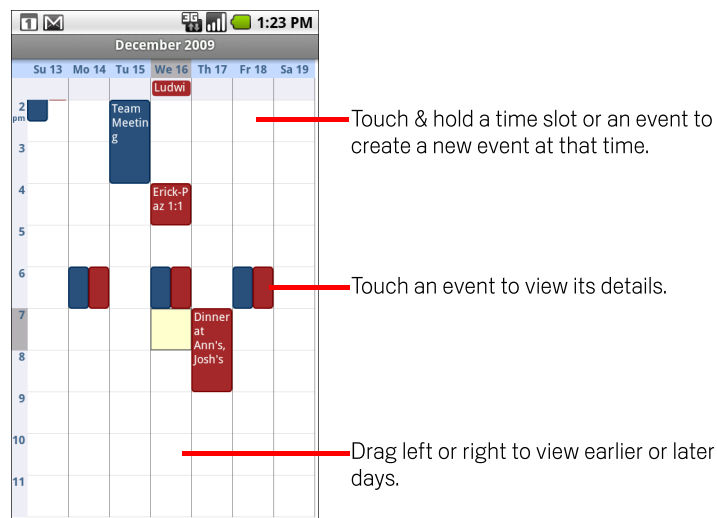
- ▶ Touch & hold an empty spot or an event in the day to open a menu with the option for creating a new event at that time.
See "Creating an event" on page 147.

Working in Week view

Week view displays a chart of the events of one week. All-day and multiday events are displayed at the top.

To switch to Week view

- ▶ Press **Menu**  and touch **Week**.



In a crowded Week view, it can be easier to select events by using the **Trackball**. Press the **Trackball** to view more information about the selected event.

To learn more about events in Week view

- ▶ Touch an event to view its details.
See "Viewing event details" on page 146.
- ▶ Touch & hold an event to open a menu with options for viewing, editing, or deleting the event, and for creating a new event at that time.

To add an event in Week view

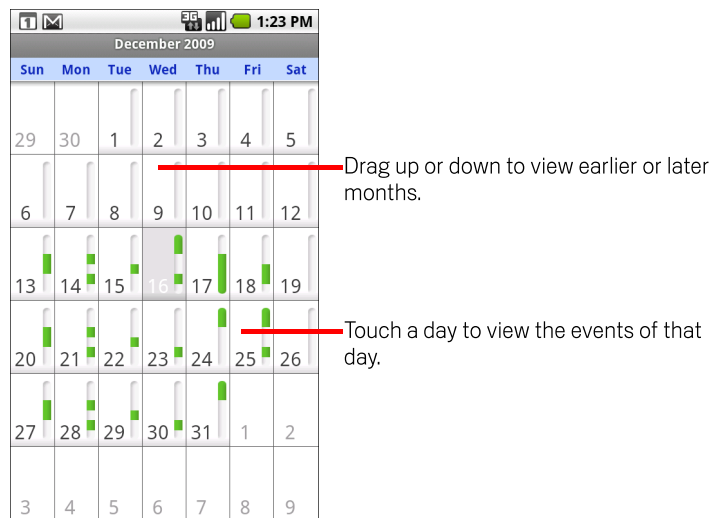
- ▶ Touch & hold an empty spot or an event in the week to open a menu with the option for creating a new event at that time.
See "Creating an event" on page 147.

Working in Month view

Month view displays a chart of the events of the month. Segments of each day with scheduled events are green in the day's vertical bar.

To switch to Month view

- ▶ Press **Menu**  and touch **Month**.



To view more information about events in Month view

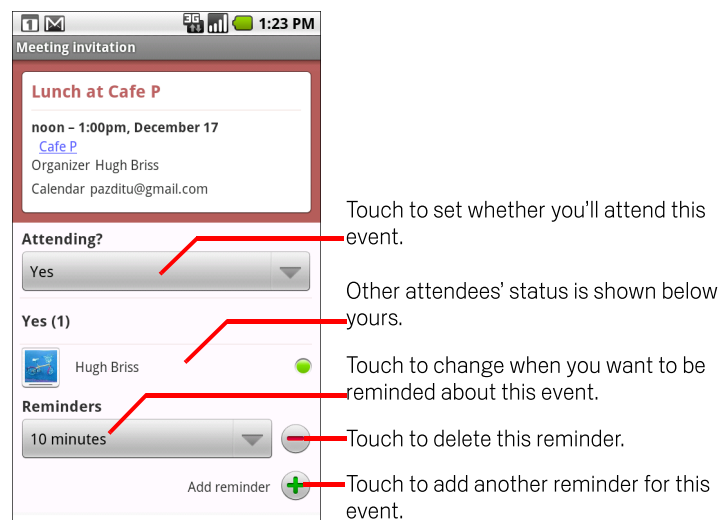
- ▶ Touch a day to view its events in Day view.
See "Working in Day view" on page 143.

Viewing event details

You can view more information about an event in a number of ways, depending on the current view.

To view information about an event

- ▶ In Agenda, Day, or Week view, touch an event to view its details.
- ▶ In Month view, touch a day to switch to Day view. Then touch an event to open a summary, and touch the summary to view the details.



You can set or change whether you will attend the event by using the **Attending?** menu.

Other attendees' status is displayed below your own.

You change any event reminders or touch the plus **+** button to add one. See "Setting an event reminder" on page 149.

If you have permission to change events, you can press **Menu** to edit or delete the event, as described in "Editing or deleting an event" on page 148.

Creating an event

You can use Calendar on your phone to create events that appear on your phone and in Google Calendar on the web.

To create an event

- 1** In any Calendar view, press **Menu**  and then touch **New event** to open the Event details screen.

You can also touch & hold a spot in Day, Week, or Month view. In the menu that opens, touch **New event** to open the Event details screen with that day and time already entered.
- 2** Add details about the event.

Enter a name, time, and optional additional details about the event.

If you have more than one calendar, you can choose the calendar to which to add the event.

Touch the plus  button to add more reminders. See “Setting an event reminder” on page 149.)
- 3** Invite guests to the event.

In the Guests field, enter the email addresses of everyone you want to invite to the event. Separate multiple addresses with commas (,). If the people to whom you send invitations use Google Calendar, they'll receive an invitation in Calendar and by email.
- 4** Press **Menu**  and touch **Show extra options** to add details about the event.
- 5** Scroll to the bottom of the Event details screen and touch **Done**.

The event is added to your calendar.

Editing or deleting an event

You can edit or delete an event that you created on the phone or on the web. You can also edit or delete events created by others, if they have given you permission.

To edit an event

- 1 Open the summary of the event.
See “Viewing event details” on page 146.
- 2 Press **Menu**  and touch **Edit event**.
The Event Details screen opens. This is the same screen described in “Creating an event” on page 147.
Press **Menu**  and touch **Show extra options** to add or edit event details.
- 3 Make your changes to the event.
- 4 Scroll to the bottom of the screen and touch **Done**.

To delete an event

There are a number of ways to delete an event.

- ▶ In Agenda view, touch an event to view its details. Then press **Menu**  and touch **Delete**.
- ▶ In Day or Week view, touch & hold the event and touch **Delete** in the menu that opens.
- ▶ While viewing the summary of an event, press **Menu**  and touch **Delete**.
- ▶ When editing an event, scroll to the bottom of the Event Details screen and touch **Delete**.

If the event repeats, you're asked whether you want to delete just that occurrence, this and all future occurrences, or all past and future occurrences in your Calendar.

Setting an event reminder

You can set one or more reminders for an event, whether or not you created the event or have permission to edit its other details.

To set an event reminder

- 1 Open the event summary.
See “Viewing event details” on page 146.
- 2 Touch the Plus button **+** to add a reminder.
A new reminder is added, for 10 minutes before the event.
- 3 Touch the reminder time, and in the dialog that opens touch the length of time before the event that you want to be reminded of it.

When the time comes, you receive a notification about the event. See “Responding to an event reminder” on page 150.

You can use Google Calendar on the web to configure additional reminder settings.

To delete an event reminder

- 1 Open the event summary.
- 2 Touch the reminder's Minus button **-**.

Responding to an event reminder

If you set a reminder for an event, the Upcoming Event icon appears in the Notifications area of the Status bar when the reminder time arrives. See “Managing notifications” on page 52.

To respond to an event reminder

- ▶ If you receive notifications in the Status bar, drag the Status bar down to open the Notifications panel. Then touch the event notification to open the list of Calendar notifications.
- ▶ If you receive notifications with alerts, the Calendar notifications list opens, listing all notifications awaiting your response.
- ▶ Touch an event in the Calendar Notifications list to view more information about that event.
- ▶ Touch **Snooze all** in the Calendar Notifications list to turn off all event reminders for 5 minutes.
- ▶ Touch **Dismiss all** in the Calendar Notifications list to delete all reminders in the list.
- ▶ Press **Back** ← when viewing the Calendar Notifications list to keep the reminders pending. The icon remains in the Status bar and the reminders remain in the Notifications panel.

Displaying and synchronizing calendars

Initially, all calendars that you create or subscribe to in Google Calendar on the web are also displayed in Calendar on your phone. You can select which calendars to show or hide on the phone, and which to keep synchronized.

You can also control whether any data is synchronized to your phone by using the general sync settings in the Settings application's Accounts & Sync Settings screen. For more information, see "Accounts" on page 111.

To show or hide calendars

- ▶ To show or hide a calendar, press **Menu** , touch **More > My calendars**, and then check or uncheck a calendar to show or hide it.

Calendars in the My Calendars list are kept synchronized on your phone, whether or not you hide them.

To set which calendars are synchronized on your phone

- ▶ To stop syncing calendars to your phone, press **Menu** , touch **More > My calendars**, press **Menu**  again, touch **Remove calendars**, check the calendars to remove from the My Calendars list, and touch **OK**.

Calendars that you remove from the My Calendars list are no longer synchronized on your phone, but you remain subscribed to them and can work with them in Google Calendar on the web.

- ▶ To synchronize calendars to your phone, press **Menu** , touch **More > My calendars**, press **Menu**  again, touch **Add calendars**, check the calendars you want to add to the My Calendars list, and touch **OK**.

Only the calendars that you've create or subscribed to on the web, but previously removed from the My Calendars list, are shown in the list of calendars that you can add.

Changing Calendar settings

You can change the following settings for how Calendar displays event and how it notifies you of upcoming events.

- ▶ To change Calendar settings, open a Calendar view, press **Menu** , and touch **More > Settings**.

Hide declined events Check if you don't want to see events to which you've declined invitations.

Set alerts & notifications Opens a dialog where you can configure event reminders to open an alert, send you a notification, or turn off event notifications on your phone. See "Setting an event reminder" on page 149 and "Responding to an event reminder" on page 150.

Select ringtone Opens a dialog where you can select the ringtone to sound when you receive an event reminder.

Vibrate Check to vibrate the phone when you receive an event notification.

Set default reminder Opens a dialog where you can select the default time before an event for event reminders.

Google Voice

You can use Google Voice for your voicemail service, in place of your mobile carrier's voicemail service. Google Voice gives you a visual interface to all of your voicemail messages—you can access your messages in the order you want, read transcripts of your messages, and listen to them, using a karaoke-style interface that makes it easy to replay any part of a message.

You can also use Google Voice to make international calls, in place of your carrier's long-distance service, to take advantage of Google Voice's low international calling rates.

If you already have a Google Voice account with a Google phone number, you can configure your phone to place some or all calls via Google Voice. The people you call will see your Google phone number instead of your cell phone number as your caller ID.

To learn more about Google Voice, including how to get a Google Voice number, go to <http://www.google.com/voice>.

Google Voice is currently only available in the United States.

In this section

"Opening Google Voice and your Inbox" on page 154

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Opening Google Voice and your Inbox

You can check your Google Voice Inbox, exchange messages, and perform other tasks with Google Voice.

You don't use the Voice application to place calls—you do that with the Phone application. See “Placing calls with Google Voice” on page 163.

The first time you open Google Voice, you are prompted to configure it, as described in “Configuring Google Voice” on page 161.

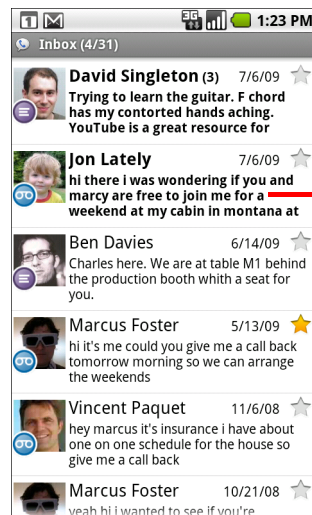
To open Google Voice

- ▶ Touch the Google Voice icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

The first time you open Google Voice, a setup wizard helps you to select which Google Voice features to use with your phone and then to configure the features that you selected.

After the initial setup, Google Voice opens to the last screen you were viewing or, if you have not used Google Voice recently, the contents of your Inbox are displayed.

Your Inbox displays any voicemail (marked with a ) and text messages (marked with a ) you've received, along with the sender, the date the message was sent, and the first few words of the message.



Touch a voicemail or text message to open it.

To open your Inbox

You can return to your Inbox from any Google Voice screen.

- ▶ Press the **Back**  button until the Inbox screen appears.

To check your account balance

When you first create a Google Voice account, you have a balance of US\$0.10 for toll calls. You must log into your account using a browser to add to your balance, but you can check your current balance on the phone.

- ▶ In your Google Voice Inbox, press **Menu**  and touch **Balance**.

A dialog displays your current account balance.

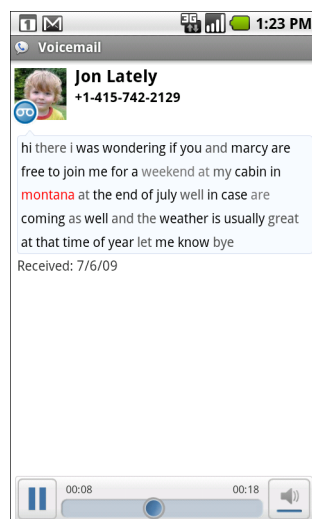
Reading or listening to your voicemail

Your Google Voice inbox contains a list of the voicemail messages you've received. You can also listen to your voicemail with the Phone application, just as you would listen to voicemail from your mobile carrier's voicemail service. See "Listening to your voicemail" on page 87.

Transcripts of your voicemail are also emailed to you.

To read a transcript of your voicemail

- 1 Open Google Voice and your Inbox.
See "Opening Google Voice and your Inbox" on page 154.
Your Inbox displays your messages. For each message, you can see who sent it, when they sent it, and a transcript of the beginning of the message.
- 2 Touch a message to read it.
The transcript of the message is displayed in a window that also contains information about the message, including the name and number of the person who left it.



To listen to your voicemail

- 1 Open Google Voice and your Inbox.
- 2 Touch a message to listen to it.
The controls for listening to the voicemail are at the bottom of the screen.
- 3 Touch the Play icon  to listen to the message.
The message plays through the earpiece or the speaker, depending on the preference you set. See "Changing Google Voice settings" on page 164.
Press **Menu**  and touch **Enable speaker** or **Disable speaker** to change where the message plays.
You can also pause and resume play, and you can drag the progress indicator back and forth to listen to different parts of the message.

To reply to a message

- 1 Open a message as you would to read or listen to it.
- 2 Press **Menu**  and touch **Call** or **SMS**.
If you touch **Call**, the Phone application opens and places a call to the number of the person who left the message.
If you touch **SMS**, a Google Voice window opens in which you can compose a text message, as described in "Exchanging text (SMS) messages" on page 158.

To delete a message

- ▶ Open the message as you would to read or listen to it, press **Menu** , touch **More**, and touch **Delete**.
OR
- ▶ Touch & hold the message in the Inbox or other folder of labeled messages. In the menu that opens, touch **Delete**.
You can view your deleted messages by viewing the messages with the Trash label. See "Viewing messages by label" on page 160.

Exchanging text (SMS) messages

You can use Google Voice to send and receive text (SMS) messages.

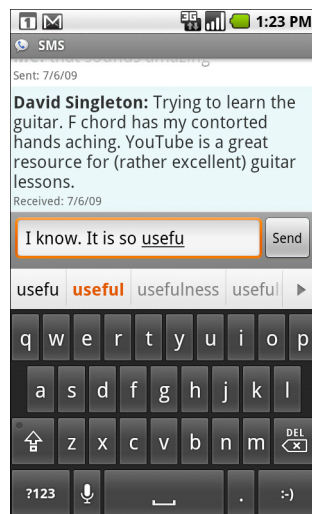
To send a text message

- 1 Open your Inbox.
- 2 Press **Menu**  and touch **Compose**.
- 3 Enter the phone number to which you want to send the message.
You can also enter the name of a contact with a mobile number.
- 4 Enter a short text message.
- 5 Touch **Send**.

To read and reply to a text message

When someone sends a text message to your Google Voice number, you receive a notification that it's in your Google Voice Inbox.

- 1 Touch the notification that you've received a text message in your Google Voice Inbox.
You can also touch any message that's in your Inbox.
The message, and any previous messages in the conversation, is displayed.
- 2 To reply to the message, enter a short message and touch **Send**.



Starring messages

You can star voicemail and text messages to make them easy to keep track of.

To star a message

- ▶ While viewing a list of messages in your Inbox or other folder, touch a message's star.
The star turns gold ★.

To unstar a message

- ▶ Touch its star again.

To view your starred messages

You can open a folder that contains just your starred messages.

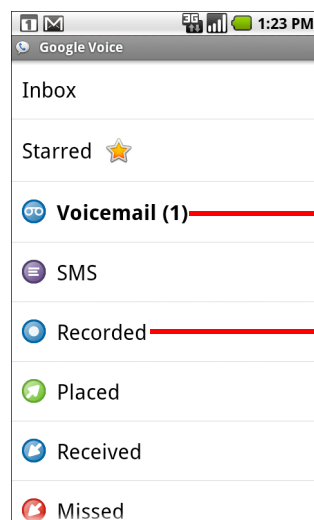
- 1 While viewing your Inbox or another folder of messages, press **Menu** ☰ and touch **Labels**.
See "Viewing messages by label" on page 160.
- 2 Touch **Starred**.
A folder opens with a list of your starred messages.

Viewing messages by label

You can view a list of the messages that have the same label, such as Voicemail, SMS (text messages), Placed, Received, and so on.

- 1 While viewing your Inbox or another folder of messages, press **Menu**  and touch **Labels**.

Google Voice labels are presented in a scrolling list.



The number of messages with this label that are unread.

Touch a label to open a folder that lists messages with this label.

- 2 Touch a label to view a folder containing the messages with that label.

The folder resembles your Inbox, but the label replaces "Inbox" in the title bar. You work with labeled conversation lists in the same way that you work with your Inbox.

Configuring Google Voice

The first time you open Google Voice, a wizard helps you to select and configure the Google Voice services to use on your phone. If you sign out, the wizard reappears the next time you start Google Voice. You can also change the services to use at any time, by changing the Google Voice settings. See “Changing Google Voice settings” on page 164.

To configure Google Voice

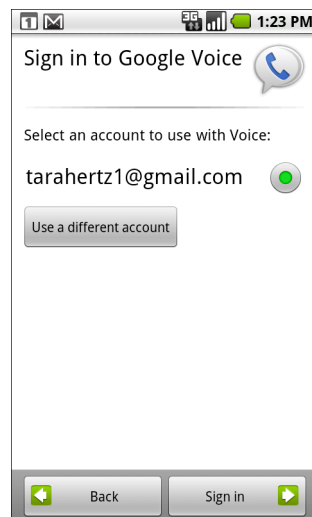
1 Open Google Voice.

The Welcome screen opens, in which you start the process of configuring Google Voice on your phone. The options that the wizard offers you depend on whether you already have a Google Voice account and on the features supported by your mobile carrier.

2 Sign into Google Voice.

The account you sign into is the Google Account whose Inbox you open to read messages. It's also the Google Account that you use for any other Google Voice services that you decide to use with your phone.

Touch **Sign in** to sign into the primary Google Account on your phone. Or touch **Use a different account** to enter another Google Account.



- 3 Touch Next to verify your phone number.

Google Voice uses this step to ensure that it can communicate with your phone.

- 4 Enter a voicemail PIN.

This is the code you use to check your voicemail from the Phone application.

- 5 Choose which calls you want to make using Google Voice.

You can choose to make all international calls via Google Voice, to take advantage of Google Voice's low international calling rates; to be prompted each time you make a call; or to never use Google Voice for calls.

If you signed into a Google Account that has a Google Voice number, you can also choose to make all calls via Google Voice. If you do, the people you call will see your Google Voice number as your Caller ID, instead of your phone number.

- 6 Configure your voicemail service.

The Google Voice application opens the Settings application, which prompts you to select Google Voice or your mobile carrier for your voicemail service.

Your Google Voice Inbox opens.

Placing calls with Google Voice

Placing calls with Google Voice is almost the same as placing calls via your mobile carrier, depending on whether you have a Google number and how you have configured Google Voice on the phone.

- 1 Call a contact just as you would without Google Voice.
- 2 If you've configured Google Voice to ask whether you want to use it each time you place a call, touch **Call with Google Voice** in the dialog.

If you've configured Google Voice to use it for all calls, this dialog doesn't appear.

Google Voice displays a message, reminding you that you are placing the call via Google Voice.

If the call is a toll call, Google Voice plays a message with the per-minute charge and the number of minutes at this rate you have remaining in your Google Voice account.

Continue with the call as you would without Google Voice, as described in "Placing and receiving calls" on page 79.

Changing Google Voice settings

You can change a number of Google Voice settings, including which services you want to use on your phone and how you want to be notified of new messages.

- ▶ To change all Google Voice settings except which voicemail service to use, open your Google Voice Inbox, press **Menu** , and touch **Settings**.
- ▶ To change which voicemail service to use, use the Settings application.
For more information, see “Call settings” on page 312.

General Settings

Making calls Opens a dialog where you can configure whether to use Google Voice to make some or all phone calls, as described in “Configuring Google Voice” on page 161.

This phone’s number Opens a dialog where you change or add your phone’s phone number to work with Google Voice.

Voicemail playback Opens a dialog where you can configure your voicemail to play via your phone’s earpiece or speaker by default.

Refresh and notification See “Refresh and notification settings” on page 165.

Sign out Touch to stop using any Google Voice services on your phone and to resume using your mobile carrier’s voicemail service and your phone’s number as its caller ID. The next time you start Google Voice, the wizard prompts you to configure it again. See “Configuring Google Voice” on page 161.

Legal information Touch to open a screen where you can read about the Google Voice terms of service, privacy policy, program policy, and other important legal information.

My Google Voice number Displays the Google Voice number you have configured to use for making and receiving calls on this phone.

Build number The version of Google Voice installed on your phone.

Refresh and notification settings

Refresh inbox Opens a dialog where you can set how often Google Voice checks for new messages. More frequent refresh settings can reduce your battery life between charges.

Inbox notifications Check to receive a notification in the Status bar whenever you receive a new message in your Google Voice Inbox.

Select ringtone Select a ringtone to sound when you receive a notification from Google Voice.

Vibrate The phone vibrates when you receive a notification from Google Voice.

Light The **Trackball** flashes when you receive a notification from Google Voice.

Google Talk

Google Talk is Google's instant messaging service. You can use it to communicate in real time with other people who also use Google Talk, on a phone, on the web, or with a desktop application.

In this section

"Signing in and opening your Friends list" on page 168

"Chatting with friends" on page 170

"Changing and monitoring online status" on page 173

"Managing your Friends list" on page 175

"Changing Google Talk settings" on page 177

Signing in and opening your Friends list

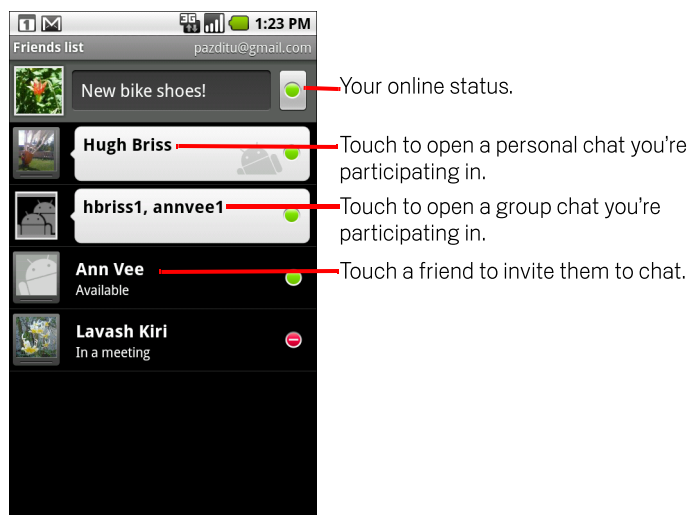
You sign into Google Talk to chat with your friends.

You remain signed in, even when you're using other applications, until you deliberately sign out.

To open Google Talk and sign in

- ▶ Touch the Google Talk icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

When you first open Google Talk, your Friends list is displayed. This list includes all of the friends you've added by using Google Talk on the web, on the phone, or with a desktop application. Adding friends to this list so you can invite them to chat is described in “Managing your Friends list” on page 175.



Inviting friends to chat and accepting invitations to chat is described in “Chatting with friends” on page 170.

To return to your Friends list

You can return to your Friends list when chatting with a friend, so that you can invite another friend to chat, add a friend, and so on.

- ▶ Press **Menu**  and touch **Friends list**.

To sign out of Google Talk

You can sign out of Google Talk—for example, if you want to switch the focus of all chats and invitations to Google Talk on a computer. Signing out can also extend your battery life.

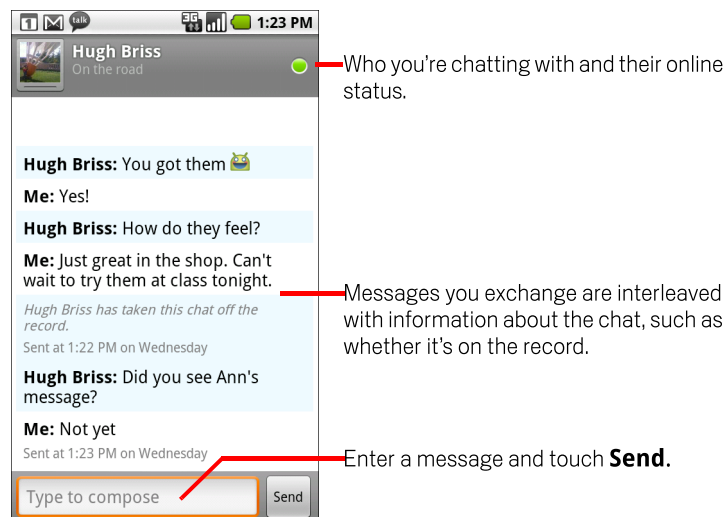
- ▶ On your Friends list, press **Menu**  and touch **More > Sign out**.

You no longer receive chat notifications or see others' Google Talk status in other applications, such as Gmail.

Chatting with friends

To chat with a friend

- 1 Touch a friend in your Friends list.
If you're already chatting with someone, you can press **Menu** ☰ and touch **Friends list** to invite another friend to chat.
The chat screen opens.
- 2 Enter your message and touch **Send**.



The messages that you exchange are interleaved on the screen with information about the chat, such as whether it's on the record, the time a message was sent if there's no response after a short while, and so on.

You can enter an emoticon (a "smiley") on the onscreen keyboard by touching & holding the Smiley key and then touching an emoticon. You can also press **Menu** ☰ and touch **More > Insert smiley** to open a scrolling list of emoticons.

Your chat session remains open until you end it.

Friends you're chatting with are displayed at the top of your Friends list, with the most recent message displayed in a black-on-white balloon.

To accept an invitation to chat

When a friend sends you a Google Talk message, you receive a notification. Their entry in the Friends list turns white and displays the message.

- ▶ Touch the friend in your Friends list.

OR

- ▶ Open the Notifications panel and touch the chat notification.

See "Managing notifications" on page 52.

A chat window opens where you can exchange messages with your friend.

To switch between active chats

If you have more than one chat going, you can switch between chats.

- ▶ In the Friends list, touch the name of the person you want to chat with.

OR

- ▶ On a chat screen or in the Friends list, press **Menu**  and touch **Switch chats**, then touch the friend you want to chat with.

OR

- ▶ While chatting with a friend, swipe left or right across the screen.

To invite a friend to join a group chat

When you're chatting, you can invite additional friends to join a group chat.

- 1 On a chat screen, press **Menu**  and touch **Add to chat**.

- 2 Touch the name of the friend to invite.

The friend you invited and the current participants receive an invitation to a group chat. Each one who accepts the invitation joins the group chat.

In a group chat, everyone can see everyone else's messages.

Group chats appear at the top of your Friends list, with a group chat icon.

To chat on or off the record

Your Google Talk messages are stored, so you can review them later and even search for them in the Chats folder in Gmail. But if you'd rather not store the messages in a chat, you can go off the record.

- ▶ On a chat screen, press **Menu**  and touch **Chat off record**.

To resume saving the messages in the chat, press **Menu**  and touch **Chat on record**.

To end a chat

When you end a chat, the friend is no longer at the top of your Friends list and the chat is not displayed in the Switch Chats screen. The text of the chat is not discarded—if you restart the chat, the conversation is displayed in the new chat window where you left off.

- ▶ In your Friends list, touch & hold the friend you want to stop chatting with. In the menu that opens, touch **End chat**.

OR

- ▶ While on a chat screen, press **Menu**  and then touch **End chat**.

Changing and monitoring online status

Icons in Google Talk, Gmail, Google Maps, and other applications indicate your and your friends' Google Talk status.

	Available: Signed into Google Talk and available to chat
	Away: Signed into Google Talk but not active
	Busy: Signed into Google Talk but too busy to chat
	Signed out of Google Talk
	Invisible: Signed into Google Talk but appear signed out to others

You can change your online status and status message. You can also change the picture that others see next to your name in their Friends lists and other locations.

To change your online status

- 1 Touch the Status icon at the top right of your Friends list.
- 2 In the menu that opens, touch a status or a status-message combination.

In addition to the standard status settings described in the table, you can also select a message that you've entered previously. Or touch **Clear custom messages** to erase them and start over.

Your status and any message appear in your contact's Friends lists and in other locations where your status or status message are displayed.

To change your status message

- 1 Touch the status message at the top of your Friends list.
- 2 Enter a new status message.

To change your picture

- 1** Touch your picture at the top left of your Friends list.
The Select Picture screen opens with all the pictures on your microSD card displayed in a scrolling list of thumbnails.
- 2** Touch the picture to use.
- 3** Crop the picture.
Cropping pictures is described in "Working with pictures" on page 256.
- 4** Touch **Save**.

Managing your Friends list

Your Google Talk Friends list contains the friends you've invited or accepted invitations from, to become friends in Google Talk. Friends can invite each other to chat in Google Talk and see each others' online status in Google Talk and other applications, such as in Gmail and Maps.

The Google Talk Friends list is sorted by your friends' online status: active chats, online, busy, and offline. Within each status group, friends are listed alphabetically.

To add a friend to your Friends list

You can invite anyone with a Google Account to become your friend in Google Talk, so you can chat with each other and view each others' online status.

1 In the Friends list, press **Menu**  and touch **Add friend**.

2 Enter your friend's address and touch **Send invitation**.

Your friend's address in Google Talk is a Gmail or other email address that is configured to connect to Google Talk.

You may need to press **Back**  to close the onscreen keyboard to see the **Send invitation** button.

To view and accept an invitation to become a friend

When a contact invites you to become a friend in Google Talk, you receive a notification in the Status bar and the invitation appears in your Friends list.

1 Touch the invitation in the Friends list.

2 Touch **Accept** in the menu that opens.

Or touch **Cancel** if you don't want to chat with and share your Google Talk status with the sender.

To view a list of pending invitations to friends

► In the Friends list, press **Menu**  and touch **Invites**.

All the friends to whom you've extended invitations to become friends on Google Talk appear in the list until they accept or cancel your invitation.

To view all friends or only those most popular with you

By default, only the friends that you frequently chat with—the most popular—are shown in the Friends list. But you can view all friends instead.

- ▶ In the Friends list, press **Menu**  and touch **All friends**.

To switch back to just the friends with whom you chat most frequently, touch **Most popular** in the menu.

To make a friend popular

You can set a friend to appear always in your Most Popular Friends list.

- 1 In the Friends list, touch & hold a friend's name.

If you don't see the friend's name, press **Menu**  and touch **All friends**.

- 2 Touch **Always show friend** in the menu that opens.

To remove a friend from this list, touch & hold the friend's name in the Friends list. In the menu that opens, touch **Auto show friend**.

To block a friend

You can block a friend from sending you messages. When blocked, your friend is also removed from your Friends list.

- 1 In the Friends list, touch & hold the friend's name.

If you don't see the friend, press **Menu**  and touch **All friends**.

- 2 Touch **Block friend** in the menu that opens.

You can view a list of your blocked friends by opening your Friends list, pressing **Menu** , and touching **Blocked**. You can unblock a friend by touching the friend's name in the blocked list and then touching **OK** in the dialog that opens.

Changing Google Talk settings

You can configure Google Talk to send you a notification with the contents of each message that you receive in a chat, and also to sound a ringtone or vibrate the phone.

You can also configure Google Talk to sign you in automatically when you turn on your phone, and you can set whether the mobile indicator is displayed next to your name in other people's Friends lists.

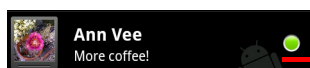
To configure notifications for new Google Talk messages

- 1 In the Friends list, press **Menu**  and then touch **More > Settings**.
- 2 Check or uncheck **IM notifications** to set whether you receive a notification in the Status bar when a new chat message arrives.
- 3 Touch **Select ringtone** to open a list of the ringtones that you can choose to sound when you receive notification of a new chat.
- 4 Check or uncheck **Vibrate** to set whether the phone vibrates when you receive notification of a new chat.

To show or hide the mobile indicator to friends

- 1 In the Friends list, press **Menu**  and then touch **More > Settings**.
- 2 Check or uncheck **Mobile indicator**.

If **Mobile indicator** is checked, your friends see an outline of an android next to your name in their Friends list when you're signed into Google Talk on the phone.



Your friend is signed into Google Talk on her phone.

To set whether you sign into Google Talk automatically

- 1 In the Friends list, press **Menu**  and then touch **More > Settings**.
- 2 Check or uncheck **Automatically sign-in**.

When **Automatically sign-in** is checked, you are signed into Google Talk when you turn on your phone.

Signing in and out of Google Talk is described in "Signing in and opening your Friends list" on page 168.

Email

You use the Email application to read and send email from services other than Gmail. Email includes a wizard that makes it easy to configure it for several popular email service providers.

In this section

“Opening Email and the Accounts screen” on page 180

“Reading your messages” on page 183

“Responding to a message” on page 184

“Starring messages” on page 185

“Working with message in batches” on page 186

“Composing and sending email” on page 187

“Working with account folders” on page 188

“Adding and editing email accounts” on page 189

“Changing email account settings” on page 191

Opening Email and the Accounts screen

You use the Email application to read email from services other than Gmail.

To open Email

- ▶ Touch the Email icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

The first time you open Email, a setup wizard opens to help you add an email account, as described in “Adding and editing email accounts” on page 189.

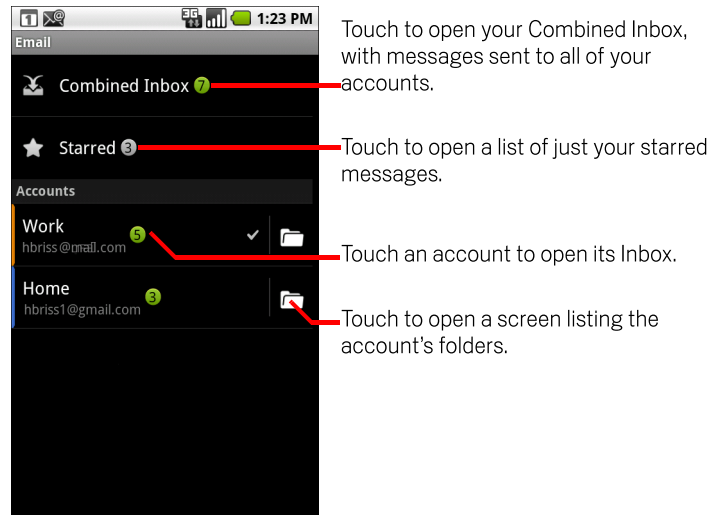
After the initial setup, Email opens to the last screen you were viewing or, if you have not used Email recently, it displays the contents of your Inbox (if you have only one account) or the Accounts screen (if you have multiple accounts).

You can also add a shortcut to your Home screen to an account's Inbox, so that you can open it directly from the Home screen. See “Customizing the Home screen” on page 58 for details about adding shortcuts.

To open the Accounts screen

The Accounts screen lists your Combined Inbox and each of your email accounts. If you have starred, draft, or unsent messages in any of your accounts, the folders for those items from all accounts are displayed as well.

- ▶ From a folder screen, press **Menu**  and touch **Accounts**.



Each folder and account on the Accounts screen displays the number of unread messages in green, or the total number of messages in gray.

You can touch a combination folder, such as the Combined Inbox folder, to view the messages it contains.

You can also touch an account to view its Inbox, or an account's folder icon to view a list of that account's folders.

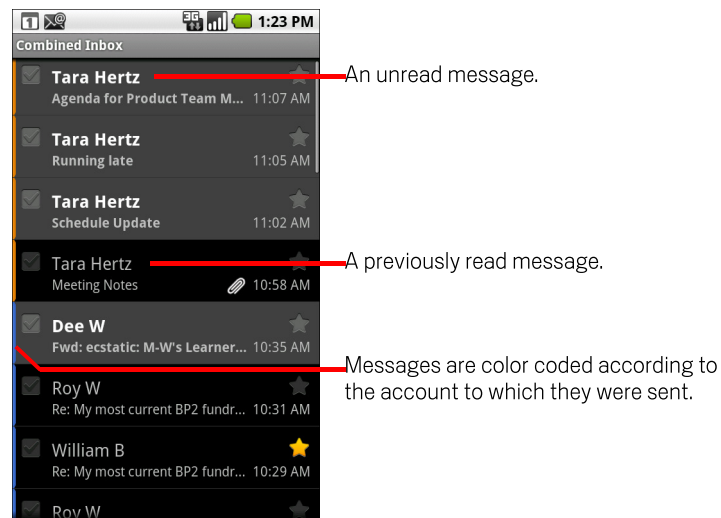
The account from which you send email by default is indicated with a checkmark.

To open your Combined Inbox

If you have configured Email to send and receive email from more than one account, you can view all messages sent to all accounts in your Combined Inbox.

- 1 Open the Accounts screen.
- 2 Touch **Combined Inbox**.

Messages in the Combined Inbox are color coded along their left sides, by account, using the same colors that are used to color code your accounts in the Accounts screen.



Only some of your account's recent email is downloaded to your phone. To download earlier messages in batches, touch **Load more messages** at the bottom of the list of email.

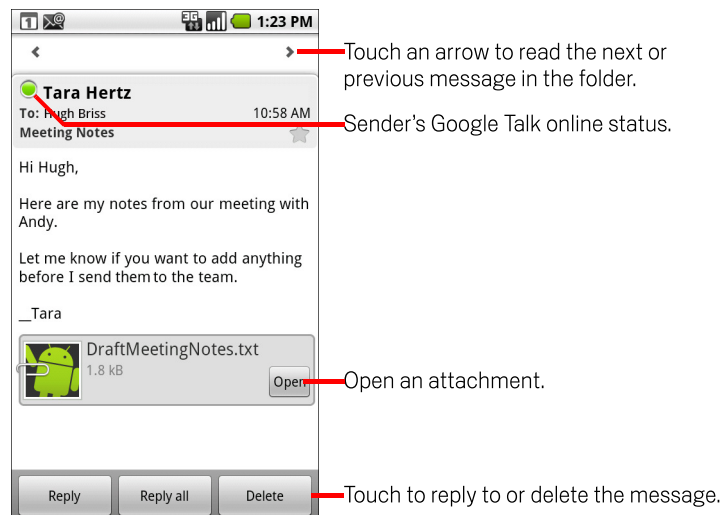
Reading your messages

You can read messages in your Combined Inbox or in the Inbox or other folders for individual accounts.

To read a message

- 1 Open the Combined Inbox, an account's Inbox, or another folder of messages.
- 2 Touch the message to read.

The message opens in a screen with information about who sent it, the date it was sent, and related information at the top, followed by the contents of the message.



The Google Talk online status is shown next to the name of the sender of each message. You can touch that status indicator to open Quick Contact. See “Connecting quickly with your contacts” on page 61.

You can reply to, forward, delete, or take other actions on a message, as described in “Responding to a message” on page 184.

Responding to a message

You can reply to or forward a message that you receive. You can also delete messages and manage them in other ways.

To reply to or forward a message

- ▶ While reading a message, touch **Reply** or **Reply all**.

OR

- ▶ Press **Menu**  and touch **Reply**, **Reply all**, or **Forward**.

A Compose Message window opens with the addresses (when replying), subject, and a copy of the message you're responding to filled in.

You can send this message as you would a new message, as described in "Composing and sending email" on page 187.

To mark a message as unread

You can to return a read message to the unread state—for example, to remind yourself to read it again later. You can also mark a batch of messages as unread; see "Working with message in batches" on page 186.

- ▶ While reading a message, press **Menu**  and touch **Mark as unread**.

To delete a message

You can delete a message from its folder. You can also delete a batch of messages; see "Working with message in batches" on page 186.

- ▶ While reading a message, touch **Delete**.

OR

- ▶ Press **Menu**  and touch **Delete**.

For most kinds of accounts, deleted messages are moved to a Trash folder, so you can retrieve them if you deleted them in error.

Starring messages

You can star an important message to make it easy to keep track of. Once you star a message, a Starred folder is added to the Accounts screen. You can also star a batch of messages (see “Working with message in batches” on page 186).

To star a message

- ▶ While reading a message, touch the star in its header.
- OR**
- ▶ While viewing a list of messages in a folder, touch a message's star.
The star turns gold ★.

To unstar a message

- ▶ Touch its star again.

To view your starred messages

You can open a folder that contains the starred messages from all of your accounts.

- 1** Open the Accounts screen.
See “Opening Email and the Accounts screen” on page 180.
- 2** Touch **Starred**.
A folder opens with a list of your starred messages.
You can also open an account's individual Starred folder. See “Working with account folders” on page 188.

Working with message in batches

You can delete, star, or mark unread a batch of messages at once.

- 1 In the Inbox or mailbox, check the messages that you want to work with as a batch.

When you check one or more messages, the **Mark unread**, **Add star**, and **Delete** buttons appear at the bottom of the screen.

- 2 Touch **Mark unread**, **Add star**, or **Delete**.

You can also press **Menu**  and touch **Deselect all**.

Your action affects the entire batch of messages.

Composing and sending email

You can send email to your contacts or to other people or groups.

To compose and send a message

1 Press **Menu**  and touch **Compose**.

2 Address the message.

As you enter text, matching addresses are offered from your Contacts. You can touch a suggested address or enter a new one. Separate multiple addresses with commas.

See "Contacts" on page 93 for more information.

3 Press **Menu**  and touch **Add Cc/Bcc** to address a copy or blind copy of the message.

4 Enter a subject for the message.

5 Enter the text of the message.

For information about entering and editing text, see "Using the onscreen keyboard" on page 39 and "Editing text" on page 44.

6 Press **Menu**  and touch **Attach** to send a photo with the message.

7 Touch **Send**.

If you're not ready to send the message, touch **Save as draft** to save it in a Drafts folder. You can open the combined Drafts folder for all accounts on the Accounts screen or just your account's Drafts folder. See "Working with account folders" on page 188. Touch a draft message in a Drafts folder to resume working on it. Your message is also saved as a draft if you press **Back**  before sending it.

Touch **Discard** to abandon a message, including any saved drafts.

If you aren't connected to a network, for example, if you're working in airplane mode, the messages that you send are stored in your Outbox folder until you're connected to a network again. If it contains any messages, the Outbox is displayed on the Accounts screen.

Working with account folders

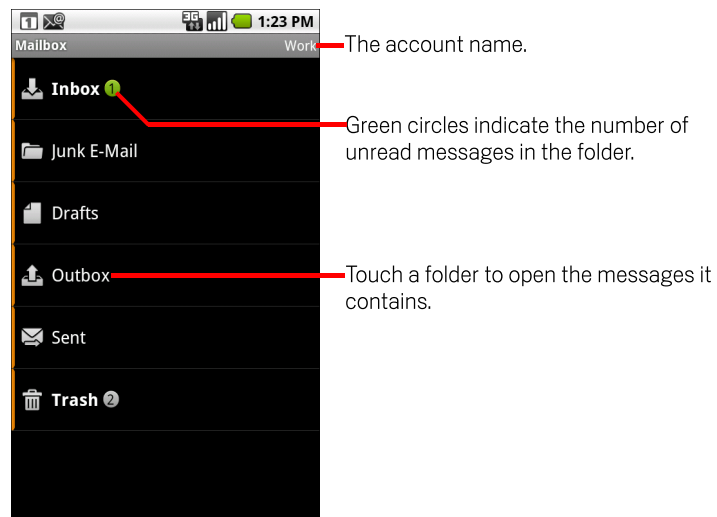
Each account has Inbox, Outbox, Sent, and Drafts folders. Depending on the features supported by your account's service provider, you may have additional folders.

To view an account's folders

- 1 Open the Accounts screen.
- 2 Touch an account's folder icon.

You can also open an account's folders while viewing its Inbox or other folder, by touching **Menu** ≡ and then touching **Folders**.

The account's Folders screen opens, with a scrolling list of the folders in the account. Touch a folder to view a list of the messages it contains.



Adding and editing email accounts

The first time you open Email, you are prompted to set up an email account. After that, you can configure Email to send and receive email from additional accounts. The accounts that you configure are displayed in the Accounts screen. See "Opening Email and the Accounts screen" on page 180.

The Email setup wizard helps you set up your account for many popular email systems, including those based on POP3, IMAP, and SMTP, so you can read and work with the same email as you do on a computer in Thunderbird, Mac Mail, in a web browser, or with another email application. If your service provider requires additional settings, or if your service provider is unknown to Email, you can enter the necessary details manually, though you will typically need to contact your email service provider to determine the right settings for your account.

You can also set up an a Microsoft Exchange ActiveSync account (Exchange 2003 and 2007), so you can read and work with the same email as you do on a computer using Microsoft Outlook. Email supports username and password authentication for Exchange ActiveSync accounts; it does not support other Exchange ActiveSync security policies at this time.

To add an email account

- 1** Open the Accounts screen.
See "Opening Email and the Accounts screen" on page 180.
- 2** Press **Menu**  and touch **Add account**.
In the Setup Email screen, enter your email address and password.
If you're adding a second or subsequent email address, you can also check the option to use the new account to send all outgoing messages.
- 3** Touch **Next**. Or, if you need to enter email account settings the wizard can't configure for you, touch **Manual setup**.
If you touch **Next**, Email attempts to communicate with your email service provider to validate your account for sending and receiving mail, using just your email address and password. This is sufficient for most email services.
Depending on the service provider, you may be asked what kind of email account you have. If you're not sure, check the settings in the application you use to send and receive email on your computer, or ask your email service provider.
If the wizard determines that your service provider requires additional information, or if you touched **Manual setup**, you're prompted to enter your email account details.

The details you enter are different, depending on the email service type. These details are described in “Changing email account settings” on page 191. Contact your email service provider for the values required for your account.

- 4 Enter a name for the account, confirm how you want your name to appear in outgoing mail, and touch **Done**.

If you are adding an Exchange ActiveSync account, you can also decide whether you want to synchronize your contacts from the Exchange ActiveSync server to your phone. You can change this setting later in the Contacts application. See “Configuring account sync and display options” on page 115.

Email starts downloading your email messages and you can start using it to send and receive messages using the new account.

To change an account’s settings

You can change a number of settings for an account, including how often you check for email, how you’re notified of new mail, and details about the servers the account uses to send and receive mail.

- 1 Open the Accounts screen.
- 2 Touch & hold the account whose settings you want to change. In the menu that opens, touch **Account settings**.

You can also open the settings for an account while you’re viewing its inbox, by pressing **Menu**  and touching **Account settings**.

For descriptions of the settings that you can change, see “Changing email account settings” on page 191.

- 3 When you’re finished changing settings, press **Back** .

To delete an email account

- 1 Open the Accounts screen.
On some Email screens, you can press **Menu**  and touch **Accounts**.
- 2 Touch & hold the account to delete.
- 3 Touch **Remove account** in the menu that opens.
- 4 Touch **OK** in the dialog to confirm that you want to delete the account.

Changing email account settings

You can change the following settings for each email account when you create it or at any later time. See “Adding and editing email accounts” on page 189.

Email account settings

Account name The name of the account as it appears in the Accounts and Folders screens.

Your name Your name as it appears to others when they receive email from you.

Email check frequency How often Email checks for new email sent to this account.

Default account Use this account's outgoing email server for the email you compose and send when you are not currently viewing or working with email from a specific account.

Email notifications Set whether you want to receive notifications when you receive new email sent to this account.

Select ringtone Select a ringtone to sound when you receive an email notification for this account.

Vibrate Set the phone to vibrate when you receive an email notification for this account.

Incoming settings Opens a screen where you can configure settings for how you receive email for this account. See “Incoming server settings” on page 192.

Outgoing settings Opens a screen where you can configure settings for how you send email from this account. (Microsoft Exchange ActiveSync accounts do not have separate outgoing server settings.) See “Outgoing server settings” on page 194.

Sync contacts For accounts that can sync contacts, check to sync contacts from this account to your phone. See “Configuring account sync and display options” on page 115.

Incoming server settings

Your account's incoming settings are different, depending on the kind of email service for the account: Exchange ActiveSync, IMAP, or POP3.

Settings for Microsoft Exchange ActiveSync accounts:

Domain\Username	If your Exchange ActiveSync server requires that you specify a domain, enter it before the backslash. Otherwise, just enter your username (the part before the @example.com in your email address) after the backslash. (The backslash is optional if you're just entering your username; Email enters the correct syntax for domains and usernames when communicating with the server.)
Password	The password for your email account.
Server	The fully resolved hostname of the Exchange ActiveSync server, for example, owa.example.com.
Use secure connection (SSL)	Check this option if your Exchange ActiveSync server requires you to connect to the server securely, or if you prefer to connect securely.
Accept all SSL certificates	Check this option if you want to accept a server certificate from your Exchange ActiveSync server that is self-signed, out of date, or in some other way not accepted by the Email application.

Settings for IMAP accounts:

Username	Depending on the requirements of your email service provider, your full email address or just your username (that is, the part before @example.com in your email address).
Password	The password for your email account.
IMAP server	The fully resolved domain name of your email service provider's IMAP server, for example, imap.example.com.

Port	Set the Security type first to enter the typical server port number in this field automatically. Or enter a different port number if your email service provider requires it.
Security type	Select the security type required by your email service provider. Select the (Accept all certificates) option for your security type to accept a server certificate from your IMAP server that is self-signed, out of date, or in some other way not accepted by the Email application.
IMAP path prefix	Leave blank unless instructed to enter a specific prefix by your email service provider.

Settings for POP3 accounts:

Username	Depending on the requirements of your email service provider, your full email address or just your username (that is, the part before @example.com in your email address).
Password	The password for your email account.
POP3 server	The fully resolved domain name of your email service provider's POP3 server, for example, pop3.example.com.

Port	Set the Security type first to enter the typical server port number in this field automatically. Or enter a different port number if your email service provider requires it.
Security type	Select the security type required by your email service provider. Select the (Accept all certificates) option for your security type to accept a server certificate from your POP3 server that is self-signed, out of date, or in some other way not accepted by the Email application.
Delete email from server	Use to configure Email to cause your email service provider to delete from its server any email you delete in the Email application, or to never delete email from the server.

Outgoing server settings

If you use an IMAP or POP3 account for receiving email, you typically use an SMTP server to send email from that account. Microsoft Exchange ActiveSync accounts do not have separate outgoing server settings.

SMTP server	The fully resolved domain name of your email service provider's SMTP server, for example, smtp.example.com.
Port	Set the Security type first to enter the typical server port number in this field automatically. Or enter a different port number if your email service provider requires it.
Security type	Select the security type required by your email service provider. Select the (Accept all certificates) option for your security type to accept a server certificate from your SMTP server that is self-signed, out of date, or in some other way not accepted by the Email application.

Require sign-in	Check this option to enter a username and password for your SMTP server, if your email service provider requires that you enter them to send email.
Username	Your username on the SMTP server (this may not be the same as your username on the POP3 or IMAP server for incoming mail). Visible only if Require sign-in is checked.
Password	Your password on the SMTP server (this may not be the same as your username on the POP3 or IMAP server for incoming mail). Visible only if Require sign-in is checked.

Messaging

You can use Messaging to exchange text messages (SMS) and multimedia messages (MMS) with your friends on their mobile phones.

In this section

“Opening Messaging” on page 198

“Exchanging messages” on page 199

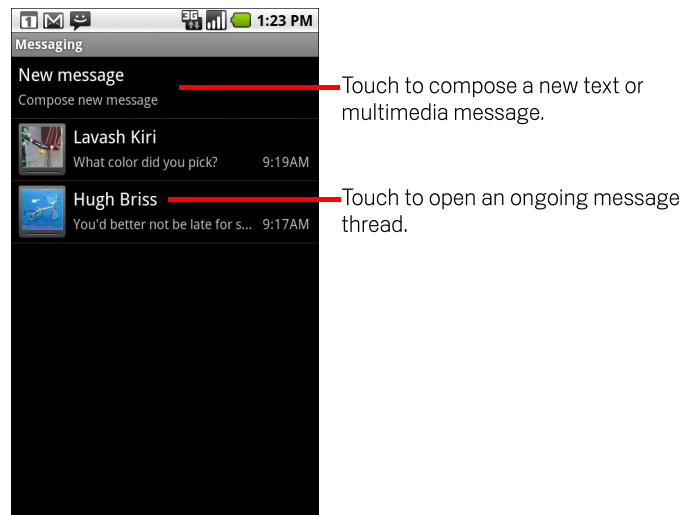
“Changing Messaging settings” on page 203

Opening Messaging

To open Messaging

- ▶ Touch the Messaging icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

The Messaging window opens, where you can create a new message or open an ongoing message thread.



- ▶ Touch **New message** to start a new text or multimedia message.
- ▶ Touch an existing message thread to open it.

Creating and responding to messages is described in “Exchanging messages” on page 199.

To delete a message thread from the Messaging window

- 1 Touch & hold the message thread.
- 2 Touch **Delete thread** in the menu that opens.

You can also press **Menu**  and touch **Delete threads** to delete all message threads from the window.

Exchanging messages

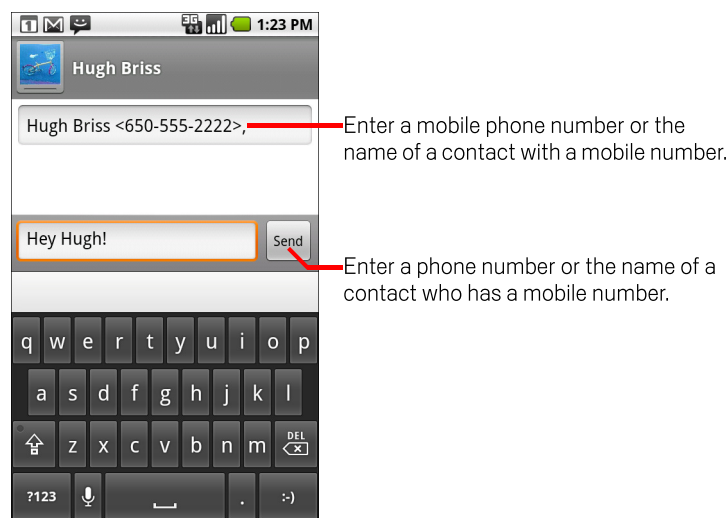
You can send text (SMS) messages of up to 160 characters to another mobile phone. If you keep typing after the limit, your message is delivered as a series of messages.

Multimedia (MMS) messages can contain text and a picture, a recorded voice, an audio file, a video, or a picture slideshow.

Messaging automatically converts a message into a multimedia message if you send it to an email address instead of a phone number, add a subject, or attach a media file.

To send a text message

- 1 On the Messaging screen, touch **New message**.
- 2 Enter a mobile phone number in the **To** field.
As you enter the phone number, matching contacts appear. You can touch a suggested recipient or continue entering the phone number.
You can also enter the name of a contact with a mobile number.
- 3 Touch the composition text box to start entering your message.

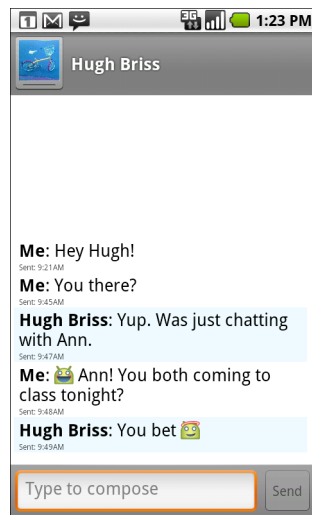


As you near the 160-character limit, a counter appears in the top right corner of the text box to tell you how many characters are left. If you go over that limit, a new message is created, which is joined with its predecessors when received.

If you press **Back** ⬅ while composing a message, it's saved as a draft in your Messaging window. Touch the message to resume composing it.

4 Touch **Send**.

The Message window opens, with your message after your name. Responses appear in the window. As you view and send additional messages, a message thread is created.



To create and send a multimedia message

- 1 On the Messaging screen, touch **New message**.
- 2 Enter a mobile phone number or email address in the **To** field.
As you type, matching contacts appear. You can touch a suggested contact or continue typing.
You can also enter the name of a contact with a mobile number.
- 3 Touch the composition text box to start entering your message.
- 4 Press **Menu**  and touch **Add subject** to add a message subject.
- 5 Press **Menu**  and touch **Attach** to open a menu where you can touch the kind of media file to attach to the message.
If you touch **Pictures**, you're prompted to touch a picture to attach it.
If you touch **Capture picture**, Camera opens so you can take a picture and attach it.
If you touch **Videos**, you're prompted to touch a video to attach it.
If you touch **Capture video**, Camcorder opens so you can shoot a video and attach it.
If you touch **Audio**, you're prompted to touch a ringtone to attach it.
If you touch **Record audio**, a screen opens where you can record a spoken message and attach it.
If you touch **Slideshow**, a screen opens where you can assemble photos into a slideshow of up to 10 slides to attach to the message.
Use the buttons in the Compose Message screen to preview or remove the media attachment.
- 6 Touch **Send**.

To respond to messages you receive

If you're working in a message window, messages that you receive are displayed in it. Otherwise, you receive a new message notification and a new message icon appears in the Status bar. See "Managing notifications" on page 52.

When you touch the new message notification, the Message window opens, where you can reply to the message.

If Auto-retrieve is unchecked, you must touch **Download** to view the message. See "Changing Messaging settings" on page 203.

If the message contains a media file, touch **Play** to view, watch, or listen to it. Touch & hold the media file to open a menu with an option for saving the message on your microSD card.

- ▶ Touch & hold a message to open a menu with number of options for working with the message and its sender's information.

Most of these options are described in this section.

To forward a message

- 1 Touch & hold a message in a message window.
- 2 Touch **Forward** in the menu that opens.
- 3 Enter a recipient for the message and edit the content if you want.
- 4 Touch **Send**.

To lock a message

You can lock a message so it won't be deleted if you reach your storage limits (see "Storage settings" on page 203). If you try to delete a thread that contains a locked message, you're asked to confirm that you want to delete it.

- 1 Touch & hold a message in a message window.
- 2 Touch **Lock message** in the menu that opens.

A lock icon appears to the right of the message.

Unlock a message by touching & holding it and then touching **Unlock message**.

To view details about a message

- 1 Touch & hold a message in a message window.
- 2 Touch **View message details** in the menu that opens.

Changing Messaging settings

You can change a number of Messaging settings.

- ▶ To change Messaging settings, open a Messaging window, press **Menu** , and touch **Settings**.

Storage settings

Delete old messages Check to delete older messages in a thread when the **Text message limit** or **Multimedia message limit** is reached. Uncheck to keep all messages.

Text message limit Touch to set the number of messages to save per thread of text messages. When the limit is reached, older messages are deleted if **Delete old messages** is checked.

Multimedia message limit Touch to set the number of messages to save per thread of multimedia messages. When the limit is reached, older messages are deleted if **Delete old messages** is checked.

Text message (SMS) settings

Delivery reports Check to receive delivery reports for the messages you send.

Manage SIM card messages Touch to open a window where you can work with messages stored on your SIM card—for example, if you used the SIM card in another kind of phone where you exchanged text messages.

Multimedia message (MMS) settings

Delivery reports Check to receive a report on the messages you send.

Read reports Check to receive reports when your messages are read or deleted.

Auto-retrieve Uncheck to download only the heading of multimedia messages, which you can then touch to open a menu to download the whole message. This is useful for controlling how much data you download, for example, when connected to a slow data network.

Roaming auto-retrieve Uncheck to download only the header of multimedia messages when connected to other carrier's data networks. This is useful for avoiding unexpected charges, if your contract has limits on data roaming.

Notification settings

Notifications Check to receive a notification whenever you receive a new message. See “Managing notifications” on page 52.

Select ringtone Opens a dialog where you can select the ringtone to sound when you receive new message notifications.

Vibrate Check to have the phone vibrate when you receive a new message notification.

Browser

You use Browser to view webpages and to search for information on the web.

In this section

“Opening Browser” on page 206

“Navigating within a webpage” on page 209

“Navigating among webpages” on page 211

“Working with multiple Browser windows” on page 213

“Downloading files” on page 214

“Working with bookmarks” on page 215

“Changing Browser settings” on page 217

Opening Browser

Open Browser to start surfing the web.

Some websites have two versions: full-size for computer-based web browsers and another for mobile devices. They may also allow you to switch back and forth. Full-size sites are often harder to navigate on a mobile browser than sites designed for use on handheld devices.

To open Browser

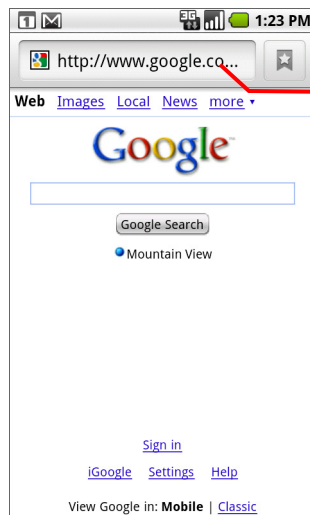
- ▶ Touch the Browser icon  on the Home screen or in the Launcher.

See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

Browser also opens when you touch a web link—for example, in an email or text message.

When you open Browser, the last webpage you were viewing is displayed. If you have not used Browser recently, your home page opens.

The URL of the current page is displayed at the top of the window, unless a mobile site scrolls the URL bar off the top of the screen (if so, just drag the page down to bring the URL bar into view).



The address (URL) of the current page.

Some sites scroll the URL bar off the top of the screen, but you can drag the page down or press **Menu** to see it again.

To go to a webpage

- 1 Touch the URL box at the top of the Browser screen.
If the URL box isn't visible, drag the page down until the URL box comes into view.



- 2 Enter the address (URL) of the webpage.
As you enter the address, Google web search makes suggestions of webpages and queries. See "Searching your phone and the web" on page 54.
Or touch the Microphone icon to search by voice.
- 3 Touch a suggestion or enter an address and touch **Go**.
If you touch a suggested page or enter an address and touch **Go**, that webpage opens.
If you touch a suggested query, Google web search opens with the results.

To refresh the current page

- ▶ Press **Menu**  and touch **Refresh**.
The webpage is reloaded, updating any content that has changed.

To stop opening a page

If a webpage is taking a long time to open, or if you change your mind, you can stop it from opening.

- ▶ Touch the Cancel icon  to the right of the URL.
- OR**
- ▶ Press **Menu**  and touch **Stop**.

To get more information about the current page

- ▶ Press **Menu**  and touch **More > Page info**.
A dialog opens with the page's title and full address (URL).

To set your home page

Your home page opens when you open a new Browser window, and when you start Browser after restarting your phone or after not using it for a while.

1 On a Browser screen, press **Menu**  and touch **More > Settings > Set home page**.

2 Enter the address (URL) of the page and touch **OK**

You may find it more convenient to copy the URL from the page you want and then paste it in the dialog (see “Editing text” on page 44).

If you prefer to open new Browser windows without opening a webpage by default, leave this field blank. This can make new Browser windows open more quickly.

Navigating within a webpage

Webpages that are optimized for mobile devices typically open at a size appropriate for your phone. Often, you can't zoom or even scroll their contents.

Webpages that aren't designed specifically for mobile devices typically open in overview mode—the page is zoomed out so you can get the big picture. You can change how pages open, as described in "Changing Browser settings" on page 217.

To scroll a webpage

- ▶ Slide your finger on the screen.

OR

- ▶ Roll the **Trackball** in any direction.

Rolling the **Trackball** selects items on the page in the direction you roll, scrolling selected items into view if necessary. Pressing the **Trackball** has the same effect as touching the selected item (opening a link, selecting a text field, and so on).

The **Trackball** is particularly useful for selecting links and other items that are close together, such as text fields and controls in forms.

To zoom in or out on a webpage

You may not be able to zoom in or out on webpages that are designed for mobile devices.

- 1 Slide your finger slightly on the screen to reveal the **Zoom** control .
- 2 Touch the plus or minus side of the Zoom control to zoom in or out.

To quickly zoom into a section of a webpage

You may not be able to zoom in or out on webpages that are designed for mobile devices.

- ▶ Double-tap on the section of the webpage you want to view.
The webpage zooms in so that you can read all the text in that section by scrolling up and down.
If you adjust your zoom level in this view, Browser remembers your preference while you stay on that page.
- ▶ To return to the default zoom level, double-tap again.
- ▶ Touch an area with two fingers at once and pinch them together to zoom out; spread them apart to zoom in. Double-tap after zooming in in this way, to reflow a

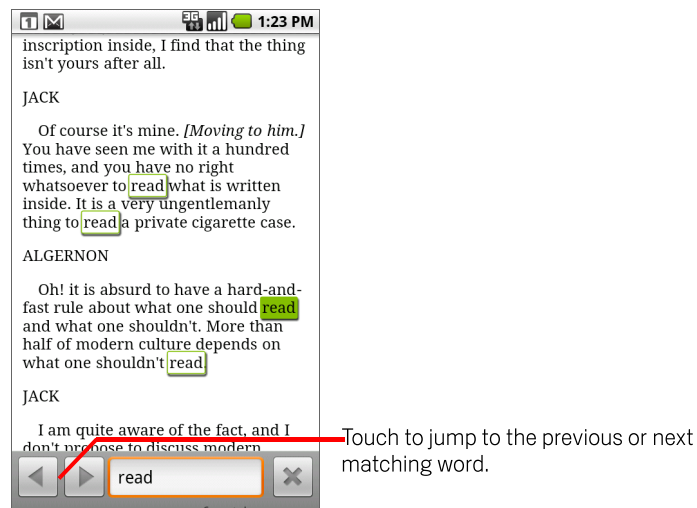
column of text to fit the screen (if you have the Auto-fit pages setting checked, as described in “Page content settings” on page 217).

To find text on a webpage

- 1 Press **Menu**  and then touch **More > Find on page**.

- 2 Enter the text you're looking for.

As you type, the first word with matching characters is highlighted on the screen, and subsequent matches are boxed.



- 3 Touch the left or right arrow to scroll to and highlight the previous or next matching word.

Navigating among webpages

You can open links on a webpage, navigate back and forward, and review your browsing history, just as in any web browser. You can also take advantage of some shortcuts for working with links and other kinds of information.

To open a link

- ▶ Touch a link to open it.

Links that you touch are highlighted in orange until the webpage they refer to opens in the window.

The **Trackball** is useful for selecting links that are close together on the screen. Press the **Trackball** to open a selected link.

To go back and forward among the pages you've opened

- ▶ Press the **Back**  button.

OR

- ▶ Press **Menu**  and touch **Forward**.

To view your Browser history

As you browse the web, Browser keeps track of the pages you visit, to help you find your way back later. "Changing Browser settings" on page 217 describes the setting that clears your history.

- 1 Touch the bookmark icon  at the top right of the screen.

- 2 Touch the **History** tab.

You can also press & hold the **Back**  button when viewing a webpage to open the History tab.

The pages you've visited are grouped chronologically. Bookmarked pages have a gold star.

- 3 Touch a time period to view the pages you've visited.
- 4 Touch a page in the history to reopen it.

To view your most frequently visited pages

- 1 Touch the bookmarks icon  at the top right of the screen.
- 2 Touch the **Most visited** tab.
The pages you've visited most frequently are listed in order. Bookmarked pages have a gold star.
- 3 Touch a page to open it.

To follow shortcuts for links, phone numbers, and addresses

Browser recognizes links, as well as some phone numbers, addresses, and similar information, as information that you may want to act on directly.

- ▶ Touch & hold a link to open a menu with shortcuts for opening, bookmarking, saving, and sending the link via email.
- ▶ Touch a phone number to open the Phone application with the number entered.
See "Placing and ending calls" on page 80.
- ▶ Touch a street address to open it in Maps.
For more information, see "Maps" on page 221.

Working with multiple Browser windows

You can open up to eight Browser windows at once and switch among them.

To open a new Browser window

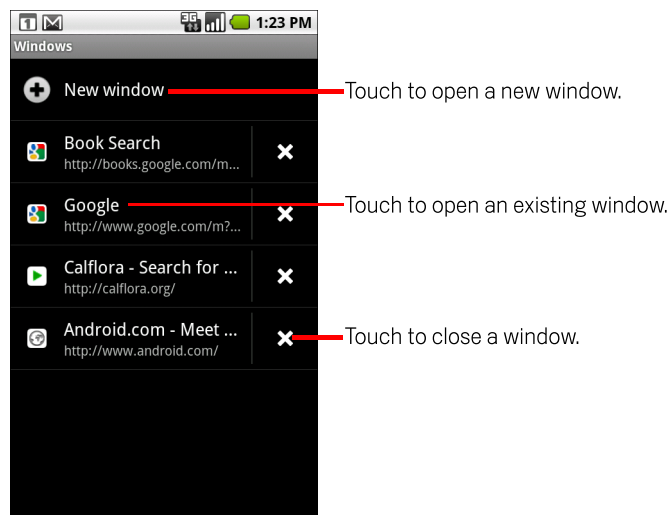
- ▶ Press **Menu**  and touch **New Window**.
- ▶ Press **Menu**  and touch **Windows**. In the screen that opens, touch **New window**.

New windows open with your home page.

To switch Browser windows

- 1 Press **Menu**  and touch **Windows**.

Your open windows are displayed.



- 2 Touch a window to open it.

To close a Browser window

- 1 Press **Menu**  and touch **Windows**.
All open windows are displayed in a scrolling list of thumbnails.
- 2 Touch the Close Box  on the window to close it.

Downloading files

You can download files, webpages, and even applications from webpages. The files that you download are stored on your microSD card. See “Connecting to a computer via USB” on page 74 to learn more about microSD cards.

To allow installing applications from the web or email

By default, your phone is configured to prevent you from installing applications that you download from the web or receive with an email message.

Warning! Applications downloaded from the web can be from unknown sources. To protect your phone and personal data, download applications only from trusted sources, such as Android Market.

- 1 Press **Home** , then press **Menu**  and touch **Settings > Applications**.
- 2 Check **Unknown sources**.
- 3 Touch **OK**.

To download a file

Different webpages offer different mechanisms for downloading pictures, documents, applications, and other files.

- ▶ Touch & hold an image or a link to a file or to another webpage. In the menu that opens, touch **Save**.

If the file is in a format supported by an application on the phone, it is downloaded to your microSD card.

To cancel a download

If you change your mind about downloading a file, or start downloading one by accident, you can cancel the download in progress.

- 1 Press **Menu**  and touch **More > Downloads**.
- 2 Press **Menu**  again and touch **Cancel all downloads**.

To view the files you've downloaded

- ▶ Press **Menu**  and touch **More > Downloads**.

The files you've downloaded are listed in order. Touch a file to open it.

You can clear the list by pressing **Menu**  and touching **Clear list**.

Working with bookmarks

You can bookmark webpages so that you can quickly return to them.

To bookmark a webpage

- 1 Open the webpage to bookmark.
- 2 Touch the bookmark icon  at the top of the screen.
Or press **Menu**  and touch **Bookmarks**.
- 3 Touch **Add** at the top of the Bookmarks screen.
- 4 Edit the name and the address if necessary and touch **OK**.
The bookmark is added to the top of your list of bookmarks.

To open a bookmark

- 1 Touch the bookmark icon  at the top of the screen.
Or press **Menu**  and touch **Bookmarks**.
A window opens with a list of your bookmarks. Bookmarks are displayed in thumbnail view by default. To see them as a list, press **Menu**  and touch **List view**.
- 2 Touch a bookmark to open it.
The bookmark opens in the current window. If you prefer to open it in a new window, touch & hold the bookmark and touch **Open in new window** in the menu.

To edit a bookmark

- 1 Touch the bookmark icon  at the top of the screen.
Or press **Menu**  and touch **Bookmarks**.
- 2 Touch & hold the bookmark to edit.
- 3 Touch **Edit bookmark** in the menu
- 4 Edit the name or address in the dialog that opens.
- 5 Touch **OK**.

To share a bookmark

- 1 Touch the bookmark icon  at the top of the screen.
Or press **Menu**  and touch **Bookmarks**.
- 2 Touch & hold the bookmark to share.
- 3 Touch **Share link** in the menu.
- 4 Touch the application you want to use to send the bookmark.
The application opens with the bookmark's address entered.

To add a bookmark shortcut to the Home screen

You can add a shortcut to your phone's Home screen that you can touch to open one of your bookmarks in a Browser window.

- 1 Touch & hold an empty spot on your phone's Home screen.
- 2 Touch **Shortcut**.
- 3 Touch **Bookmarks**.
- 4 Touch a bookmark to add it.
The bookmark icon is added to the Home screen.

To delete a bookmark

- 1 Touch the bookmark icon  at the top of the screen.
Or press **Menu**  and touch **Bookmarks**.
- 2 Touch & hold a bookmark to delete it.
- 3 Touch **Delete bookmark** in the menu.
- 4 Touch **OK**.

Changing Browser settings

You can configure a number of Browser settings, including several that you can use to manage your privacy.

- ▶ To open the Browser settings screen, press **Menu**  and touch **More** > **Settings**.

Page content settings

Text size Opens a dialog where you can increase or decrease the size of the text that Browser uses when displaying webpages.

Default zoom Opens a dialog where you can increase or decrease the magnification level that Browser uses when first opening a webpage.

Open pages in overview Uncheck to open webpages displaying their top-left corners at 100% size. Check to open webpages zoomed out, in an overview.

Text encoding Opens a dialog where you can change the character-encoding standard that Browser uses when displaying text on a webpage.

Block pop-up windows Check to prevent websites from opening windows unless you request it.

Load images Uncheck to omit images when Browser displays a webpage. This speeds webpage display, which can be useful if you have a slow connection, but many websites make little sense with text alone.

Auto-fit pages Check to have Browser optimize the presentation of text and other elements of webpages to fit your phone's screen. Checking this option also causes double-tapping the screen directly after pinching to zoom to reflow a column of text to fit the screen. Uncheck to view pages as designed for a computer screen, and to cause double-tapping to simply switch between zoomed-in and default view.

Landscape-only display Check to display pages in landscape (horizontal) orientation on your screen, regardless of how you are holding the phone.

Enable JavaScript Uncheck to prevent JavaScript from running on webpages. Many webpages function correctly only if they can run JavaScript features on your phone.

Enable plug-ins Uncheck to disable plug-ins from webpages.

Open in background Check to open new windows in the background when you touch & hold a link and touch **Open in new window**. This is useful when you are working with windows that take a long time to download and display. Press **Menu** , touch **Windows**, and then touch the new window to view it. Uncheck if you prefer new windows that you open in this way to open in place of the current window. See "To switch Browser windows" on page 213.

Set home page Opens a dialog where you can enter the URL of a page that you want to open whenever you open a new Browser window. If you prefer to open new Browser windows more quickly, by not opening any page by default, leave the dialog blank.

Privacy settings

Clear cache The browser stores the text and images of the webpages you visit so that they open more quickly when you revisit them. Touch **Clear cache** to delete these temporary files.

Clear history The browser keeps track of the webpages you visit, so you can quickly find them and open them again later. (See "To view your Browser history" on page 211.) Touch **Clear history** to delete this record.

Accept cookies Many webpages store, read, and update files called cookies on your phone, for your convenience. For example, some password-protected sites use cookies so you don't have to log in each time you visit. Other sites use cookies to remember your preferences. Uncheck to prevent webpages from storing cookies on your phone.

Clear all cookie data Touch to delete all cookies from your phone.

Remember form data Browser remembers what you enter in some form fields on a site and helps you reenter that text the next time you use that form. Uncheck to disable this feature.

Clear form data Touch to delete all the information the Browser remembers about what you've entered in forms.

Enable location Check to permit websites with location-specific content to ask whether you want to share your location, using your phone's location information. To provide a website with your location, you must also have location sharing enabled in the Settings application. See "Privacy settings" on page 321.

Clear location access Opens a dialog where you can clear the permissions you've granted to websites in the past, to access your location. If those websites want permission to access your location again, you must grant it again.

Security settings

Remember passwords Browser can remember your passwords for some webpages that require you to log in, to make it quicker to log into those pages on repeat visits. Uncheck to prevent Browser from storing passwords.

Clear passwords Touch to delete any passwords that Browser has stored.

Show security warnings Uncheck to prevent Browser from warning you about websites with common security problems, such as outdated or invalid certificates.

Advanced settings

Website settings Opens a screen where you can view advanced settings for particular websites.

Reset to default Touch to delete all Browser data, including your browsing history, cookies, passwords, and bookmarks, and to restore all the Browser settings to their original values.

Maps

You use Maps to find your current location; to view real-time traffic conditions; to get detailed directions by foot, public transportation, or car; and to navigate by using spoken, turn-by-turn driving instructions.

You can search on a street map or a satellite image to locate an address or a landmark, and you can view some locations as if you were strolling down the street.

If you join Google Latitude, you can view your friends' locations on your maps and share your location and other information with them.

Maps does not have information about every location.

In this section

"Opening Maps and viewing your location" on page 222

"Obtaining details about a location" on page 224

"Starring a location" on page 226

"Changing map layers" on page 228

"Searching for locations and places" on page 230

"Getting directions" on page 231

"Navigating with spoken, turn-by-turn directions" on page 233

"Finding your friends with Google Latitude" on page 238

Opening Maps and viewing your location

You must turn on location services to use information about your location when navigating and searching in Maps. Then open Maps to view your location.

To use location services with Maps

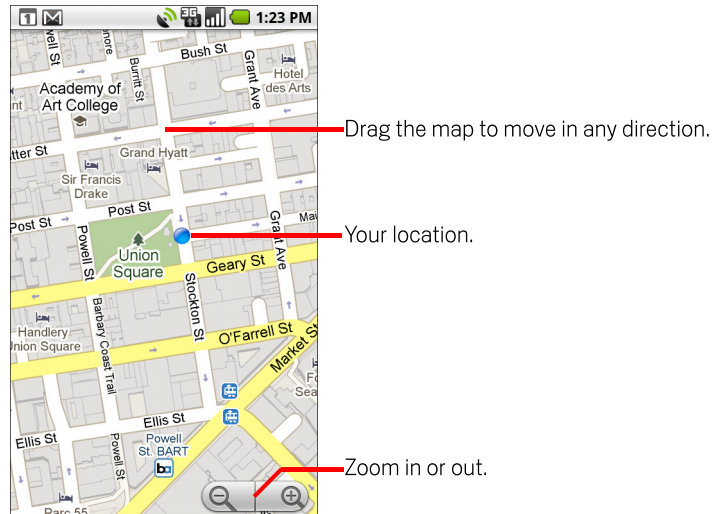
You must have location services turned on to view your location in Maps and to use your location to find local resources.

- 1 Press **Home** , press **Menu** , and touch **Settings > Location & security**.
- 2 Check the My Location options that you want to use.
Check **Use wireless networks** to allow the phone to determine your approximate location by using Wi-Fi and mobile networks.
Check **Use GPS satellites** to allow your phone to determine your location to street-level accuracy. (GPS works best when you have a clear view of the sky.)
- 3 Press **Home** , press **Menu** , and touch **Settings > Privacy**.
Check **Share with Google** to use your location when you search.

To open Maps and view your location

- 1 Touch the Maps  icon on the Home screen or in the Launcher.
See "Opening and switching applications" on page 46 to learn more about opening and switching applications.
- 2 Press **Menu**  and touch **My location**.

The map centers on a blue dot that indicates your location. A blue circle around the dot indicates that your actual location is within the circle.



To move the map

- ▶ Drag the map with your finger.

To zoom in and out of a map

- ▶ Touch the plus or minus side of the **Zoom** control .

OR

- ▶ Double-tap a location on the map to zoom in to that location.

OR

- ▶ Touch an area with two fingers at once and pinch them together or spread them apart, to zoom out or in.

Not all magnification levels are available for all locations.

To clear the map

After you get directions or search on a map, you can clear the markers that such activities draw.

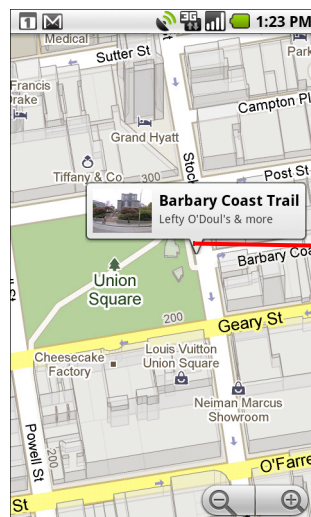
- ▶ While viewing a map, press **Menu**  and touch **More > Clear map**.

Obtaining details about a location

You can obtain the address and other information about an area on a map. The amount of information depends on the location.

To get the address and additional details about a location

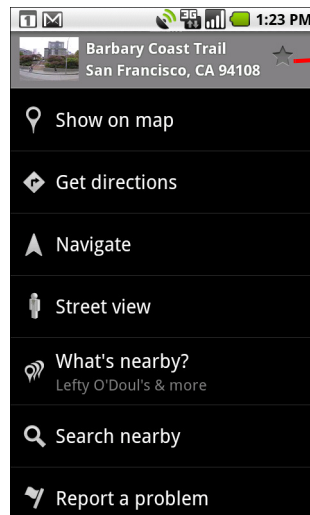
- ▶ Touch & hold a location, star, or tabled feature on the map.
A balloon opens over the location, with the address and a thumbnail from Street View, if available.



Touch & hold a location or other feature to open a balloon with its address.

Touch the balloon to open a screen with tools for learning more about the location.

- ▶ Touch a balloon to open a screen with tools for learning more about the location.



The address and other summary information about the location.

These tools are described in this section and on <http://maps.google.com>.

Starring a location

You can star a location on a map, to make it easy to spot when you're signed into Google Maps on your phone or on the web. You can also open a list of the locations you've starred, so you can quickly view them on a map.

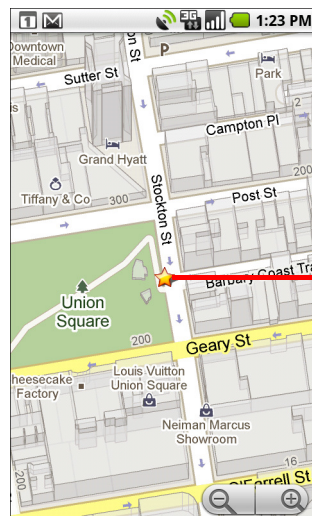
To star or unstar an location

You can star any location or labeled feature on a map.

- 1 Touch & hold a location or labeled feature on a map.
- 2 Touch the balloon that opens.
- 3 Touch the gray star at the top of the screen to star the location. (Or touch a gold star to unstar that location.)



The star turns gold and a gold star is added to the map at that location.



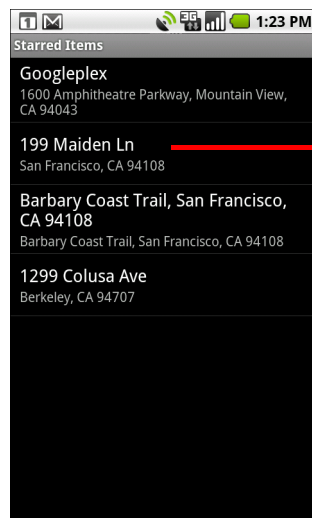
Touch a star for more information about that location.

To view a list of starred items

You can open a list of your starred locations, so you can quickly go to a starred location on the map. The list includes locations you've starred when signed into Maps on the phone or the web.

- ▶ While viewing a map, press **Menu**  and touch **More > Starred items**.

The list of your starred items and their addresses opens.



Touch a location to view it on a map.

- ▶ Touch a location in the list to view it on a map.
- ▶ Press **Menu**  and touch **Refresh** to update the list.

Changing map layers

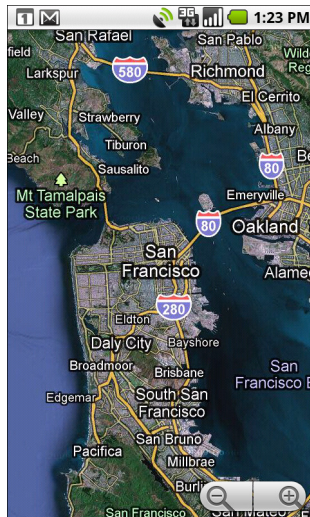
Initially, Google Maps opens with a street map. You can also view a satellite image of a location, check on traffic, and even look at a location as if you were standing on the street. And you can view maps that you've created in Google Maps on the web. These and many other layers are available in Google Maps.

To view map, satellite, or traffic layers

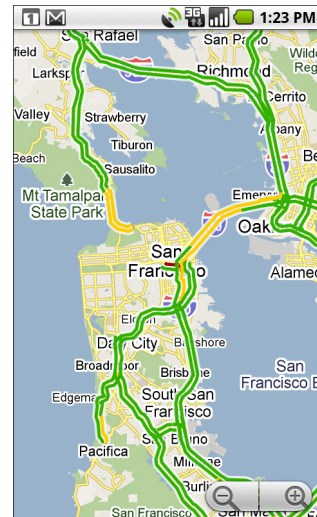
- ▶ Press **Menu** , touch **Layers**, and touch **Traffic, Satellite, Latitude**, or another layer.



Map layer



Satellite layer



Traffic layer

Map layer is the default. It displays a street map with the names of streets, rivers, lakes, mountains, parks, and other features.

Satellite layer uses the same satellite data as Google Earth. Satellite images are not real time. Google Earth acquires the best imagery available, most of which is between 1 and 3 years old.

Traffic layer offers real-time traffic conditions, displayed over roads as color-coded lines, from green through black.

For information about Latitude, see "Finding your friends with Google Latitude" on page 238.

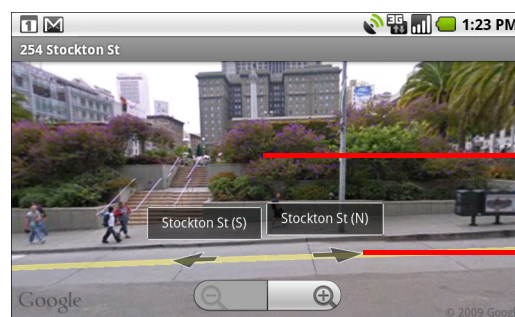
For information about the other features of Google Maps, visit Google Maps on the web.

Not all locations have information to support all Map layers or all zoom levels. Visit Google Maps on the web to learn more about layers.

To open Street View for a location

Street View offers street-level images of a location, which you can navigate, zoom in to, and so on. Street View is not available for all areas.

- 1 Touch & hold a location on a map to open a balloon with the address and a Street View thumbnail.
- 2 Touch the balloon. In the screen that opens, touch **Street view**.



Touch the view to display navigation tools.

Touch the arrows to shift the view up or down the street.

To navigate in Street View

- ▶ Drag the image in any direction to pan up or down or to look in other directions.
- ▶ Zoom in to the direction you're looking.
- ▶ Press **Menu** ≡ and touch **Step forward** or **Step backward** to move up and down the street. Or just touch a navigation arrow in the image.
- ▶ Press **Menu** ≡ and touch **Compass mode** to use the phone itself to navigate Street View. Tilt, pan, or turn the phone to change the view. Touch **Compass mode** again to end it.
- ▶ Press **Menu** ≡ and touch **Report image** to open a web-based form for reporting to Google about images with inappropriate content or privacy concerns.
- ▶ Press **Menu** ≡ and touch **Go to map** to leave Street View.

Searching for locations and places

You can search for a location and view it on a map. You can also search for places on the map that you're viewing.

To search for a location

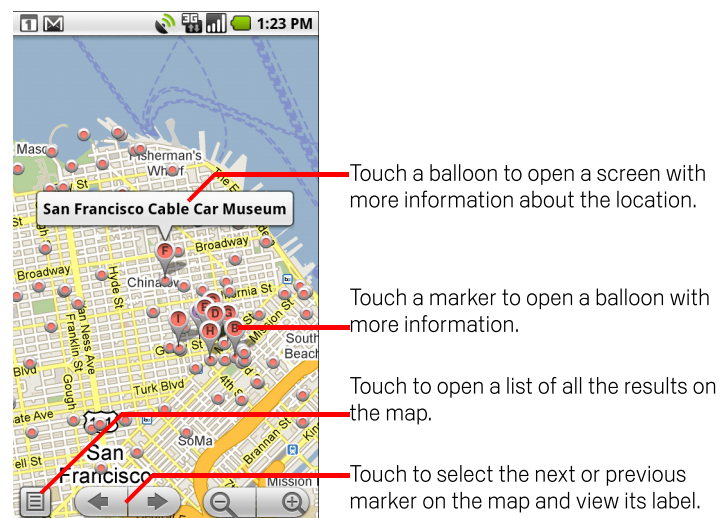
- 1 While viewing a map, press **Menu**  and touch **Search**. Or press the **Search** button .
- 2 In the search box, enter the place you're looking for. You can enter an address, a city, or a type of business or establishment—for example, "museums in San Francisco".

As you enter information, suggestions from your previous searches and from popular searches appear in a list below the search box. You can touch a suggestion to search for it.

Suggestions include items from your search history on the phone and on the web. To learn more about your search history, including how to clear it, see the Maps Help on the web: <http://maps.google.com/support>

- 3 Touch the search icon.

Markers with letter labels indicate search matches on the map.



You can touch a marker to open a balloon that contains a label. Touch the balloon to open a screen with more information about the location, as well as options for obtaining directions.

Getting directions

Maps can provide directions for travel by foot, public transportation, or car.

You can add a shortcut to a destination to your Home screen, so that you can simply touch the shortcut to get directions to that location from wherever you are. For details about adding shortcuts to the Home screen, see “Customizing the Home screen” on page 58.

To get directions

- 1 While viewing a map, press **Menu**  and touch **Directions**.

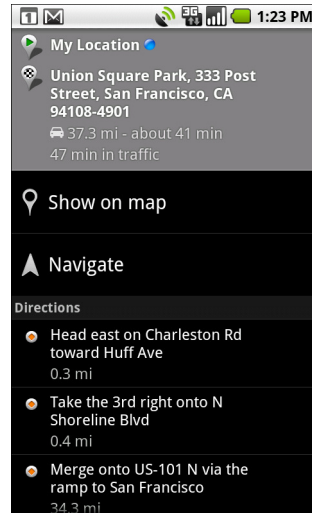
Enter a starting point in the first text box and your destination in the second text box. Or touch  to open a **Menu**  with options for selecting an address from your Contacts or a point that you touch on a map.



To reverse directions, press **Menu**  and touch **Reverse start & end**.

- 2 Touch the icon for car, public transit, or walking directions.
- 3 Touch **Go**.

The directions to your destination appear in a list.



You can read the directions or show them on the map.

You can also touch **Navigate** to get spoken, turn-by-turn directions from Google Maps Navigation, as described in “Navigating with spoken, turn-by-turn directions” on page 233.

When you're finished, to clear the map, press **Menu**  and touch **More > Clear map**.

Navigating with spoken, turn-by-turn directions

You can use Google Maps Navigation to get turn-by-turn driving directions, both spoken and displayed on your screen. Google is currently offering Google Maps Navigation as a “beta-quality” service.

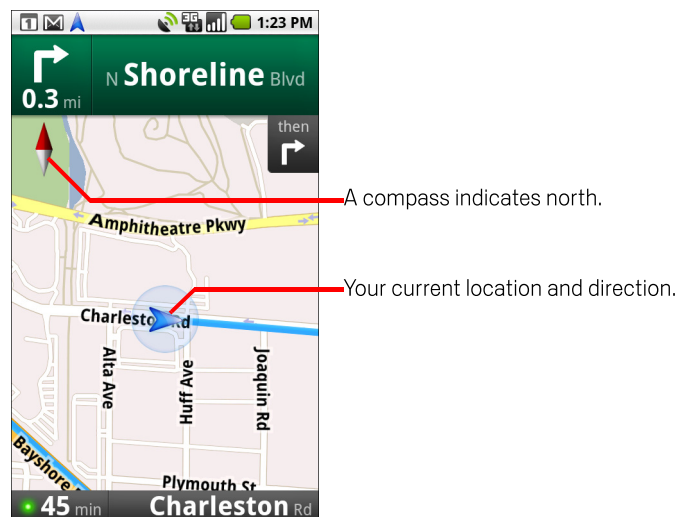
To navigate with turn-by-turn directions

- ▶ Get directions to a location and then touch **Navigate** in the Directions screen. See “Getting directions” on page 231.

OR

- ▶ Press & hold the **Search** button . When prompted to speak, say “Navigate to” followed by a location. If prompted, touch a destination in the list of suggestions. A map opens with your route drawn in blue and your next turn described at the top. As you navigate your route, each direction is spoken in turn, and the next turn is displayed. Your current location and direction are shown as a blue arrow on the map, which follows your location as you navigate your route.

Maps downloads and temporarily stores a copy of the directions and other information about your route on the phone, so if you lose your connection to a data network, you can still navigate to your destination.



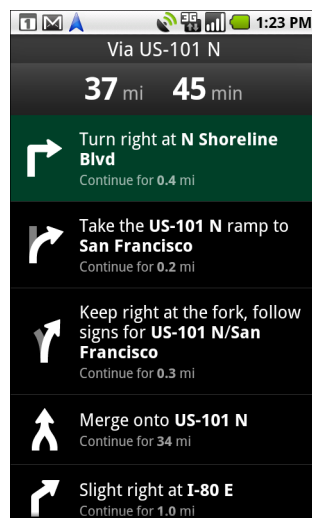
You can control the volume of the spoken directions with the **Volume Up / Down** button. To turn the spoken directions off, press **Menu**  and touch **Mute**.

To view turn-by-turn directions in a list

You can view each turn in your route as a scrolling list of written directions.

- ▶ Touch the directions icon .

A screen opens with a scrolling list of turn-by-turn directions to your destination.



- ▶ Press **Back**  to return to Navigation View.

To return to Navigation View

If you are navigating to a destination and then use Maps to explore other areas, you can quickly return to your current location in Navigation View.

- ▶ Open the Notifications panel and touch the navigation ongoing alert.
See “Managing notifications” on page 52.

OR

- ▶ Touch the navigation icon  on a map.

You return to Navigation View with your current location and next direction displayed.

To change views of your route

You can view your progress on your route as a map with a number of layers of information. You can zoom in and out of the map and drag it to view adjacent areas. You can also view your progress in Satellite or Street View.

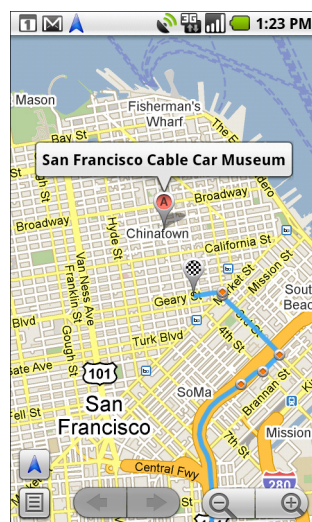
- ▶ Press **Menu**  and touch **Layers** to switch to views that show traffic or a Satellite View, or to show the locations of parking, restaurants, and other landmarks along your route.
- ▶ Press **Menu**  and touch **Route Info** for a high-level summary view of your route, with options for picking a new route, traffic information, and so on.
See “To change views of your route” on page 234 and “To get an alternate route to your destination” on page 237.
- ▶ Drag on the map to view adjacent areas, or touch the map to see controls for zooming in and out.

To search for locations along your route

You can search for businesses, points of interest, and other features along your route. When you search while navigating, your results include locations along your route, rather than locations that are near your current location.

For more information about searching in Maps, see “Searching for locations and places” on page 230.

- ▶ Press **Search**  and search for locations of interest.
The results are displayed as markers along your route; the first result is labeled. You can use the left and right arrow buttons to move from result to result, zoom in and out, or touch a label for more information about the marker.



- ▶ When you're finished, touch the navigation icon  to return to Navigation View.

To preview your route

You can preview each turn in your route in Navigation, Satellite, and other views.

- 1 Touch the direction at the top of the screen.
Left and right arrows appear.

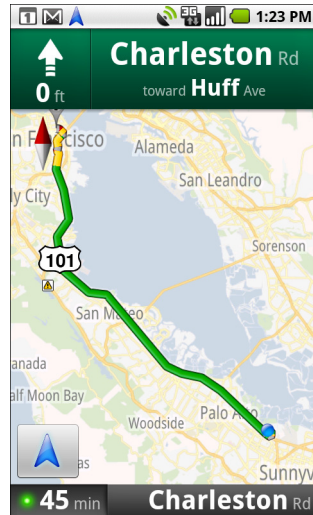


- 2 Touch a left or right arrow to preview the next or previous leg of your route.
When previewing a route, touch  to switch to a street-level view of your route. In street-level view, touch  to switch to Street View, where you can drag your finger to change the direction you're viewing, as described in "To open Street View for a location" on page 229.
- 3 When you're finished previewing, touch the navigation icon  to return to your current location and next turn direction.

To view traffic conditions on your route

At the lower-left corner of navigation View, a traffic light indicates the overall traffic conditions on your route, next to the estimated time until you arrive at your destination. You can also view the traffic conditions on each segment of your route.

- ▶ Touch the traffic light at the lower left of the Navigation View.
Your route opens in Traffic View, with color coding to indicate the traffic along the way.



- Touch the navigation icon  to return to your current location in Navigation View.

To get an alternate route to your destination

If traffic is slow on your current route, or if you just want to try a different route, you can request an alternate route from the Google Maps Navigation service.

- 1 Press **Menu**  and touch **Route Info**.
 - 2 Touch the alternate route icon .
- An alternate route is drawn on the map.

To exit navigation

You can exit Navigation View when you reach your destination, or at any time.

- Press **Menu**  and touch **Exit Navigation**.
- You return to the previous Maps view.

Finding your friends with Google Latitude

Google Latitude lets you and your friends view each others' locations on maps and share status messages with each other. In Latitude you can also send messages and emails, make phone calls, and get directions to your friends' locations.

Your location is not shared automatically. You must join Latitude and then invite your friends to view your location, or accept invitations from your friends.

To join Latitude

- ▶ While viewing a map, press **Menu**  and touch **Join Latitude**.
The first time you join Latitude, you're prompted to accept or reject the Google privacy policy.
When you've joined Latitude, the menu item changes to **Latitude**.

To open Latitude

After you join Latitude, you can open it to find your friends and view their updates.

- ▶ While viewing a map, press **Menu**  and touch **Latitude**.

To invite friends to share their locations

After you join Latitude, you can start sharing your location with your friends. Only friends whom you have explicitly invited or accepted can see your location.

- 1** Open Latitude, press **Menu** , and touch **Add friends**.
- 2** Touch **Select from Contacts** or **Add via email address** in the menu that opens.
If you touched **Select from Contacts**, a scrolling list of all your contacts opens. Check all of the contacts you want to invite.
If you touched **Add via email address**, you can enter one or more email addresses, separated by commas, for the friends you want to invite.
- 3** Touch **Add friends** at the bottom of the screen.
If your friends already use Latitude, they receive an email request and a notification on Latitude. If they have not yet joined Latitude, they receive an email inviting them to sign into Latitude with their Google Account.

To respond to an invitation

When a friend invites you to share your location in Latitude, you can respond in the following ways.

Accept and share back You and your friend can see each other's locations.

Accept, but hide my location You can see your friend's location, but they can't see yours.

Don't accept. No location information is shared between you and your friend.

To view your friends' locations

You can view your friends' locations on a map or in a list.

When you open Maps, your friends' locations are shown. Each friend is represented by their picture (from Contacts) with an arrow pointing to their approximate location. If a friend has chosen to share city-level locations, their picture does not have an arrow and appears in the middle of the city.

If your friends use Google Talk, their online status (Available, Busy, and so on) is indicated by a circular icon below their pictures. For more information, see "Changing and monitoring online status" on page 173.

To see a friend's profile and connect, touch the photo. Your friend's name appears in a balloon. Touch the balloon to open a screen with details about your friend and many connection options.

When you open Latitude you see a list of your Latitude friends, with a summary of their last known locations, status, and so on. Touch a friend in the list to open a screen with details about the friend and many connection options.

To connect with and manage connections with your friends

Touch a friend's contact details balloon in Map view or touch a friend in List view to open the friend's profile. In the Profile screen, you can communicate with your friend and set privacy options.

Show on map Shows the friend's location on the map.

Chat using Google Talk Opens a Google Talk chat window with that friend.

Send email Opens Gmail with a message addressed to the friend.

Directions Gets directions to the friend's location.

Hide from this friend Stop sharing your location with this friend in Latitude, in a list or on a map. To share your location with this friend again, touch **Unhide from this friend**.

Share only city level location Share only the city you are in, not your street-level location. Your friend sees your picture in the middle of the city you are in. To share more precise locations again, touch **Best available location**.

Remove Remove the friend from your list and stop sharing locations altogether.

To control what you share

You have control over how and when your friends can find you. Only the last location sent to Latitude is stored with your Google Account. If you turn off Latitude or are hiding, no location is stored.

► Open Latitude, touch your own name, and touch **Edit privacy settings**.

You can set the following privacy options.

Detect your location Let Latitude detect and update your location as you move. The update frequency is determined by several factors, such as your phone's battery charge level and how recently your location has changed.

Set your location Set the location shared with others as an address you enter; or, from Contacts, pick a spot on a map, or resume having Latitude share your actual location.

Hide your location Hide your location from all your friends.

Turn off Latitude. Disable Latitude and stop sharing your location or status. You can always join Latitude again.

Camera

Camera is a combination camera and camcorder that you use to shoot and share pictures and videos.

Pictures and videos are stored on the phone's microSD card, so you must install one to use Camera. See "Installing the battery, SIM, and microSD card" on page 18. You can copy your pictures and videos from the microSD card to a computer, as described in "Connecting to a computer via USB" on page 74.

In this section

"Opening Camera and taking pictures" on page 242

"Reviewing your pictures" on page 245

"Reviewing your videos" on page 246

"Changing Camera settings" on page 247

Opening Camera and taking pictures

You take pictures and shoot videos with Camera.

Camera's many settings are described in "Changing Camera settings" on page 247.

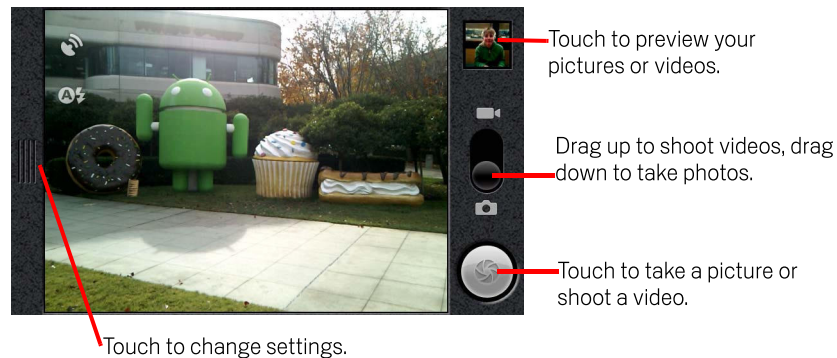
You can also view your pictures with the Gallery application, as described in "Gallery" on page 249.

Important Be sure to clean the protective lens cover with a microfiber cloth before taking pictures. A lens cover with smudges from fingers can cause blurry pictures with a "halo" effect.

To open Camera

- ▶ Touch the Camera icon  on the Home screen or in the Launcher.
See "Opening and switching applications" on page 46 to learn more about opening and switching applications.

Camera opens in Landscape mode, ready to take a picture or shoot a video.



To take a picture

- 1 If necessary, drag the control to the Camera position.



- 2 To control your exposure manually, touch the slider to open the camera settings. The preview image changes as you change the settings. See “Changing Camera settings” on page 247.
- 3 Frame your subject on screen. You can zoom in or out by touching the screen and then touching the Zoom control.
- 4 Touch the Shutter icon on screen or press the **Trackball**.

The camera brings the image into focus. When the image is in focus, the focus indicators in each corner turn green and the camera takes a picture.

OR

Touch & hold the Shutter icon or press & hold the **Trackball** to focus first, before taking a picture; then lift your finger to take a focused picture more quickly.

Slide your finger off the Shutter icon or roll the trackball and release your finger to cancel taking the picture.

The picture you just took is displayed for a moment. Then you can take another picture or preview your pictures, as described in “Reviewing your pictures” on page 245.

To take pictures with digital zoom

- ▶ Touch the screen to open the Zoom control and then touch the plus or minus button to zoom in or out gradually.

OR

- ▶ Double-tap the screen to zoom all the way in or out.

Pictures that you take with digital zoom may be smaller (in pixels) than the size you set with the Picture Size setting. See “Camera settings” on page 247.

To shoot a video

- 1 If necessary, drag the control to the Video position.



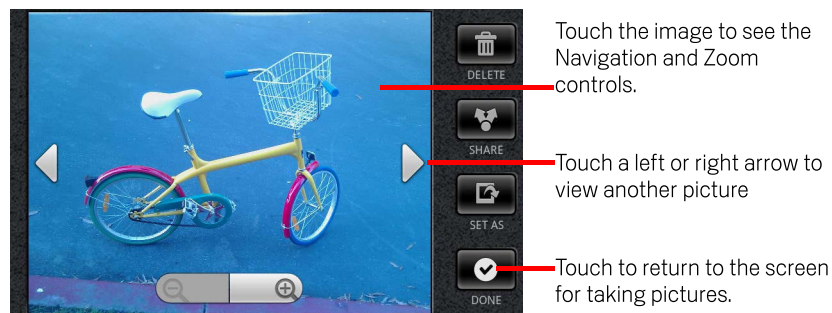
- 2 To change the length of your video or control your exposure manually, touch the slider to open the camcorder settings.
See "Changing Camera settings" on page 247.
- 3 Point the lens to frame the scene where you want to start.
- 4 Touch the Start Video  icon or press the **Trackball**.
The camcorder starts shooting the video. The time remaining to shoot counts down at the left; when less than a minute is left, the countdown turns red.
- 5 Touch the Stop Video  icon or press the **Trackball** to stop shooting.
You can shoot another video or preview your videos, as described in "Reviewing your videos" on page 246.

Reviewing your pictures

You can review the pictures you've taken in Camera.

To review your pictures

- 1 If necessary, drag the control to the Photograph position.
- 2 Touch the thumbnail image at the top right of the Camera screen.
The picture review screen opens, displaying your most recent picture.



- 3 Touch the picture to see the Navigation and Zoom controls.
- 4 Touch a navigation arrow to view the next or previous picture.
- 5 Touch **Done** to resume taking pictures.

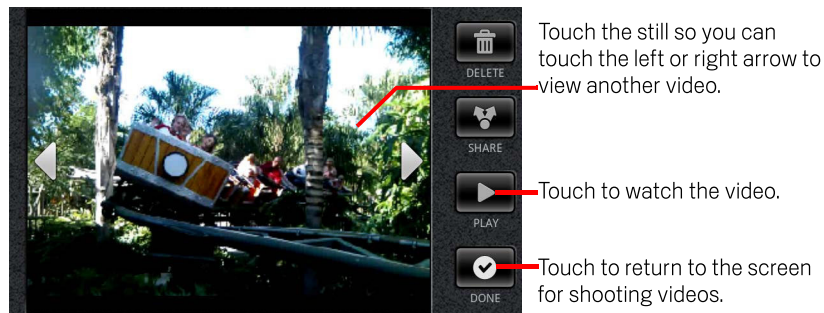
You can use the other buttons on the Picture Review screen and press **Menu**  to access several other features for editing, sharing, viewing, and using pictures in other ways. See "Working with pictures" on page 256.

Reviewing your videos

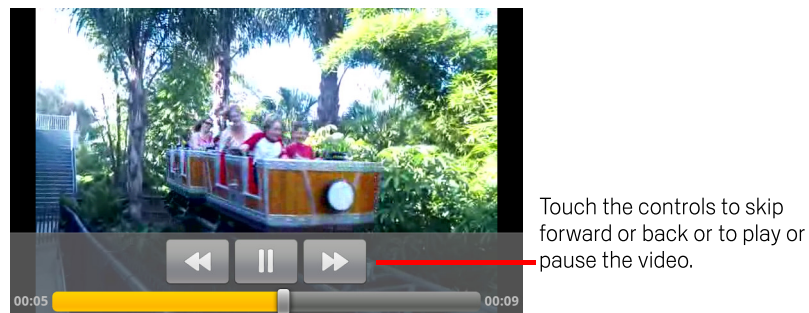
You can review the videos you've shot with Camera. You can also view a slideshow of your pictures, share them with friends, and delete shots. See "Gallery" on page 249 for details about playback.

To review your videos

- 1 If necessary, drag the control to the Video position.
- 2 Touch the thumbnail image at the top right of the screen.
A still from the start of your most recent video is displayed.



- 3 Touch a navigation button to open the video to play.
- 4 Touch the **Play** button.



You can use the other buttons on the Video Review screen and press **Menu**  to access several more features for viewing and sharing your videos. These features are described in "Gallery" on page 249.

Changing Camera settings

Camera has automatic settings that you can use to take quick point-and-shoot photographs and videos. But Camera also offers a number of ways to control your exposures, including controlling the focus, turning the flash on and off, and adjusting the white balance. You can even shoot negatives and other special effects.

Camera also includes settings for controlling picture quality, video length, whether to store the location where you take your pictures, and so on.

To change Camera settings

- 1 Open the Camera screen for taking pictures or shooting videos and touch the Settings tab. Or press **Menu**  and touch **Settings**.
The settings open over the screen.
- 2 Touch the setting category you want to control and then touch a setting.
Camera settings are described in "Changing Camera settings" on page 247.
- 3 Press **Back**  to close the Settings menus.
Icons on the left side of the screen indicate the current settings.
- 4 Take your pictures using the new settings.
- 5 When you're finished, open the Camera settings tab again and restore the settings back to **Auto**.

Camera settings

When you change some Camera settings, the current settings are indicated by icons along the left side of the screen.

Flash mode Touch to set whether Camera relies on its light meter to decide whether a flash is necessary, or to turn it on or off for all shots.

 Automatic

 On

 Off

White balance Touch to select how Camera adjusts colors in different kinds of light, to achieve the most natural-looking colors for your shots.

 Incandescent

 Daylight

 Fluorescent

 Cloudy

Color effect Touch to select a special effect for your shots, such as monochrome, sepia tone, or negative.

Store location Check to include the location of each picture you take, using the phone's GPS.

Picture size Touch to set the size (in pixels) of the pictures you take.

Picture quality Touch to set the quality of the pictures you take.

Focus mode Touch to set Camera to use its Autofocus feature (**Auto**), or to more quickly take pictures focused at infinity (**Infinity**).

 Infinity

Camcorder settings

In addition to the white balance and color effect controls that the camcorder shares with the camera (see "Camera settings" on page 247), the camcorder has two settings of its own.

Video quality Opens a dialog where you can set the video quality appropriate for sending to your friends or for viewing on a computer.

Video duration Opens a dialog where you can set the maximum length of your videos.

Gallery

You use Gallery to view pictures and play videos that you've taken with Camera, downloaded, or copied onto your microSD card. You can also view pictures in a Picasa web album. You can perform basic editing tasks on pictures and set them as your wallpaper or contact picture. You can also share your pictures and videos with friends, via email or messaging, or by uploading them to the Picasa and YouTube web sites.

In this section

"Opening Gallery and viewing your albums" on page 250

"Working with albums" on page 252

"Working with pictures" on page 256

"Working with videos" on page 260

Opening Gallery and viewing your albums

Open Gallery to view albums of your pictures and videos.

To open Gallery and view your albums

- ▶ Touch the Gallery icon  on the Home screen or in the Launcher.

OR

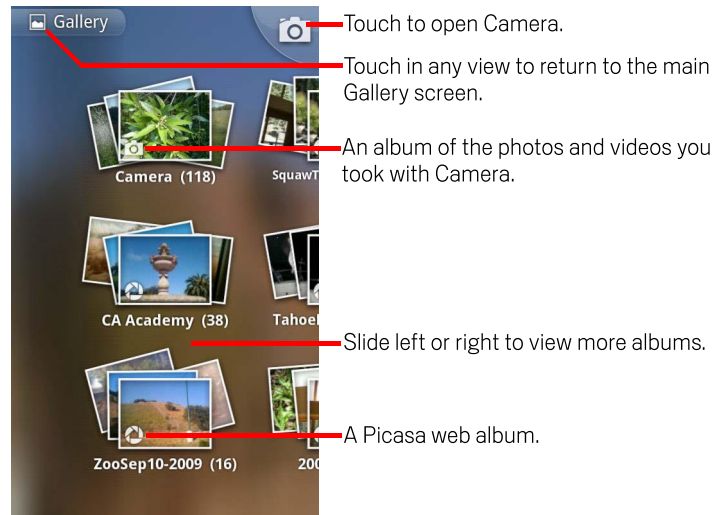
- ▶ Open Gallery from Camera by pressing **Menu**  and touching **Gallery**.

See "Opening and switching applications" on page 46 to learn more about opening and switching applications.

Gallery presents the pictures and videos on your microSD card, including those you've taken with Camera and those you downloaded from the web or other locations.

If you have a Picasa account associated with a Google Account that you've added to your phone, and if you have configured it to sync with Picasa, Gallery also presents your Picasa web albums. See "Configuring account sync and display options" on page 115.

If you have a great many pictures or videos on your microSD card or in Picasa web albums, it may take Gallery a few minutes when you open it to discover and organize them.



- ▶ Touch to open Camera.
 - ▶ Touch in any view to return to the main Gallery screen.
 - ▶ An album of the photos and videos you took with Camera.
 - ▶ Slide left or right to view more albums.
 - ▶ A Picasa web album.
- ▶ Touch an album to open it and view its contents.
The pictures and videos in the album are displayed in chronological order. See "Working with albums" on page 252.
 - ▶ Touch a picture or video in an album to view it.
See "Working with pictures" on page 256 and "Working with videos" on page 260.
 - ▶ Return to the main Gallery screen at any time by touching its icon  at the top left of the screen.

Working with albums

Albums are groups of images and videos in folders on your microSD card or in Picasa web albums.

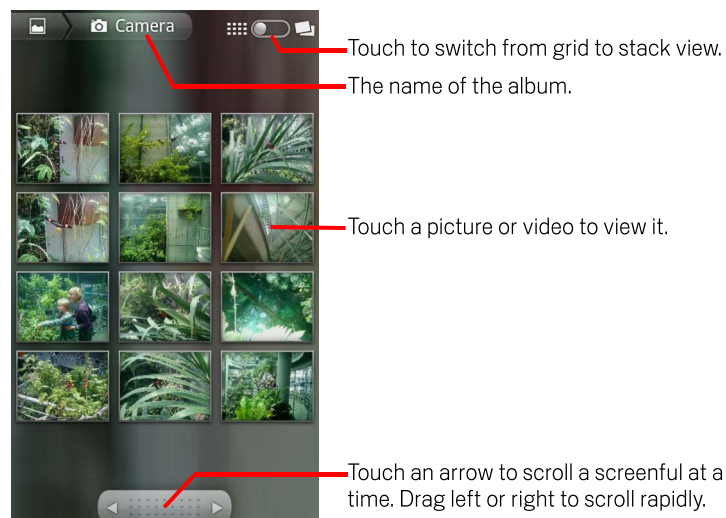
To open an album and view its contents

- ▶ Open Gallery and touch the album whose contents you want to view.

See “Opening Gallery and viewing your albums” on page 250.

Albums open displaying the pictures and videos they contain in a chronologically ordered grid. The name of the album is shown at the top of the screen.

You can touch a picture or video to view it, as described in “Working with pictures” on page 256 and “Working with videos” on page 260.

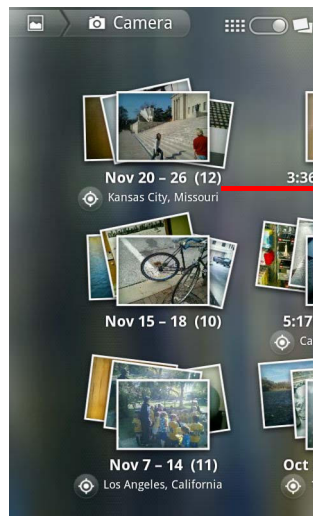


- ▶ Touch an arrow in the scroll tool at the bottom of the screen to scroll images a screenful at a time.
- ▶ Drag the scroll tool to the left or right to scroll more or less quickly. The date of the images in view is displayed, so you can scroll by date.
- ▶ You can also scroll through an album by swiping left or right.

To change how the contents of an album are displayed

You can view the images and videos in your albums in a chronological grid or in stacks, sorted by the date and the location where they were taken. You switch album views with the Album View switch at the top right of the screen.

- ▶ Drag the Album View switch  to the right to view the contents of the album in stacks.



Stacks are sorted by the date and location where you took them.

- ▶ Drag the Album View switch  to the left to view the album contents in a chronological grid again.

To work with batches of pictures or videos

In addition to working with whole albums and with individual pictures, you can select one or more pictures or videos in an album to work on them in batches—for example, to send a few pictures from an album to a friend.

- 1 Open the album to view the pictures and videos to work with.
- 2 Press **Menu**  twice.
- 3 Check or uncheck the items you want to work with.
You can uncheck all items you've checked by touching **Deselect All** at the top right of the window.
- 4 Use the controls at the bottom of the screen to act on the checked items.
The controls available depend on the mix of items you've selected. For information about sharing and editing pictures and videos, see "Working with pictures" on page 256 and "Working with videos" on page 260.

To share an album

You can share the entire contents of one or more albums.

You can also share individual images or videos from an album, as described in "Working with pictures" on page 256 and "Working with videos" on page 260.

- 1 Open the main Gallery window.
See "Opening Gallery and viewing your albums" on page 250.
- 2 Press **Menu**  twice.
- 3 Check or uncheck the albums you want to share.
- 4 Touch **Share** at the bottom of the screen. In the menu that opens, touch the application to use to share the selected albums.
The application that you selected opens with the pictures from the selected albums or links, attached to a new message. For information about addressing and sending the message, see the section on that application.

Important If you are sharing an album via Gmail, do not delete the original of an attachment before the message is completely sent (that is, it has the Sent label, not the Outbox label), or the attachment will not be sent.

To get details about an album

- 1 Open the main Gallery window.
See "Opening Gallery and viewing your albums" on page 250.
- 2 Press **Menu**  twice.
- 3 Check or uncheck the albums you want to want details about.
- 4 Touch **More** at the bottom of the screen. In the menu that opens, touch **Details**.

To delete an album

You can delete an album and its contents from your microSD card.

- 1 Open the main Gallery window.
See "Opening Gallery and viewing your albums" on page 250.
- 2 Press **Menu**  twice.
- 3 Check or uncheck the albums you want to delete.
- 4 Touch **Delete** at the bottom of the screen. In the dialog that opens, touch **Confirm Delete**.

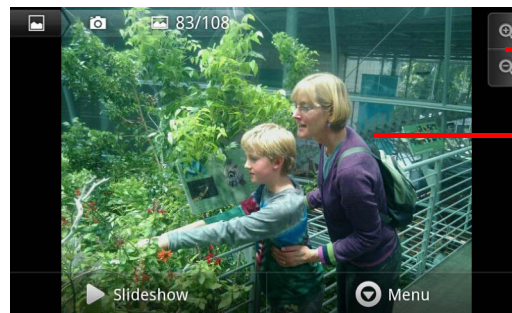
Working with pictures

Use Gallery to view pictures that you've taken with Camera, downloaded, or copied onto your microSD card, or that are stored in Picasa web albums. You can also edit the pictures on your microSD card and share them with friends.

To view and browse pictures

- ▶ Open a Gallery album and touch a picture.

See "Opening Gallery and viewing your albums" on page 250 and "Working with albums" on page 252.



Touch to zoom in or out.

Touch the picture to see the controls.

Drag left or right to see the next or previous picture in the album.

- ▶ Turn the phone to view the picture in upright (portrait) or sideways (landscape) orientation.
The picture is displayed (but not saved) in the new orientation.
- ▶ Touch the picture to view the Navigation, Zoom, and other controls.
- ▶ Touch a Zoom icon, double-tap the screen, or pinch two fingers together or spread them apart to zoom in or out.
- ▶ When the picture is zoomed in, drag the picture to view parts that are not in view.
- ▶ When the picture is zoomed to fit in the window, drag left or right to view the next or previous picture in the album.

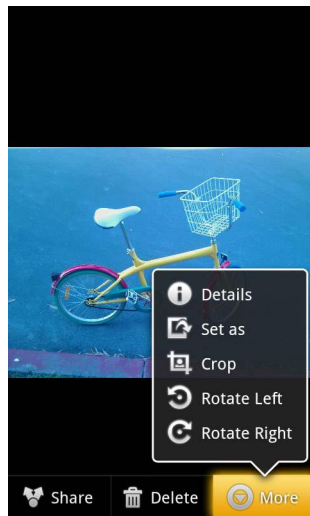
To watch a slideshow of your pictures

- ▶ Touch a picture to view the controls and touch **Slideshow**.
- ▶ Touch a picture to end the slideshow.

To rotate a picture

- 1 Touch a picture to view the controls and touch **Menu**.
- 2 Touch **More**.

A menu opens with tools for working with the picture.



- 3 Touch **Rotate left** or **Rotate right**.

The picture is saved with the new orientation.

To use a picture as a contact icon or as Home screen wallpaper

- 1 Touch the picture to view the controls and touch **Menu**.
- 2 Touch **More**.
- 3 Touch **Set as**.

If you touch **Contact icon**, you're prompted to select the contact to associate with the picture and then crop the picture.

If you touch **Wallpaper**, you're prompted to crop the picture.

To crop a picture

You can save a zoomed-in portion of a picture by cropping it. You can only crop pictures that are on your microSD card.

1 Touch a picture to view the controls and touch **Menu**.

2 Touch **More**.

3 Touch **Crop**.

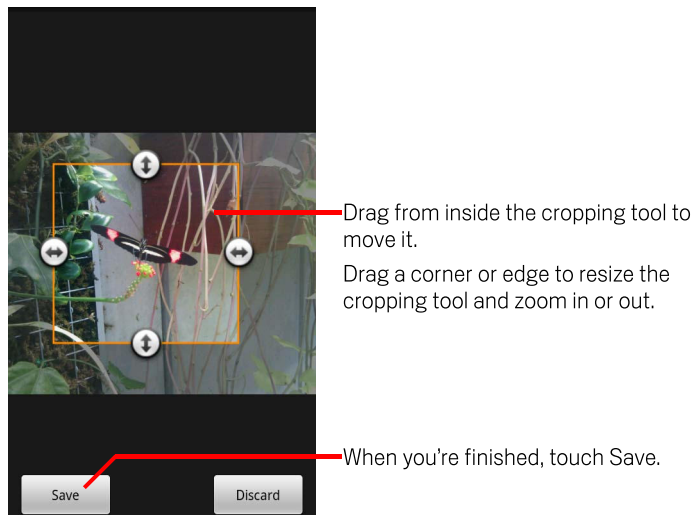
The cropping rectangle appears on top of the picture.

4 Use the cropping tool to select the portion of the picture to crop.

Drag from the inside of the cropping tool to move it.

Drag an edge of the cropping tool to resize it to any proportion.

Drag a corner of the cropping tool to resize it with fixed proportions.



5 Touch **Save** to save a copy of the picture as you cropped it.

The original uncropped version remains on your microSD card.

To get details about a picture

1 Touch the picture to view the controls and touch **Menu**.

2 Touch **More**.

3 Touch **Details**.

To view the location of a picture in Google Maps

If you have configured Camera to save location data with your pictures (see “Changing Camera settings” on page 247), you can view the location where you took the picture in Google Maps.

- 1 Touch a picture to view the controls and touch **Menu**.
- 2 Touch **More**.
- 3 Touch **Details**.

Google Maps opens, centered on the location stored in the picture.

To share a picture

You can share a picture by sending it to friends or posting it in a Picasa web album.

You can also share albums of images or videos, as described in “Working with albums” on page 252.

- 1 Touch a picture to view the controls and touch **Share**.
- 2 In the menu that opens, touch the application to use to share the selected picture.
The application you selected opens with the picture (or a link) attached to a new message. For information about addressing and sending the message, see the section about that application.

Important If you are sharing an album via Gmail, do not delete the original of an attachment before the message is completely sent (that is, it has the Sent label, not the Outbox label), or the attachment will not be sent.

To delete a picture

You can delete a picture from your microSD card.

- 1 Touch a picture to view the controls and touch **Delete**.
- 2 Touch **OK** in the dialog that opens.

Working with videos

Use Gallery to play videos that you've taken with Camera and to share them with friends.

To play videos

- ▶ Open a Gallery album and touch a video.

The video plays, with the orientation (portrait or landscape) you shot it in.

Opening albums is described in "Opening Gallery and viewing your albums" on page 250.



Touch the video to view the playback controls for pausing, resuming, and skipping backward and forward.

- ▶ Touch the video to view the playback controls.

To share a video

You can share a video by sending it in an email or with a multimedia (MMS) message. MMS messages have size limits, typically 3MB, or approximately 1 minute of high-quality video or 2 minutes of low-quality video. See "Changing Camera settings" on page 247. You can also share a video by uploading it to the YouTube web site.

- 1 While viewing an album, press **Menu**  twice.
- 2 Check the videos or pictures to share.
- 3 Touch **Share**.
- 4 In the menu that opens, touch the application to use to share the selected videos.

The application you selected opens with the video attached to a new message. If you selected YouTube, you're prompted to enter details about the video to upload. For more information, see the section on that application.

Important If you are sharing an album via Gmail, do not delete the original of an attachment before the message is completely sent (that is, it has the Sent label, not the Outbox label), or the attachment will not be sent.

To delete a video

- 1** While viewing an album, press **Menu**  twice.
- 2** Check the videos or pictures to delete.
- 3** Touch **Delete**.
- 4** Touch **Confirm Delete**.

Goggles

Use Goggles to search the web by taking pictures, instead of by typing or speaking.

You can also use Goggles to get information about businesses and other nearby places.

In this section

“Opening Goggles and searching with pictures” on page 264

“Working with your search history” on page 266

Opening Goggles and searching with pictures

You use Goggles to take a picture and search the web for information about it. You can also use Goggles to learn about nearby businesses and other local features.

To open Goggles

- ▶ Touch the Goggles icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.
The first time you open Goggles, you’re asked to accept the Google mobile terms of service. Then a series of screens introduces you to Goggle’s features, with illustrations and a short video.
After the tutorial, you’re asked whether you want to enable Google Goggles search history, along with a link that explains what the history stores.

To search with pictures

Goggles works better with some kinds of searches than others. Try taking pictures of books and DVDs, landmarks, logos, contact info, artwork, businesses, products, barcodes, or text. Currently, it’s not so good at recognizing animals, plants, cars, furniture, or apparel.

- 1 Open Goggles.
- 2 Frame the object you want to search for in the viewer.
For best results, turn the phone sideways so the shutter button is to the right, and fill the screen with as much of the search image as possible.
- 3 Touch the on-screen shutter button .
If Goggles is confident about identifying the subject of your picture, a screen opens with search results. You can touch a result to read more, rate the effectiveness of the search results, view or share your image, and so on.
If Goggles can’t recognize the image, a screen opens where you can try a text search instead, or view a selection of images that Goggles thinks are similar to yours.

To get information about nearby places

Goggles offers labels for nearby places when you point the phone at locations Goggles has information about.

- 1 Open Goggles.
- 2 Orient the screen sideways (with the shutter button to the right), and level the camera at your surroundings.

Goggles uses your phone's GPS receiver to determine your location (this works best outdoors). Once it has a lock on your location, Goggles overlays a pin icon with the number of nearby places it has information about. As you pan left and right, labels appear.

- 3 Touch a label to open a screen with more information. Or touch the pin to view a list of all nearby places Goggles has information about.

To learn more about Goggles

- ▶ Press **Menu**  and touch **Help**.

A screen opens with a button you can touch to browse to the Goggles help center, for detailed information about Goggles and its features. You can touch other buttons to review the Goggles tutorial, and so on.

Working with your search history

If you have the Goggles search history enabled, you can view the pictures you've previously searched for with Goggles and use them to search again. You can also enable or disable the Goggles search history.

To review your search history

- 1 Press **Menu**  and touch **Search history**.
- 2 Scroll to view the pictures you've searched for previously.
- 3 Touch an image to search with it again.

To remove images from your search history

You can remove images you no longer want in your search history.

- 1 Press **Menu**  and touch **Search history**.
- 2 Touch **Remove Items** at the top of the screen.
- 3 Touch **Remove** under each photo you want to remove.
- 4 Touch **Done** at the top of the screen.

To disable or enable Goggles search history

You enabled or disabled Goggles search history when you first opened Goggles. But you can change that setting at any time.

- ▶ When using the viewer or when viewing your search history, press **Menu**  and touch **Disable history**.

OR

- ▶ When using the viewer, press **Menu**  and touch **Enable history**.

The Disable Search History or Enable Search History screen opens, where you can confirm your decision or touch the link to open a screen with details about this feature.

YouTube

YouTube is Google's free online video streaming service for viewing, searching for, and uploading videos.

In this section

"Opening YouTube and watching videos" on page 268

Opening YouTube and watching videos

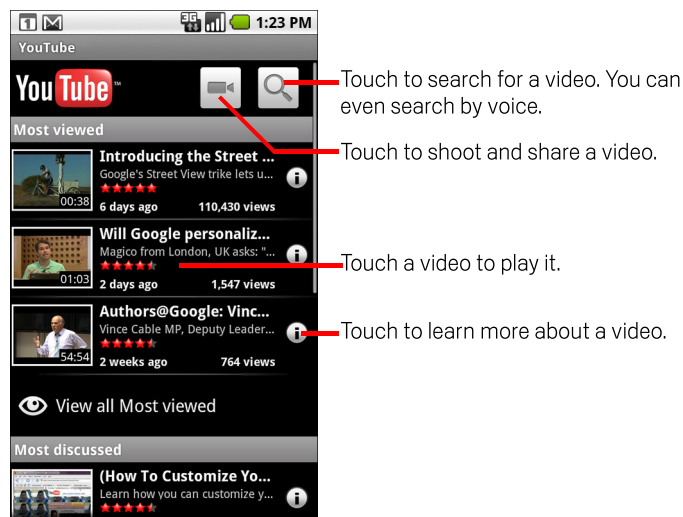
You can browse, search for, view, upload, and rank YouTube videos on your phone with the YouTube application.

To open YouTube

- ▶ Touch the YouTube icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

YouTube presents the videos grouped into categories, such as Most Viewed, Most Discussed, Most Recent, and Top Rated.

You can touch a video to watch it, or touch  to learn more about it.



To watch and interact with YouTube videos

- ▶ On a YouTube screen, touch a video to play it.



- ▶ Touch the video to view the Playback controls.
You can pause, skip forward or backward, or drag the slider to the point in the video you want to watch.
- ▶ Press **Back** ⬅ to stop playback and return to the videos list.
- ▶ Press **Menu** ≡ to rank, comment on, share, flag as inappropriate, and interact with the video in other ways.
For details about these features, visit the YouTube web site.

To search for videos

- 1 At the top of the main YouTube screen, touch the Search icon .
- 2 Enter the text to search for, or touch the Microphone icon to search by voice.
- 3 Touch a suggestion below the search box or touch the magnifying glass icon .
- 4 Scroll through the search results and touch a video to watch it.

To share your videos on YouTube

You can shoot and share a video by using YouTube. First, you must create a YouTube account and sign into it on your phone.

You can also share the videos you shoot with the Camera application by uploading them to YouTube. See “Working with videos” on page 260.

- 1 At the top of the main YouTube screen, touch the Camera icon .
- 2 If you want to control the exposure manually, touch the slider to open the camcorder settings.
See “Changing Camera settings” on page 247.
- 3 Point the lens to frame the scene where you want to start.
- 4 Touch the Shutter button.
The camcorder starts shooting the video. The time remaining to shoot counts down at the left; when less than a minute is left, the countdown turns red.
- 5 Touch the Shutter button again to stop shooting.
You can reshoot the video or preview it, as described in “Reviewing your videos” on page 246.
- 6 Touch **OK**.
You return to the YouTube Upload details screen.
- 7 Enter a title, description, and tags for your video.
- 8 If you want to share the video with everyone, check **Public**.
- 9 Touch **Upload**.

Music

You use Music to organize and listen to music and other audio files that you transfer to your microSD card from your computer.

In this section

“Transferring music files to your phone” on page 272

“Opening Music and working with your library” on page 273

“Playing music” on page 275

“Working with playlists” on page 278

Transferring music files to your phone

Music plays audio files that are stored on your phone's microSD card, so before you open Music, you must copy audio files from your computer onto the microSD card.

Music supports a wide variety of audio file formats, so it can play music that you purchase from online stores, music that you copy from your CD collection, and so on.

Music supports audio files in numerous formats, including MP3, M4A (iTunes application AAC, DRM-free), AMR, MIDI, and OGG Vorbis.

To copy music files onto the phone's microSD card

- 1** Connect the phone to your computer with a USB cable and mount the microSD card.
See "Connecting to a computer via USB" on page 74.
- 2** To organize your audio files, you can use the computer to create a music folder at the top level of the microSD card.
- 3** Use the computer to copy music and other audio files into the folder that you created on the microSD card.

You can use subfolders on the microSD card to organize your music files. Or you can simply copy the audio files to the top level of the microSD card.

If the music files have accompanying artwork in JPEG format, rename the art file albumart.jpg and include it in the same folder as the music files.
- 4** If you have created any playlists, create a subfolder for them in your music folder on the microSD card and copy the playlists into it.
- 5** Unmount the microSD card from the computer and disconnect the phone.

Warning! To prevent damage to the files on your microSD card, follow your computer's instructions and the instructions in "Connecting to a computer via USB" on page 74.

Opening Music and working with your library

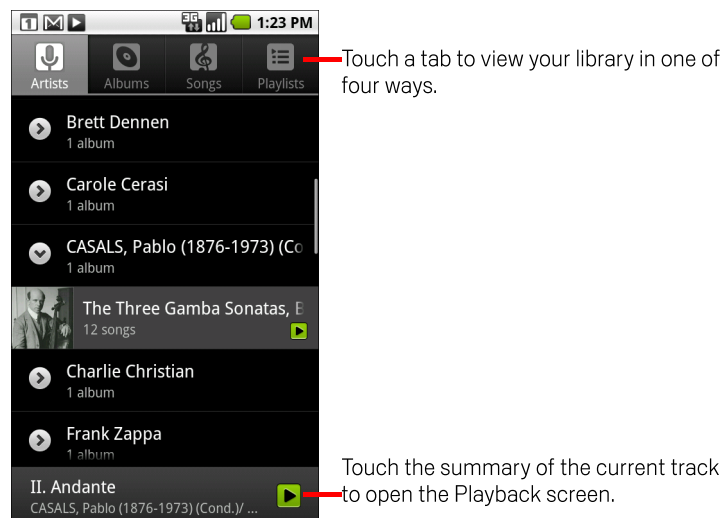
After you've copied some music onto your microSD card, as described in "Transferring music files to your phone" on page 272, you can open Music and see your library of music files, sorted in one of four ways.

To open Music and view your music library

- ▶ Touch the Music icon  on the Home screen or in the Launcher.
See "Opening and switching applications" on page 46 to learn more about opening and switching applications.

When you copy music files to your microSD card, Music searches the card for music files and builds a catalog of your music, based on information about each file that is stored in the file itself. This can take from a few seconds to several minutes, depending on how many files you have copied onto the microSD card.

When the catalog is complete, the Music library screen opens, with tabs that you can touch to view your music library organized by Artists, Albums, Songs, or Playlists.



You can return to the main Library screen from most other screens in the Music application by pressing **Menu**  and touching **Library**.

To search for music in your library

- 1 Open the main Library screen and press the **Search** button .
- 2 Start typing the name of the artist, album, or track you're looking for.
Matching songs are displayed in the list below the search box.
- 3 Touch a matching song to play it. Or touch a matching album or artist to view a list of associated songs.

To delete a song from the microSD card

You can delete music from the storage card.

- ▶ Touch & hold a song in a library list. In the menu that opens, touch **Delete**.

OR

- ▶ On the Playback screen, press **Menu**  and touch **Delete**.

When your phone is connected to a computer, you can also delete music files from the microSD card, as described in "Transferring music files to your phone" on page 272.

Playing music

You can listen to music by using the phone's built-in speaker, through a wired headset, or through a wireless Bluetooth stereo headset that supports the A2DP profile. See "Your phone and accessories" on page 15 and "Connecting to Bluetooth devices" on page 71.

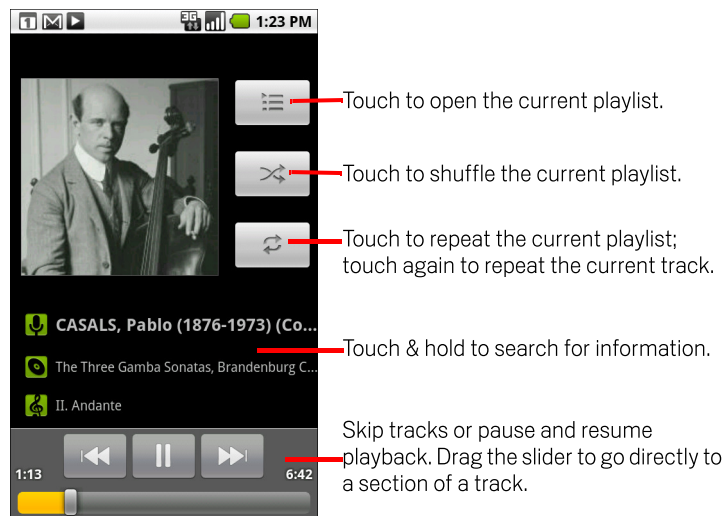
To play music

- ▶ Touch a song in your library to listen to it.

OR

- ▶ While viewing a list of tracks in an album, press **Menu**  and touch **Play all**.

The Playback screen opens and the song you touched or the first song in the album or other playlist starts to play. The tracks in the current playlist play in order until you reach the end of the playlist (unless you choose a repeat option). Otherwise, playback stops only if you stop it, even when you switch applications or receive a phone call.



You can return to the Playback screen from most other screens in the Music application by pressing **Menu**  and touching **Playback**.

You can return to the Playback screen from any other application by opening the Notifications panel and touching the ongoing music notification. See "Managing notifications" on page 52.

To control playback

The Playback screen contains several icons that you can touch to control the playback of songs, albums, and playlists:

	Touch to pause playback.
	Touch to resume playback.
	Touch to skip to the next track in the album, playlist, or shuffle.
	Touch to skip to the previous track in the album, playlist, or shuffle.
	Touch to open the current playlist.
	Touch to play the current playlist in shuffle mode (tracks are played in random order).
	Touch to toggle repeat mode: Don't repeat, Repeat the playlist, or Repeat the current track.

To control playback volume

In addition to the techniques for setting media volume described in “Sound & display settings” on page 314, you can control the volume of music in the Music application.

- ▶ Press the phone's **Volume Up/Down** button.

A panel opens to show the current media volume; the indicator moves as you adjust the volume.

Some headsets include their own volume controls or ways to pause and resume playback or to switch tracks.

To play your tracks in a party shuffle

When you turn on Party Shuffle, Music plays tracks from your microSD card in random order, until you turn Party Shuffle off.

- ▶ In the Playback or a Library screen, press **Menu**  and touch **Party shuffle**.

Music creates a current playlist of a dozen tracks selected randomly from your microSD card and starts playing them. When it finishes playing the first dozen tracks, it adds another dozen and keeps playing.

- ▶ View the current playlist that Party Shuffle is playing by touching the Playlist icon  on the Playback screen.

For more information, see “Working with playlists” on page 278.

- ▶ Add a track to the end of the Party Shuffle playlist by touching & holding the name of a track in your library. In the menu that opens, touch **Add to playlist** and then **Current playlist**.

The track is added to the end of the Party Shuffle playlist.

- ▶ Stop Party Shuffle by pressing **Menu**  and touching **Party shuffle off**.

To use a song as a ringtone

You can use a song as your phone ringtone, in place of one of the ringtones that come with the phone.

- ▶ Touch & hold a song in a library list. In the menu that opens, touch **Use as phone ringtone**.

OR

- ▶ On the Playback screen, press **Menu**  and touch **Use as ringtone**.

For details about using the Settings application to view and set the phone's ringtone, see “Sound & display settings” on page 314.

Working with playlists

You can create playlists to organize your music files into sets of songs, which you can play in the order you set or in a shuffle.

To create a playlist

- 1 When viewing a list of songs in the library, touch & hold the first song you want to add to the new playlist.
- 2 Touch **Add to playlist**.
- 3 Touch **New**.
- 4 Enter a name and touch **Save**.

The new playlist is added to the Playlist library.

You can also add the song that is playing in the Playback screen as the first song in a playlist by pressing **Menu**  and touching **Add to playlist**. Or touch **Save as playlist** to save all the songs in an album that you're playing as a playlist.

To add a song to a playlist

- 1 While viewing a list of tracks in the Library, touch & hold a song to add it to a playlist.
- 2 Touch **Add to playlist**.
- 3 Touch the name of the playlist to add the song to.

The song is added to the playlist.

You can also add the song that is playing in the Playback screen to a playlist by pressing **Menu**  and touching **Add to playlist**.

To rearrange songs in a playlist

- 1 Open a playlist by touching it in the Playlist library.
You can also open the currently playing playlist by touching the Playlist icon in the Playback window.
- 2 Drag a song up or down to change its order in the playlist.

To remove a song from a playlist

- 1 Open a playlist.
- 2 Touch & hold a song and then touch **Remove from playlist**. Or press **Menu**  and touch **Clear playlist** to remove all the songs from the playlist.

The song isn't deleted from the microSD card or other playlists; it's removed only from the playlist you're working with.

To rename or delete a playlist

- 1 Open the Playlist library.
- 2 Touch & hold a playlist. In the menu that opens, touch **Rename** or **Delete**.

You can't delete or rename the Recently Added playlist.

No songs are harmed by deleting a playlist.

To create playlists on your computer

You can create playlists on your computer to use in Music. Music can work with playlists in the M3U, WPL, and PLS file formats. You copy playlists onto your microSD card in the same way as you copy music, as described in "Transferring music files to your phone" on page 272. The best practice is to create a subfolder within your music folder for playlists.

If you don't have a dedicated application on your computer that can create playlists, you can create a playlist in a text editor, using the following guidelines:

- Enter each music file name to include in the playlist on its own line.
- Use music file names as displayed on your computer. Music ignores all but the track names when displaying the playlist.
- Save the file with the .m3u extension

News & Weather

You can check the weather and top news stories with News & Weather, a widget for your desktop that is backed by a full-featured application.

In this section

“Checking the news and weather” on page 282

“Changing News & Weather settings” on page 285

Checking the news and weather

News & Weather offers weather forecasts and news stories about common topics. You can also customize the news topics that are displayed.

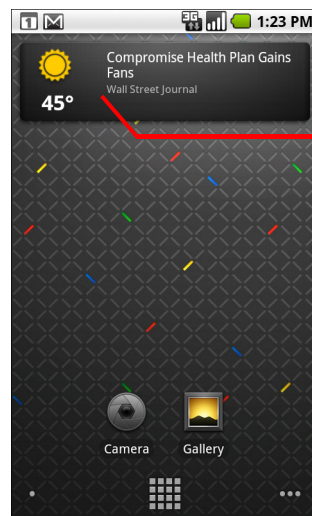
This information is summarized in the News & Weather widget on your Home screen and is presented in greater detail in the News & Weather application.

To open News & Weather

- ▶ Touch the news or weather section of the News & Weather widget on your Home screen, or touch its icon  in the Launcher.

By default, News & Weather is displayed on the second from the left Home screen extension. For information about working with widgets, see “Customizing the Home screen” on page 58. You can add multiple News & Weather widgets to your home screen, each configured to show just news, just weather, or both.

See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

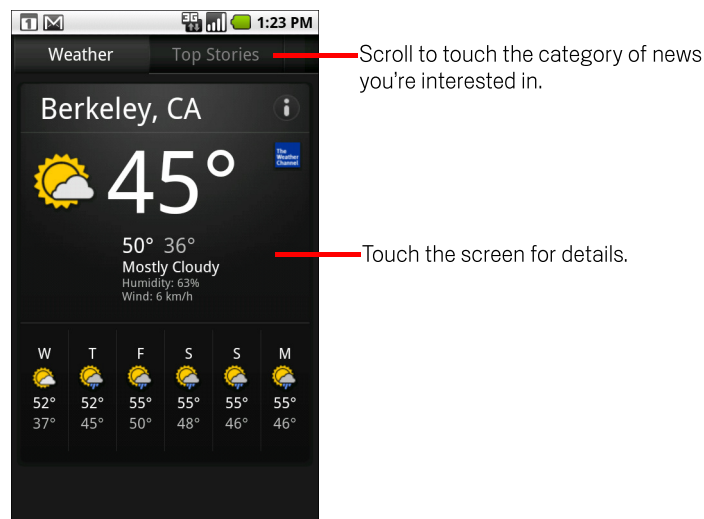


Touch the weather section of the News & Weather widget to open the News & Weather application with a summary of the weather. Touch the news section of the widget to open a list of the top stories in the news.

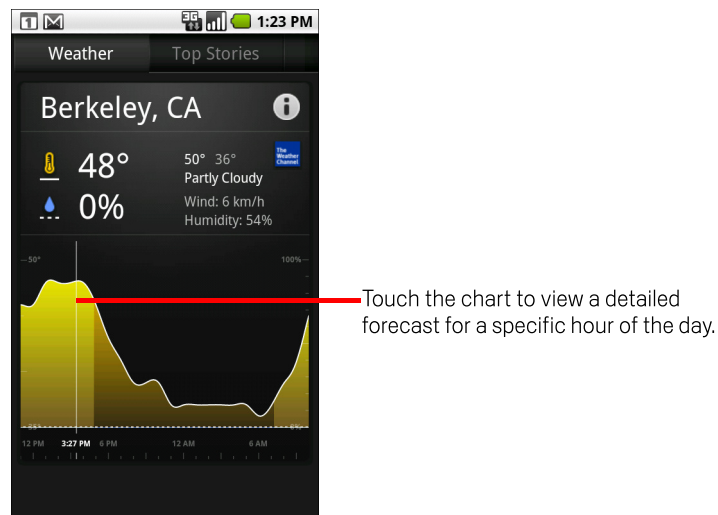
To get details about the news and weather

When you open News & Weather, you view a summary of the weather or headlines.

- ▶ Touch a tab in the scrolling list of tabs at the top of the screen to view the weather or top stories by category. Or just swipe left or right across the screen to switch news categories.

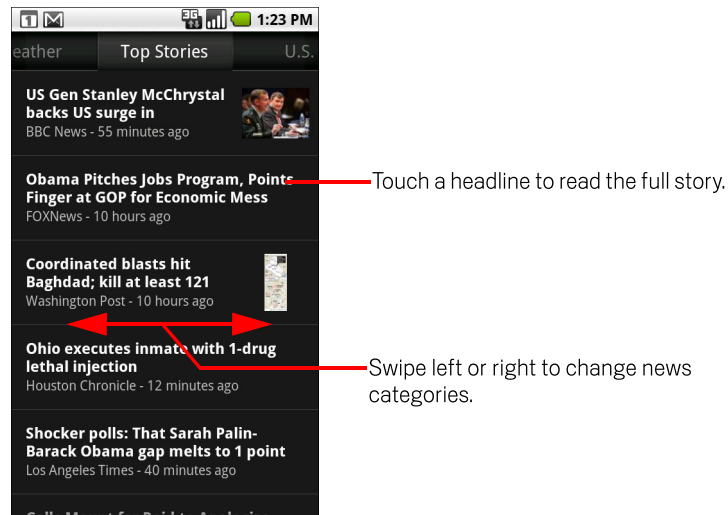


- ▶ Touch the weather summary for a more detailed forecast.



Touch a time on the weather graph for a detailed, hour-by-hour forecast.

- ▶ Touch a headline to read the full story.



- ▶ While reading a story, press **Menu** ☰ and touch **Share story** to share a link to the story with a friend via Gmail or another application.
- ▶ While viewing the weather or news headlines, press **Menu** ☰ and touch **Refresh** to get the latest information.

Changing News & Weather settings

You can configure a number of settings for News & Weather.

The location and related settings also affect the display of the News & Weather widget and the Clock application.

- ▶ To open the News & Weather settings screen, press Press **Menu**  and touch **Settings**.

News & Weather settings

Weather settings See “Weather settings” on page 285.

News settings See “News settings” on page 285.

Refresh settings See “Refresh settings” on page 286.

Application version Displays the version of the News & Weather application installed on your phone.

Weather settings

Use my location Check to use the phone's location service to determine your location when displaying weather information. Uncheck to set the location manually, using **Set location**.

Set location When **Use my location** is unchecked, touch to specify the location for weather information by entering a city or postal code.

Use Celsius Check to use the Celsius temperature scale instead of Fahrenheit.

News settings

Select news topics Opens a screen where you can select the categories of news to include in the scrolling list of News & Weather tabs. You can also touch **Custom topic** to enter specific topics—for example, “solar power” or “Olympics”.

Prefetch articles Check to download news articles so that they open more quickly and are available when you don't have a data connection. Prefetching articles improves performance at the expense of more data use and decreased battery life between charges.

Prefetch images Check to prefetch news images in addition to news text, when the headlines are downloaded. Prefetching images improves performance at the expense of more data use and decreased battery life between charges. This setting is only available when **Prefetch articles** is checked.

Display images Uncheck to omit images from news stories. This setting reduces data use at the expense of the layout of some stories.

News terms of service Opens a screen with details about the terms of service for Google News.

Refresh settings

These settings control how frequently the information on the News & Weather widget is updated. In addition to using these settings, adding or removing the News & Weather widget from the Home screen also turns **Auto-refresh** on or off. For more about working with widgets, see “Customizing the Home screen” on page 58.

Auto-refresh Check to have News & Weather update information automatically, at the frequency you set with **Refresh interval**. Uncheck to update the news and weather only when you press **Menu**  and touch **Refresh**. For automatic refresh to work, you must also have Background Data turned on in the Settings application. See “Accounts & sync settings” on page 320.

Refresh interval Opens a dialog where you can set how often to update the news and weather automatically, if **Auto-refresh** is checked. More frequent updates trade the convenience of current information for increased data use and decreased battery life between charges.

Refresh status Displays the date and time of the last refresh and the next scheduled refresh of news and weather.

Clock

In addition to displaying the date and time, the Clock application displays information about the weather and your phone. You can also use Clock to turn your phone into an alarm clock.

Clock is designed to work with the optional Nexus One desktop dock accessory (available from google.com/phone), though you don't need a dock to use Clock.

In this section

“Viewing the date, time, and other information” on page 288

“Setting alarms” on page 290

“Changing Clock alarm settings” on page 292

Viewing the date, time, and other information

You use Clock to monitor several kinds of information at once, in addition to the current date and time. For information about the optional Nexus One desktop dock accessory, go to <http://google.com/phone>.

To open the Clock application

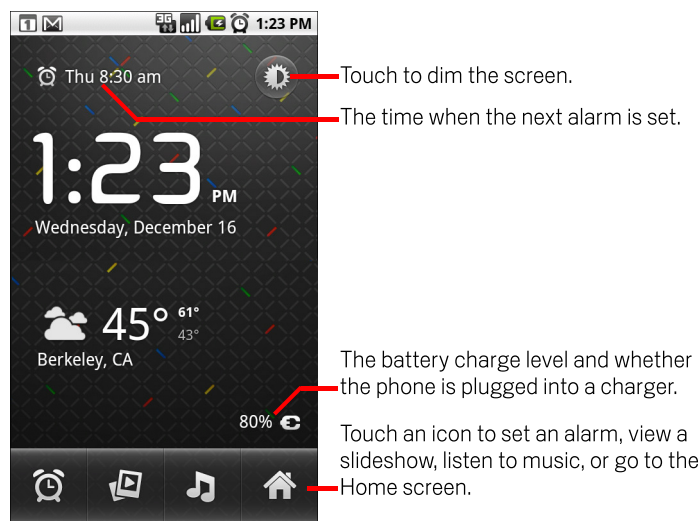
- ▶ Insert the phone into the Nexus One desktop dock.

OR

- ▶ Touch the Clock icon  on the Home screen or in the Launcher.

See "Opening and switching applications" on page 46 to learn more about opening and switching applications.

Clock opens with the date and time displayed on your Home screen wallpaper, along with your local weather and other useful information.



When Clock is running, it switches to screen-saver mode after a few minutes, moving the date and time display on the phone screen. Simply touch the screen or a phone button to wake the phone up again.

To return to the Home screen, touch the Home icon  at the bottom of the Clock screen.

To play a slideshow

You can play a slideshow of the pictures in your Gallery albums, in place of the date and time.

- ▶ Touch the Slideshow icon  at the bottom of the Clock screen.
- ▶ Press **Back**  to end the show.

To play music

You can play music while the Clock is displayed. If you have a desktop dock accessory, the music is transmitted out the dock's audio jack, so you can play music from the phone on a stereo, by using the stereo audio cable that is included with the dock.

- ▶ Touch the Music icon  at the bottom of the Clock screen.
The Music application opens, where you can select music to play. For more information, see "Music" on page 271. You can return to Clock or use another application while the music is playing.

To dim the Clock display

- ▶ If you want to use your phone as a bedside clock, you can set the screen brightness very low. Touch the Dimmer icon  to dim the clock.
- ▶ Touch the Dimmer  icon again to restore normal brightness.
If you can't see the Dimmer icon, press & hold the **Home** button  and touch the Clock icon to reopen Clock at normal brightness.

To change desktop dock audio settings

The first time you insert the phone into a desktop dock, a dialog asks whether you want music and other audio to play through the dock's audio line out port. Your setting applies only to the dock you are using—you can have different settings for different docks.

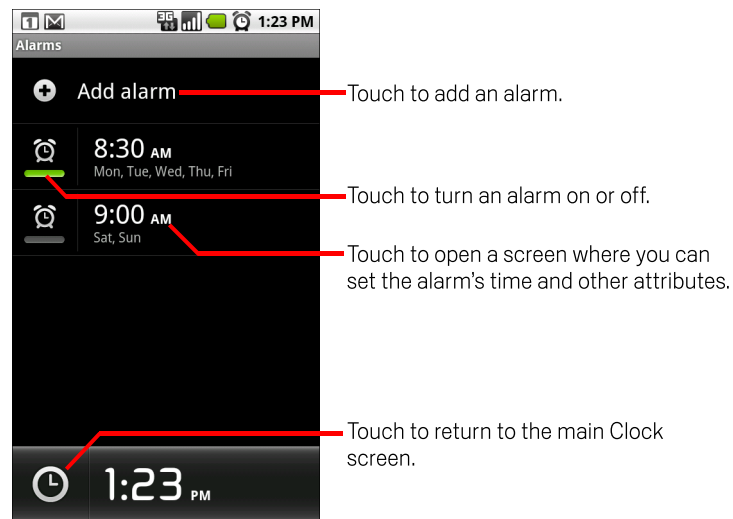
- ▶ Press **Menu**  and touch **Dock settings**.
The Dock settings open, as described in "Sound & display settings" on page 314.

Setting alarms

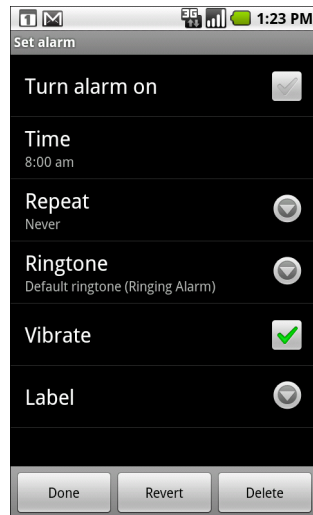
You can set an alarm by modifying an existing alarm or by adding a new one.

To set an alarm

- 1 Touch the Alarm icon  at the bottom of the Clock screen.



- 2 Touch the  icon next to an alarm to turn it on or off.
Alarms that are set are underlined in green.
- 3 Touch an existing alarm to change its time and other attributes. Or touch **Add alarm** to add a new one.
When viewing the main Clock screen, you can also press **Menu**  and touch **Add alarm** to add a new alarm.



- 4 Touch **Time** to set the time of the alarm.
In the dialog that opens, you change the time by touching the + or - buttons and the AM or PM buttons. Or touch a time to type the time you want.
- 5 Touch **Ringtone** to select a ringtone for the alarm.
You can select a ringtone that comes with the phone or one that you saved as a ringtone by using the Music application. See "To use a song as a ringtone" on page 277.
The ringtone plays briefly when you select it.
- 6 Touch **Vibrate** to have the phone vibrate, in addition to playing the ringtone.
- 7 Touch **Repeat** to set the days when you want the alarm to sound.
If you don't set a repeat, the alarm sounds only one time.
- 8 Touch **Label** to enter a name for the alarm.
- 9 When you're finished, touch **Done**.
At the time you set, the alarm sounds.
- 10 Press **Back**  to return to the main Clock screen.

Changing Clock alarm settings

You can change a number of settings for the alarms you set.

You can also change how times are displayed in Clock in the Settings applications. See “Date & time settings” on page 328.

- ▶ To change Clock alarm settings, touch the Alarm icon  at the bottom of the Clock screen. In the Alarms screen that opens, touch **Settings**.

Alarm in silent mode Check to play alarms even when the phone is in Silent mode.

Alarm volume Opens a dialog where you can set the volume of alarms.

Snooze duration Opens a dialog where you can set how long Clock waits before playing an alarm again.

Side button behavior Opens a dialog where you can set what happens if you press the **Volume Up / Down** button when an alarm sounds. You can set the button behavior to have no effect, to snooze the alarm, or to dismiss it.

Car Home

Car Home makes the applications that are most useful when you're driving accessible with the touch of a button.

Car Home is designed to work with the optional Nexus One car dock accessory (available from google.com/phone), though you don't have to own a dock to use it.

In this section

"Using Car Home" on page 294

Using Car Home

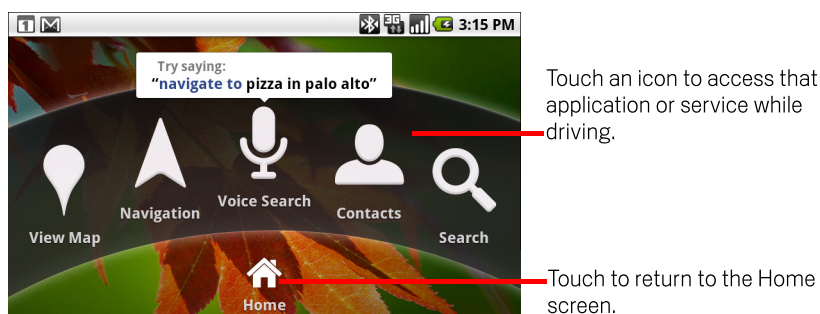
You can use Car Home whether or not you have a Nexus One car dock (the optional accessory available from <http://google.com/phone>).

- ▶ Insert the phone into the Nexus One car dock.

OR

- ▶ Touch the Car Home icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.

Car Home opens with five large buttons that you can touch to access Maps, Navigation, Voice Search, Contacts, and Search, as well as a Home button.



For information about Maps, including navigation, see “Maps” on page 221.

For information about searching and searching by voice, see “Android basics” on page 27.

For information on working with your Contacts, see “Contacts” on page 93.

When the phone is in the car dock, the Car Home notification icon is added to the status bar, so you can quickly return to Car Home from another application by opening the Notifications panel and touching the Car Home notification

To change car dock audio settings

The first time you insert the phone in a car dock, a dialog asks whether you want to use the dock as a speakerphone and whether you want to play music and other audio on the dock’s speaker. Your setting applies only to the dock you are using—you can have different settings for different docks.

- ▶ Press **Menu**  and touch **Dock settings**.

The Dock settings open, as described in “Sound & display settings” on page 314.

Calculator

Use Calculator to solve simple arithmetic problems or use its advanced operators to solve more complex equations.

In this section

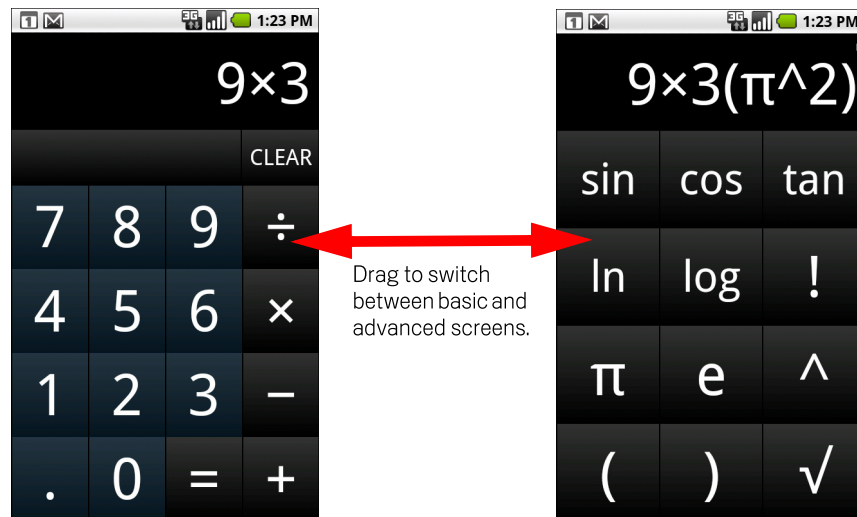
“Using the Calculator” on page 296

Using the Calculator

Use Calculator to solve math problems.

To open and use the Calculator

- ▶ Touch the Calculator icon  on the Home screen or in the Launcher.
See "Opening and switching applications" on page 46 to learn more about opening and switching applications.



- ▶ Enter numbers and arithmetic operators on the basic screen.
- ▶ Drag the basic screen to the left to open the advanced screen.
- ▶ Touch & hold the Calculator's display to open a menu where you can copy what you've entered and access other tools.
- ▶ Touch **Clear** to delete the last number or operator you entered. Touch & hold **Clear** to delete everything in the display.

To access your history of operations

- ▶ Roll the **Trackball** up or down to view your previous operations.
Previous operations are entered in the display, where you can work with them.
- ▶ Clear the history by pressing **Menu**  and touching **Clear history**.

Market

Android Market provides direct access to applications and games to download and install on your phone.

In this section

“Opening Android Market and finding applications” on page 298

“Downloading and installing applications” on page 301

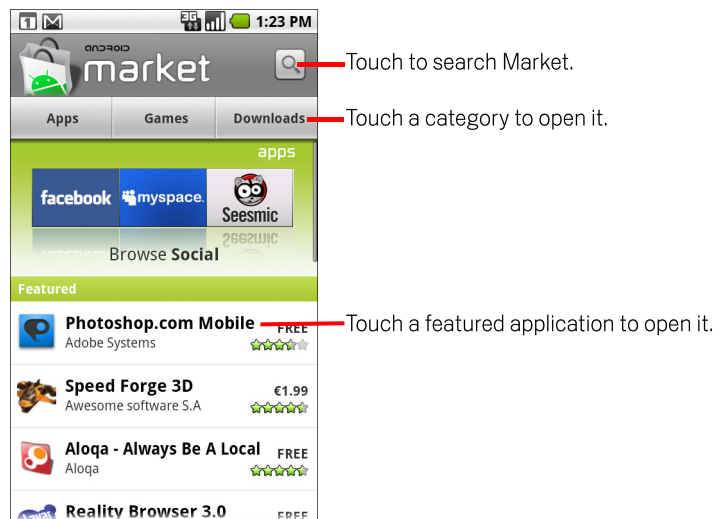
“Managing your downloads” on page 303

Opening Android Market and finding applications

Open Android Market to browse and search for free and paid applications.

To open Android Market

- ▶ Touch the Market icon  on the Home screen or in the Launcher.
See “Opening and switching applications” on page 46 to learn more about opening and switching applications.
When you open Android Market for the first time, you must read and accept the terms of service to continue.



To get help with Android Market

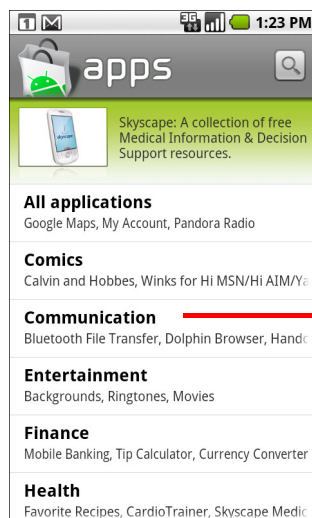
The Android Market Help webpages are available from all Android Market screens.

- ▶ Press **Menu**  and touch **Help**.
The Browser opens to the Android Market Help page, with links to many help topics. For information about using the Browser, see “Browser” on page 205.

To browse for applications

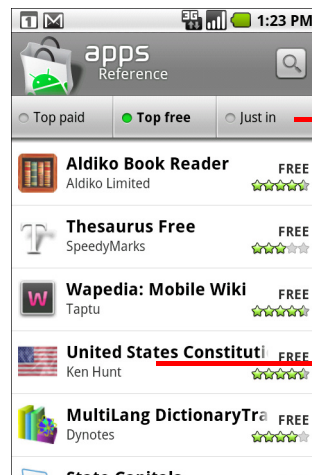
You can browse applications by category and sort them in different ways.

- 1 On the Android Market home page, touch a top-level category, such as **Apps** or **Games**.



Touch a subcategory to view its list of applications.

- 2 Scroll to view subcategories and touch the one you want to explore.



Touch a tab to view top paid, top free, or recent applications in this subcategory.

Touch an application to open its details screen.

- 3 Touch **Top paid**, **Top free**, or **Just in** to further sort the subcategory.

To open a screen with details about an application

- ▶ At any time while browsing Android Market, touch an application to open its details screen.

Application details screens include a description, ratings, comments, and related information about the application. You can download and install the application from this screen. See “Downloading and installing applications” on page 301. You can also rate, uninstall, and perform other actions on the application. See “Managing your downloads” on page 303.

To search for applications

- 1 Touch the Search icon  at the top right of the screen or press **Search** button .
- 2 Enter what you want to search for and press Search  again.
Enter all or part of an application's name or description, or the developer's name you want to search for.
- 3 Touch a search result to open that application's details screen.
The details screen describes the application and contains buttons for downloading the application and performing other tasks. See “Downloading and installing applications” on page 301 and “Managing your downloads” on page 303.

To return to the Android Market home screen

You can return to the Home screen from most other screens in Android Market.

- ▶ Touch the Market icon  at the top left of the screen.
- OR**
- ▶ Press **Menu**  and touch **Home**.

Downloading and installing applications

When you find an application you want, you can install it on your phone.

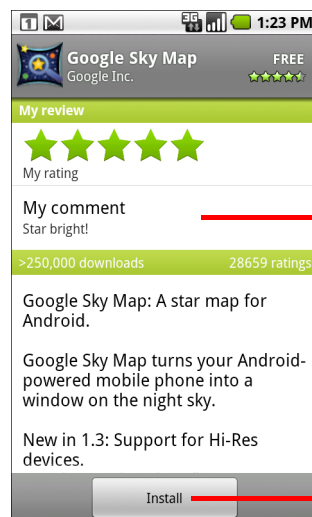
To download and install an application

Before you can download a paid application, you must set up a billing arrangement, as described in “To create a Google Checkout account” on page 302.

- 1 Find an application you want and open its details screen.

See “Opening Android Market and finding applications” on page 298.

In the application's details screen, you can read more about the application, including its cost, overall rating, and comments by users. Scroll down to the **About the developer** section to view more applications by this developer, visit the developer's web site, or send the developer an email message.



Scroll an application's details screen to learn more about the application, the developer, and what others think of it.

Touch to download and install the application. (If it's a paid application, the button is labeled **Buy**.)

- 2 Press **Menu** and touch **Security** to preview the functions and data the application can access on your phone if you install it.
If you're not comfortable with the access the application requires, don't continue.

- 3 Touch **Install** (for free applications) or **Buy** (for paid applications).

If the application requires access to your data or control of any functions on your phone, Market tells you what the application can access.

Warning! Read this screen carefully. Be especially cautious with applications that have access to many functions or to a significant amount of your data. Once you touch **OK** on this screen, you are responsible for the results of using this item on your phone.

- 4 If you agree to the application's access requirements, touch **OK**.

If you selected a paid application, you're redirected to the Google Checkout screen to pay for the application before it's downloaded to your phone.

If you selected a free application (or after touching **Buy now** in Google Checkout), you receive a series of notifications as the application is downloaded and then installed on your phone.

When the application is installed, you can touch the notification to open the application, or open it by touching its icon in the Launcher. See "Opening and switching applications" on page 46.

You have 24 hours to try out an application and, if you decide you don't want it, to uninstall it for a refund. See "To request a refund for an application" on page 304.

If you have another Android phone, you can download a paid application to that phone using the same Android Market account, at no additional charge.

To create a Google Checkout account

You must have a Google Checkout account associated with your Google Account to purchase items from Android Market. (Of course, this is not necessary for free items.)

- ▶ On your computer, go to <http://checkout.google.com> to establish a Google Checkout account.

OR

- ▶ The first time you use your phone to buy an item from Android Market, you're prompted to enter your billing information to set up a Google Checkout account.

Warning! When you've used Google Checkout once to purchase an application from Android Market, the phone remembers your password, so you don't need to enter it the next time. For this reason, you should secure your phone to prevent others from using it without your permission. See "Locking your screen" on page 57.

Managing your downloads

After you've downloaded and installed an application, you can rate it, view it in a list with your other downloaded applications, and so on.

To view your downloaded applications

You can view a list of the applications you've downloaded from Android Market, and use the list for a number of purposes.

- ▶ On the Android Market home screen, press **Menu**  and touch **Downloads**.
In the list of the free and paid applications that opens, you can touch one to rate it, uninstall it, request a refund, and so on.

To uninstall an application

- 1 On the Android Market home screen, press **Menu**  and touch **Downloads**.
- 2 Touch the application to uninstall.
The details screen for the application opens.
- 3 Touch **Uninstall**.
- 4 Touch **OK** in the confirmation dialog.
- 5 Touch the explanation that best matches why you're uninstalling and touch **OK**.
The application is uninstalled. You can install the application again at any time, without charge if it was a paid application.

To request a refund for an application

If you are not satisfied with an application, you can ask for a refund within 24 hours of the purchase. Your credit card is not charged and the application is uninstalled from your phone.

If you change your mind, you can install the application again, but you can't request a refund a second time.

- 1 On the Android Market home screen, press **Menu**  and touch **Downloads**.
- 2 Touch the application to uninstall for a refund.
The details screen for the application opens.
- 3 Touch **Uninstall & refund**.
Your application is uninstalled and the charge is cancelled.
- 4 Touch the explanation that best matches why you're uninstalling and touch **OK**.

To set whether you're notified about updated applications

- 1 On the Android Market home screen, press **Menu**  and touch **Downloads**.
- 2 Press **Menu**  and touch **Notifications**.
- 3 Select whether or not to be notified of updates to the applications you've downloaded.
- 4 Touch **OK**.

To rate an application

You can award an application from one to five stars and share what you think about the application with other shoppers.

- 1 Open the details screen for an application.
You can do this by browsing or searching for the application and then touching it; or if you've downloaded the application, by touching it in the list of your downloaded applications.
- 2 Touch the stars under **My review**.
- 3 Touch the number of stars to award the application and touch **OK**.
- 4 If you want to share a comment about the application, back on the details screen, touch **Post a comment**.

To flag inappropriate applications

If you discover an application with graphically violent, sexual, or otherwise hateful or offensive content, you can report it to the Android Market team.

- 1 Open the details screen for an application.

You can do this by browsing or searching for the application and then touching it; or if you've downloaded the application, by touching it in the list of your downloaded applications.

- 2 Scroll to the bottom of the details screen and touch **Flag as inappropriate**.

- 3 Touch the reason you find the application objectionable.

- 4 Touch **Submit**.

Your comments are sent to the Android Market team.

Settings

You use the Settings application to configure how your phone looks, sounds, communicates, and operates in many other ways.

Many applications also have their own settings; for details, see the sections about individual applications.

In this section

“Opening Settings” on page 308

“Wireless & networks” on page 309

“Call settings” on page 312

“Sound & display settings” on page 314

“Location & security settings” on page 316

“Applications settings” on page 318

“Accounts & sync settings” on page 320

“Privacy settings” on page 321

“SD card & phone storage settings” on page 322

“Search settings” on page 323

“Language & keyboard settings” on page 324

“Accessibility settings” on page 326

“Text-to-speech settings” on page 327

“Date & time settings” on page 328

“About phone” on page 329

Opening Settings

The Settings application contains most of the tools for customizing and configuring your phone.

To open Settings

- ▶ Press **Home** , press **Menu** , and touch **Settings**.

OR

- ▶ Touch the Settings icon  on the Home screen or in the Launcher.
See "Opening and switching applications" on page 46.

All of the settings in the Settings application are described in this section.

Wireless & networks

Use Wireless & Network settings to configure and manage connections to networks and devices by using Wi-Fi, Bluetooth, and mobile networks. You also use Wireless controls to configure connections between your phone and virtual private networks (VPNs) and to turn off all radios with Airplane mode.

Wireless controls screen

Wi-Fi Check to turn on Wi-Fi so you can connect to Wi-Fi networks.

Wi-Fi settings See “Wi-Fi settings screen” on page 309.

Bluetooth Check to turn on Bluetooth so you can connect to Bluetooth devices.

Bluetooth settings See “Bluetooth settings screen” on page 310.

VPN settings See “VPN settings screen” on page 310.

Mobile networks See “Mobile networks settings screen” on page 311.

Airplane mode Check to turn off all wireless radios.

Wi-Fi settings screen

In addition to the settings described in this section, you can press **Menu**  on this screen and touch Advanced to configure the settings described in “Advanced Wi-Fi settings screen” on page 310.

Wi-Fi Check to turn on Wi-Fi so you can connect to Wi-Fi networks.

Network notification Check to receive an alert when an open Wi-Fi network becomes available.

Wi-Fi networks Displays a list of Wi-Fi networks you've previously configured and those detected when the phone last scanned for Wi-Fi networks. See “Connecting to Wi-Fi networks” on page 68.

Add Wi-Fi network Opens a dialog where you can add a Wi-Fi network by entering its SSID (the name it broadcasts) and security type. See “Connecting to Wi-Fi networks” on page 68.

Advanced Wi-Fi settings screen

Wi-Fi sleep policy Opens a dialog where you can set whether and when the Wi-Fi radio disconnects. Disabling sleep uses more battery power.

MAC address The Media Access Control (MAC) address of your phone when connecting to Wi-Fi networks.

IP settings If you check **Use static IP**, you can use **IP settings** to enter an IP address and other network settings for your phone manually, rather than using the DHCP protocol to obtain network settings from the Wi-Fi network itself.

Bluetooth settings screen

For details about working with these settings, see “Connecting to Bluetooth devices” on page 71.

Bluetooth Check to turn on Bluetooth so you can connect to Bluetooth devices.

Device name Opens a dialog where you can give your phone a name that is visible on some Bluetooth devices when you pair them. The current name is displayed.

Discoverable Check to make your phone discoverable by other Bluetooth devices for 120 seconds.

Scan for devices Touch to search for and display information about nearby Bluetooth devices.

Bluetooth devices Displays a list of Bluetooth devices that you've previously configured and those detected when the phone last scanned for Bluetooth devices.

VPN settings screen

For details about these settings, see “Connecting to virtual private networks” on page 76.

Add VPN Opens a screen that prompts you to select the type of VPN to add. You are then prompted for VPN configuration details.

VPNs The list of VPNs that you've previously configured.

Mobile networks settings screen

Data roaming Uncheck to prevent your phone from transmitting data on other carriers' mobile networks when you leave an area where your phone can access your own carrier's mobile networks. See "To disable data when roaming" on page 67.

Use only 2G networks

Check to obtain slightly better battery life by preventing your phone from connecting to higher-speed networks. See "To limit your data connection to 2G networks" on page 67.

Network operators Opens a screen that searches for and displays mobile networks that are compatible with your phone. Consult your carrier to understand the billing implications of selecting another carrier.

Access Point Names Opens the APNs screen, where you can select mobile access point configurations; or press **Menu**  to add a new APN. Consult your carrier about how to use the tools on this screen.

Call settings

Use Call settings to configure phone call settings, such as call forwarding, call waiting, and other special features offered by your carrier. You can also use Call settings to configure the phone so that it can place outgoing calls only to a fixed set of phone numbers.

Call settings screen

Fixed Dialing Numbers See “Fixed Dialing Numbers screen” on page 313.

Voicemail service Opens a dialog where you can select your carrier’s voicemail service or another service, such as Google Voice. See “Configuring Google Voice” on page 161.

Voicemail Settings If you are using your carrier’s voicemail service, opens a dialog where you can enter the phone number to use for listening to and managing your voicemail. You can enter a comma (,) to insert a pause into the number—for example, to add a password after the phone number. If you are using Google Voice, opens a screen where you can view the Google Voice number or sign out of Google Voice. See “Google Voice” on page 153.

Voicemail settings Opens a screen where you can configure your selected voicemail service.

Additional settings

Call forwarding Opens a screen where you can configure how your calls are forwarded when you’re on the phone, when you don’t answer, and so on.

Caller ID Opens a dialog where you can set whether your phone number is displayed to the people you call.

Call waiting Check to see and respond to new calls when you’re already on a call, as described in “Placing and receiving calls” on page 79.

Fixed Dialing Numbers screen

Use the settings on this screen to configure your phone so it can place outgoing calls only to the fixed dialing numbers (FDN) that you save on the phone's SIM card.

Enable FDN Opens a dialog that prompts you to enter your PIN2 and then places the phone in FDN mode. When FDN is enabled, this setting changes to **Disable FDN**.

Change PIN2 Opens a series of dialogs that prompt you to enter your current PIN2 and then enter and confirm a new PIN2.

FDN list Opens a screen that lists any FDNs saved on your SIM card. Press **Menu**  and touch **Add contact** to add an FDN number to your SIM. Press **Menu**  on that screen to import a number from your Contacts to the FDN list, or to delete a number from the FDN list.

Sound & display settings

Use the Sound & Display settings to configure many aspects of call and notification ringtones, music, and other audio, as well as the brightness and other screen settings.

Sound & display settings screen

Silent mode Check to silence all sounds (including call and notification ringtones) except the audio from music, videos, and other media and any alarms you have set. (You must silence media and alarms in their own applications.)

Ringer volume Opens a dialog where you can drag a slider to set the volume of ringtones that sound when you receive a phone call or notification. If you uncheck the option to use the same volume for both calls and notifications, a slider appears that you can drag to set the notification ringtone volume separately.

Media volume Opens a dialog where you can drag a slider to set the volume for music, video soundtracks, and other media.

Dock audio Available when the phone is inserted in a Nexus One car dock or desktop dock. For a car dock, opens a dialog where you can set whether music and other media audio play through the dock speaker and whether to use the dock as a speakerphone. For a desktop dock, opens a dialog where you can set whether music and other audio play via the audio line out port. Your settings apply only to the dock you are using; you can have different settings for different docks.

Phone ringtone Opens a dialog where you can select the ringtone to sound when you receive a phone call. Touch a ringtone to listen to it. See “To use a song as a ringtone” on page 277 to learn how to add your own music to this list.

Phone vibrate Check to have the phone vibrate when you receive an incoming call, independent of your ringtone or volume settings.

Notification ringtone Opens a dialog where you can select the ringtone to sound when you receive a notification. Touch a ringtone to listen to it.

Pulse notification light Check to pulse the trackball light every few seconds when you have new notifications. Uncheck to pulse the trackball light just once for each new notification when it arrives.

Audible touch tones Check to hear tones when you use Phone to dial a number.

Audible selection Check to play a sound when you touch buttons, icons, and other onscreen items that react to your touch.

Haptic feedback Check to have the phone vibrate briefly when you touch soft buttons and perform other actions.

SD card notifications Check to play a sound when you receive microSD card notifications.

Emergency tone Opens a dialog where you can configure how the phone reacts when you place an emergency call.

Orientation Check to automatically switch the screen to landscape mode or portrait mode when you turn the phone sideways or upright.

Animation Check to enjoy animated transitions when navigating from screen to screen.

Brightness Check to open a dialog that contains a slider for adjusting the screen brightness. For the best battery performance, use the dimmest comfortable brightness.

Screen timeout Opens a dialog where you can set how long to wait after you touch the screen or press a button before the screen darkens. For the best battery performance, use the shortest convenient timeout. Don't use the **Never timeout** setting—it can drain your battery quickly and may leave a permanent image on your screen.

Location & security settings

Use the Location & Security settings to set your preferences for using and sharing your location when your search for information and use location-aware applications, such as Maps. You can also configure settings that help secure your phone and its data.

Use wireless networks Check to use information from Wi-Fi and mobile networks to determine your approximate location, for use in Maps, when you search, and so on. When you check this option, you're asked whether you consent to sharing your location anonymously with Google's location service.

Use GPS satellites Check to use your phone's global positioning system (GPS) satellite receiver to pinpoint your location to within an accuracy as close as several meters ("street level"). Actual GPS accuracy depends on a clear view of the sky and other factors.

Set unlock pattern Opens a set of screens that guide you through drawing a screen unlock pattern, as described in "Locking your screen" on page 57.

Require pattern Uncheck to stop requiring an unlock pattern to unlock your screen. You must draw your current pattern when you uncheck this option.

Use visible pattern Check to draw lines between points in the unlock pattern you draw.

Use tactile feedback Check to have the phone vibrate briefly as you touch each dot when you draw an unlock pattern.

Set up SIM card lock Opens a screen where you can configure the phone to require entering the SIM PIN to use the phone, and where you can change the SIM PIN.

Visible passwords Check to briefly show each character of passwords as you enter them, so that you can see what you enter.

Use secure credentials Check to allow applications to access your phone's encrypted store of secure certificates and related passwords and other credentials. You use credential storage to establish some kinds of VPN and Wi-Fi connections, as described in "Connecting to networks and devices" on page 65. If you have not set a password for the credential storage, this setting is dimmed.

Install from SD card Touch to install a secure certificate from a microSD card, as described in "Working with secure certificates" on page 78.

Set password Opens a dialog where you can set or change the password for your secure credential storage. Your password must have at least 8 characters. See "Working with secure certificates" on page 78.

Clear storage Deletes all secure certificates and related credentials and erases the secure storage's own password, after prompting you to confirm that you want to do this.

Applications settings

You use the Applications settings to view details about the applications installed on your phone, to manage their data and force them to stop, and to set whether you want to permit installation of applications that you obtain from web sites and email.

Applications settings screen

Unknown sources Check to permit installation of applications that you obtain from web sites, email, or other locations other than Android Market.

Warning! To protect your phone and personal data, download applications only from trusted sources, such as Android Market.

Manage applications Opens a list of all the applications and other software installed on your phone, along with their sizes. By default, only downloaded applications are shown, and they are sorted in alphabetical order. Press **Menu**  and touch **Filter** to change the list to show all applications, only running applications, or only downloaded applications. Press **Menu**  and touch **Sort by size** to display applications in order by size. Touch an application to open its Application Info screen. See “Application Info screen” on page 318.

Running services Opens a list of services—applications or parts of applications that provide services to other applications or that run even when their main application isn’t running. Examples include the Android onscreen keyboard and the small portion of Google Talk that always listens for incoming messages. Above each service, one or more gray bars show what processes the running service needs and how much memory it’s using (how much memory you would recover if you stopped the service). Depending on the service, when you touch it in the list it either opens a dialog in which you can stop it or opens its Settings screen.

Development See “Development screen” on page 319.

Application Info screen

The Application Info screen for each application lists its name and version, along with details about the application. Depending on the application and where it came from, it may also include buttons for managing the application’s data, forcing the application to stop, and uninstalling the application. It also lists details about the kinds of information about your phone and data that the application has access to.

Storage Gives details about the amount of phone storage that an application uses. If you installed the application from Android Market or another source, includes an **Uninstall** button that you can use to remove the application and all of its data and

settings from the phone. See “Market” on page 297 for more information about uninstalling and reinstalling applications.

Cache If the application stores data in a temporary area of the phone's memory, lists how much information is stored, and includes a button for clearing it.

Launch by default If you have configured an application to launch certain file types by default, you can clear that setting here.

Controls Use the **Force stop** button to stop an application that is misbehaving. The application is stopped without confirmation.

Permissions Lists the kinds of information about your phone and data the application has access to.

Development screen

The Development screen contains settings that are useful for developing Android applications. For full information, including documentation of the Android APIs and development tools, see the Android developer web site (<http://developer.android.com>).

USB debugging Check to permit debugging tools on a computer to communicate with your phone via a USB connection.

Stay awake Check to prevent the screen from dimming and locking when the phone is connected to a charger or to a USB device that provides power. Don't use this setting with a static image on the phone for long periods of time, or the screen may be marked with that image.

Allow mock locations Check to permit a development tool on a computer to control where the phone believes it is located, rather than using the phone's own internal tools for this purpose.

Accounts & sync settings

Use the Accounts & Sync settings to add, remove, and manage your Google and other supported accounts. You also use these settings to control how and whether all applications send, receive, and sync data on their own schedules, and whether all applications can synchronize user data automatically.

Gmail, Calendar, and other applications may also have their own settings to control how they synchronize data; see the sections on those applications for details.

Accounts & sync settings screen

Background data Check to permit applications to synchronize data in the background, whether or not you are actively working in them. Unchecking this setting can save battery power and lowers (but does not eliminate) data use.

Auto-sync Check to permit applications to synchronize data on their own schedule. If you uncheck this setting, you must touch an account in the list on this screen, press **Menu** , and touch **Sync now** to synchronize data for that account. Synchronizing data automatically is disabled if **Background data** is unchecked. In that case, the **Auto-sync** checkbox is dimmed.

Manage accounts The rest of this screen lists the Google Accounts and other accounts you've added to the phone. Adding accounts is described in "Accounts" on page 111.

If you touch an account in this screen, its account screen opens.

Account screen

This screen contains different options, depending on the kind of account.

For Google Accounts, it lists the kinds of data you can synchronize to the phone, with checkboxes so you can turn synchronizing on and off for each kind. You can also press **Menu**  and touch **Sync now** to synchronize data. Touch the **Remove Account** button to remove the account along with all its data (contacts, mail, settings, and so on). You can't remove the first Google Account you added to your phone except by resetting your phone to the factory defaults and erasing all of your user data. See "Privacy settings" on page 321.

Privacy settings

You use the Privacy settings to manage your personal information.

Use My Location Check to include your position when using Google search and other Google services. When you check this option, you're asked whether you consent to allowing Google to use your location when providing these services.

Back up my settings Check to back up your phone's settings to Google servers, with your Google Account. If you replace your phone, the settings you've backed up are restored onto the new phone the first time you sign in with your Google Account. If you check this option, a wide variety of settings are backed up, including your Wi-Fi passwords, bookmarks, a list of the applications you've installed, the words you've added to the dictionary used by the onscreen keyboard, and most of the settings that you configure with the Settings application. If you uncheck this option, you stop backing up your settings, and any existing backups are deleted from Google servers.

Factory data reset Erases all of your personal data from internal phone storage, including information about your Google Account, any other accounts, your system and application settings, and any downloaded applications. Resetting the phone does not erase any system software updates you've downloaded or any files on your microSD card, such as music or photos. If you reset the phone in this way, you're prompted to reenter the same kind of information as when you first started Android. See "Starting Android for the first time" on page 28)

SD card & phone storage settings

Use the SD Card & Phone Storage settings to monitor the used and available space on your phone and on your microSD card; to manage your microSD card; and if necessary, to reset the phone, erasing all of your personal information.

SD Card & Phone Storage screen

SD card, Total space and Available space Lists the amount of space on any microSD card installed in your phone and the amount you have used to store photos, videos, music, and other files. For more information, see “Connecting to a computer via USB” on page 74 and “Your phone and accessories” on page 15, as well as the sections for the applications that store media and other files on the microSD card.

Unmount SD card Unmounts the microSD card from your phone so that you can format the card or safely remove it when the phone is on. This setting is dimmed if there is no microSD card installed, if you have already unmounted it, or if you have mounted the microSD card on your computer. See “Connecting to a computer via USB” on page 74.

Format SD card Permanently erases everything on a microSD card and prepares it for use with your phone. You must unmount a microSD card before you can format it.

Internal phone storage, Available space The amount of internal phone storage used by the operating system, its components, applications (including those you downloaded), and their permanent and temporary data.

Search settings

You use the Search settings to configure Google search, Quick Search Box, and the data on the phone that you want to include in searches. See “Searching your phone and the web” on page 54.

Search settings screen

Google search settings Opens a screen where you can set your preferences for whether Google search on the web makes suggestions that appear below Quick Search Box and whether the suggestions take into account your previous searches. You can also open the Google web search history settings page in Browser.

Searchable items Opens a screen where you can check and uncheck the kinds of data to include in phone searches.

Clear search shortcuts Erases the list of search results that you touched below Quick Search Box.

Language & keyboard settings

Use the Language & Keyboard settings to select the language for the text on your phone and for configuring the onscreen keyboard, including words that you've added to its dictionary.

Language & Keyboard screen

Select locale Opens the Locale screen, where you can select the language to use for the text on your phone.

Android keyboard For phones with physical keyboards, uncheck to disable the onscreen keyboard. See "Android Keyboard settings screen" on page 324.

Device keyboard See "Device Keyboard settings screen" on page 325. This setting is available only if your phone has a physical keyboard.

User dictionary Opens a list of the words you've added to the dictionary, as described in "Using the onscreen keyboard" on page 39. Touch a word to edit or delete it. Press **Menu**  and touch **Add** to add a word.

Android Keyboard settings screen

The Android Keyboard settings apply to the onscreen keyboard that is included with your phone. The correction and capitalization features affect only the English version of the keyboard.

Vibrate on keypress Check to have the phone vibrate briefly each time you touch a key on the onscreen keyboard.

Sound on keypress Check to play a brief sound each time you touch a key on the onscreen keyboard.

Auto-capitalization Check to have the onscreen keyboard automatically capitalize the first letter of the first word after a period, the first word in a text field, and each word in name fields.

Quick fixes Check to automatically correct some common misspellings as you type.

Show suggestions Check to show suggested words in a strip above the onscreen keyboard as you type. See “Using the onscreen keyboard” on page 39.

Auto-complete Check to automatically enter a suggested word, highlighted in orange in the strip above the keyboard, when you enter a space or punctuation. See “Using the onscreen keyboard” on page 39.

Device Keyboard settings screen

This settings screen is available only if your phone has a physical keyboard.

Auto-replace Check to correct misspelled words as you type.

Auto-cap Check to capitalize the first letter of the first word in sentences.

Auto-punctuate Check to insert a period (.) when you press the Space key twice in a row.

Accessibility settings

You use the Accessibility settings to configure any accessibility plug-ins you have installed on your phone.

Accessibility Check to enable all installed accessibility plug-ins.

KickBack Check to have the phone vibrate briefly as feedback as you navigate the user interface, press buttons, and so on.

TalkBack Check to have an installed speech synthesizer speak the labels or names of items as you navigate the phone's user interface.

SoundBack Check to play a sound as you navigate the phone's user interface.

Text-to-speech settings

You use the Text-to-Speech settings to configure the Android text-to-speech synthesizer, for applications that can take advantage of it, such as TalkBack, described in “Accessibility settings” on page 326.

Text-to-Speech settings screen

If you don't have speech synthesizer data installed, only the **Install voice data** setting is available.

Listen to an example Plays a brief sample of the speech synthesizer, using your current settings.

Install voice data If your phone does not have speech synthesizer data installed, connects to Android Market and guides you through the process of downloading and installing the data. This setting is not available if the data is already installed.

Always use my settings Check to use the settings on this screen in place of speech synthesizer settings available in other applications.

Speech rate Opens a dialog where you can select how quickly you want the synthesizer to speak.

Language Opens a dialog where you can select the language of the text you want the synthesizer to read. This is particularly useful in combination with the Always Use My Settings setting, to ensure that text is spoken correctly in a variety of applications.

Date & time settings

Use Date & Time settings to set your preferences for how dates are displayed. You can also use these settings to set your own time and time zone, rather than obtaining the current time from the mobile network.

Automatic Uncheck to set the date, time, and time zone on the phone manually, rather than obtaining the current time from the mobile network.

Set date If **Automatic** is unchecked, opens a dialog where you can manually set the phone's date.

Select time zone If **Automatic** is unchecked, opens a dialog where you can set the phone's time zone.

Set time If **Automatic** is unchecked, opens a dialog where you can set the phone's time.

Use 24-hour format Check to display the time using 24-hour time format—for example, 13:00 rather than 1:00 pm.

Select date format Opens a dialog where you can select the format for displaying dates.

About phone

About Phone includes information about your phone.

About Phone screen

System updates Opens a screen that reports on the availability of Android system software updates.

Status Opens the Status screen with a long list of information about your battery, mobile network connection, and other details.

Battery use Opens a list of the applications and operating system components you have used since you last connected the phone to a power source, sorted by the amount of power they have used. Touch an application in the list to view details about its power use and, if available, touch a button to open a settings or information screen for that component or application. See “Optimizing battery life” on page 62.

Legal information Opens a screen where you can obtain legal information about the software included with your phone.

System tutorial Opens a screen that offers to introduce some of your phone's features, as described in “Starting Android for the first time” on page 28.

Version information Lists details about the model numbers and versions of your phone's hardware and operating system software. This information is useful if you need to work with your carrier's support team.

Specifications

The Nexus One phone and Android 2.1-update1 mobile platform feature the following specifications. For the location of many of the features in this table, see the diagrams in "Your phone and accessories" on page 15.

Physical dimensions	Height: 119mm Width: 59.8mm Depth: 11.5mm Weight: 130g with battery; 100g without battery
Processor	Qualcomm QSD 8250, 1 GHz
Storage	Flash memory: 512MB RAM: 512MB microSD card: 4GB microSD card included (expandable to 32GB)
Display	3.7-inch (diagonal) widescreen WVGA AMOLED touchscreen 800 x 480 pixels 100,000:1 typical contrast ratio 1ms typical response rate
Power & battery	Removable 1400mAH battery Charges at 480mA from USB, at 980mA from supplied charger Talk time on 2G networks: up to 10 hours Talk time on 3G networks: up to 7 hours Standby time on 2G networks: up to 290 hours Standby time on 3G networks: up to 250 hours Internet use on 3G networks: up to 5 hours Internet use via Wi-Fi: up to 6.5 hours Video playback: up to 7 hours Audio playback: up to 20 hours

Cellular & wireless	Nexus One GSM phones compatible with 3G mobile networks from AT&T (U.S.) and Rogers Wireless (Canada): 3G UMTS bands I/II/V: 2100, 1900, 850 MHz Nexus One GSM phones compatible with 3G mobile networks from T-Mobile (U.S.): 3G UMTS bands I/IV/VIII: 2100, 1700(AWS), 900 MHz All Nexus One GSM phones: HSDPA 7.2Mbps HSUPA 2Mbps GSM/EDGE 850, 900, 1800, 1900 MHz Wi-Fi 802.11b/g Bluetooth 2.1 + EDR A2DP stereo Bluetooth
External buttons & controls	Physical Power button Physical Volume Up / Down button Tricolor, clickable trackball 4 illuminated soft buttons (Back , Menu , Home , Search ) Haptic feedback
Connectors, sensors, indicators, & audio	Dock pins 3.5mm, 4-conductor, stereo headset jack SIM card slot microSD card slot Micro USB port Proximity sensor Ambient light sensor Tricolor LED next to earpiece for battery charge status Tricolor LED in Trackball for notifications Earpiece Speaker Microphone Second microphone for active noise cancellation
Location	Assisted global positioning system (AGPS) receiver Cell tower and Wi-Fi positioning Digital compass Accelerometer

Camera & flash	5 megapixels Autofocus from 6cm to infinity 2X digital zoom LED flash User can include location of photos from phone's AGPS receiver Video captured at 720x480 pixels at 20 frames per second or higher, depending on lighting conditions
Platform	Android mobile technology platform 2.1 (Eclair)
Audio decoders	AAC LC/LTP, HE-AACv1 (AAC+), HE-AACv2 (enhanced AAC+) Mono/stereo standard bit rates up to 160kbps and sampling rates from 8kHz to 48kHz AMR-NB 4.75-12.2kbps sampled @ 8kHz AMR-WB 9 rates from 6.60kbit/s to 23.85kbit/s sampled @ 16kHz MP3 mono/stereo 8-320Kbps constant bit rate (CBR) or variable bit rate (VBR) MIDI SMF (Type 0 and 1), DLS Version 1 and 2, XMF/Mobile XMF, RTTTL/RTX, OTA, iMelody Ogg Vorbis WAVE (8-bit and 16-bit PCM)
Audio encoders	AMR-NB 4.75-2.2kbps sampled @ 8kHz
Image formats	JPEG (encode and decode) GIF PNG BMP
Video decoders	H.263 MPEG-4 SP H.264 AVC
Video encoders	H.263 MPEG-4 SP

