

VZ Security

The Verizon Mobile Security application helps protect your phone from digital threats, including viruses and malware, and from people accessing the information on your phone if it is ever lost or misplaced.

Verizon Mobile Security helps keep your phone secure and protected from viruses, malware and risky web sites.

Important! Data charges apply when using VZ Security.

- From the Home screen, tap  **Apps** →  **Verizon** →  **VZ Security**.

Calendar

With this feature, you can consult the calendar by day, week, or month, create events, and set an alarm to act as a reminder. Google Calendar is built into the phone and synchronizes both new and existing entries between your phone and your online Google account.

Important! You should previously add an account (Facebook, Microsoft Exchange ActiveSync, or Google) prior to using the Calendar.

1. From the Home screen, tap  **Apps** →  **Calendar**. The following tabs are available on the right side of the display:
 - **Year**: displays the Year view.
 - **Month**: displays the Month view.
 - **Week**: displays the Week view.
 - **Day**: displays the Day view.
 - **List**: displays the events in a List view.
 - **Task**: allows you to search for tasks.

2. Tap  **Create event** to create a new Calendar event.

– or –

Tap **Today** to display the current date indicated by a blue box, then press  and select one of the following options:

- **Go to:** displays a specific date.
- **Delete:** allows you to delete All events, All events before today, or an individual event.
- **Search:** allows you to search within your current events.
- **Calendars:** allows you to view the current Calendar accounts.
- **Settings:** displays a list of configurable settings.

Creating a Calendar Event

1. From the Home screen, tap  **Apps** →  **Calendar**.
2. Within the Year, Month, Week, and Day tabs,  **Create event** to create a new Calendar event.

Enabling the Handwriting mode

1. From the Home screen, tap  **Apps** →  **Calendar**.
2. Tap  **Enable Handwriting** to edit the on-screen Calendar by adding hand-written information.
3. Use the following functions:
 -  Allows you to add free-format drawing.
 -  Allows you to erase marks and drawings.
 -  Undo the last action.
 -  Redo the last action that was undone.
 -  Exits the current action and returns to the Calendar application.
 -  Saves the current updates.

Calendar Settings

Using the Calendar settings you can select the day with which you want the calendar to begin. You also select how you want to view the calendar, by Month, Week, or Day or determine how to manage events, notifications, sounds, and defaults reminders.

1. From the Home screen, tap  **Apps** → .
2. Press  → **Settings**.
3. Tap **View styles** and select an option.
 - Tap **Month view styles** and select an option.
 - Tap **Week view** and select a type.
4. Tap **First day of week** and select either **Locale default**, **Saturday**, **Sunday** or **Monday**.
5. Tap **Badge** and select either **None**, **Number of events and tasks**, **Number of events today**, or **Number of tasks today**.
6. Tap **Hide declined events** to activate this option. A check mark indicates selection.
7. Tap **Lock time zone** (to lock event time based on your current user-selected time zone). Select a time zone from within the **Select time zone** field.

8. Tap **Show week number** to display the week numbers along the side of the week entries.
9. Tap **Hide completed tasks** to activate this option. A check mark indicates selection.
10. Tap **Weather** to activate this option. A check mark indicates selection.
11. Tap **Set alerts & notifications** to adjust the event notification method. Choose from: **Alert**, **Status bar notification**, and **Off**.
12. Tap **Select ringtone** to assign a ringtone to a calendar event notification.
13. Tap **Vibration** to assign a vibration notification to this event.
14. Tap **Quick responses** to edit your default quick responses for outbound emails. These are default responses similar to those used by text templates.

Camera

You can take photographs and shoot video by using the built-in camera functionality. Your camera produces photos in JPEG format and records videos in MP4 format.

Important! Do not take photos of people without their permission.

Do not take photos in places where cameras are not allowed.

Do not take photos in places where you may interfere with another person's privacy.

Note: An optional microSD card is not needed to take pictures or shoot video since there is already built-in storage.

Assigning the Default Storage Location

Important! Too many users can overlook this storage location until something goes wrong. It is recommended that you verify this location or change it before initiating the use of the camera or camcorder features.

1. From the Home screen, tap  (Apps) →  (Camera).
2. Press  and then tap **Settings** →  (Settings) and scroll up to the **Storage** entry.
3. Tap this entry and select the desired default storage location for newly taken pictures or videos. Choose from: **Device** or **Memory card**.

Note: It is recommended that you set the option to **Memory card**.

4. Press  to return to the Home screen.

Using the Camera

Taking Photos

Taking pictures with your device's built-in camera is as simple as choosing a subject, pointing the camera, then pressing the camera key.

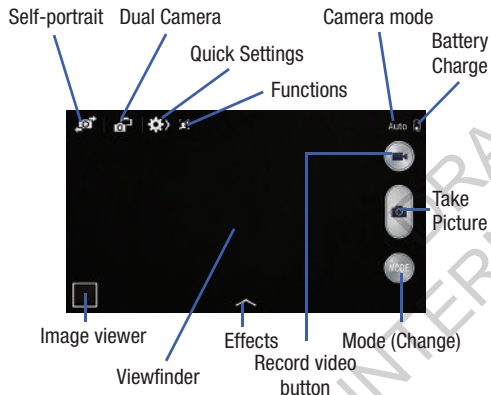
Note: When taking a photo in direct sunlight or in bright conditions, shadows may display on the photo.

1. From the Home screen, tap  **Camera**.
– or –
From the Home screen, tap  **Apps** →  **Camera**.
2. Using the device's main display screen as a viewfinder, adjust the image by aiming the camera at the subject.

Note: On your initial activation of the camera, firmware configuration can take up to 1 minute. This is a one time process.

3. Before you take a picture, use the **Up** and **Down** Volume keys to zoom in or out. You can magnify the picture up to x4 (400 percent).
– or –
Pinch the screen to zoom out or pinch outwards to zoom in.
4. If desired, before taking the photo, you can tap on-screen icons to access various camera options and settings.
5. You can also tap the screen to move the focus to a desired area of interest.
6. Tap  **Take** until the shutter sounds. (The picture is automatically stored within your designated storage location (page 118). If no microSD card is installed, all pictures are stored on the Device.) For more information, refer to “*Camera Options*” on page 120

Note: Touch and hold  to take a burst shot. These are saved using a Fine image quality.



Camera Options

Options are represented by icons across both sides of the screen.

1. From the camera viewfinder, tap the Mode button



to change the mode to one of the following:

- **Auto:** Use this mode to automatically adjust the exposure, color, and brightness settings. This mode allows single image shots or burst shots.
- **Beauty face:** Use this to take photos with lightened faces for gentler images.
- **Best photo:** Use this to take multiple photos in a short time, and then choose the best photos among them. Press the Shutter button to take multiple photos. When Gallery opens, tap and hold thumbnails of photos to save, and tap Done.
- **Best face:** Use this to take multiple group shots at the same time and combine them to create the best possible image. Press the Shutter button to take multiple photos. When Gallery opens, tap the yellow frame on each face, and choose the best individual face for the subject. After choosing a pose for each individual, tap Done to merge the images into a single photo, and tap Save.

- **Sound & shot:** Use this mode to enrich pictures by adding background sounds for a few seconds. The background sound is recorded for up to 9 seconds after taking the photo.
- **Drama:** Use this to take a series of photos of a moving object and then merge them together into one image.
- **Animated photo:** Use this to create a picture in which a few selected static objects move by animating objects detected by the device.
- **Golf:** Use this feature to take pictures of a golf swing and then play the pictures back (forwards or backwards).
- **Rich tone (HDR):** Use this to take photos with richer colors and contrasts by merging images taken at different exposure levels.
- **Eraser:** Saves the best of 5 taken pictures and removes any passers by.
- **Panorama:** Use this to take wide panoramic photos. Press the Shutter button to take a photo, and then move the camera in any direction. When the blue frame aligns with the preview screen, the camera automatically takes another shot in the panoramic sequence. To stop shooting, press the Shutter button again.

- **Surround shot:** Use this to take a 360-degree pictures that are then used to create a spherical panorama.
- **Sports:** Use this to take fast action photos.

2. From the top of the camera, the following shortcuts are available for the camera:



Focus area: displays the area of the image used as the main focus area. If the image is too close, the square will turn red.



Self portrait: allows you to set the front camera so you can take pictures of yourself.



Front Camera/Dual Camera: allows you to activate both the front and rear cameras simultaneously. For more information, refer to “*Taking Dual Camera Photos*” on page 123



Quick Settings: activates the Quick Settings menu bar from where you can select several additional settings. For more information, refer to “*Quick Settings*” on page 122



Image viewer: allows you to access the Image viewer and the various viewing options for a selected picture. The last picture you took, displays as a thumbnail in the Image viewer icon.



Effects/Downloads: provides access to pre-installed and downloaded effects. Default effects include: No effect, Cartoon, Faded color, Fisheye, Grayscale, Moody, Oil pastel, Rugged, Sepia, Tint, Turquoise, Vignette, Vintage, and Download.



Camcorder button: shoots a video when pressed.



Camera button: takes a photo when pressed in Camera mode.



Mode button: allows you to select from different camera modes.



Storage location/Connection Status: indicates the device is connected to an adapter and the current storage location for images (Device or Memory card) on the device.

Quick Settings

Tap  at the top of the display to quickly change Camera settings. Not all of the following options are available in both still camera and video camera modes. The available options vary by mode.



Camera settings: configure Camera settings.



Flash: activate or deactivate the flash.



Night detection: use this activate/deactivate night detection.



Voice control: activate or deactivate the voice control to take photos.



Recording mode: select a resolution for videos. Choose from: Normal, Limit for MMS, Slow motion, or Fast motion.



Share functions: activate or deactivate the sharing options. Choose from Off, Share Shot, Buddy photo share, ChatON photo share, or Remote viewfinder.



Share shot - Shooting mode: lists the current shooting modes available from with the Share Shot mode. Choose from Easy connect, Wi-Fi Direct, or Cancel.



Quick Settings: hide Quick settings.

Taking Dual Camera Photos

With the Dual Camera feature, you can take a picture with both the front and rear cameras at the same time.

To take a Dual Camera picture:

1. From the camera viewfinder, tap  (**Dual Camera**) located at the top left side of the screen. The camera viewfinder displays an image from the front-facing camera within a mini picture frame on top of the main image displayed from the rear-facing camera.
2. Tap  (**Camera**) until the shutter sounds.

To resize the front camera image:

- Touch and hold the mini picture frame until the resize handles display, then drag a corner to enlarge the image.

To reposition the front camera image:

- Touch and hold the mini picture frame to detach it and then place it in a desired location.

Camera and Camcorder Settings

This section describes the different settings that you can configure on your camera. Not all of the following options are available in both still camera and video camera modes. The available options vary by mode.

1. From the viewfinder, tap  (Quick Settings) →



(Camera Settings).

2. The follow settings are located under the Camera, Camcorder, and General tabs. The settings that are displayed will depend on what camera mode you are in.

Camera:

- **Photo size:** Select a resolution for photos. Use higher resolution for higher quality. Higher resolution photos take up more memory.
- **Burst shot:** allows several photographs to capture in quick succession by touching and holding the Camera button.
- **Tap to take pics:** allows you to tap the screen to also take a new picture (vs using the Camera button).
- **Face detection:** allows you to adjust the camera focus based on face detection technology.

- **Metering:** allows you to set how the camera measures or meters the light source: Center-weighted, Matrix, or Spot.
- **ISO:** determines how sensitive the light meter is on your digital camera. Choose from Auto, 100, 200, 400, or 800. Use a lower ISO number to make your camera less sensitive to light, a higher ISO number to take photos with less light, or Auto to let the camera automatically adjust the ISO for each of your shots.
- **Anti-shake:** compensates for camera movement.
- **Auto night detection:** activates or deactivates the night detection feature.
- **Save as:** allows you to assign rich tone usage to an image.

Camcorder:

- **Video size:** Select a resolution for videos. Use higher resolution for higher quality. Higher resolution videos take up more memory.
- **Video stabilization:** Activate or deactivate Optical Image Stabilization.
- **Audio zoom:** when active, allows you to focus your microphone on a zoomed area during video recording.

Settings:

- **GPS tag:** attach a GPS location tag to the photo. To improve GPS signals, avoid shooting in locations where the signal may be obstructed, such as between buildings or in low-lying areas, or in poor weather conditions. Your location may display on your photos when you upload them to the Internet. To avoid this, deactivate the GPS tag setting.
- **Review:** set this option if you want to view each picture after you take it. Select a time value.
- **Volume key:** assigns a function to the volume key. Choose from The zoom key, The camera key, or The record key.
- **Timer:** Use this for delayed-time shots. You can set the timer to Off, 2 sec, 5 sec, or 10 sec.
- **White balance:** Select an appropriate white balance, so images have a true-to-life color range. The settings are designed for specific lighting situations. These settings are similar to the heat range for white-balance exposure in professional cameras.
- **Exposure value:** allows you to adjust the brightness level by moving the slider.
- **Guidelines:** Display viewfinder guides to help composition when selecting subjects.
- **Flash:** activate or deactivate the flash.
- **Voice control:** activates/deactivates voice control feature that allows you to verbally take a photo.
- **Contextual filename:** allows you to have your location added as part of the filename. You must first activate GPS tag described above.
- **Save as flipped:** when set to On, this option allows you to take and save a mirror-image video when using self-recording mode.
- **Storage:** Select the memory location for storage.
- **Shutter sound:** Turn the shutter sound on or off.
- **Reset:** Reset the camera settings.

Pictures and Videos Image Viewer Options

After you take a photo or record a video, you can view it by touching  **Image viewer** on the Camera-Camcorder viewfinder screen.

Photo viewing options

While viewing a photo or video, you can access various options.

1. Tap a thumbnail to view the picture.

Note: If no control icons are displayed on the screen in addition to the picture, tap anywhere on the screen to display them.

2. The following options are available at the top of the screen:
 - **Change player**  : allows you to select a different AllShare/Samsung Link device from your available list.
 - **Share via**  : allows you to share the picture via ChatON, Group Play, Add to Dropbox, Bluetooth, Email, Evernote - Create Note, Flipboard, Gmail, Google +, Hangouts, Messages, Pennable, Picasa, S Note, Scrapbook, Sketchbook for Galaxy, and Wi-Fi Direct.

- **Edit**  : (in Landscape mode) allows you to edit the current image. Launches the Photo Editor application. For more information, refer to “Editing a Photo” on page 137

- **Delete**  : allows you to delete the current picture.

3. Press  for additional options such as:

- **Edit**: (in Portrait mode) allows you to edit the current image.
- **Favorite**: allows you to assign the current image as a favorite.
- **Slideshow**: allows you to see your photos in a slideshow.
- **Photo frame**: takes the current image and creates a surrounding photo frame that can be edited with edited text or drawn object, then saved.
- **Photo note**: allows you to write notes on your current image and then save it.
- **Signature**: allows you to edit the current image using the photo editor.
- **Copy to clipboard**: allows you to copy one or more pictures to a different folder.
- **Print**: allows you to print the current image on a compatible Samsung printer.
- **Rename**: allows you to rename the current file.

- **Buddy photo share:** allows you to share the current image with active ChatON buddies.
- **Rotate left:** allows you to rotate the view of the current image in a counterclockwise direction.
- **Rotate right:** allows you to rotate the view of the current image in a clockwise direction.
- **Crop:** provides an on-screen box that allows you to crop the current picture. Tap **Done** to update the image with the new dimensions or tap **Cancel** to ignore any changes.
- **Set as:** allows you to assign the current image as a Contact photo, Home screen, Lock screen, or Home and lock screens.
- **Scan for nearby devices:** scans for nearby DLNA-compliant devices that can receive or display the current image.
- **Details:** files details such as Title, Time, Width, Height, Orientation, File Size, and Path.
- **Settings:** provides access to the Gallery options menu. Choose from SNS data management (Sync only via Wi-Fi), Tags (Tag buddy or Face tag), and Sound & shot (Auto play sound).

Video viewing options

Note: If no control icons are displayed on the screen in addition to the picture, tap anywhere on the screen to display them.

1. Tap a video to select it.
2. Tap  to play the video.
 - **Share via**  : allows you to share the video via ChatON, Add to Dropbox, Bluetooth, Email, Evernote - Create Note, Gmail, Google+, Messages, Picassa, S Note. Scrapbook, Wi-Fi Direct, or YouTube.
 - **Trim**  : activates the Trim feature so that you can edit the length of the current video.
 - **Delete**  : allows you to delete the current video. Choose either **OK** or **Cancel**.
3. Press  for additional options.

Using the Camcorder

In addition to taking photos, the camera also doubles as a camcorder that also allows you to record, view, and send high definition videos.

Shooting Video

Tip: When shooting video in direct sunlight or in bright conditions, it is recommended that you provide your subject with sufficient light by having the light source behind you.

Note: The camera may not be able to properly record videos to a memory card with a slow transfer speed.

1. From the Home screen, tap  (**Camera**) to activate the camera mode.
2. Using the camera's main display screen as a viewfinder, adjust the image by aiming the camcorder at the subject.
3. Before you take a video, use the Volume control buttons to zoom in or out. You can magnify the video up to x4 (400 percent).

Note: Use either the Up and Down volume keys or spread/pinch the screen to zoom in or out. For more information, refer to “*Navigation*” on page 28 and “*Finger Gestures*” on page 28.

4. Tap  (**Video**) to begin shooting video. The red light will blink while recording.
5. Tap anywhere on the screen to re-focus the camera on that object. The camcorder auto-focuses on the new target area.
6. To capture an image from the video while recording, tap  (**Take Picture**). This feature is not available while the anti-shake feature is activated.
7. Tap  (**Stop**) to stop the recording and save the video file to your Camera folder.
– or –
Tap  (**Pause**) to pause the recording.
8. Once the file saves, tap the image viewer, then tap  (**Play**) to playback your video for review.
9. Press  to return to the viewer.

Accessing Videos

When you shoot a video, the file is saved in the Camera folder. You can view your videos immediately or view them anytime in the Camera folder.

1. From the Home screen, tap  **Apps** →  **Gallery**.
2. Select a folder location and tap a video icon to begin video playback.
3. Tap  (**Play**) to begin video playback.
– or –

Touch and hold the video icon from the main Gallery to select the video (indicated by a colored border) and display the following video menu context options:

- **Share via**  : allows you to share the video via ChatON, Add to Dropbox, Bluetooth, Email, Evernote - Create Note, Gmail, Google+, Messages, Picassa, S Note, Scrapbook, Wi-Fi Direct, or YouTube.
 - **Delete**  : allows you to delete the current video.
Choose either OK or Cancel.
- or –

Touch and hold a listed video file to place a checkmark alongside and then press  for additional options:

- **Slideshow**: allows you to see your files in a slideshow or access the slideshow settings.
 - **Copy**: allows you to create a duplicate of the currently selected file.
 - **Move**: allows you to move a selected file to a new location.
 - **Create video clip**: allows you to edit the current video, apply effects, and create a new video. Create video clips from your pictures. Select pictures from your album, select “create video clip”, choose one of the themes and save.
 - **Rename**: allows you to rename the filename of the currently selected video.
 - **Details**: displays video file information.
- or –

With the video displayed on-screen (but not playing), press  for additional options:

- **Favorite**: tags the current video as a favorite file.
- **Slideshow**: create a new on-screen slideshow.

- **Rename:** allows you to rename the filename of the currently selected video.
- **Details:** displays video file information.
- **Settings:** provide access to the Gallery settings page. From this page you can configure the SNS data management and Tag options.

Sharing Pictures

Pictures are the best way of remembering the moment, but an even better treat is to share them with others.

Two new features allow you to either instantly share a series of pictures as they are taken or quickly share a picture without using email or messaging.

- **Share Shot** is a great way to instantly share a series of pictures among a group of users. The best example for this feature is having multiple users instantly sharing each others pictures at a company or family gathering. As each person takes a separate picture with their own device, they are all pooled together and instantly display in each user's Gallery.

No more “Email your pictures to me later”. Each person walks out of the event with all the pictures taken by everyone.

This method of image transfer requires that both devices have Wi-Fi Direct active and be paired prior to use.

Note: You can only share a shot with other external users who also have their Wi-Fi Direct feature active.

- **S Beam Transfer** uses the NFC (near Field Communication) feature found on your device to transmit large files directly to another compatible device by **direct touch**. This method of image transfer requires enabling NFC and S Beam prior to use. For more information, refer to “*Using S Beam to Share Pictures*” on page 133

Enabling Share Shot

Share shot is a Wi-Fi Direct group sharing feature where multiple users can Wi-Fi connect their devices and then all share each others pictures in real-time. This is really useful in group events (ex: family gathering or company party) where you don't want to have to email everyone later and make sure you all can share your pics at a later date.

For more information, refer to “*Wi-Fi Direct*” on page 174.

The general process is:

- Enable Wi-Fi Direct communication
- Pair your device with other users
- Enable Share shot

To enable Wi-Fi Direct:

Important! The target device must already be connected to the same Wi-Fi and have its Wi-Fi Direct feature active and scanning before you can your pairing.

1. From the main **Settings** page, tap **Connections** tab → **Wi-Fi**.
2. Touch and slide the **Wi-Fi** slider to the right to turn it on. The slider color indicates the activation status.

3. Tap **Wi-Fi Direct**.

4. Tap **Scan** and select the single device name to begin the connection process to another Wi-Fi Direct compatible device.

– or –

Tap **Multi-connect** → **Scan** and select all the device names to begin the connection process to these Wi-Fi Direct compatible devices.

Note: The target device must also have Wi-Fi Direct service active and running before it can be detected by your device.

5. Tap **Done**. The direct connection is then established. Confirm  appears in the Status bar.
6. When prompted to complete the connection, the recipient should tap **OK**. Your status field now reads “Connected” and your connected device is listed within the Wi-Fi Direct devices listing.
7. Each partner (including yourself) must then tap **Accept** to consent to the new Wi-Fi Direct pairing.

To enable Share shot on Camera:

1. From the Home screen, tap  (Camera) →  (Quick Settings) →  (Share) →  (Share shot).
2. If you are prompted to activate your Wi-Fi Direct connection, tap **OK** and follow the activation procedures for Wi-Fi Direct.

To configure your Share Shot options:

1. Confirm the Share Shot viewfinder is active ( appears at the top of the screen).
2. Tap  (**Devices for sharing with**) to display list of current share shot participants.
 - Stop sharing images with select participants by tapping their entry and removing the green check mark.
3. Tap  (**Shooting modes**) to regain access to the Share menu.
4. Tap  → **Off** to disable share shot while maintaining a Wi-Fi Direct connection.

To take share shot images:

1. Tap  (**Camera**) until the shutter sounds.
2. From the Home screen, tap  **Apps** →  **Gallery** to locate your newly shot images located in their default storage location.
 - External users are able to locate their images in either a downloaded or **RECV** (received) folder.
3. Confirm  (**Share shot images delivered/received**) appears in the Notifications area of the screen.

Using S Beam to Share Pictures

This feature (when activated via NFC) allows you to beam large files directly to another compatible device that is in direct contact. These files can be larger, such as Videos, HD pictures, and other large files. You can beam images and videos from your gallery, music files from your music player, and more.

1. From the main **Settings** page, tap **Connections** tab.
2. If not already active, touch and slide the **NFC** slider to the right to turn it on.
3. Tap **S Beam** and make sure the feature is turned on.
4. If not already active, touch and slide the **S Beam** slider to the right to turn it on.
5. On the source device (containing the desired image or video), tap  (**Apps**) →  (**Gallery**).
6. Locate and tap the selected image to open it in the preview window.

Important! Neither device must be in Lock mode or displaying the Lock screen. They must both be active and unlocked. It is recommended that the target device be on the Home screen.

7. Place the two active NFC-enabled devices back to back to begin.

Note: If the **Touch to beam** screen does not display on the source device:

- Pull them apart
 - Verify the image is visible in the preview window on the source device (providing the file)
 - Place them together again
-

8. From the **Touch to beam** screen, tap the reduced image preview to begin the transfer. After a few seconds (depending on file size) the recipient will then see the transferred file displayed on their screen.

To share multiple pictures via S Beam:

1. On the source device (containing the desired image or video), tap  **Apps** →  **Gallery**.
2. Locate the selected folder.
3. Touch and hold the first image and place a check mark on it and all desired images.
4. Place the two active NFC-enabled devices back to back to begin.
5. From the **Touch to beam** screen, tap the reduced image preview to begin the transfer.
6. When prompted, separate the two devices.

Camera Gallery Options

The Gallery is where you can access the Gallery of stored camera images.

1. From the Home screen, tap  **Apps** →  **Gallery**.
2. Select a folder location (ex: **Camera**) and tap an image to open it.
– or –
Touch and hold an image to place a checkmark alongside the file and select multiple files.
– or –
Tap the upper-right camera to begin taking pictures that are placed in this folder.
– or –
3. Tap the on-screen image to use additional image menu options. For more information, refer to “*Pictures and Videos Image Viewer Options*” on page 126

Sharing a Gallery Image to a Target Device

Important! Make sure all communicating devices are connected to the same Wi-Fi.

1. Launch Samsung Link on the target device (such as an Internet TV, Samsung Tablet, etc.).
2. From the Home screen, tap  (**Apps**) →  (**Gallery**).

Note: You must be signed in to your Samsung Account before you can use this feature.

3. Open a selected image.
4. Tap  (**Stream to connected devices**) and select an available target device to begin streaming.
5. On a target device (ex: Internet TV) select the on-screen **Allow** button to continue.

Note: At this stage your device is requesting access to share media with the external source.

6. Confirm  (**AllShare Controller enabled**) appears in the Notification area at the top of the device to indicate you are using your device as the media source.

Taking a Screen Shot

Also known as a screen capture, this feature allows you to mimic the print screen function on most computers.

1. From the main **Settings** page, tap **Controls** tab → **Motions and gestures**.
2. Touch and slide the **Palm motion** slider to the right to turn it on.
3. Read the on-screen notification and tap **OK**.

Note: At least one feature must be activated before Palm motion can be activated.

4. Slide a feature's activation slider to the on position.
5. With the current screen showing the desired image, place the side of your palm along the one side of the device and then slowly swipe it in the opposite direction over the screen.

Assigning an Image as a Contact Photo

1. From the Home screen, tap  (Apps) →  (Gallery).
2. Select a folder location and tap a file to open it.
3. With the image displayed, press  and then tap **Set as → Contact photo**.
4. Tap a contact to make a selection.
5. Use the on-screen crop the image by dragging it around or out from its corners.
6. Tap **Done** to store the new image.

Assigning an Image as a Wallpaper

1. From the Home screen, tap  (Apps) →  (Gallery).
2. Select a folder location and tap a file to open it.
3. With the image displayed, press  and then tap **Set as**.
4. Select one of the these options:
 - **Home screen** assigns the current image to the home screen background. This image is spread across all available screens.
 - **Lock screen** assigns the selected image to the background for the lock screen.
 - **Home and lock screens** assigns the current image to both the Home screen and Lock screens.
5. Touch and drag the crop box anywhere on the picture. Touch and drag the sides of the crop box to zoom in or out to create a cropped area.
6. Tap **Done** to assign the wallpaper image.
— or —
Tap **Cancel** to stop without updating the wallpaper image.

Editing a Photo

You can edit your photos using the built-in Photo editor application on your device. The photo editor application provides basic editing functions for pictures that you take on your phone. Along with basic image tuning like brightness, contrast, and color it also provides a wide variety of effects used for editing the picture.

1. From the Home screen, tap  (Apps) →  (Gallery).
2. Select a folder location and tap a file to open it.
3. With the image displayed, press  and then tap **Edit**.
 - **Edit**: allows you to edit the current image. Launches the Photo Editor application.

Note: To select the picture area, touch and hold the current picture.

4. Select an image area by touching and holding the image and then selecting an available option:
 - **Selection mode**: provides several on-screen selection options such as: Select area, Inverse selection, Selection size, and Selection mode (Select area, Inverse selection, Selection size, and Selection mode).
 - **Select all**: select the entire area of the current image.
 - **Clipboard**: copies the currently selected area to your device's clipboard.
5. Use the following editor controls to edit your picture:



Previous: lets you undo the current operation.



Next: lets you redo the previous operation.



Cancel/Delete: exits the current photo editing session.



Save: stores the currently edited photo.



Rotate: allows you to rotate a photo in all 4 directions. You can also mirror image a photo.



Crop: allows you to crop (cut-out) an area of a photo.



Color: allows you to Auto adjust color, Brightness, Contrast, Saturation, Adjust RGB, Temperature, Exposure, and Hue of a photo.



Effects: allows you to add various effects to your photo.



Portrait: allows you to apply various face correction effects such as: Red-eye fix, Airbrush face, Face brightness, Out-of-focus, Beauty face, Funny face, or Spot healing.



Sticker: allows you to place various pre-created on-screen stickers atop your current image.



Drawing: allows you to add draw directly on your current picture by using either a brush/pen or eraser.



Frame: places a pre-created border style atop your current image.

6. Press  to access the following options:

- **Save as:** allows you to rename your current image and save it to your gallery.
- **Select image:** allows you to select a new image for editing.
- **Take picture:** allows you to activate the camera and take a new image for editing.
- **Share via:** allows you to share your saved photo via Add to Dropbox, Bluetooth, ChatON, Email, Evernote - Create Note, Flipboard, Gmail, Google+, Group Play, Hangouts, Messages, Pennable, Picasa, S Note, Scrapbook, SketchBook for Galaxy, or Wi-Fi Direct.
- **Set as:** assigns the currently saved image as either a: Contact photo, Home and lock screens, Home screen, or Lock screen.

Clock

Here you can set an Alarm, configure and view the World clock, use a Stopwatch, set a Timer, or use a Desk Clock. The applications display in a tabular format and quickly accessed with the touch of a finger.

- From the Home screen, tap  **Apps** →  **Clock**.

Setting an Alarm

1. From the Home screen, tap  **Apps** →  **Clock**.
2. From the **Alarm** tab, tap  **Create alarm**.
3. Use the arrow symbols to enter adjust the hour, and minutes, then tap **AM** or **PM** (toggles depending on which was last selected).
4. Tap the **Alarm repeat** field and touch the number of times you want this alarm to repeat. Selections are: day blocks or **Repeat weekly**. Selected day blocks turn blue when active.
5. Tap the **Alarm type** field and select one of the following: **Melody**, **Vibration**, **Vibration and melody**, or **Briefing**.
6. Tap the **Alarm tone** field and either select an available tone or select **Add** to use locate a sound to use as an alarm ringtone. Tap **OK** to activate the ringtone.
7. Slide the slider bar left or right in the **Alarm volume** field to decrease or increase the alarm volume. A sample of the volume level plays.
8. Move the **Location alarm** slider to the right to activate the feature, then follow the on-screen instructions to enter a location. When activated, the alarm only sounds when you are at a specific location.
9. Move the **Snooze** slider to the right to activate the feature. Tap the field to assign a **Interval** time (3 minutes, 5 minutes, 10 minutes, 15 minutes, or 30 minutes) and **Repeat** (1 time, 2 times, 3 times, 5 times, and 10 times).
 - **Interval** indicates the length of time the alarm will remain silent between alarm notifications (snooze time).
 - **Repeat** indicates the numbers of snooze sessions that are assigned to this alarm. How many times will the snooze silence the alarm.

10. Move the **Smart alarm** slider to the right to activate this feature which slowly increases screen brightness and the volume of nature tones to simulate dawn breaking. Tap the field to assign a interval time (1 minute, 3 minutes, 5 minutes, 10 minutes, 15 minutes, or 30 minutes) and nature tone (Fairy fountain, Birdsong by the lake, Sparkling mist, The secret forest, Serenity, or Gentle spring rain).

- **Interval** category describes the length of time the alarm will remain silent between alarm notifications (snooze time).
- **Tone** category provides one of several nature sounds that are used as the alarm tone.

11. Tap the **Name** field and enter a name for this Alarm.

12. Tap **Save** to store the new alarm event.

13. Touch and slide  to any direction to stop an alarm when it sounds.

Setting the Snooze Feature

- To activate the Snooze feature after an alarm sounds, touch and slide  to any direction. Snooze must first be set in the alarm settings.

Deleting an Existing Alarm

1. From within the **Clock** application, touch and hold an on-screen alarm event.
2. Tap **Delete**.

World Clock

This feature allows you to find out what time it is another part of world.

1. From within the **Clock** application, tap the **World clock** tab.
2. Tap  **Add city** then scroll and select the desired city, or tap in the search field to locate a city.

To assign DST settings:

1. Locate a desired city from the World clock list.
2. Touch and hold a city and select **DST settings**.
3. Select a DST setting (Automatic, Off, or 1 hour).
If Daylight Savings Time is selected, a sun symbol appears next to the World Clock city listing.

Stopwatch

This feature allows you to capture elapsed time while letting the stopwatch keep running.

1. From within the **Clock** application, tap **Stopwatch** tab.
2. Tap **Start** to start the stopwatch counter.
3. Tap **Lap** to begin the lap time counter.
4. Tap **Stop** to stop the counter.
5. Tap **Restart** to restart the lap counter. You can have multiple lap times.
6. Tap **Reset** to reset the counter.

Setting a Timer

1. From within the **Clock** application, tap **Timer** tab.
2. Tap the **Hours**, **Minutes**, or **Seconds** field and use the on-screen keypad to enter the hour, minute, or seconds. The timer plays an alarm at the end of the countdown.
3. Tap **Start** to start the timer.
4. Tap **Stop** to stop the timer or **Reset** to reset the timer and start over.
5. Tap **Restart** to resume the timer counter.

Contacts

The default storage location for saving phone numbers to your Contacts List is your phone's built-in memory.

- From the Home screen, tap  **Apps** →  **Contacts**.

For more information, refer to “*Contacts*” on page 44.

Email

Email enables you to review and create email using most email services. The device alerts you when you receive an email message.

- From the Home screen, tap  **Apps** →  **Email**.

For more information, refer to “*Email*” on page 74.

Gallery

The Gallery is where you view photos and play back videos. For photos, you can also perform basic editing tasks, view a slideshow, set photos as wallpaper or caller image, and share as a picture message.

Note: If the phone displays a memory full message when accessing the Gallery, access **Files** and remove some of the media files from the folders, and then open the Gallery.

Opening the Gallery

- From the Home screen, tap  **Apps** →  **Gallery**.
For more information, refer to “*Camera Gallery Options*” on page 134

Note: If you stored your files in folders (directories) on the storage card, Gallery displays these folders as separate albums. The top left album contains all the pictures in the storage card.

Viewing a Video within the Gallery

1. From the Home screen, tap  **Apps** →  **Gallery**.
2. Locate your folder and video.
3. Tap  (**Play**) to playback your video.

For more information on using the Picture-in-Picture feature for video playback, see “*Using Picture-In-Picture*” on page 156.

AllShare Cast Hub

This hardware allows you to enjoy what's currently on your device directly on your TV.

Note: There is no need to connect to a Wi-Fi network or to logg into your Samsung Account to use this feature. AllShare Cast Hub establishes a Wi-Fi Direct connection between the device and the hub.

For more information about this device, go to:

<http://www.samsung.com/us/mobile/cell-phones-accessories/EAD-T10JDEGSTA>

Connecting AllShare Cast Hub

To connect your AllShare Cast Hub hardware:

Screen Mirroring This feature functions with an (with Hub accessory) external AllShareCast Hub to fully mirror what is currently displayed on your device to the external TV.

1. Connect the AllShare Cast Hub to a power source via the USB Travel Adapter.

Note: The status LED begins to blink solid red to indicate it has begun the start up process.

LED Color/Patterns	Description
Red - Solid	Indicates the AllShare Cast Hub is booting or processing.
Red - Blinking	Indicates the AllShare Cast Hub is in standby mode (ready for connection).
Blue - Solid	Indicates the AllShare Cast Hub is ready to connect with a new device.

2. Connect your TV to the AllShare Cast Hub via an HDMI cable (A-to-A cable).
3. Change the source input on your TV to match the input port used by the incoming HDMI cable.

Note: The television screen should now display an on-screen tutorial showing you how to configure your device's AllShare Cast Hub and device settings.

To activate Screen Mirroring on your device:

1. From the Home screen, tap  → **Settings** → **More settings** → **Screen Mirroring**.
2. If not already on, tap the **Screen Mirroring** and then move the slider to the right to turn it on. The slider color indicates the activation status.

For more information, refer to “Wireless and network” on page 171.

Help

Provides access to built-in Help information.

1. From the Home screen, tap  **Apps** →  **Help**.
2. Select an on-screen topics for more information:
 - **New features:** provides help on all of the new features and applications such as My Magazine, Air command, Chart Builder, Direct Pen input, Scrapbook, and S Finder.
 - **Basics:** provides basic information on using your device.
 - **Applications:** provides information on how to use basic applications like Contacts, Email, S Note, Internet, Camera, and so on.
 - **Settings:** provides information on settings for Wi-Fi, Bluetooth, Portable Wi-Fi hotspot, Ringtone, Power saving mode, NFC, Screen Mirroring, Voice control.
 - **Online help:** provides more detailed online help for additional questions you may have.

Maps

Google Maps allow you to track your current location, view real-time traffic issues, and view detailed destination directions. There is also a search tool included to help you locate places of interest or a specific address. You can view locations on a vector or aerial map, or you can view locations at the street level.

Important! Before using Google Maps you must have an active data (3G/4G/LTE) or Wi-Fi connection. The Maps application does not cover every country or city.

- From the Home screen, tap  **Apps** →  **Maps**.

Important! For best results, it is recommended that you enable all of your location services. For more information, refer to “*Location services*” on page 194.

Enabling a Location source

Before you use Google Maps and find your location or search for places of interest, you must enable a location source. To enable the location source you must enable the wireless network, or enable the GPS satellites.

Important! The more location determining functions are enabled, the more accurate the determination is of your position.

1. From the main **Settings** page, tap **Connections** tab → **Location services**.
2. Tap **Access to my location** to enable sharing your location with requesting applications.
3. Tap **Use GPS satellites** to enable the GPS satellite.
4. Tap **Use wireless networks** to allow apps to use data from sources such as Wi-Fi and mobile networks to provide a better approximation of your current location.
5. Tap **My places** to enable the storage of your favorite locations.

To receive better GPS signals, avoid using your device in the following conditions:

- inside a building or between buildings
- in a tunnel or underground passage
- in poor weather
- around high-voltage or electromagnetic fields
- in a vehicle with tinted windows

Opening Maps

1. From the Home screen, tap  **Apps** →  **Maps**.
2. Tap the upper-right My location button to find your location on the map with a blinking blue dot.
3. Locate the bottom row of the buttons to access additional options.

Messages

This application allows you to use the Short Message Service (SMS) to send and receive short text messages to and from other mobile phones.

You can also use the Multi Media Service (MMS) to create multimedia messages to send and receive from other mobile phones.

- From the Home screen, tap  **Apps** →  **Messages**.

For more information, refer to “*Messaging*” on page 69.

Music

The Music Player is an application that can play music files. The music player supports files with extensions AAC, AAC+, eAAC+, MP3, WMA, 3GP, MP4, and M4A. Launching the Music Player allows you to navigate through your music library, play songs, and create playlists (music files bigger than 300 KB are displayed).

Playing Music

1. From the Home screen, tap  **Apps** →  **Music**.
2. Tap a library category tab to select the music category: **Songs, Playlists, Albums, Artists, Music square, or Folders**.
3. Scroll through the list and tap an entry to begin playback.

Note: The 5.1 channel sound effect works when earphones or sound is connected through the headset jack only.

4. Use any of the following Music player controls:



Pause the song.



Start the song after pausing.



Press and hold to rewind the song. Tap to go to previous song.



Press and hold to fast-forward the song. Tap to go to next song.



Volume control and SoundAlive.



Volume control showing volume muted.



Plays the entire song list once.



Replays the current list when the list ends.



Repeats the currently playing song.



Shuffles the current list of songs randomly.



Songs play in order and are not shuffled.



Lists the current playlist songs.



Returns the user to the music category screen.



Assign the current song as a Favorite.



Streams the current music file to another device using Samsung Link.

Making a Song a Phone Ringtone

1. From within the **Music** application, tap the **Songs** tab.
2. Touch and hold a song from the list to reveal the on-screen context menu.
3. Tap **Set as → Phone ringtone**.
4. Choose a starting point for the ringtone to start playing from. Select either **From the beginning** or **Auto recommendations** (you can allow the application to choose the best part to start from).

Note: Additional Set as options include **Caller ringtone** and **Alarm tone**.

Music Options

The Music settings menu allows you to set preferences for the music player such as whether you want the music to play in the background, sound effects, and how the music menu displays.

- With the application displayed and playing a song, press and select one of the following options:
 - **Via Bluetooth:** scans for devices and pairs with a Bluetooth headset.
 - **Play via Group Play:** allows you to share music with others using the Group Play application. All users must be connected to the same Wi-Fi. For more information, refer to “Group Play” on page 89
 - **Add to playlist:** allows you to add the current music file to a selected playlist.
 - **Set as:** allows you to set the current song as a Phone ringtone, Caller ringtone, or Alarm tone. Additionally you can either choose to start the selected song from the beginning or allow the application to automatically recommend a start point.
 - **Scan for nearby devices:** allows you to look for DLNA - compliant devices used to control streaming media.
 - **Settings:** allows you to change your music player settings.

- **Details:** allows you to view media info such as Artist, Title, Album, Track length, Genre, Track number, Format, Size, and Location.
- **End:** closes the application.

Music Settings

The settings menu allows you to set preferences for the music player such as whether you want the music to play in the background, sound effects, and how the music menu displays.

1. From within the **Music** application, press  → **Settings**.
2. Select one of the following settings:
 - **Music menu:** this menu allows you to select which categories you want to display. Choices are: Albums, Artists, Genres, Music square, Folders, Composers, Years, Most played, Recently played, or Recently added. Tap each item that you want to display in the Music menu.
 - **SoundAlive:** set a type of equalization such as Normal, Pop, Rock, Jazz, Dance, Classic, and so on.
 - **Adapt Sound:** enable or disable the adaptive sound feature to adjust to the sound levels of your current environment.

- **Play speed:** set the play speed anywhere between 0.5X and 2.0X using the slider.
- **Music auto off:** when enabled, sets a timer for the Music application to automatically turn off after a pre-selected amount of time.
- **Lyrics:** when activated, the lyrics of the song are displayed if available.
- **Smart volume:** when activated, automatically adjusts each track's volume to an equal level.
- **Voice control:** when activated, allows you to use voice control commands to control the music player.

Using Playlists

Playlists are used to assign music files into groups for playback. These Playlists can be created using the Music player on this device, or using a third-party application (such as Windows Media Player) and downloading those files to an SD card inserted into the device.

Creating a Playlist

1. From within the **Music** application, tap the **Playlists** tab.
2. Press  and then tap **Create playlist**.

3. Backspace over the default playlist title and type a new name for this playlist, then tap **OK**.

Adding Music to a Playlist

1. From within the **Music** application, tap the **Playlists** tab.
2. Tap the playlist name in which to add music.
3. Tap **+** **Add music**. This option is available within user-created playlists.

Note: If a playlist is empty, add a song by touching a holding a song name from the main screen to open the context menu. Select **Add to playlist** and choose the playlist.

4. Tap a music file, or tap **Select all** to add all the music tracks to this playlist then tap **Done**.

Removing Music from a Playlist

1. From within the **Music** application, tap the **Playlists** tab.
2. Tap the playlist name in which to delete music.
3. Touch and hold a song to reveal the on-screen context menu.
4. Tap **Remove**.

Editing a Playlist

Besides adding and removing music files in a playlist, you can also share, delete, or rename the playlist.

Note: Only those playlist you have created can be edited. Default playlists can not be renamed.

1. From within the **Music** application, tap the **Playlists** tab.
2. Touch and hold a playlist entry to reveal the on-screen context menu.
3. Tap **Edit title**.
4. Enter a new name for this playlist and tap **OK**.

Transferring Music Files

Music files can be downloaded to the phone using one of two methods:

1. Downloaded to the device from the Play Store.
Music files are directly stored on your phone.
2. Downloaded to the phone over a direct USB connection.
Music files are stored into a Music folder on the SD card.

Removing Music Files

1. From within the **Music** application, tap the **Songs** tab.
2. Touch and hold a song entry to reveal the on-screen context menu.
3. Tap **Delete** → **OK**. The music file(s) is deleted.

Phone

This application provides the ability to make or answering calls, access the Contacts list, which is used to store contact information.

- From the Home screen, tap  **Phone**.

For more information, refer to “*Calling*” on page 56 and to “*Contacts and Accounts*” on page 43.

Play Store

Formerly known as the “Android Market”, this application provides access to downloadable applications and games to install on your phone. The Play Store also allows you to provide feedback and comments about an application, or flag an application that might be incompatible with your phone.

Before using the Play Store, you must have a Google Account.

Accessing the Play Store

1. From the Home screen, tap  **Apps** →  **Play Store**.
2. If not already logged in with your Google account, tap **Next**.
3. Tap **Existing** and enter your Google account information.
4. Tap **Accept** to agree to the Play Store terms of service.

Downloading a New Google Application

To download a new application, you will need to use your Google account to sign in to the Play Store. The home page provides several ways to find applications. The home page features applications and includes a list of item applications by category, a list of games, a link to search, and a link to My apps.

1. From the Home screen, tap  **Apps** →  **Play Store**.
2. Browse through the categories, find an application you're interested in, and tap the name.
3. Read the application descriptions.

Important! If the selected application requires access to data or control of a function on your device, the Play Store displays the information the application will access.

Tap **OK** if you agree to the conditions of the application. Once you tap **OK** on this screen you are responsible for using this application on the device and the amount of data it uses. Use this feature with caution.

4. Tap **Install** → **ACCEPT**.

Note: Use caution with applications which request access to any personal data, functions, or significant amounts of data usage times.

5. If prompted, follow the on-screen instructions to pay for the application.
6. Check the progress of the current download by opening the Notifications panel. The content download icon  appears in the notification area of the status bar.
7. On the main Play Store screen, press  and then tap **My Apps**, tap an installed application in the list, and then tap **Open**.

Note: A data plan is required to use this feature. Charges may apply. Please contact your service provider for further details.

Launching an Installed Google Application

1. From the Home screen, tap  **Apps**.
2. Tap the newly installed application. This application is typically located on the last Applications page.

Unknown sources

This feature can be used for Android application development. The feature allows developers to install non-Play Store applications.

- From the main **Settings** page, tap **General** tab → **Security** → **Unknown sources**.

Unknown sources displays a check mark to indicate it is active.

Note: If Unknown sources is disabled, those applications without a certificate are not allowed to download to your device.

Manage applications

This feature allows you to manage and remove installed applications. You can also view the amount of memory or resources used as well as the remaining memory and resources for each of the applications on your device and clear the data, cache, or defaults.

- From the main **Settings** page, tap **General** tab → **Application manager**.

Clearing application cache and data

1. From the main **Settings** page, tap **General** tab → **Application manager**.
2. Tap an application in which to clear the cache or data.
3. Tap **Force stop**, **Uninstall**, **Clear data**, **Clear cache**, or **Clear defaults**.

Uninstalling third-party applications

You can uninstall any application you downloaded and installed from the Play Store.

1. From the main **Settings** page, tap **General** tab → **Application manager** → **Downloaded**.
2. Tap the third-party application, and from the **App info** screen, tap **Uninstall**.

S Note

Use this application to create notes with productivity tools that turn handwriting into typed text and correct drawn shapes, lines, and formulas to make them perfect.

1. From the Home screen, tap  **Apps** →



2. Tap **Start** and follow the on-screen instructions.

Settings

This icon navigates to the sound and phone settings for your phone. It includes such settings as: display, security, memory, and any extra settings associated with your phone.

- From the Home screen, tap  **Apps** →



— or —

From the Home screen press  and then tap **Settings**.

For more information, refer to “*Settings*” on page 171.

Video

The Video player application plays video files stored locally.

Using Video

The Video application plays video files stored on the SD card.

This device is able to playback DivX videos.

1. From the Home screen, tap  **Apps** →  **Video**. A list of available videos displays in the Video list.
2. Tap a video file to begin viewing.

Sharing Videos

1. From the Home screen, tap  **Apps** →  **Video**. After a few seconds, each on-screen video begins to cycle through a preview of the first five seconds of the clip.
2. Press  and then tap **Share via**.
3. Select either individual videos or tap **Select all**.
4. Press  and then tap **Done** to complete the process or **Cancel** to quit.

5. Select a sharing option. Choose from: Add to Dropbox, Bluetooth, ChatON, Email, Evernote - Create Note, Gmail, Google+, Messages, Picassa, S Note, Scrapbook, Wi-Fi Direct, or YouTube.

Additional Video Features

1. From the Home screen, tap  **Apps** →  **Video**.
2. Press  and then tap an available option:
 - **Sort by**: allows you to sort current videos by Title, Date, Size, or Type.
 - **View as**: allows you to display the on-screen video images as either a List, Thumbnail, or Folders.
 - **Share via**: allows you to share a selected video with external sources.
 - **Delete**: allows you to delete selected videos.
 - **Edit**: allows you to edit a selected video file.
 - **Auto play next**: allows you to play videos consecutively. Once a video ends, the next available video begins to play.
 - **Information**: provides on-screen information about the application.

- **Settings:** allows you to configure application functions such as: Default storage, Auto update apps, and About services.
- **Help:** displays an on-screen set of application-related Help topics.

Using Picture-In-Picture

This feature can be used during playback of supported video types using either the Gallery, Play Videos, or Video player.

Note: Some applications might not allow this video to remain active in the foreground (ex: Camera/Camcorder screen).

This feature allows you to continue to view your video as a background operation while you multi-task and do other things, such as surf the Internet, access your Contacts list, look for a picture, and so on.

1. From the Home screen, tap  **Apps**.
2. Tap the desired video playback application.
3. Tap the desired video to begin playback.

Note: The Picture-In-Picture feature only works when using the Video player application. Other video players (ex: YouTube), do not support this feature.

4. As playback is initiated, locate and tap  **Picture-in-Picture** from the bottom-right of the playback screen. Your current video is then sent to foreground of any new page and most application screens.
5. The video disappears from the screen once it ends.

YouTube

YouTube is a video sharing website on which users can upload and share videos, and view them in MPEG-4 format.

- From the Home screen, tap  **Apps** →



YouTube.

Section 7: Connections

Wi-Fi

Wi-Fi is a wireless networking technology that provides access to local area networks.

Wi-Fi communication requires access to an existing Wi-Fi network. Wi-Fi networks can be Open (unsecured), or Secured (requiring you to provide login credentials).

Your device supports the 802.11 a/b/g/n Wi-Fi protocols.

Configuring Wi-Fi Settings

Configure your device's Wi-Fi settings. For more information, see “*Wi-Fi Settings*” on page 172.

Turning Wi-Fi On or Off

Turn your device's Wi-Fi service on or off. When you turn Wi-Fi service on, your device automatically searches for nearby available Wi-Fi networks.

Tip: When you turn Wi-Fi service on, your device automatically searches for available networks and displays them.

You can also turn Wi-Fi On or Off from Settings.

1. From the Home screen, sweep your finger downward to display Notifications.
2. If Wi-Fi is not already on, touch **Wi-Fi Off** to turn on Wi-Fi.

– or –

Touch **Wireless network available** to launch Wi-Fi settings, then touch **Wi-Fi**  .

Scanning and Connecting to a Wi-Fi Network

When you turn on Wi-Fi, your device searches for available Wi-Fi connections, then displays them.

1. From the Home screen, sweep your finger downward to display Notifications.
2. If Wi-Fi is not already on, touch **Wi-Fi Off** to turn on Wi-Fi.

– or –

Touch **Wireless network available** to launch Wi-Fi settings, then touch **Wi-Fi** .

3. When your device completes a scan, touch a Wi-Fi network to connect. If the Wi-Fi network is open, you will be automatically connected. If the Wi-Fi network is secured, enter the password at the prompt to connect.

Adding a Wi-Fi Network Manually

1. From the Home screen, sweep your finger downward to display Notifications.
2. If Wi-Fi is not already on, touch **Wi-Fi Off** to turn on Wi-Fi.
– or –
Touch **Wireless network available** to launch Wi-Fi settings, then touch **Wi-Fi** .
3. On the pop-up Wi-Fi settings screen, touch **Add Network** (below the scanned networks), then enter these fields:
 - **Network Name (SSID)**: Enter the name of the Wi-Fi network.
 - **Security**: Select the type of security used by the Wi-Fi network.
 - **Password**: If the network is secured, enter the password.
4. Touch **Connect** to save the settings and connect to the network now, or **Save** to save the network settings for future use.

Wi-Fi Direct

Wi-Fi Direct is a standard that allows devices to connect to each other directly using Wi-Fi, without a Wi-Fi network or hotspot, and without having to set up the connection. This type of connection is commonly called peer-to-peer.

For example, your device can use Wi-Fi Direct to share photos, contacts and other content with other Wi-Fi Direct devices. Many of the apps on your device provide options for sharing over Wi-Fi Direct under  **Menu**.

Turning Wi-Fi Direct On or Off

1. From the Home screen, touch  **Menu**, then select **Settings** → **More settings**.
2. Touch **Wi-Fi Direct**  to turn Wi-Fi Direct On or Off.

Connecting to Wi-Fi Direct Devices

1. First, enable Wi-Fi Direct on your device. From the Home screen, touch  **Menu**, then select **Settings** → **More settings**, then touch **Wi-Fi Direct** .
2. Enable Wi-Fi Direct on the other device(s). Consult the other device's documentation for more information.
3. On your device, touch **Wi-Fi Direct** to scan for the other device(s).
4. In the scanned list, touch a device to connect with it, or touch **Multi-connect** to connect to multiple devices (not all devices support multi-connect).
5. Follow the prompts on both devices to complete the connection.

Mobile Hotspot

Use Mobile Hotspot to share your device's internet connection with a PC or other device through Wi-Fi, using your device as the mobile hotspot.

Note: Mobile Hotspot may require a subscription to Mobile Hotspot/Mobile Broadband Connect service. Contact Verizon Wireless for more information.

Mobile Hotspot consumes battery power and uses data service. While the Mobile Hotspot is active, your device's applications will use the Mobile Hotspot data allowance.

Configuring Mobile Hotspot Settings

Configure your device's Mobile Hotspot settings, including your device's name and password, and set the visibility of your device's Wi-Fi hotspot.

For more information, see *"Configuring Mobile Hotspot"* on page 178.

Turning Mobile Hotspot On or Off

Activate your device's Mobile Hotspot application to allow other devices to use your device's internet connection.

1. From the Home screen, select  **Apps** →



Mobile Hotspot.

2. Touch **Mobile Hotspot**  to turn the hotspot On or Off.

Tip: By default, your device's mobile hotspot has no security applied, and any device can connect. For more information about configuring your mobile hotspot, see *"Configuring Mobile Hotspot"* on page 178.

Connecting a Device to Mobile Hotspot

Use the other device's Wi-Fi control to connect to your device's Mobile Hotspot.

1. Turn on Mobile Hotspot on your device. For more information, see *"Turning Mobile Hotspot On or Off"* on page 161.
2. Activate Wi-Fi on the device, using the device's Wi-Fi control.
3. Scan for Wi-Fi hotspots, and select your device from the list. To find your device's name, see *"Configuring Mobile Hotspot"* on page 178.
4. At the prompt, enter your device's Mobile Hotspot password. By default, the password is your device's telephone number. For more information, see *"Configuring Mobile Hotspot"* on page 178.

Allowed Device List

Control whether devices connect to your Mobile Hotspot with the Allowed device list. After you add devices to the list, they can scan for your device and connect using your device's mobile hotspot name and password.

Note: Using your device as a mobile hotspot consumes battery power and uses data service. While Mobile Hotspot is active, your device's applications will use the Mobile Hotspot data service. Roaming while using your device as a mobile hotspot will incur extra data charges.

1. From the Home screen, select  **Apps** →  **Mobile Hotspot**.
2. Touch **Allowed devices**, then touch the button at the top of the screen to enter the other device's Device name and MAC address.
3. Touch **OK** to add the device to the Allowed devices list.

Bluetooth

Note: For Hearing Aid Compatibility Information, see page 245.

Bluetooth is a short-range wireless communications technology for exchanging information over a distance of about 30 feet. You don't need to line up the devices to send information with Bluetooth. If the devices are in range, you can exchange information between them, even if they are in different rooms.

Your device can use Bluetooth to share photos, contacts and other content with other Bluetooth devices. Many of the apps on your device provide options for sharing over Bluetooth under  **Menu**.

Configuring Bluetooth Settings

Configure your device's Bluetooth settings. For more information, see *"Bluetooth settings"* on page 175.

Note: Bluetooth profiles are specifications for services supported by individual devices. For a list of profiles your device supports, see *"Bluetooth profiles"* on page 174.

Turning Bluetooth On or Off

1. From the Home screen, touch  **Menu**, then select **Settings**.
2. Touch **Bluetooth**  to turn Bluetooth On or Off.

Tip: You can also turn Bluetooth On or Off on Notifications. From almost any unlocked screen, sweep your finger down from the Status bar to display Notifications.

Pairing with a Bluetooth Device

Search for a Bluetooth device and pair with it, to exchange information between your device and the target device.

After pairing, your device and the target device will recognize each other and exchange information without a passcode or PIN.

Note: When paired, the  **Bluetooth paired** icon displays in the Status Bar. If you receive a new request for pairing while paired with a Bluetooth headset, a new Bluetooth icon displays at the left of the Status bar and Notifications displays the pairing request.

1. From the Home screen, touch  **Menu**, then select **Settings → Bluetooth**.
2. Touch **Bluetooth**  to turn Bluetooth On.
3. Activate the target device's discoverable mode.
4. Touch **Scan**.
5. From the list of scanned devices, touch the target device, then follow the prompts to complete the pairing:
 - If the target device requires a PIN, enter a PIN for the target device and touch **OK**. When prompted, enter the PIN on the target device.
 - If the device allows automatic or smart pairing, your device will attempt to pair with the device automatically. Follow the prompts on your device and the target device to complete the pairing.

VPN

You can use your device's VPN (Virtual Private Network) feature to connect to VPNs.

Configuring VPN Settings

Configure your device's VPN settings. For more information, see “Nearby devices” on page 181.

Note: You must enable at least Pattern security before setting up a VPN. If you have not yet enabled security, you'll be prompted to do so the first time you launch VPN settings.

Adding a VPN

1. From the Home screen, touch  **Menu**, then select **Settings → More settings → VPN**.
2. Touch **Add VPN network** to set up a connection to a VPN. Available settings depend on the type of VPN.

Tethering

Use Tethering to share your device's internet connection with a computer that connects to your device using the USB cable, or by Bluetooth.

Touch **Help** under Tethering settings to view information about tethering, and for links to more information.

Note: Mobile Broadband Connect may require a subscription to Mobile Hotspot/Mobile Broadband Connect service. Contact Verizon Wireless for more information. Mobile Hotspot consumes battery power and uses data service. While the Mobile Hotspot is active, your device's applications will use the Mobile Hotspot data allowance.

Mobile Broadband Connect

Use Mobile Broadband Connect to share your device's network connection with a computer that connects to your device using the USB cable.

1. From the Home screen, touch  **Menu**, then select **Settings → More settings → Tethering**.
2. Connect the other device to yours using the USB cable.
3. Touch **Mobile Broadband connect** to turn tethering On or Off.

Bluetooth tethering

Before starting, pair your computer with your device, then configure your computer to obtain its network connection using Bluetooth.

1. From the Home screen, touch  **Menu**, then select **Settings → More settings → Tethering**.
2. Pair the other device to yours using Bluetooth.
3. Touch **Bluetooth tethering** to turn tethering On or Off.

Important! Tethering consumes battery power and increases your data usage. Roaming while using tethering will incur extra data charges.

NFC and Beaming

Use NFC (Near Field Communication) to share information between your device and another NFC device by beaming, typically by touching the devices together back-to-back.

Your device uses NFC for the S Beam feature. NFC must be turned on to use S Beam.

1. From the Home screen, touch  **Menu**, then select **Settings → More settings**.
2. Touch **NFC** to turn NFC On or Off.

Note: NFC must be turned on to use S Beam.

S Beam

Share more and share it faster with S Beam. From photos to documents, large video files to maps, you can share almost anything instantly with one touch, simply by placing your devices back-to-back.

S Beam uses your device's NFC (Near Field Communication) feature to send, or “beam”, content to other NFC and Wi-Fi Direct devices, by holding the devices close together.

S Beam works in the background. Use the sharing options from your favorite apps to select content to share over S Beam. For example, you can beam pictures or videos from Gallery, or songs from Music player. Just bring the devices together (typically back-to-back), then tap the screen.

1. From the Home screen, touch  **Menu**, then select **Settings → More settings**.
2. Touch **NFC** to turn NFC On. NFC must be turned On to use S Beam.
3. Touch **S Beam**, then touch  to turn S Beam On or Off.

Note: If you turn on S Beam, NFC is automatically turned On.

Nearby devices

Share files with nearby devices using DLNA (Digital Living Network Alliance) standards, over Wi-Fi.

To share with nearby devices, you must connect to a Wi-Fi network. The devices you wish to share files with must also be connected to the same Wi-Fi network and must support DLNA.

Important! Use care when enabling file sharing for nearby devices. When enabled, other devices can access data on your device.

Turning File sharing On or Off

1. From the Home screen, touch  **Menu**, then select **Settings → More settings → Nearby Devices**.
2. Touch **File sharing** to turn sharing On or Off.

Configuring File Sharing

1. From the Home screen, touch  **Menu**, then select **Settings → More settings → Nearby Devices**.
2. Under **Advanced**, touch options to control how content is shared from your device:
 - **Shared contents:** Choose the type of content to share, from **Videos, Photos, or Music**.
 - **Device name:** View or modify your device's name.
 - **Allowed devices list:** View and manage devices allowed to connect to your device.
 - **Not-allowed devices list:** View and manage devices restricted from connecting to your device.
 - **Download to:** Choose a location to save downloaded content, from USB storage (device memory) or SD card.
 - **Upload from other devices:** Choose how to handle incoming files from other devices, from **Always accept, Always ask, or Always reject**.

Connecting to a Computer

Connect your device to a computer to transfer data between your device and the computer. Use the USB cable that comes with your device, or use one of the pre-loaded apps on your device to connect wirelessly.

Transferring Data

Connect your device to a computer, using the USB cable, to transfer data as a Media device using MTP (Media Transfer Protocol), or as a Camera using PTP (Photo Transfer Protocol).

1. Attach your device to the computer with a USB data cable. Your device recognizes the connection as the last connection method you used, and displays a connection alert in the Status bar and Notifications.
2. From the Home screen, sweep your finger downward to display Notifications, then touch the alert.
3. Select a connection method:
 - **Media device (MTP):** Transfer media files with Windows, or using Android file transfer on a Mac (see www.android.com/filetransfer).
 - **Camera (PTP):** Transfer photos using camera software, and transfer files to computers that do not support MTP.

4. On your computer, choose a method for accessing your device. Available options depend on the programs installed on your computer.
5. Transfer files to the memory card. When finished, you can disconnect the USB cable.

Kies air

Manage content saved on your device using your desktop or mobile browser and Wi-Fi technology. The pre-loaded Kies air app connects over Wi-Fi to the Kies application, which you can install on your computer.

For more information, visit: www.samsung.com/us/kies

Note: To sync your device to a PC, it is highly recommended that you install Samsung Kies, which is available at <http://www.samsung.com/kies> (for Windows/Mac).

Note: If you are a Windows XP user, ensure that you have Windows XP Service Pack 3 or higher installed on your computer. Also, ensure that you have Samsung Kies 2.0 or Windows Media Player 10 or higher installed on your computer.

Memory Card

Your device supports removable microSD™ or microSDHC™ memory cards of up to 64GB capacity, for storage of music, pictures, videos, and other files.

By default, files that you download, or that you create with your device, such as pictures and videos you capture with Camera, are stored to your device's memory. For more storage capacity, you can set the memory card as the primary storage location for apps with the app's options.

For more information about viewing memory usage for the memory card, see “SD card” on page 192.

Installing and Removing a Memory Card

For more information about installing and removing a memory card, see “Memory Card” on page 14.

Important! To prevent damage to data stored on the memory card, unmount the card before removing it from the device.

Mounting and Unmounting a Memory Card

Mounting a memory card establishes the connection between your device and the card, to prepare for saving files to the memory card. In most cases, the device mounts the card automatically when you install it, and displays the memory card status on Notifications.

Before removing the card, use the Mount/Unmount setting to unmount, it to prevent damage to data stored on the card.

1. From the Home screen, touch  **Menu**, then select **Settings → Storage**.
2. Touch **Unmount SD card**, then follow the prompts.

Formatting a Memory Card

Use the Format SD card setting to remove all data from an installed memory card.

Important! Data cannot be recovered after formatting.

1. From the Home screen, touch  **Menu**, then select **Settings → Storage**.
2. Touch **Format SD card**, then follow the prompts to confirm the deletion of data from the card.

Section 8: Settings

Accessing Settings

From the Home screen

- Touch  **Apps** →  **Settings**.
— or —
Touch  **Menu**, then select **Settings**.

From Notifications

- Touch and drag down from the top of the screen to display notifications, then touch .

Wireless and network

Airplane mode

When airplane mode is enabled, all your device's wireless connections are disabled, and you cannot make or receive calls or messages or connect to networks. While in airplane mode, you can use other features of your device, such as playing music, watching videos, or other applications.

1. From the Home screen, touch  **Apps** →  **Settings**.
2. Touch **Airplane mode** to enable or disable airplane mode.

Note: Airplane mode can also be controlled from Notifications, and from Device options when you press and hold the  **Power/Lock Key**.

Device

Wi-Fi

Set up and manage your device's connections to Wi-Fi networks. Your device supports Wi-Fi a/b/g/n.

For more information about using Wi-Fi, see “Wi-Fi” on page 158.

Turning Wi-Fi On or Off

Turn your device's Wi-Fi service on or off. When you turn Wi-Fi service on, your device automatically searches for available Wi-Fi networks.

Tip: You can also turn Wi-Fi On or Off from Notifications.

1. From the Home screen, touch  **Apps** →  **Settings**.
2. Touch **Wi-Fi**  to turn Wi-Fi On or Off.

Wi-Fi Settings

Set up and manage wireless access points.

1. From the Home screen, touch  **Apps** →  **Settings** → **Wi-Fi**.
2. Touch **Wi-Fi**  to turn Wi-Fi On. Wi-Fi must be turned on to configure settings.
3. Touch settings to configure:
 - **Notify me:** When enabled, your device notifies you of Wi-Fi networks when you launch a high data-usage application.
 - **Add Wi-Fi Network:** Connect to a new Wi-Fi network. For more information, see “Adding a Wi-Fi Network Manually” on page 159.
 - **Scan:** Search for available Wi-Fi networks.
 - **Wi-Fi Direct:** Configure Wi-Fi Direct.

Other Wi-Fi settings

1. From the Home screen, touch  **Apps** →



Settings → **Wi-Fi**.

2. Touch  **Menu** for additional settings:

- **Advanced:**

- **Auto-connect:** When enabled, your device will automatically connect to known Wi-Fi networks when you launch a high data-usage application, even if Wi-Fi is turned off. A known Wi-Fi network is one that you previously added.
- **Keep Wi-Fi on during sleep:** Specify when to switch from Wi-Fi to mobile data for data communications, when the device goes to sleep (when the backlight goes out). This setting can affect your data usage, and the behavior of devices you connect to your device, such as when tethering or using Mobile Hotspot.
- **Check for Internet service:** When enabled, your device will check for Wi-Fi Internet service when connected to a Wi-Fi access point.
- **MAC address:** (Not configurable) View your device's MAC address, needed for connecting to some secured networks.
- **IP address:** (Not configurable) View your device's IP address.

- **Manage networks:** View and manage your saved Wi-Fi networks. Touch a network to connect to it, or to forget or modify its settings.
- **WPS push button:** Set up a connection to a WPS (Wi-Fi Protected Setup) router or equipment.
- **WPS PIN entry:** View the PIN used by your device to set up a PIN-secured connection to a Wi-Fi router.

Wi-Fi Direct

Wi-Fi Direct allows devices to connect to each other directly using Wi-Fi, without a Wi-Fi network or hotspot, and without having to set up the connection. For example, your device can use Wi-Fi Direct to share photos, contacts and other content with other Wi-Fi Direct devices.

For more information, see “*Wi-Fi Direct*” on page 160.

1. From the Home screen, touch  **Apps** →  **Settings** → **Wi-Fi**.
2. Touch **Wi-Fi Direct** at the bottom of the screen. Your device automatically scans for nearby Wi-Fi Direct devices, or you can touch **Scan** to start scanning.
3. After scanning for devices, select a device, then follow the prompts to complete the connection.
– or –
Touch **Multi-connect** to create a connection to devices that support multi-connect. Touch **Scan** to search for available multi-connect devices, then select the devices and follow the prompts to complete the connection.

Bluetooth

Your device supports Bluetooth® 4.0.

Bluetooth profiles

Bluetooth profiles are specifications for services supported by individual devices. Profiles improve the ability of different devices to work together. Your device supports these Bluetooth profiles:

- **Headset:** HSP v1.2 profile supports use of compatible Bluetooth headsets for mono voice.
- **Handsfree:** HFP v1.5 profile supports Bluetooth headsets, and may also support other compatible Bluetooth devices with speakerphone capabilities.
- **Serial Port:** SPP profile supports connections as a serial port.
- **Stereo:** A2DP v1.2, AVRCP v1.3, GAVDP 1.0, AVCTP 1.3 and AVDTP 1.2 profiles support delivery of stereo audio to compatible Bluetooth devices.
- **Object Exchange:** OPP v1.0 profile allows sending and receiving of contact name cards (vCard 2.1) and calendar events (vCalendar) between devices. PBAP v1.2 supports exchange of Phone Book Objects.

- **Human Interface Devices:** HID v1.0 profile supports certain interface devices.
- **Personal Area Network:** PAN 1.0 supports exchange of data with other devices.
- **Message Access Profile:** MAP 1.0 allows exchange of SMS messages between devices, such as with an automotive hands-free device.

Note: This device does not support all Bluetooth profiles.

For vehicle/accessory compatibility, visit www.verizonwireless.com/bluetoothchart.

Turning Bluetooth On or Off

1. From the Home screen, touch  **Apps** →  **Settings**.
2. Touch **Bluetooth**  to turn Bluetooth On or Off.

Tip: You can also turn Bluetooth On or Off at Notifications.

Bluetooth settings

Pair with other Bluetooth devices, manage your Bluetooth connections, and control your device's visibility to other devices.

Note: Bluetooth must be turned On to access Bluetooth settings.

1. From the Home screen, touch  **Apps** →  **Settings** → **Bluetooth**.
2. Touch a setting to configure Bluetooth:
 - Touch  to turn Bluetooth On or Off.
 - Touch your device's name to control its visibility to other devices' Bluetooth searches. Available when Bluetooth is turned On.
 - Touch a paired device to connect to it, or touch  beside the device to change its settings.
 - Touch **Scan** to search for visible Bluetooth devices. After searching, touch a device to pair with it. For more information, see "Pairing with a Bluetooth Device" on page 163.

Data usage

Monitor data usage, control your device's connection to mobile data service.

Note: Data usage is measured by your device, and your service provider may account for usage differently, so consider using a conservative limit.

1. From the Home screen, touch  **Apps →**
 **Settings → Data usage.**
2. Configure options:
 - **Mobile data:** Turn Mobile data On or Off. You can also control Mobile Data at Notifications.
 - **Limit mobile data usage:** When enabled, your mobile data connection will be disabled when the specified limit is reached. After enabling the setting, drag the red limit line on the graph below to set the data usage limit.
 - **Alert me about data usage:** When enabled, your device will alert you when mobile data usage reaches the warning limit you set. After enabling the setting, drag the orange warning line on the graph below to set the data usage warning limit.

Data usage options

1. From the Home screen, touch  **Apps →**
 **Settings → Data usage.**
2. Touch  **Menu** to set options:
 - **Data roaming:** Turn data roaming On or Off. When roaming, your device connects to networks outside your home network, depending on your provider's agreements with other providers. Using data while roaming can incur extra charges, depending on your plan. For more information, contact Verizon Wireless.
 - **Restrict background data:** Your device can connect to the network in the background, for synchronization or other services. When enabled, background connections will not occur.
 - **Auto sync data:** When enabled, your device will synchronize with accounts automatically, at any time.
 - **Show Wi-Fi usage:** When turned On, a separate tab displays data usage while connected to Wi-Fi.
 - **Mobile hotspots:** Select Wi-Fi networks that are mobile hotspots. You can restrict apps from using these networks, and you can configure apps to warn you before using these networks for large downloads.

More Wireless and Network Settings

Mobile networks

Set options for network selection and data service.

Important! Depending on your service plan, changes you make to mobile networks settings may incur extra charges. Consult Verizon Wireless for information.

1. From the Home screen, touch  **Apps** →  **Settings** → **More settings** → **Mobile networks**.
2. Set these options:
 - **Mobile data:** Enable or disable your device's connection to the mobile data network. You can also control this setting at Notifications with the Mobile data toggle.
 - **Global Data Roaming Access:** Enable or disable connection to data services when your device is roaming on another network.
 - **Roaming:** (Not configurable) Current roaming status.
 - **Signal strength:** (Not configurable) Current signal strength.
 - **Network mode:** Choose a preferred network mode.
 - **Access Point Names:** Configure wireless network access.
 - **Network operators:** Configure network operators.

Mobile Hotspot

Use Mobile Hotspot to share your device's internet connection with other devices, through Wi-Fi. You can connect up to 5 other devices in 3G, or 10 in 4G.

You can control whether devices connect to your Mobile Hotspot with the Allowed device list.

For more information about using your device as a mobile hotspot, see “*Mobile Hotspot*” on page 161. You can also access Mobile Hotspot with the  **Mobile Hotspot** app.

Note: Mobile Hotspot may require a subscription to Mobile Hotspot/Mobile Broadband Connect service. For more information, contact Verizon Wireless.

Using your device as a mobile hotspot consumes battery power and uses data service. While Mobile Hotspot is active, your device's applications will use the Mobile Hotspot data service. Roaming while using your device as a mobile hotspot will incur extra data charges.

Turning Mobile Hotspot On or Off

1. From the Home screen, touch  **Apps** →  **Settings**.
2. Touch **Mobile Hotspot**  to turn Mobile Hotspot On or Off.

Note: Using your device as a mobile hotspot consumes battery power and uses data service. While Mobile Hotspot is active, your device's applications will use the Mobile Hotspot data service. Roaming while using your device as a mobile hotspot will incur extra data charges.

Configuring Mobile Hotspot

1. From the Home screen, touch  **Apps** →  **Settings** → **Mobile Hotspot**.
2. Touch **Configure** for these options:
 - **Network SSID:** View and change the name of your mobile hotspot.
 - **Hide my device:** When enabled, your mobile hotspot is not visible to other Wi-Fi devices during a scan. Other devices can still connect to your mobile hotspot, but will have to set up the connection manually with your Network SSID and Password.
 - **Security:** Choose the security level for your Mobile Hotspot.
 - **Password:** If you choose a security level that uses a password, enter the password. By default, the password is your mobile telephone number.
 - **Show password:** Enable to make the Password field visible.
 - **Show advanced options:** Enable to access advanced options, including Broadcast channel, to specify the channel your device uses for Mobile Hotspot.

Allowed Devices

Control whether devices connect to your Mobile Hotspot with the Allowed devices list. After you add devices to the list, they can scan for your device and connect using your device's mobile hotspot name and password.

Note: Using your device as a mobile hotspot consumes battery power and uses data service. While Mobile Hotspot is active, your device's applications will use the Mobile Hotspot data service. Roaming while using your device as a mobile hotspot will incur extra data charges.

1. From the Home screen, touch  **Apps** →  **Settings** → **Mobile Hotspot** → **Allowed devices**.
2. Touch , then enter the other device's Device name and MAC address.
3. Touch  to add the device to the **Allowed devices** list.

Tip: For information about connecting to your Mobile Hotspot, see “*Connecting a Device to Mobile Hotspot*” on page 162.

Tethering

Use Tethering to share your device's internet connection with a computer that connects to your device using the USB cable, or by Bluetooth.

For more information about connecting computers to your device for Tethering, see “*Tethering*” on page 165.

1. From the Home screen, touch  **Apps** →  **Settings** → **More settings** → **Tethering**.
2. Choose a tethering method:
 - **Mobile Broadband Connect:** Connect the computer to the device using the USB cable, then touch **Mobile Broadband Connect** to turn tethering On or Off.
 - **Bluetooth tethering:** Pair your device with the computer using Bluetooth. Consult the computer's documentation for more information about configuring your computer to pair using Bluetooth. Touch **Bluetooth Tethering** to turn tethering On or Off.

Note: Using Mobile Broadband Connect tethering requires a subscription to Mobile Hotspot/Mobile Broadband Connect service. For more information, contact Verizon Wireless.

VPN

Set up and manage Virtual Private Networks (VPNs). For more information about using VPNs, see “VPN” on page 164.

Note: You must enable screen security before setting up a VPN. For information about screen security, see “Screen lock” on page 196.

Adding a VPN

1. From the Home screen, touch  **Apps** →  **Settings** → **More settings** → **VPN**.
2. Touch **Add VPN network** to set up a connection to a VPN, using the following settings:
 - **Name:** Enter a name for the VPN connection.
 - **Type:** Choose the type of VPN.
 - **Server address:** Enter the IP address of the VPN server.
 - **PPP encryption (MPPE):** Touch to enable or disable encryption.
 - **Show advanced options:** Touch to show more options. Available options depend on the type of VPN you are adding.

NFC

Use NFC (Near Field Communication) to share information between your device and another NFC device by touching the devices together, typically back-to-back.

For more information about sharing information with NFC, see “NFC and Beaming” on page 166.

1. From the Home screen, touch  **Apps** →  **Settings** → **More settings**.
2. Touch **NFC**  to turn NFC On or Off.

S Beam

S Beam uses your device's NFC (Near Field Communication) to send, or “beam”, content to other NFC and Wi-Fi Direct devices, by holding the devices close together.

S Beam works in the background. Use the sharing options from your favorite apps to select content to share using S Beam. For example, you can beam pictures or videos from Gallery, songs from Music player, notes from S Note, and more. Just bring the devices together (typically back-to-back), then tap your screen.

1. From the Home screen, touch  **Apps** →



Settings → **More settings**.

2. Touch **S Beam**  to turn S Beam On or Off.

Nearby devices

Share files with devices using DLNA (Digital Living Network Alliance) standards, over Wi-Fi.

To Nearby devices, you must connect to the same Wi-Fi network as the devices you wish to share with, and the other devices must support DLNA.

For more information about connecting to Wi-Fi, see “Wi-Fi” on page 172.

Important! Use care when enabling file sharing for devices.

When enabled, other devices can access data on your device.

1. From the Home screen, touch  **Apps** →
 **Settings** → **More settings** → **Nearby devices**.
2. Touch **File sharing** to enable or disable file sharing.
3. Under **Advanced**, touch options to control how content is shared from your device:
 - **Shared contents:** Choose the type of content to share, from **Videos**, **Photos**, or **Music**.
 - **Device name:** View or modify your device's name.

- **Allowed devices list:** View and manage devices allowed to connect to your device.
- **Not-allowed devices list:** View and manage devices restricted from connecting to your device.
- **Download to:** Choose a location to save downloaded content, from USB storage (device memory) or optional installed SD card (not included).
- **Upload from other devices:** Choose how to handle incoming files from other devices, from **Always accept**, **Always ask**, or **Always reject**.

AllShare Cast

With AllShare Cast, you can wirelessly share your phone's screen with Wi-Fi-enabled TVs using the optional AllShare Cast Hub accessory (not included).

1. From the Home screen, touch  **Apps** →  **Settings** → **More settings** → **AllShare Cast**.
2. Touch **AllShare Cast**  to turn the feature On or Off.

Note: For information about connecting to a device, touch **Help**.

Device

Home screen mode

Your phone offers two Home screen modes:

- Starter mode provides an easier experience for the first-time smartphone user.
- Standard mode provides a conventional layout for apps and widgets on the Home screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Home screen mode**.
2. Choose a mode from the pulldown menu, then touch **Apply**.

Sound

Volume

Set the system volume level, and set default volume for call ringtones, notifications, and media playback.

Note: You can also set System volume from the Home screen by pressing the **Volume Key**.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Volume**.
2. Touch and drag the sliders for:
 - **Music, video, games, and other media:** Set the default volume level for audio playback. You can also adjust volume from this default inside the apps.
 - **Ringtone:** Set the volume for incoming call ringtones.
 - **Notifications:** Set the volume for notifications, such as new messages and event reminders.
 - **System:** Set the volume for all other system sounds, such as keytones played for screen touches. You can control whether tones play for screen touches with other sound settings.
3. Touch  to save your settings.

Vibration intensity

Set the level for vibration to accompany ringtones and notifications.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Vibration intensity**.
2. Touch and drag the sliders for:
 - **Incoming call:** Set the vibration level for incoming call ringtones.
 - **Notification:** Set the vibration level for notifications, such as new messages and event reminders.
 - **Haptic feedback:** Set the vibration level vibrations to accompany screen touches.
3. Touch  to save your settings.

Device ringtone

Choose a ringtone for incoming calls.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Device ringtone**.
2. Touch a ringtone to select it. As you touch ringtones, a sample plays, unless you have Mute or Vibrate mode enabled.
3. Touch  to save your settings.

Tip: You can also set songs as ringtones for all calls, or for a selected contact. For more information, see *“Making a Song a Phone Ringtone”* on page 148.

Device vibration

Choose a vibration pattern to use when vibration is enabled.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Device vibration**.
2. Touch a pattern to select it. As you touch patterns, a sample plays.
3. To create your own pattern, touch **Create**. Touch **Tap to create** in the pattern, then touch **Stop**. Touch **Save** to save your pattern.
4. Touch  to save your settings.

Default notifications

Choose a default sound to play for notifications, such as for new messages and event reminders.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Default notifications**.
2. Touch a sound to select it. As you touch sounds, a sample plays.
3. Touch  to save your settings.

Tip: You can also set songs as ringtones. For more information, see “*Making a Song a Phone Ringtone*” on page 148.

Sound and vibration

When enabled, vibration is played at the same time as sounds for calls and alerts.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Sound and vibration**.
2. Touch **Sound and vibration** to turn the feature On or Off.

Keytones

Keytones are sounds that play when you touch keys on the Phone keypad.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound**.
2. Touch **Keytones** to turn key sounds On or Off.

Touch sounds

Touch sounds play when you touch items on the screen, such as when making a selection.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound**.
2. Touch **Touch sounds** to turn sounds On or Off.

Screen lock sound

Screen lock sound plays when you lock or unlock the screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound**.
2. Touch **Screen lock sounds** to turn sounds On or Off.

Haptic feedback

When turned On, the device vibrates to indicate screen touches and other interactions.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound**.
2. Touch **Haptic feedback** to turn touch vibrations On or Off.

Emergency tone

You can choose to have a tone play, or have your phone vibrate, periodically during an emergency call.

1. From the Home screen, touch  **Apps** →  **Settings** → **Sound** → **Emergency tone**.
2. Select **Off**, **Alert**, or **Vibrate**.

Display Wallpaper

Customize the background of the Home and Lock screens.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **Wallpaper**.
2. Select a screen, from **Home screen**, **Lock screen**, or **Home and lock screens**.
3. Select a source for wallpaper, from **Gallery**, **Live wallpaper**, or **Wallpapers**.
4. Follow the prompts to set the picture or wallpaper.

Note: You can also set Wallpaper by touching and holding on the Home screen.

LED Indicator

The LED indicator on the front of the device displays when the device is locked, to notify you of status changes and events. Use LED indicator settings to configure how the LED functions.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **LED Indicator**.
2. Select options:
 - **Charging:** When turned On, the LED glows red during charging, and green when the battery is fully charged.
 - **Low battery:** When turned On, the LED blinks red to indicate low battery charge.
 - **Missed event:** When turned on, the LED blinks orange to show that you have missed calls, new messages, or application events.

Multi window

When enabled, Multi Window allows you to use multiple apps on the same screen, in multiple, resizable windows.

For more information about Multi window, see “Multi Window” on page 30.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Multi window** to enable or disable the feature.

Tip: You can also enable or disable Multi window from Notifications. Sweep your finger down from the top of the screen to display Notifications, then touch Multi window.

Page buddy

Enable Page buddy to have selected Page buddies automatically appear on the Home screen when you use S Pen, or optional accessories such as earphones or a dock, or while you are roaming. Page buddies give you information about using the connected accessory, and offer apps at the bottom of the screen you might like to use with the accessory. An icon will appear in the Home screen page indicator, to let you know a Page buddy is active.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Page buddy**  to turn the feature On or Off.
3. Touch **Page buddy**, then select page buddies.

Tip: For more information about page buddies, touch **Page buddy help**.

Screen mode

Choose a screen mode to match your type of viewing.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch Screen mode, then select a mode.

Brightness

Set the default screen brightness.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **Brightness**.
2. Drag the slider to set the brightness, or touch **Automatic brightness** to allow the device to adjust brightness in response to light conditions.
3. Touch  to save the setting.

Auto-rotate screen

When enabled, the screen's orientation automatically changes when you rotate the device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Auto-rotate screen** to turn the feature On or Off.

Tip: You can also control Auto-rotate from Notifications with the Screen rotation setting.

Screen timeout

Set the length of delay between the last key press or screen touch and the automatic screen timeout (dim and lock).

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **Screen timeout**.
2. Touch a setting to select it.

Smart rotation

When enabled, your device automatically adjusts or disables automatic screen rotation to allow for the position of your face and the device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Smart rotation** to enable or disable the setting.

Smart stay

When enabled, your device automatically disables the screen timeout to keep the screen on as long as you are looking at it.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Smart stay** to enable or disable the setting.

Font style

Set the font for screen displays.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **Font style**.
2. Select a font, or touch **Get fonts online** to browse and download a new font.

Font size

Set the font size for screen displays.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **Font size**.
2. Select a font size.

Touch key light duration

Set the length of time the Menu and Back Keys remain lit after you touch them.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display** → **Touch key light duration**.
2. Choose a time period, or **Always off** or **Always on**.

Display battery percentage

When On, the battery's charge level displays in the Status bar next to the Battery icon.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Display battery percentage** to turn the setting On or Off.

Auto adjust screen tone

When turned On, your device automatically analyzes the screen and adjusts the brightness to conserve battery power.

1. From the Home screen, touch  **Apps** →  **Settings** → **Display**.
2. Touch **Auto adjust screen tone** to turn the feature On or Off.

Storage

Manage the use of memory resources in your device's Device memory, and on an installed memory card.

Device memory

View usage for your device's internal memory.

Note: This setting cannot be configured.

1. From the Home screen, touch  **Apps** →  **Settings** → **Storage**.
2. Under **Device memory**, view memory usage for various categories. Touch a category for more information.

SD card

1. From the Home screen, touch  **Apps** →  **Settings** → **Storage**.
2. Under **SD card**, view memory usage for various categories. Touch a category for more information.
3. Touch **Unmount SD card** to prepare the memory card for safe removal or formatting. For more information, see *"Removing a Memory Card"* on page 14.
4. Touch **Format SD card** to permanently remove all content from an installed memory card.

Power saving mode

Configure Power saving mode settings to conserve battery power.

1. From the Home screen, touch  **Apps** →  **Settings** → **Power saving mode**.
2. Touch **Power saving mode**  to turn the setting On or Off. The setting must be On to configure options.
3. Touch **Power saving mode** to configure options:
 - **CPU power saving**: When enabled, the device's maximum performance is limited. This does not affect normal usage, such as browsing and video playback.
 - **Screen power saving**: When enabled, the screen uses reduced frame refresh rate and lower brightness.
 - **Background color**: When enabled, the background uses lower brightness in Email and Internet.
 - **Turn off Haptic feedback**: When enabled, Haptic feedback is turned off, and no vibration plays when you touch the screen.
 - **Learn about power saving**: View details about Power saving options.

Battery

See what's using battery power.

1. From the Home screen, touch  **Apps** →  **Settings** → **Battery**.
2. View battery usage for applications and services currently running. Touch an item for more information, or to configure options for managing power use.

Application manager

You can download and install applications from the Google Play™ Store or S Suggest, or create applications using the Android SDK and install them on your device. Use Application manager to manage applications on your device.

Warning! Because this device can be configured with system software not provided by or supported by Google or any other company, end-users operate these devices at their own risk.

1. From the Home screen, touch  **Apps** →  **Settings** → **Application manager**.
2. Touch **Downloaded**, **Running**, or **All** to view the status of applications and services. Touch an app or service for more information, and for app options, such as stopping or uninstalling.

Personal

Location services

Location services control your device's use of GPS signals. Some apps may require one or more location services be turned On for full app functionality.

GPS signals may be affected by your surroundings, including:

- Buildings
- Tunnels or underground structures
- Weather conditions
- High-voltage or electromagnetic fields
- Tinted windows

Important! Verizon Wireless values your privacy. Because of this, your device is defaulted to only acquire your location when you dial 911. To use Location-Based Services, you must first enable location services on your device.

E911

E911 location service is standard on all mobile phones, to allow sharing of your GPS location with emergency personnel when you make a call to emergency services (such as 911). This setting is not configurable.

- From the Home screen, touch  **Apps** →  **Settings** → **Location services** → **E911**.

VZW location services

Enable or disable location service from Verizon Wireless.

Note: VZW location services must be enabled to use some applications.

Important! By selecting VZW location services, you are enabling Verizon Wireless and third-party authenticated and validated location services to access certain location information available through this device and/or the network.

1. From the Home screen, touch  **Apps** →  **Settings** → **Location services**.
2. Touch **VZW location services** to enable or disable Verizon Wireless location services.

Standalone GPS services

Enable or disable location service from GPS satellites.

Note: Standalone location services must be enabled to use some applications. You can also enable or disable Standalone GPS services with the GPS setting on Notifications. For more information, refer to “*Notifications*” on page 32

Important! By selecting Standalone GPS services, you are allowing access to all location information by any third party through web access or any software or peripheral components you choose to install, download, add, or attach to the device or any other means. Enabling this functionality could pose certain risks to users of this device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Location services**.
2. Touch **Standalone GPS services** to enable or disable Standalone GPS services.

Google location services

Enable or disable location services from Google location services.

Note: Google location services must be enabled to use some applications.

Important! By selecting Google location services, you are allowing Google's location service to collect anonymous location data. Some data may be stored on your device. Collection may occur even when no apps are running.

1. From the Home screen, touch  **Apps** →  **Settings** → **Location services**.
2. Touch **Google location services** to enable or disable Google location services.

Lock screen

Choose settings for unlocking your device.

For more information about using the lock and unlock features, see *"Securing Your Device"* on page 15.

Screen lock

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Screen lock** for settings:
 - **Swipe:** When enabled, you unlock the device by swiping your finger across the screen. This is the default screen lock, and offers no security, but you can set special lock screen options; see *"Lock screen"* on page 196.
 - **Motion:** When enabled, you unlock the device by touching and holding on the screen and tilting the device forward. Touch the option for more information and a demonstration of the motion. This screen lock offers no security, but you can set special lock screen options; see *"Lock screen"* on page 196.
 - **Face unlock:** When enabled, you unlock the device by looking at the screen. This option offers low security, because someone who looks similar to you could unlock your device. Touch the option for more information, and to set up Face unlock.

- **Face and voice:** When enabled, you unlock the device by looking at the screen and speaking. This option offers low security, because someone who looks and/or sounds similar to you could unlock your device. Touch the option for more information, and to set up Face and voice unlock.
- **Pattern:** When enabled, you draw a pattern, which you create, on the screen to unlock the device. Touch the option, then follow the prompts to create or change your screen unlock pattern.
- **PIN:** When enabled, you enter a numeric PIN (Personal Identification Number), which you create, to unlock the device. with PIN screen lock, you can also set the With swipe lock and Lock screen options.
- **Password:** When enabled, you enter an alphanumeric password, which you create, to unlock the device.
- **None:** Disable all custom screen lock settings, to use the default swipe unlock screen.

With swipe lock

When you have Face, Face and voice, Pattern, PIN, or Password screen locks enabled, you may choose to have your device prompt you to swipe the screen before attempting to unlock the screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **With swipe lock** to enable or disable the option.

Note: The With swipe lock setting is only available if you have set one of the screen locks listed above.

Lock screen options

When the Screen lock is set to Swipe or Motion, or you have the With swipe lock option enabled, you can set special options for the lock screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen** → **Lock screen options**.
2. Configure these options:
 - **Shortcuts:** Touch  to control display of app shortcuts at the bottom of the lock screen. Touch **Shortcuts** to choose shortcuts to display: touch and drag a shortcut to a new position, or to the trash can to remove it, and touch **+** to select a new shortcut.
 - **Information ticker:** Set news, stock, or Facebook to display on a ticker on the lock screen.
 - **Clock:** When enabled, the lock screen displays a digital clock.
 - **Dual clock:** Touch  to control display of a dual clock to show the time in two zones when you're traveling. Touch **Dual clock** to set a home city. When you have location services turned on while traveling, the dual clock will display the time in your home city and current location.
 - **Weather:** Touch to control display of the current location's weather on the lock screen.

- **Ripple effect:** When enabled, a ripple effect shows on the lock screen when you touch the screen. If you choose a live wallpaper for the lock screen, ripple effect is disabled.
- **Ink effect:** When enabled, an ink effect shows on the lock screen when you touch the screen. If you choose a live wallpaper for the lock screen, the ripple effect is disabled.
- **Help text:** Touch the check box to control display of tips as you use the lock screen.
- **Camera quick access:** Touch  to control access to the camera from the lock screen using a motion gesture. When enabled, touch and hold on the lock screen, then rotate the device to landscape orientation to launch the Camera. Touch **Camera quick access** to learn more.
- **Wake up in lock screen:** Touch the check box to enable or disable unlocking by spoken wake-up command.
- **Set wake-up command:** Configure wake-up commands, to be used when the Wake up in lock screen option is enabled. You can configure commands to wake up the device, or other popular features.

Popup Note on lock screen

When enabled, a Popup Note appears on the lock screen (when screen lock options other than Swipe or Motion are active).

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Popup Note on lock screen** to enable or disable the setting.

Improve facial recognition

When you have Face screen lock set, you can use the Improve facial recognition setting to improve your device's recognition of your face.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Improve facial recognition** to enable or disable the setting.

Note: The Improve facial recognition setting is only available if you have set a Face screen lock.

Presence check

When you have Face screen lock set, you can choose to have the device prompt you to blink to start facial recognition, to improve security.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Presence check** to enable or disable the setting.

Note: The Presence check setting is only available if you have set a Face screen lock.

Make pattern visible

When you have a Pattern screen lock set, you can choose whether the pattern is visible briefly as you draw it on the lock screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Make pattern visible** to enable or disable the setting.

Note: The Make pattern visible setting is only available if you have set a pattern screen lock.

Lock automatically

When you have a screen lock set, you can choose a a time period for automatically locking the screen after the screen turns off, or choose to have the screen lock immediately when the screen turns off.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Lock automatically**, then select an option.

Note: The Lock automatically setting is only available if you have set a screen lock.

Lock instantly with power key

When enabled, pressing the  **Power/Lock Key** locks the screen instantly.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Lock instantly with power key** to enable or disable the option.

Vibrate on screen tap

When enabled, the device vibrates when you touch the lock screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen**.
2. Touch **Vibrate on screen tap** to enable or disable the option.

Owner information

Enter text to display on the Lock screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Lock screen** → **Owner information**.
2. Touch **Show owner info on lock screen** to enable display of Owner information on the Lock screen.
3. Enter Owner information text. For more information about entering text, see see “*Entering Text*” on page 39.

Security

Encryption

As a security measure, you can encrypt the contents of your device or an optional installed memory card (not included), and require a password each time you turn on the device or access the memory card.

Encryption may take an hour or more to complete. Start with a charged battery, and attach the charger until encryption is complete. Loss of power or other interruption may cause the loss of some or all data.

Encrypt device

As a security measure, you can encrypt the contents of your device and require a password to access the contents each time you turn it on.

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Encrypt device** to start encryption. Follow the prompts to complete encryption.

Encrypt external SD card

As a security measure, you can encrypt the contents of an optional installed SD card (not included), and require a password each time you access the card.

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Encrypt external SD card** card to start encryption. Follow the prompts to complete encryption.

SIM card lock

Set up SIM card lock

As a security measure, you can choose to lock the SIM card, and require a PIN to use the device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Set up SIM card lock** for these settings:
 - **Lock SIM card:** Enable to require a PIN be entered to use the device, then set the PIN.
 - **Change SIM PIN:** Create a PIN for accessing the SIM card.

Passwords

Make passwords visible

When enabled, password characters display briefly as you enter them.

1. From the Home screen, touch  **Apps →**
 **Settings → Security.**
2. Touch **Make passwords visible** to enable or disable brief displays of password characters.

Device administration

View or disable device administrators. Some applications, such as Corporate email, may require you allow access to your device by device administrators in certain circumstances, such as if your device is lost or stolen.

Some features a device administrator might control include:

- Setting the number of failed password attempts before the device is restored to factory settings
- Automatically locking the device.
- Restoring factory settings on the device.

Device administrators

View, add or remove device administrators.

1. From the Home screen, touch  **Apps →**
 **Settings → Security.**
2. Touch **Select device administrators.**

Unknown sources

When enabled, you can install applications from sources other than Google Play®.

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Unknown sources** to enable or disable the option.

Warning! Because this device can be configured with system software not provided by or supported by Google or any other company, end-users operate these devices at their own risk.

Credential storage

Trusted credentials

You can install credentials from an installed memory card, and use the Credential storage settings to allow applications to access the secure certificates and other credentials.

Trusted credentials

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Trusted credentials** to view certificates you've installed.

Install from device storage

Install encrypted certificates from an installed memory card.

Note: You must have installed a memory card containing encrypted certificates to use this feature.

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Install from device storage**, then choose a certificate and follow the prompts to install.

Clear credentials

Clear stored credentials and reset the password.

Note: This setting is only available if you have installed certificates.

1. From the Home screen, touch  **Apps** →  **Settings** → **Security**.
2. Touch **Clear credentials**, then follow the prompts to clear stored credentials and reset the password.

One-handed operation

Configure options to make using your device easier with one hand. When an option is enabled, you can adjust the position of the feature left or right by touching arrows on the screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **One-handed operation**.
2. Configure options:
 - **Keypad & in-call buttons:** When enabled, you can adjust the position of the dialing keypad and in-call buttons.
 - **Samsung keyboard:** When enabled, you can adjust the position of the Samsung keyboard.
 - **Calculator:** When enabled, you can adjust the Calculator's position.
 - **Unlock pattern:** When enabled, you adjust the position of the unlock pattern on the lock screen.

Tip: Touch **Learn about one-handed operation** for help with using this feature.

Language and input

Language

Set the language used by your device's screens.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Language**.
2. Select a language from the list.

Personal dictionary

Create and manage a list of words for use in text entry, for matching your key touches with words.

- From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Personal dictionary**.

Keyboards and input methods

Configure text entry options to your preferences.

Default

Choose the default method for entering text. From the factory, the default method is Samsung keyboard. If you install other text entry apps, you can set them as default here.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Default**.
2. Touch an input method.

Google voice typing

Configure Google voice input settings. When you enable Google voice in Settings, it is available for text entry when you touch a text field to enter text.

For more information, see *“Using Google Voice Typing”* on page 41.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input**.
2. Touch **Google voice typing** to enable it.
3. Touch  beside Google voice typing to configure options:
 - **Choose input languages:** Select languages for Google voice typing. Select **Automatic** to use the Default language exclusively, or choose other language(s).
 - **Block offensive words:** When enabled, words many people find offensive are not shown in results of Google voice searches. Offensive words are replaced in results with a placeholder (####).
 - **Download offline speech recognition:** Install additional speech recognition.

Samsung keyboard

Configure Samsung keypad settings. When you enable Samsung keyboard in Settings, it is available for text entry when you touch a text field to enter text.

For more information, see *“Using Samsung Keyboard”* on page 40.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input**.
2. **Samsung keyboard** is enabled by default. Touch  to configure options:
 - **Portrait keyboard types:** Choose the default keypad when the screen is in portrait mode, from Qwerty or 3x4 keyboard (similar to a phone keypad).
 - **Input language:** Select languages for the Samsung keyboard.

Tip: When you have more than one language selected, you can slide your finger on the space bar while entering text to switch languages.

- **Predictive text:** Touch  to enable predictive text, to have predictive text suggest words matching your text entries and optionally, complete common words automatically. Touch

Predictive text to configure options:

- **Personalized data:** When enabled, predictive text uses personal language data you have entered to make better predictions. Samsung keyboard can collect all the text you enter, including personal data and credit card numbers, in order to give better prediction results.
- **Learn from Facebook:** Log into Facebook to allow your device to learn from your Facebook postings.
- **Learn from Gmail:** Log into Gmail to allow your device to learn from your Gmail email.
- **Learn from Twitter:** Log into Twitter to allow your device to learn from your Twitter postings.
- **Clear remote data:** Delete your information stored on the personalization server.
- **Clear personalized data:** Remove all personalized data you have entered.
- **Privacy:** Read the privacy policy.

- **Swiftkey flow:** When enabled, you can enter text by sliding your finger across the keyboard.
- **Pen detection:** When enabled, a handwriting pad is automatically displayed when your device detects the S Pen.
- **One-handed operation:** When enabled, Samsung keyboard features can be adjusted right or left for easier use with one hand.
- **Handwriting:**
 - **Input languages:** Choose languages to use with handwriting and Samsung keyboard.
 - **Recognition type:** Choose the type of handwriting recognition, from strokes, or complete letters.
 - **Recognition time:** Choose the length of time the keyboard waits to evaluate handwriting gestures.
 - **Pen thickness:** Choose the size of handwriting strokes on the screen.
 - **Pen color:** Choose the color of handwriting strokes on screen.
 - **Gesture guide:** Learn about gestures you can use while handwriting text.
 - **Tutorial:** Learn about using handwriting.
 - **About:** View information about Samsung keyboard handwriting.

- **Advanced:**

- **Auto-capitalization:** When enabled, predictive text automatically capitalizes words in your text based on common usage, such as at the beginning of sentences.
- **Auto-punctuate:** When enabled, a period and space are automatically entered to end a sentence, when you tap the space bar twice.
- **Character preview:** When enabled, characters available on the key you touch display briefly as you enter text.
- **Key-tap vibration:** When enabled, a vibration plays for your key touches.
- **Key-tap sound:** When enabled, a sound plays for your key touches.
- **Tutorial:** Learn about using Samsung keyboard.
- **Reset settings:** Return Samsung keyboard settings to the defaults.

Swype

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input**.
2. **Swype** is enabled by default. Touch  to configure:
 - **How to Swype:** Learn about using Swype.
 - **Preferences:** Set Swype options:
 - **Vibrate on keypress:** When enabled, the device vibrates for your Swype touches.
 - **Sound on keypress:** When enabled, the device plays sounds for your Swype touches.
 - **Show helpful tips:** When enabled, Swype displays helpful information as you Swype.
 - **Auto-spacing:** When enabled, Swype automatically inserts spaces between words as you complete them.
 - **Auto-capitalization:** When enabled, Swype automatically capitalizes the first word of sentences.
 - **Show complete trace:** When enabled, Swype displays the trace of each word until you start the next word.
 - **Pop-up on keypress:** When enabled, characters display above keys as you enter text.

- **Next word prediction:** When enabled, Swype predicts the next word based on the previous word.
- **Reset Swype's dictionary:** Delete all the words you've added to the Swype dictionary.
- **Version:** View information about Swype.
- **Language options:** Choose the current language for Swype, and download new languages.
- **Swype Connect:** Enable personalization from your accounts, and choose whether to contribute your usage data to improve predictions.
- **Personal dictionary:** View and manage words in your Swype dictionary, used for word completion, suggestion, and spell-checking.
- **Updates:** Check for updates to Swype, and install them if desired.

Speech

Voice search

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Voice search**.
2. Set options:
 - **Language:** Choose a language for voice searching.
 - **Speech output:** Choose options for speech output.
 - **Block offensive words:** When enabled, words many people find offensive are not shown in results of Google voice searches. Offensive words are replaced in results with a placeholder (#####).
 - **Hotword detection:** When enabled, you can say "Google" to launch voice search.
 - **Download offline speech recognition:** Download speech recognition, to enable voice input while offline.
 - **Personalized recognition:** Enable to have your device improve recognition based on your speech.
 - **Google account dashboard:** View and manage your collected data.

Text-to-speech output

Text-to-speech (TTS) provides audible readout of text, for example, the contents of text messages, and the Caller ID for incoming calls.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Text-to-speech output**.
2. Touch a setting to configure:
 - **Preferred TTS engine**
 - Select **Google Text-to-speech Engine**, or **Samsung TTS**.
 - **General**
 - **Speech rate**: Choose a rate at which text readouts are spoken.
 - **Listen to an example**: Play a sample of speech synthesis.
 - **Driving mode**: When enabled, incoming calls and new notifications are read out automatically. Touch  to enable. Touch **Driving mode** to choose items for readout when Driving mode is enabled.

Mouse/trackpad

Customize the response of your screen swipes.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Pointer speed**.
2. Touch and drag along the scale to set the pointer speed.

Back up and reset

Set options for backing up your information and resetting your device.

Back up my data

When enabled, app data, Wi-Fi passwords, and other device settings are backed up to Google servers.

1. From the Home screen, touch  **Apps** →

 **Settings** → **Back up and reset**.

2. Touch **Back up my data** to enable or disable back-up.

Backup account

Sign in to a Google account to use for backing up settings.

1. From the Home screen, touch  **Apps** →

 **Settings** → **Back up and reset**.

2. Touch **Backup account**, then follow the prompts to sign in to a Google account.

Automatic restore

Use Automatic restore to have previous app settings and data automatically update from the backup when you reinstall the app.

1. From the Home screen, touch  **Apps** →

 **Settings** → **Back up and reset**.

2. Touch **Automatic restore** to enable or disable the setting.

Factory data reset

Use Factory data reset to return all settings to the defaults, and remove all data from the device.

1. From the Home screen, touch  **Apps** →

 **Settings** → **Back up and reset**.

2. Touch **Factory data reset**, then follow the prompts.

Important! Settings and data erased in a Factory data reset cannot be recovered. To save your settings, you can use Back up my data settings before a reset.

Accounts

Google

Configure options for Google account and privacy settings.

1. From the Home screen, touch  **Apps** →  **Settings** → **Google**.
2. Configure options:
 - **Accounts:** View Google accounts set up on your device, and configure syncing.
 - **Privacy:** Choose Google features, to configure privacy and account settings.

Backup Assistant Plus

Backup AssistantSM Plus is a free service that protects your contacts by saving to a secure web site. If your phone is lost, stolen or damaged, or if you change phones, Backup Assistant can restore your saved contacts to a new phone, wirelessly. Schedule backups to save your information manually or automatically. Log in to your web account for full access to your contacts for viewing, printing, adding, deleting and editing.

Visit <http://verizonwireless.com/baplus>, or contact Verizon Wireless for more information.

- From the Home screen, touch  **Apps** →  **Settings** → **Accounts and sync** → **Backup Assistant**.

Tip: You can also launch Backup Assistant from  **Contacts**. From Contacts, touch  **Menu** → **Backup**.

Add account

Set up an account, to synchronize the account with your device. When an account is set up on your device, you don't have to log in each time you access the account from the device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Add account**.
2. Select an account, then follow the prompts to enter your credentials and set up the account on your device.

System Motion

Your device recognizes motion, to allow you to navigate and access features by moving the device in specific gestures.

Configure specific motion gestures and settings, to customize your device to your preferences.

For more information about using gestures, see “*Hand Gestures*” on page 29.

1. From the Home screen, touch  **Apps** →  **Settings** → **Motion**.
2. Touch **Motion**  to turn Motion On or Off.
3. Touch **Motion** to configure settings:
 - **Quick glance:** Check key information at a glance while the screen is off, by reaching toward your device.
 - **Direct call:** When enabled, you can lift the device to your ear while viewing a contact to dial the contact's device number.
 - **Smart alert:** When enabled, the device will automatically notify you to missed calls and alerts that occurred while the device was stationary.
 - **Double tap to top:** When enabled, a double tap on the top of the device takes you to the top of the list.

- **Tilt to zoom:** When enabled, tilting the device while in Gallery or Internet causes the screen to zoom in or out.
- **Pan to move icon:** When enabled, moving the device in a panning motion (side-to-side) moves a highlighted icon to a new location on the Home screen.
- **Pan to browse images:** When enabled, moving the device in a panning motion while viewing an image moves focus around in the image.
- **Shake to update:** When enabled, shaking the device starts a new scan for available devices.
- **Turn over to mute/pause:** When enabled, turning the device screen-down automatically mutes incoming call ringtones and alerts sounds.
- **Advanced settings:**
 - **Quick glance:** Choose key information, to display when you have the Quick glance motion enabled. Quick glance must be enabled to configure this advanced setting.
 - **Gyroscope calibration:** Tune the motion detection using your device's internal gyroscope.

- **Tilt to zoom:** Choose the speed at which you tilt to zoom, when you have the Tilt to zoom motion enabled. Tilt to zoom must be enabled to configure this advanced setting.
- **Pan to move icon:** Choose the sensitivity of the device to panning motions, when you have the Pan to move icon motion enabled. Pan to move icon must be enabled to configure this advanced setting.
- **Pan to browse images:** Choose the sensitivity of the device to panning motions, when you have the Pan to browse images motion enabled. Pan to browse images must be enabled to configure this advanced setting.
- **Learn about hand motions:** Get help with understanding motion gestures.
- **Palm swipe to capture:** When enabled, swiping the side of your hand across the screen side-to-side saves a screen shot of the current screen.
- **Palm touch to mute:** When enabled, covering the screen with your hand mutes or pauses media playback.
- **Learn about hand motions:** Get help with understanding the palm swipe and palm touch gestures.

S Pen

Dominant hand

Choose the hand you write with most often, to maximize S Pen performance.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen** → **Dominant hand**.
2. Choose **Left handed** or **Right handed**.

Pen attach/detach sound

Choose a sound to play when you attach or detach S Pen from your device.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Choose a sound, or choose Off for no sound.

Open Popup Note

When enabled, Popup Note launches automatically when you detach S Pen from your device.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Touch **Open Popup Note** to enable or disable the setting.

Battery saving

By default, your device detects when S Pen is detached, and displays the S Pen icon in the Status bar. To save battery power, you can disable this setting.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Touch **Battery saving** to enable or disable the setting.

S Pen keeper

When enabled, your device plays a sound and displays an alert if you walk with the device while S Pen is detached.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Touch **S Pen keeper** to enable or disable the setting.

Air view

When turned On, hovering S Pen near an item on the screen displays information about the item.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Touch **Air view**  to turn the option On or Off.
3. When Air view is on, touch **Air view** for options:
 - **Pointer**: When enabled, a pointer displays on the screen to show S Pen position.
 - **Information preview**: When enabled, hovering over an item displays a preview, full text, or a zoomed-in image.
 - **Icon labels (by pen nib)**: When enabled, hovering over icons on the screen displays their labels.
 - **List scrolling**: When enabled, holding S Pen over the edge of the screen scrolls through a list.

Sound and haptic feedback

When enabled, sound and vibration plays for S Pen actions.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Touch **Sound and haptic feedback** to enable or disable the setting.

Quick Command settings

Use S Pen gestures to open applications or perform tasks. Use preloaded gestures, or create your own combination of symbols, characters, or words.

1. From the Home screen, touch  **Apps** →  **Settings** → **S Pen**.
2. Touch **Quick Command settings** to configure options:
 - **Add a command**: Select an application or function to launch, then configure a gesture by writing your own combination of symbols, characters, or words with S Pen.
 - **Internet search**: Write a question mark (?) with S Pen to launch Internet.
 - **Email**: Write the "at" symbol (@) with S Pen to launch Email.
 - **Maps**: Write an exclamation mark (!) with S Pen to launch Maps.
 - **Call**: Write a pound sign (#) with S Pen to launch Phone.
 - **Messaging**: Write a tilde sign (~) with S Pen to launch Messaging.

S Pen help

Learn about S Pen.

- From the Home screen, touch  **Apps** →  **Settings** → **S Pen** → **S Pen help**.

Accessory

Configure your device's behavior when it is connected to an optional dock (not included).

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessory**.
2. Configure settings:
 - **Dock sound:** When enabled, a sound plays when you insert and remove the device from the dock.
 - **Audio output mode:** When enabled, audio plays through the dock speakers when the device is docked.
 - **Desk home screen display:** When enabled, displays a special screen when the device is docked.
 - **Audio output:** Choose a destination for audio output when you connect to devices using an HDMI cable.

Date and time

By default, your device receives date and time information from the wireless network. When you are outside network coverage, you may want to set date and time information manually using the Date & time settings.

1. From the Home screen, touch  **Apps** →  **Settings** → **Date and time**.
2. Touch a setting to configure:
 - **Automatic date and time:** When enabled, the device takes date and time updates from the wireless network.
 - **Set date:** Enter the current date (only available when Automatic date and time is disabled).
 - **Set time:** Enter the current time (only available when the Automatic setting is disabled).
 - **Automatic time zone:** When enabled, the device takes the time zone from the wireless network.
 - **Select time zone:** Choose your local time zone (only available when the Automatic setting is disabled).
 - **Use 24-hour format:** Set the format for time displays.
 - **Select date format:** Set the format for date displays.

Accessibility

Your device offers features to make using the device easier for those with certain physical disabilities. Use the Accessibility settings to activate these services.

System

Auto-rotate screen

When enabled, the screen's orientation automatically changes when you rotate the device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **Auto-rotate screen** to turn the feature On or Off.

Tip: You can also set Auto rotate from Notifications with the Screen rotation setting.

Screen timeout

Set the length of delay between the last key press or screen touch and the automatic screen timeout (dim and lock).

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility** → **Screen timeout**.
2. Touch a setting to select it.

Lock automatically

When you have a screen lock set, you can choose a time period for automatically locking the screen after the screen turns off, or choose to have the screen lock immediately when the screen turns off.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility** → **Lock automatically**.
2. Touch a setting to select it.

Note: The Lock automatically setting is only available if you have set a screen lock.

Speak passwords

When enabled, you can speak passwords for log-ins.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **Speak passwords** to turn the feature On or Off.

Answering/ending calls

You can set options for answering and ending calls.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility** → **Answering/ending calls**.
2. Touch an option to enable or disable it:
 - **Answering key:** When enabled, pressing the **Home Key** answers incoming calls.
 - **The power key ends calls:** When enabled, you can end voice calls by pressing the  **Power/Lock Key**. When this option is enabled, pressing the Power/Lock Key during a call does not lock the screen.

Accessibility shortcut

When enabled, a link to Accessibility settings displays on the Device options menu, when you press and hold the  **Power/Lock Key**. This provides quick access to accessibility settings, to make changes as you use the device.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **Accessibility shortcut** to enable or disable the setting.

Services TalkBack

Enable or disable accessibility services.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **TalkBack** to enable or disable readout of menu options, application titles, contacts, and other items when scrolling and making selections.

Vision

Font size

Set the font size for screen displays.

1. From the Home screen, touch  **Apps** →  **Settings** → **Settings** → **Accessibility** → **Font size**.
2. Select a size.

Negative colors

When enabled, Negative colors reverses the colors on the screen.

1. From the Home screen, touch  **Apps** →  **Settings** → **Settings** → **Accessibility**.
2. Touch **Negative colors** to enable or disable reversal of screen colors.

Text-to-speech output

Text-to-speech (TTS) provides audible readout of text, for example, the contents of text messages, and the Caller ID for incoming calls.

1. From the Home screen, touch  **Apps** →  **Settings** → **Language and input** → **Text-to-speech output**.
2. Touch a setting to configure:
 - **Preferred TTS engine**
 - Select **Google Text-to-speech Engine**, or **Samsung TTS**.
 - **General**
 - **Speech rate**: Choose a rate at which text readouts are spoken.
 - **Listen to an example**: Play a sample of speech synthesis.
 - **Driving mode**: When enabled, incoming calls and new notifications are read out automatically. Touch  to enable, then touch **Driving mode** to choose items for readout when Driving mode is enabled.

Enhance web accessibility

When enabled, this service allows apps to install scripts from Google that make their Web content more accessible.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **Install Web scripts**, then follow the prompts to enable or disable the service.

Hearing

Sound balance

Set the balance of audio output to the left and right ear, when using an optional headset or headphones (not included).

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility** → **Sound balance**
2. Drag the slider to set the balance.

Mono audio

When enabled, sound is delivered as mono, to support listening with one earphone.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **Mono audio** to enable or disable the service.

Turn off all sounds

When enabled, all sounds are disabled, including the voice portion of calls.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility**.
2. Touch **Turn off all sounds** to enable or disable the service.

Mobility

Tap and hold delay

Set the length of time the device considers a screen touch before interpreting a touch as touch-and-hold.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accessibility** → **Tap and hold delay**.
2. Touch a setting to select it.

Developer options

Set options for use when developing apps for devices.

Important! These settings are intended for development use only. They can cause errors to occur on your device and with the applications on it.

Turning Developer options On or Off

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Touch **Developer options**  to turn the setting On or Off.

Desktop backup password

Set a password for protecting full desktop backups.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Touch **Desktop backup password**, then enter the current and new passwords. Touch **Set backup password** to save your settings.

Stay awake

When enabled, the screen will never sleep while charging.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Touch **Stay awake** to enable or disable the setting.

Protect SD card

When enabled, apps must request permission to read an installed optional SD card (not included).

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Touch **Protect SD card** to enable or disable the setting.

Debugging

Enable or disable debugging options.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Configure options:
 - **USB debugging:** When enabled, connecting your device to a computer with a USB data cable launches debugging mode.
 - **Allow mock locations:** When enabled, mock locations are allowed during debugging.
 - **Select app to be debugged:** Choose an app to be debugged when device is in debugging mode.
 - **Wait for debugger:** When enabled, a device to be debugged waits for the debugger to be attached.

Input

Configure options for input.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Configure options:
 - **Show touches:** When enabled, screen touches cause the screen to display visual feedback.
 - **Show pointer location:** When enabled, the current pointer location shows on a screen overlay.

Drawing

Configure options for drawing screens.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Configure options:
 - **Show layout boundaries:** When enabled, clip boundaries, margins, and other layout details display.
 - **Show GPU view updates:** When enabled, views are flashed inside windows when they are drawn with the GPU.
 - **Show screen updates:** When enabled, areas of the screen flash as they update.
 - **Window animation scale:** Choose a scale for window animations.
 - **Transition animation scale:** Choose a scale for screen transitions.
 - **Animator duration scale:** Choose a scale for animators.
 - **Disable hardware overlays:** When enabled, the GPU is always used for screen compositing.
 - **Force GPU rendering:** When enabled, 2D hardware acceleration is used in applications.

Monitoring

Configure options for monitoring apps.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Configure options:
 - **Strict mode:** When enabled, the screen flashes while apps perform long operations.
 - **Show CPU usage:** When enabled CPU usage displays on a screen overlay.
 - **GPU rendering profile:** When enabled, rendering time is measured in adb shell `dumpsys gfxinfo`.
 - **Enable traces:** Choose traces.

Apps

Configure app options.

1. From the Home screen, touch  **Apps** →  **Settings** → **Developer options**.
2. Configure options:
 - **Do not keep activities:** When enabled, activities are destroyed as soon as the user leaves them.
 - **Limit background processes:** Choose options for processes running in the background.
 - **Show all ANRs:** When enabled, an App Not Responding dialog displays for apps running in the background.

About phone

View information about your device, including status, legal information, hardware and software versions, and a tutorial.

1. From the Home screen, touch  **Apps** →  **Settings** → **About phone**.
2. Touch items to view details:
 - **Software update:** Check availability and install updates.
 - **Status:** View information about your device's current status.
 - **Legal information:** Display open source licenses, configure license settings, including your DivX® VOD registration, and Google info.
 - **Model number:** View your device's model number.
 - **Android version:** View the firmware version of your device.
 - **Baseband version:** View the baseband version of your device.
 - **Kernel version:** View the kernel version of your device.
 - **Build number:** View the build number of your device.
 - **Hardware version:** View the hardware version of your device.

Section 9: Health and Safety Information

This device is capable of operating in Wi-Fi™ mode in the 2.4 and 5 GHz bands. The FCC requires that devices operating within 5.15-5.25 GHz may only be used indoors, not outside, in order to avoid interference with Mobile Satellite Services (MSS). Therefore, this device is restricted from being used outdoors when operating in frequencies between 5.15-5.25 GHz.

This section outlines the safety precautions associated with using your phone. The terms “mobile device” or “cell phone” are used in this section to refer to your phone. **Read this information before using your mobile device.**

Exposure to Radio Frequency (RF) Signals

The U.S. Food and Drug Administration (FDA) has published information for consumers relating to Radio Frequency (RF) exposure from wireless phones. The FDA publication includes the following information:

Do cell phones pose a health hazard?

Many people are concerned that cell phone radiation will cause cancer or other serious health hazards. The weight of scientific evidence has not linked cell phones with any health problems.

Cell phones emit low levels of Radio Frequency (RF) energy. Over the past 15 years, scientists have conducted hundreds of studies looking at the biological effects of the radio frequency energy emitted by cell phones. While some researchers have reported biological changes associated with RF energy, these studies have failed to be replicated. The majority of studies published have failed to show an association between exposure to radio frequency from a cell phone and health problems.

The low levels of RF cell phones emit while in use are in the microwave frequency range. They also emit RF at substantially reduced time intervals when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects.

The biological effects of radio frequency energy should not be confused with the effects from other types of electromagnetic energy.

Very high levels of electromagnetic energy, such as is found in X-rays and gamma rays, can ionize biological tissues. Ionization is a process where electrons are stripped away from their normal locations in atoms and molecules. It can permanently damage biological tissues including DNA, the genetic material.

The energy levels associated with radio frequency energy, including both radio waves and microwaves, are not great enough to cause ionization of atoms and molecules. Therefore, RF energy is a type of non-ionizing radiation. Other types of non-ionizing radiation include visible light, infrared radiation (heat), and other forms of electromagnetic radiation with relatively low frequencies.

While RF energy does not ionize particles, large amounts can increase body temperatures and cause tissue damage. Two areas of the body, the eyes and the testes, are particularly vulnerable to RF heating because there is relatively little blood flow in them to carry away excess heat.

Research Results to Date: Is there a connection between RF and certain health problems?

The results of most studies conducted to date say no. In addition, attempts to replicate and confirm the few studies that have shown a connection have failed.

The scientific community at large therefore believes that the weight of scientific evidence does not show an association between exposure to Radio Frequency (RF) from cell phones and adverse health outcomes. Still the scientific community has supported additional research to address gaps in knowledge. Some of these studies are described below.

Interphone Study

Interphone is a large international study designed to determine whether cell phones increase the risk of head and neck cancer. A report published in the International Journal of Epidemiology (June, 2010) compared cell phone usage for more than 5,000 people with brain tumors (glioma and meningioma) and a similar number of healthy controls.

Results of this study did NOT show that cell phones caused brain cancer. In this study, most people had no increased risk of brain cancer from using cell phones. For people with the heaviest use of cell phones (an average of more than ½ hour per day, every day, for over 10 years) the study suggested a

slight increase in brain cancer. However, the authors determined that biases and errors prevented any conclusions being drawn from this data. Additional information about Interphone can be found at

http://www.iarc.fr/en/media-centre/pr/2010/pdfs/pr200_E.pdf.

Interphone is the largest cell phone study to date, but it did not answer all questions about cell phone safety. Additional research is being conducted around the world, and the FDA continues to monitor developments in this field.

International Cohort Study on Mobile Phone Users (COSMOS)

The COSMOS study aims to conduct long-term health monitoring of a large group of people to determine if there are any health issues linked to long-term exposure to radio frequency energy from cell phone use. The COSMOS study will follow approximately 300,000 adult cell phone users in Europe for 20 to 30 years. Additional information about the COSMOS study can be found at

<http://www.ukcosmos.org/index.html>.

Risk of Brain Cancer from Exposure to Radio Frequency Fields in Childhood and Adolescence (MOBI-KIDS)

MOBI-KIDS is an international study investigating the relationship between exposure to radio frequency energy from communication technologies including cell phones and brain cancer in young people. This is an international multi-center study involving 14 European and non-European countries. Additional information about MOBI-KIDS can be found at

http://www.creal.cat/programes-recerca/en_projectes-creal/view.php?ID=39.

Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute

The National Cancer Institute (NCI) actively follows cancer statistics in the United States to detect any change in rates of new cases for brain cancer. If cell phones play a role in risk for brain cancer, rates should go up, because heavy cell phone use has been common for quite some time in the U.S. Between 1987 and 2005, the overall age-adjusted incidence of brain cancer did not increase. Additional information about SEER can be found at

<http://seer.cancer.gov/>.

Cell Phone Industry Actions

Although the existing scientific data do not justify FDA regulatory actions, the FDA has urged the cell phone industry to take a number of steps, including the following:

- Support-needed research on possible biological effects of RF for the type of signal emitted by cell phones;
- Design cell phones in a way that minimizes any RF exposure to the user; and
- Cooperate in providing users of cell phones with the current information on cell phone use and human health concerns.

The FDA also is working with voluntary standard-setting bodies such as the Institute of Electrical and Electronics Engineers (IEEE), the International Commission on Non-Ionizing Radiation Protection (ICNIRP), and others to assure that safety standards continue to adequately protect the public.

Reducing Exposure: Hands-Free Kits and Other Accessories

Steps to Reduce Exposure to Radio Frequency Energy

If there is a risk from being exposed to radio frequency energy (RF) from cell phones - and at this point we do not know that there is - it is probably very small. But, if you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your RF exposure.

- Reduce the amount of time spent using your cell phone;
- Use speaker mode or a headset to place more distance between your head and the cell phone.

Hands-Free Kits

Hands-free kits may include audio or Bluetooth® headsets and various types of body-worn accessories such as belt-clips and holsters. Combinations of these can be used to reduce RF energy absorption from cell phones.

Headsets can substantially reduce exposure because the phone is held away from the head in the user's hand or in approved body-worn accessories. Cell phones marketed in the U.S. are required to meet RF exposure compliance requirements when used against the head and against the body.

Because there are no known risks from exposure to RF emissions from cell phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used for convenience and comfort. They are also required by law in many states if you want to use your phone while driving.

Cell Phone Accessories that Claim to Shield the Head from RF Radiation

Because there are no known risks from exposure to RF emissions from cell phones, there is no reason to believe that accessories which claim to shield the head from those emissions reduce risks. Some products that claim to shield the user from RF absorption use special phone cases, while others involve nothing more than a metallic accessory attached to the phone.

Studies have shown that these products generally do not work as advertised. Unlike “hands-free” kits, these so-called “shields” may interfere with proper operation of the phone. The phone may be forced to boost its power to compensate, leading to an increase in RF absorption.

Children and Cell Phones

The scientific evidence does not show a danger to any users of cell phones from RF exposure, including children and teenagers. The steps adults can take to reduce RF exposure apply to children and teenagers as well.

- Reduce the amount of time spent on the cell phone;
- Use speaker mode or a headset to place more distance between the head and the cell phone.

Some groups sponsored by other national governments have advised that children be discouraged from using cell phones at all. For example, The Stewart Report from the United Kingdom made such a recommendation in December 2000. In this report, a group of independent experts noted that no evidence exists that using a cell phone causes brain tumors or other ill effects. Their recommendation to limit cell phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists.

Additional information on the safety of RF exposures from various sources can be obtained from the following organizations (updated 10/1/2010):

- FCC RF Safety Program:
<http://www.fcc.gov/oet/rfsafety/>.

- Environmental Protection Agency (EPA):
<http://www.epa.gov/radtown/wireless-tech.html>.
- Occupational Safety and Health Administration (OSHA):
<http://www.osha.gov/SLTC/radiofrequencyradiation/>.
(Note: This web address is case sensitive.)
- National Institute for Occupational Safety and Health (NIOSH):
<http://www.cdc.gov/niosh/>.
- World Health Organization (WHO):
<http://www.who.int/peh-emf/en/>.
- International Commission on Non-Ionizing Radiation Protection:
<http://www.icnirp.de>.
- Health Protection Agency:
<http://www.hpa.org.uk/Topics/Radiation/>.
- US Food and Drug Administration:
<http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/HomeBusinessandEntertainment/CellPhones/default.htm>.

Specific Absorption Rate (SAR) Certification Information

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the exposure limits for Radio Frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government.

These FCC RF exposure limits are derived from the recommendations of two expert organizations: the National Council on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases, the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to the biological effects of RF energy.

The RF exposure limit set by the FCC for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate (SAR). The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg).

The FCC SAR limit incorporates a substantial margin of safety to give additional protection to the public and to account for any variations in measurements.

SAR tests are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum reported value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output of the phone.

Before a new model phone is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the SAR limit established by the FCC. Tests for each model phone are performed in positions and locations (e.g. at the ear and worn on the body) as required by the FCC. For body-worn operation, this phone has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the mobile device a minimum of 1.0 cm from the body.

Use of other accessories may not ensure compliance with FCC RF exposure guidelines. The FCC has granted an Equipment Authorization for this mobile device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines.

This [mobile phone/tablet/device] has a FCC ID number: A3LSMN900V [Model Number: SM-N900V] and the specific SAR levels for this mobile phone can be found at the following FCC website:

<http://www.fcc.gov/oet/ea/>.

The SAR information for this device can also be found on Samsung's website:

<http://www.samsung.com/sar>.

SAR information on this and other model phones can be accessed online on the FCC's website through <http://transition.fcc.gov/oet/rfsafety/sar.html>. To find information that pertains to a particular model phone, this site uses the phone FCC ID number which is usually printed somewhere on the case of the phone. Sometimes it may be necessary to remove the battery pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone. Additional

SAR information can also be obtained at

<http://www.fcc.gov/encyclopedia/specific-absorption-rate-sar-cellular-telephones>.

FCC Part 15 Information to User

Pursuant to part 15.21 of the FCC Rules, you are cautioned that changes or modifications not expressly approved by Samsung could void your authority to operate the device.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Commercial Mobile Alerting System (CMAS)

This device is designed to receive Wireless Emergency Alerts from CMAS. If your wireless provider has chosen to participate in CMAS, alerts are available while in the provider's coverage area. If you travel outside your provider's coverage area, wireless emergency alerts may not be available. For more information, please contact your wireless provider.

Smart Practices While Driving

On the Road - Off the Phone

The primary responsibility of every driver is the safe operation of his or her vehicle.

Responsible drivers understand that no secondary task should be performed while driving whether it be eating, drinking, talking to passengers, or talking on a mobile phone - unless the driver has assessed the driving conditions and is confident that the secondary task will not interfere with their primary responsibility. **Do not engage in any activity while driving a moving vehicle which may cause you to take your eyes off the road or become so absorbed in the activity that your ability to concentrate on the act of driving becomes impaired.** Samsung is committed to promoting responsible driving and giving drivers the tools they need to understand and address distractions.

Check the laws and regulations on the use of mobile devices and their accessories in the areas where you drive. Always obey them. The use of these devices may be prohibited or restricted in certain areas. For example, only hands-free use may be permitted in certain areas.

Before answering calls, consider your circumstances. Let the call go to voicemail when driving conditions require. Remember, driving comes first, not the call!

If you consider a call necessary and appropriate, follow these tips:

- Use a hands-free device;
- Secure your phone within easy reach;
- Place calls when you are not moving;
- Plan calls when your car will be stationary;
- Do not engage in stressful or emotional conversations;
- Let the person with whom you are speaking know that you are driving and will suspend the call if necessary;
- Do not take notes or look up phone numbers while driving;

Notice regarding legal restrictions on mounting this device in an automobile:

Laws in some states may prohibit mounting this device on or near the windshield of an automobile. In other states, the law may permit mounting this device only in specific locations in the automobile. Be sure to consult the state and local laws or ordinances where you drive before mounting this device in an automobile. Failure to comply with these restrictions could result in fines, penalties, or other damages.

Never mount this device in a manner that will obstruct the driver's clear view of the street and traffic.

Never use wireless data services such as text messaging, Web browsing, or e-mail while operating a vehicle.

Never watch videos, such as a movie or clip, or play video games while operating a vehicle.

For more information, go to <http://www.ctia.org>.

Battery Use and Safety

Important! Handle and store batteries properly to avoid injury or damage. Most battery issues arise from improper handling of batteries and, particularly, from the continued use of damaged batteries.

- **Do not disassemble, crush, puncture, shred, or otherwise attempt to change the form of your battery.** Do not put a high degree of pressure on the battery. This can cause leakage or an internal short-circuit, resulting in overheating.

- **Do not let the phone or battery come in contact with liquids.** Liquids can get into the phone's circuits, leading to corrosion. Even when the phone appears to be dry and appears to operate normally, the circuitry could slowly corrode and pose a safety hazard. If the phone and/or battery get wet, have them checked by your service provider or contact Samsung, even if they appear to be working properly.
- **Do not place your battery in or near a heat source.** Excessive heating can damage the phone or the battery and could cause the phone or the battery to explode. Do not dry a wet or damp battery with an appliance or heat source such as a microwave oven, hair dryer, iron, or radiator. Avoid leaving your phone in your car in high temperatures.
- **Do not dispose of the phone or the battery in a fire.** The phone or the battery may explode when overheated.
- **Do not handle a damaged or leaking battery.** Do not let leaking battery fluid come in contact with your eyes, skin or clothing. For safe disposal options, contact your nearest Samsung-authorized service center.

- **Avoid dropping the cell phone.** Dropping the phone or the battery, especially on a hard surface, can potentially cause damage to the phone and battery. If you suspect damage to the phone or battery, take it to a service center for inspection.
- **Never use any charger or battery that is damaged in any way.**
- **Do not allow the battery to touch metal objects.** Accidental short-circuiting can occur when a metallic object (coin, key, jewelry, clip, or pen) causes a direct connection between the + and - terminals of the battery (metal strips on the battery), for example when you carry a spare battery in a pocket or bag. Short-circuiting the terminals may damage the battery or the object causing the short-circuiting.

Important! Use only Samsung-approved batteries, and recharge your battery only with Samsung-approved chargers which are specifically designed for your phone.

WARNING!

Use of a non-Samsung-approved battery or charger may present a risk of fire, explosion, leakage, or other hazard. Samsung's warranty does not cover damage to the phone caused by non-Samsung-approved batteries and/or chargers.

- **Do not use incompatible cell phone batteries and chargers.** Some websites and second-hand dealers not associated with reputable manufacturers and carriers, might be selling incompatible or even counterfeit batteries and chargers. Consumers should purchase manufacturer or carrier-recommended products and accessories. If unsure about whether a replacement battery or charger is compatible, contact the manufacturer of the battery or charger.
- **Misuse or use of incompatible phones, batteries, and charging devices could result in damage to the equipment and a possible risk of fire, explosion, or leakage, leading to serious injuries, damages to your phone, or other serious hazard.**

Samsung Mobile Products and Recycling

Samsung cares for the environment and encourages its customers to recycle Samsung mobile devices and genuine Samsung accessories.

Proper disposal of your mobile device and its battery is not only important for safety, it benefits the environment. Batteries must be recycled or disposed of properly.

Recycling programs for your mobile device, batteries, and accessories may not be available in your area.

We've made it easy for you to recycle your old Samsung mobile device by working with respected take-back companies in every state in the country.

Drop It Off

You can drop off your Samsung-branded mobile device and batteries for recycling at one of our numerous Samsung Recycling Direct (SM) locations. A list of these locations may be found at:

http://pages.samsung.com/us/recyclingdirect/usactivities_environment_samsungrecyclingdirect_locations.jsp

Samsung-branded devices and batteries will be accepted at these locations for no fee.

Consumers may also recycle their used mobile device or batteries at many retail or carrier-provided locations where mobile devices and batteries are sold. Additional information regarding specific locations may be found at:

<http://www.epa.gov/epawaste/partnerships/plugin/cellphone/index.htm> or at <http://www.call2recycle.org/>.

Mail It In

The Samsung Mobile Take-Back Program will provide Samsung customers with a free recycling mailing label.

Just go to

<http://fun.samsungmobileusa.com/recycling/index.jsp>.

Dispose of unwanted electronics through an approved recycler.

To find the nearest recycling location, go to our website:

www.samsung.com/recyclingdirect

Or call, (877) 278-0799.

Follow local regulations regarding disposal of mobile devices and batteries

Dispose of your mobile device and batteries in accordance with local regulations. In some areas, the disposal of these items in household or business trash may be prohibited. Help us protect the environment - recycle!

Warning! Never dispose of batteries in a fire because they may explode.

UL Certified Travel Charger

The Travel Charger for this phone has met applicable UL safety requirements. Please adhere to the following safety instructions per UL guidelines:

FAILURE TO FOLLOW THE INSTRUCTIONS OUTLINED MAY LEAD TO SERIOUS PERSONAL INJURY AND POSSIBLE PROPERTY DAMAGE.

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS.

DANGER - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS.

FOR CONNECTION TO A SUPPLY NOT IN NORTH AMERICA, USE AN ATTACHMENT PLUG ADAPTOR OF THE PROPER CONFIGURATION FOR THE POWER OUTLET.

THIS POWER UNIT IS INTENDED TO BE CORRECTLY ORIENTED IN A VERTICAL OR HORIZONTAL OR FLOOR MOUNT POSITION.

Display / Touch-Screen

Please note the following information when using your mobile device:

WARNING REGARDING DISPLAY

The display on your mobile device is made of glass or acrylic and could break if your mobile device is dropped or if it receives significant impact. Do not use if screen is broken or cracked as this could cause injury to you.

WARRANTY DISCLAIMER: PROPER USE OF A TOUCH-SCREEN MOBILE DEVICE

If your mobile device has a touch-screen display, please note that a touch-screen responds best to a light touch from the pad of your finger or a non-metallic stylus. Using excessive force or a metallic object when pressing on the touch-screen may damage the tempered glass surface and void the warranty. For more information, please refer to the “Standard Limited Warranty”.

GPS

Certain Samsung mobile devices can use a Global Positioning System (GPS) signal for location-based applications. A GPS uses satellites controlled by the U.S. Government that are subject to changes implemented in accordance with the Department of Defense policy and the 2008 Federal Radio navigation Plan (FRP). Changes may affect the performance of location-based technology on your mobile device.

Even with GPS, when you make an emergency call:

- Always tell the emergency responder your location to the best of your ability; and

- Remain on the mobile device for as long as the emergency responder instructs you.

Navigation

Maps, directions, and other navigation-data, including data relating to your current location, may contain inaccurate or incomplete data, and circumstances can and do change over time. In some areas, complete information may not be available. **Therefore, you should always visually confirm that the navigational instructions are consistent with what you see before following them. All users should pay attention to road conditions, closures, traffic, and all other factors that may impact safe driving or walking. Always obey posted road signs.**

Emergency Calls

This mobile device, like any wireless mobile device, operates using radio signals, wireless and landline networks, as well as user-programmed functions, which cannot guarantee connection in all conditions, areas, or circumstances.

Therefore, you should never rely solely on any wireless mobile device for essential communications (medical emergencies, for example). Before traveling in remote or underdeveloped areas, plan an alternate method of contacting emergency services personnel. Remember, to

make or receive any calls, the mobile device must be switched on and in a service area with adequate signal strength.

Emergency calls may not be possible on all wireless mobile device networks or when certain network services and/or mobile device features are in use. Check with local service providers.

To make an emergency call:

1. If the mobile device is not on, switch it on.
2. From the Home screen, touch  **Phone**.
3. Key in the emergency number for your present location (for example, 911 or other official emergency number).
Emergency numbers vary by location.
4. Press the “Send” key .

If certain features are in use (call blocking, for example), you may first need to deactivate those features before you can make an emergency call. Consult your User Manual and your local cellular service provider. When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your mobile device

may be the only means of communication at the scene of an accident; do not cut off the call until given permission to do so.

Care and Maintenance

Your mobile device is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years:

Keep your Samsung Mobile Device away from:

Liquids of any kind

Keep the mobile device dry. Precipitation, humidity, and liquids contain minerals that will corrode electronic circuits. If the mobile device does get wet, do not accelerate drying with the use of an oven, microwave, or dryer, because this may damage the mobile device and could cause a fire or explosion.

Do not use the mobile device with a wet hand. Doing so may cause an electric shock to you or damage to the mobile device.

Extreme heat or cold

Avoid temperatures below 0°C / 32°F or above 45°C / 113°F.

Microwaves

Do not try to dry your mobile device in a microwave oven. Doing so may cause a fire or explosion.

Dust and dirt

Do not expose your mobile device to dust, dirt, or sand.

Cleaning solutions

Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the mobile device. Wipe it with a soft cloth slightly dampened in a mild soap-and-water solution.

Shock or vibration

Do not drop, knock, or shake the mobile device. Rough handling can break internal circuit boards.

Paint

Do not paint the mobile device. Paint can clog the device's moving parts or ventilation openings and prevent proper operation.

Responsible Listening

Caution! Avoid potential hearing loss.

Damage to hearing occurs when a person is exposed to loud sounds over time. The risk of hearing loss increases as sound is played louder and for longer durations. Prolonged exposure to loud sounds (including music) is the most common cause of preventable hearing loss. Some scientific research suggests that using portable audio devices, such as portable music players and cell phones, at high volume settings for long durations may lead to permanent noise-induced hearing loss.

This includes the use of headphones (including headsets, earbuds, and Bluetooth® or other wireless devices). Exposure to very loud sound has also been associated in some studies with tinnitus (a ringing in the ear), hypersensitivity to sound, and distorted hearing. Individual susceptibility to noise-induced hearing loss and potential hearing problem varies. Additionally, the amount of sound produced by a portable audio device varies depending on the nature of the sound, the device settings, and the headphones

that are used. As a result, there is no single volume setting that is appropriate for everyone or for every combination of sound, settings, and equipment.

You should follow some common sense recommendations when using any portable audio device:

- Always turn the volume down before plugging the earphones into an audio source.
- Set the volume in a quiet environment and select the lowest volume at which you can hear adequately.
- Be aware that you can adapt to higher volume settings over time, not realizing that the higher volume may be harmful to your hearing.
- When using headphones, turn the volume down if you cannot hear the people speaking near you or if the person sitting next to you can hear what you are listening to.
- Do not turn the volume up to block out noisy surroundings. If you choose to listen to your portable device in a noisy environment, use noise-cancelling headphones to block out background environmental noise. By blocking background environment noise, noise cancelling headphones should allow you to hear the music at lower volumes than when using earbuds.

- Limit the amount of time you listen. As the volume increases, less time is required before your hearing could be affected.
- Avoid using headphones after exposure to extremely loud noises, such as rock concerts, that might cause temporary hearing loss. Temporary hearing loss might cause unsafe volumes to sound normal.
- Do not listen at any volume that causes you discomfort. If you experience ringing in your ears, hear muffled speech, or experience any temporary hearing difficulty after listening to your portable audio device, discontinue use and consult your doctor.

You can obtain additional information on this subject from the following sources:

American Academy of Audiology

11730 Plaza American Drive, Suite 300
Reston, VA 20190

Voice: (800) 222-2336

Email: info@audiology.org

Internet:

<http://www.audiology.org/Pages/default.aspx>

**National Institute on Deafness and Other
Communication Disorders**

National Institutes of Health
31 Center Drive, MSC 2320
Bethesda, MD 20892-2320
Email: nidcdinfo@nih.gov

Internet:
<http://www.nidcd.nih.gov/>

**National Institute for Occupational Safety
and Health (NIOSH)**

395 E Street, S.W., Suite 9200
Patriots Plaza Building
Washington, DC 20201
Voice: 1-800-35-NIOSH
(1-800-356-4674)
1-800-CDC-INFO (1-800-232-4636)
Outside the U.S. 513-533-8328

Email: cdcinfo@cdc.gov

Internet:

[http://www.cdc.gov/niosh/topics/noise/
default.html](http://www.cdc.gov/niosh/topics/noise/default.html)

1-888-232-6348 TTY

Operating Environment

Remember to follow any special regulations in force in any area, and always switch your mobile device off whenever it is forbidden to use it, or when it may cause interference or danger. When connecting the mobile device or any accessory to another device, read its user's guide for detailed safety instructions. Do not connect incompatible products.

Using Your Mobile Device Near Other Electronic Devices

Most modern electronic equipment is shielded from Radio Frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless mobile device. Consult the manufacturer to discuss alternatives.

Implantable Medical Devices

A minimum separation of six (6) inches should be maintained between a handheld wireless mobile device and an implantable medical device, such as a pacemaker or implantable cardioverter defibrillator, to avoid potential interference with the device.

Persons who have such devices:

- Should ALWAYS keep the mobile device more than six (6) inches from their implantable medical device when the mobile device is turned ON;
- Should not carry the mobile device in a breast pocket;
- Should use the ear opposite the implantable medical device to minimize the potential for interference;
- Should turn the mobile device OFF immediately if there is any reason to suspect that interference is taking place;
- Should read and follow the directions from the manufacturer of your implantable medical device. If you have any questions about using your wireless mobile device with an implantable medical device, consult your health care provider.

For more information see: <http://www.fcc.gov/oet/rfsafety/rf-faqs.html#>.

Other Medical Devices

If you use any other personal medical devices, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information. Switch your mobile device off in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle before using your mobile device in a motor vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

Posted Facilities

Switch your mobile device off in any facility where posted notices require you to do so.

Potentially Explosive Environments

Switch your mobile device off when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion

or fire resulting in bodily injury or even death. Users are advised to switch the mobile device off while at a refueling point (service station).

Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants, or where blasting operations are in progress. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust, or metal powders, and any other area where you would normally be advised to turn off your vehicle engine. Vehicles using liquefied petroleum gas (such as propane or butane) must comply with the National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association.

When your Device is Wet

Do not turn on your device if it is wet. If your device is already on, turn it off and remove the battery immediately (if the device will not turn off or you cannot remove the battery, leave it as-is). Then, dry the device with a towel and take it to a service center.

FCC Hearing Aid Compatibility (HAC) Regulations for Wireless Devices

The U.S. Federal Communications Commission (FCC) has established requirements for digital wireless mobile devices to be compatible with hearing aids and other assistive hearing devices.

When individuals employing some assistive hearing devices (hearing aids and cochlear implants) use wireless mobile devices, they may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and mobile devices also vary in the amount of interference they generate.

The wireless telephone industry has developed a rating system for wireless mobile devices to assist hearing device users find mobile devices that may be compatible with their hearing devices. Not all mobile devices have been rated. Mobile devices that are rated have the rating on their box or a label located on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not

be able to use a rated mobile device successfully. Trying out the mobile device with your hearing device is the best way to evaluate it for your personal needs.

M-Ratings: Wireless mobile devices rated M3 or M4 meet FCC requirements and are likely to generate less interference to hearing devices than mobile devices that are not labeled. M4 is the better/higher of the two ratings. M-ratings refer to enabling acoustic coupling with hearing aids that do not operate in telecoil mode.

T-Ratings: Mobile devices rated T3 or T4 meet FCC requirements and are likely to generate less interference to hearing devices than mobile devices that are not labeled. T4 is the better/higher of the two ratings. T-ratings refer to enabling inductive coupling with hearing aids operating in telecoil mode.

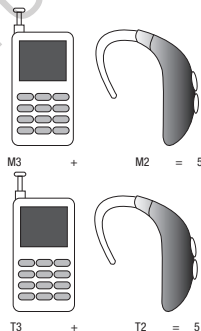
Hearing devices may also be rated. Your hearing aid manufacturer or hearing health professional may help you find this rating. Higher ratings mean that the hearing device is relatively immune to interference noise.

Under the current industry standard, American National Standards Institute (ANSI) C63.19, the hearing aid and wireless mobile device rating values are added together to indicate how usable they are together. For example, if a

hearing aid meets the M2 level rating and the wireless mobile device meets the M3 level rating, the sum of the two values equals M5.

Under the standard, this should provide the hearing aid user with normal use while using the hearing aid with the particular wireless mobile device. A sum of 6 or more would indicate excellent performance.

However, these are not guarantees that all users will be satisfied. T ratings work similarly.



The HAC rating and measurement procedure are described in the American National Standards Institute (ANSI) C63.19 standard.

HAC for Newer Technologies

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids.

It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

Restricting Children's Access to Your Mobile Device

Your mobile device is not a toy. Do not allow children to play with it because they could hurt themselves and others, damage the mobile device, or make calls that increase your mobile device bill.

Keep the mobile device and all its parts and accessories out of the reach of small children.

FCC Notice and Cautions

FCC Notice

The mobile device may cause TV or radio interference if used in close proximity to receiving equipment. The FCC can require you to stop using the mobile device if such interference cannot be eliminated.

Cautions

Any changes or modifications to your mobile device not expressly approved by Samsung could void your warranty for this equipment and void your authority to operate this equipment. Only use approved batteries, antennas, and chargers. The use of any unauthorized accessories may be dangerous and void the mobile device warranty if said accessories cause damage or a defect to the mobile device.

Although your mobile device is quite sturdy, it is a complex piece of equipment and can be broken. Avoid dropping, hitting, bending, or sitting on it.

Other Important Safety Information

- Only qualified personnel should service the mobile device or install the mobile device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty applicable to the device.
- Ensure that any mobile devices or related equipment installed in your vehicle are securely mounted.
- Check regularly that all wireless mobile device equipment in your vehicle is mounted and operating properly.
- When using a headset in dry environments, static electricity can build up in the headset and cause a small quick static electrical shock. To minimize the risk of electrostatic discharge from the headset avoid using the headset in extremely dry environments or touch a grounded unpainted metal object to discharge static electricity before inserting the headset.
- Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the mobile device, its parts, or accessories.
- For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including installed or portable wireless equipment near or in the area over the air bag or in the air bag deployment area. If wireless equipment is improperly installed and the air bag inflates, serious injury could result.
- Switch your mobile device off before boarding an aircraft. The use of wireless mobile devices in aircraft is illegal and may be dangerous to the aircraft's operation. Check with appropriate authorities before using any function of a mobile device while on an aircraft.
- Failure to observe these instructions may lead to the suspension or denial of cell phone services to the offender, or legal action, or both.
- While using your device, leave some lights on in the room and do not hold the screen too close to your eyes.
- Seizures or blackouts can occur when you are exposed to flashing lights while watching videos or playing games for extended periods. If you feel any discomfort, stop using the device immediately.

- Reduce risk of repetitive motion injuries. When you repetitively perform actions, such as pressing keys, drawing characters on a touch screen with your fingers, or playing games, you may experience occasional discomfort in your hands, neck, shoulders, or other parts of your body. When using your device for extended periods, hold the device with a relaxed grip, press the keys lightly, and take frequent breaks. If you continue to have discomfort during or after such use, stop use and see a physician.
- If your device has a camera flash or light, do not use the flash or light close to the eyes of people or pets. [122011]

Section 10: Warranty Information

Standard Limited Warranty

What is covered and for how long?

SAMSUNG TELECOMMUNICATIONS AMERICA, LLC (“SAMSUNG”) warrants that SAMSUNG’s handsets and accessories (“Products”) are free from defects in material and workmanship under normal use and service for the period commencing upon the date of purchase by the first consumer purchaser and continuing for the following specified period of time after that date:

Phone	1 Year
Batteries	1 Year
Case/Pouch/Holster	90 Days
Other Phone Accessories	1 Year

What is not covered?

This Limited Warranty is conditioned upon proper use of the Product.

This Limited Warranty does not cover: (a) defects or damage resulting from accident, misuse, abnormal use, abnormal conditions, improper storage, exposure to liquid, moisture, dampness, sand or dirt, neglect, or unusual physical, electrical or electromechanical stress; (b) scratches, dents and cosmetic damage, unless caused by SAMSUNG; (c) defects or damage resulting from excessive force or use of a metallic object when pressing on a touch screen; (d) equipment that has the serial number or the enhancement data code removed, defaced, damaged, altered or made illegible; (e) ordinary wear and tear; (f) defects or damage resulting from the use of Product in conjunction or connection with accessories, products, or ancillary/peripheral equipment not furnished or approved by SAMSUNG; (g) defects or damage resulting from improper testing, operation, maintenance, installation, service, or adjustment not furnished or approved by SAMSUNG; (h) defects or damage resulting from external causes such as collision with an object, fire, flooding, dirt, windstorm, lightning, earthquake, exposure to weather conditions, theft, blown fuse, or improper use of any electrical source; (i) defects or damage resulting from cellular signal reception

or transmission, or viruses or other software problems introduced into the Product; or (j) Product used or purchased outside the United States. This Limited Warranty covers batteries only if battery capacity falls below 80% of rated capacity or the battery leaks, and this Limited Warranty does not cover any battery if (i) the battery has been charged by a battery charger not specified or approved by SAMSUNG for charging the battery; (ii) any of the seals on the battery are broken or show evidence of tampering; or (iii) the battery has been used in equipment other than the SAMSUNG phone for which it is specified.

What are SAMSUNG's obligations?

During the applicable warranty period, provided the Product is returned in accordance with the terms of this Limited Warranty, SAMSUNG will repair or replace the Product, at SAMSUNG's sole option, without charge. SAMSUNG may, at SAMSUNG's sole option, use rebuilt, reconditioned, or new parts or components when repairing any Product, or may replace the Product with a rebuilt, reconditioned or new Product.

Repaired/replaced cases, pouches and holsters will be warranted for a period of ninety (90) days. All other repaired/replaced Products will be warranted for a period equal to the

remainder of the original Limited Warranty on the original Product or for ninety (90) days, whichever is longer. All replaced Products, parts, components, boards and equipment shall become the property of SAMSUNG. Except to any extent expressly allowed by applicable law, transfer or assignment of this Limited Warranty is prohibited.

What must you do to obtain warranty service?

To obtain service under this Limited Warranty, you must return the Product to an authorized phone service facility in an adequate container for shipping, accompanied by the sales receipt or comparable proof of sale showing the original date of purchase, the serial number of the Product and the seller's name and address.

To obtain assistance on where to deliver the Product, please call SAMSUNG Customer Care at 1-888-987-4357. If SAMSUNG determines that any Product is not covered by this Limited Warranty, you must pay all parts, shipping, and labor charges for the repair or return of such Product.

You should keep a separate backup copy of any contents of the Product before delivering the Product to SAMSUNG for warranty service, as some or all of the contents may be deleted or reformatted during the course of warranty service.

What are the limits on SAMSUNG's liability?

THIS LIMITED WARRANTY SETS OUT THE FULL EXTENT OF SAMSUNG'S RESPONSIBILITIES, AND THE EXCLUSIVE REMEDY REGARDING THE PRODUCTS.

ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL SAMSUNG BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT OR FOR, WITHOUT LIMITATION, COMMERCIAL LOSS OF ANY SORT; LOSS OF USE, TIME, DATA, REPUTATION, OPPORTUNITY, GOODWILL, PROFITS OR SAVINGS; INCONVENIENCE; INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES; OR DAMAGES ARISING FROM THE USE OR INABILITY TO USE THE PRODUCT. SOME STATES AND JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE DISCLAIMER OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND DISCLAIMERS MAY NOT APPLY TO YOU.

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What is the procedure for resolving disputes?

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For any arbitration in which your total damage claims, exclusive of attorney fees and expert witness fees, are \$5,000.00 or less ("Small Claim"), the arbitrator may, if you prevail, award your reasonable attorney fees, expert witness fees and costs as part of any award, but may not grant SAMSUNG its attorney fees, expert witness fees or costs unless it is determined that the claim was brought in bad faith. In a Small Claim case, you shall be required to pay no more than half of the total administrative, facility and arbitrator fees, or \$50.00 of such fees, whichever is less, and SAMSUNG shall pay the remainder of such fees.

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Precautions for Transfer and Disposal

If data stored on this device is deleted or reformatted using the standard methods, the data only appears to be removed on a superficial level, and it may be possible for someone to retrieve and reuse the data by means of special software.

To avoid unintended information leaks and other problems of this sort, it is recommended that the device be returned to Samsung's Customer Care Center for an Extended File System (EFS) Clear which will eliminate all user memory and return all settings to default settings. Please contact the **Samsung Customer Care Center** for details.

Important! Please provide warranty information (proof of purchase) to Samsung's Customer Care Center in order to provide this service at no charge. If the warranty has expired on the device, charges may apply.

Samsung Telecommunications America, LLC
1301 E. Lookout Drive
Richardson, Texas 75082
Phone: 1-800-SAMSUNG
Phone: 1-888-987-HELP (4357)

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