

Samsung GALAXY NX™

S M A R T C A M E R A

User Manual

Please read this manual before operating your camera, and keep it for future reference.



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Section 1: Getting Started

This section helps you to quickly start using your device.

Understanding This User Manual

The sections of this manual generally follow the features of your device. A robust index for features begins on page 204.

Also included is important safety information, beginning on page 172, that you should know before using your device.

This manual gives navigation instructions according to the default display settings. If you select other settings, navigation steps may be different.

Unless otherwise specified, all instructions in this manual assume that you are starting from a Home screen. To get to a Home screen, you may need to unlock the device. For more information, refer to *“Locking and Unlocking the Touch Screen”* on page 10.

Note: Instructions in this manual are based on default settings and may vary from your device depending on the software version on your device and any changes to the device’s settings.

Note: All screen images in this manual are simulated. Actual displays may vary depending on the software version of your device and any changes to the device’s settings.

Special Text

In this manual, some text is set apart from the rest. This special text is intended to point out important information, share quick methods for activating features, define terms, and more. The definitions for these methods are as follows:

- **Notes:** Presents alternative options for the current feature, menu, or sub-menu.
- **Tips:** Provides quick or innovative methods or useful shortcuts.
- **Important:** Points out important information about the current feature that could affect performance.
- **Warning:** Brings important information to your attention that can help to prevent loss of data or functionality or damage to your device.

Text Conventions

This manual provides condensed information about how to use your device. To make this possible, the following text conventions are used to represent often-used steps:

- Arrows are used to represent the sequence of selecting successive options in longer, or repetitive, procedures.

For example:

From a Home screen, touch  **Apps** →  **Settings**
→ **Connections** tab → **Wi-Fi**.

 This button turns a feature or setting **ON** and **OFF**.

-  indicates that the feature is **ON**.
-  indicates that the feature is **OFF**.

For example:

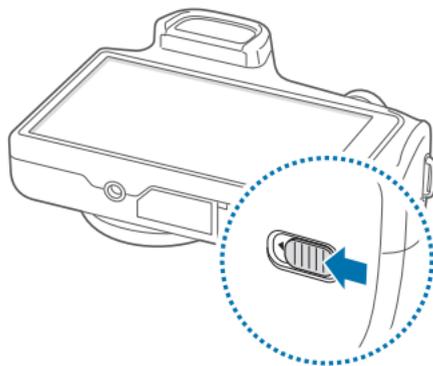
Touch  to turn Bluetooth **ON**.

Setting Up Your Camera

Prior to use, it is necessary to install both the battery, SIM card, and optional memory card (not included) into their corresponding internal compartments.

Opening the Battery Compartment

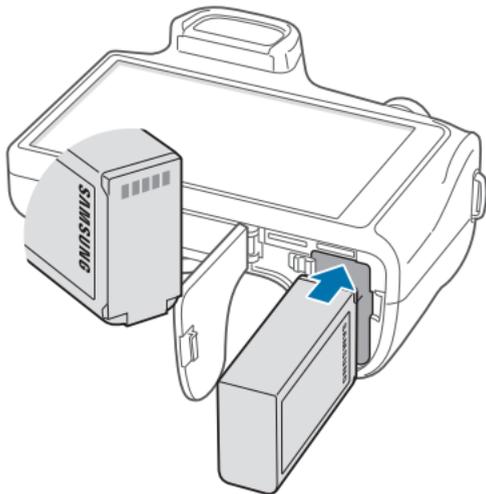
1. From the bottom of the camera, open the battery compartment by sliding the cover lock to the left.



2. Swing the compartment cover open.

Installing the Battery

1. Insert the battery into the opening on the back of the camera, making sure the connectors align.
2. Gently press in to secure the battery.

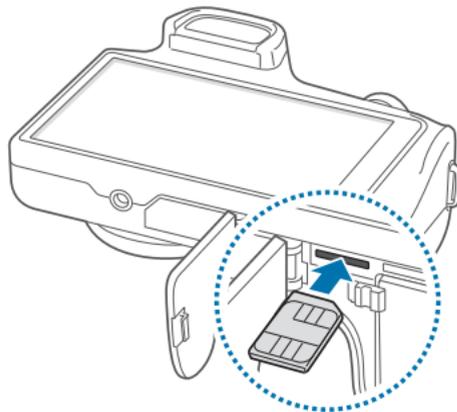


Installing the SIM Card

Insert the SIM card provided by your mobile service provider.

- Push the SIM card into the **LEFT SLOT** until it clicks.

Important! Make sure the SIM card's gold contact pins face **upward** toward the camera screen and the card is securely inserted.

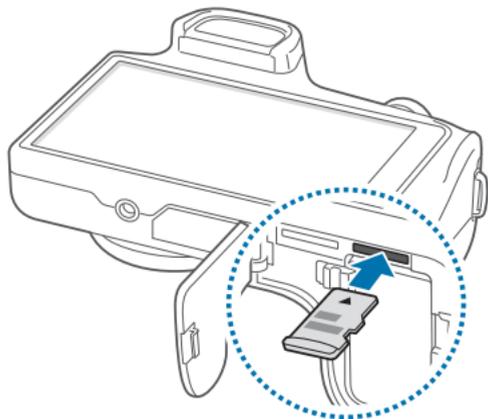


Installing the Memory Card

You can use an optional microSD or microSDHC memory card (not included) to expand available memory space.

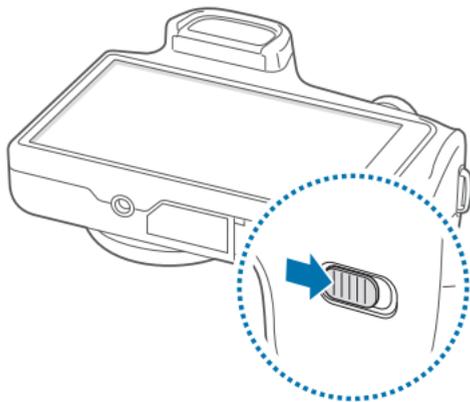
- Push the microSD card into the **RIGHT SLOT** until it clicks.

Important! Make sure the microSD's gold contact pins face **downward** toward the camera lens and the card is securely inserted.



Closing the Battery Compartment

1. Close the battery compartment door.
2. Slide the cover lock to the Right as shown below.



Note: Make sure the battery is properly installed and the cover is securely closed before switching on the camera.

Charging a Battery

Your device is powered by a rechargeable Li-ion battery. The Travel Charger that is used to charge the battery is included with your device. Use only Samsung-approved batteries and chargers.

Note: You must fully charge the battery before using your camera for the first time. A discharged battery recharges fully in approximately 4 hours.

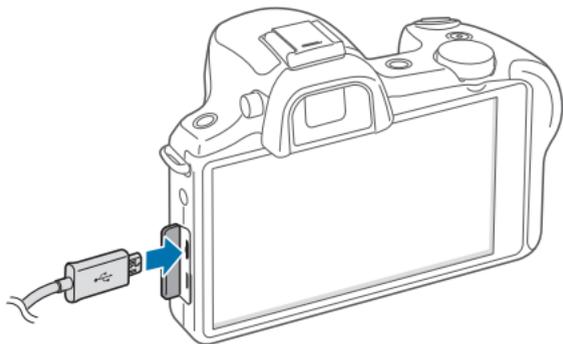
Note: Long backlight settings, searching for service, vibrate mode, web browser use, and other variables may reduce the battery's charge.

Although you can use the camera while the battery is charging, doing so will require additional charging time.

Using the Travel Charger

Important! Verify that the camera battery is installed prior to connection. If the battery is not properly installed and the wall charger is connected, the camera may power off and on continuously, preventing proper operation.

1. Remove the plastic cover, then plug the flat end of the Travel Charger into the **Power/Accessory Interface Connector** and the other end into a standard AC wall outlet.
2. When charging is finished, remove the flat end from the interface connector jack on the camera.



Caution! Failure to unplug the wall charger before you remove the battery can cause damage to the camera.

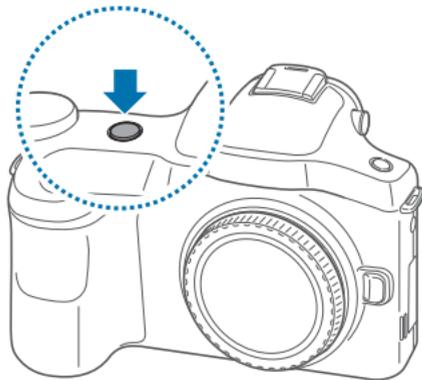
Low Battery Indicator

When the battery is weak, the battery icon (🔋) blinks and the device sounds a warning tone at regular intervals. In this condition, your camera conserves its remaining battery power, not by turning off the backlight, but by entering the dimming mode. For a quick check of your battery level, glance at the battery charge indicator located in the upper-right corner of your device's display. Solid color (🟢) indicates a full charge.

When the battery level becomes too low, the camera automatically turns off.

Turning the Camera On or Off

1. Press and hold ⏻ until the camera turns on.



2. Swipe your finger across the screen to unlock the camera.
3. To turn off the camera, press and hold ⏻ until the **Device options** screen displays.
4. Touch **Power off** to turn off the camera.

Locking and Unlocking the Touch Screen

1. Press  to lock the touch screen.
2. Press  again to display the Lock screen, then swipe your finger across the screen to unlock.

For more information about the Lock screen, see “*Lock Screen Settings*” on page 146.

Warning! Please note that a touch screen responds best to a light touch from the pad of your finger. 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, refer to “*Standard Limited Warranty*” on page 191.

Configuring Your Camera

When you first turn on your camera, you will need to set up a few things.

Tip: If you are visually impaired or hard of hearing, touch **Accessibility** to configure accessibility settings.

1. Select a language and touch **Next**.
2. **Date and time:** Set the date and time settings.
3. **User type:** Touch **Standard** or **Professional** to set the camera for either basic or expert use.

The main Camera screen is displayed.

Touch  to continue.

4. **Wi-Fi:** Touch  to enable Wi-Fi, then touch an available network to connect.
5. **End User License Agreement for Software:** Read the terms and conditions, and then touch **I understand and agree to the terms and conditions above**. Touch Yes or No thanks to allow error logging.
6. **Samsung account:** Touch **Sign in**, **Create new account**, or touch **Skip**.

7. **Got Google?:** Touch **Yes** to log into your existing account, or **No** to continue.
8. **Make It Google:** Touch **Get an account** or **Not now**.
9. **Entertainment:** Touch **Set up a credit card** and enter credit card information for your Google Play account, or touch **Not now**.
 - This screen displays if you have signed in to your Google Account.
10. **Backup and Restore:** Read the information and touch each option to enable it.
 - This screen only displays if you have signed in to your Google Account.
11. **Google & Location:** Select the Google location services you prefer.
12. **This device belongs to...:** Enter your **First** and **Last** name.
13. **Dropbox:** Touch **Create account**, **Sign in**, or **Skip**.
14. **Learn about key features:** Touch  to enable each feature.
15. Enter a name for your device.

Congratulations! Your device is set up and ready to use.

Section 2: Understanding Your Camera

This section outlines some key features of your camera and describes the screen and the icons that appear when the camera is in use. It also shows how to navigate the camera and provides information on using a memory card.

Features of Your Camera

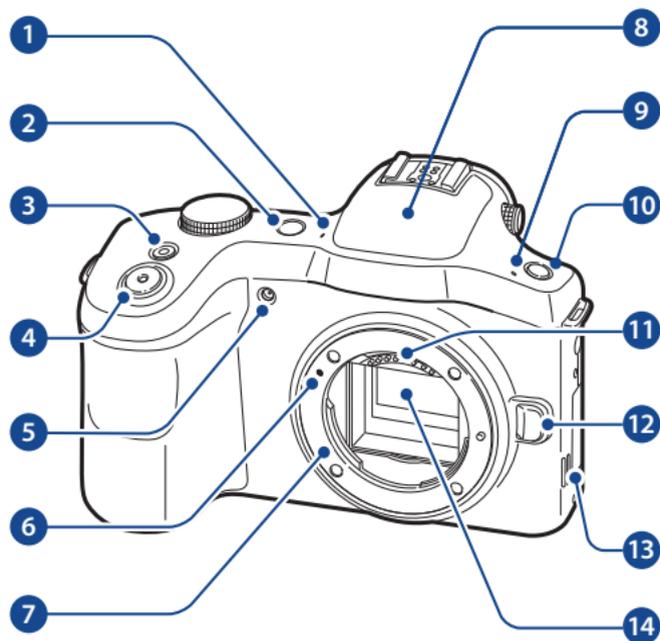
The Samsung Galaxy Camera is the optimum device for the new era in communication where consumers want to share their moments visually instead verbally. Instead of sending text messages, emails, instant messages or text social networking posts, consumers want to share images of their daily moments in unique ways.

The following list outlines a few of the features included in your camera.

- 20 Megapixel BIS CMOS Sensor with Optical Image Stabilization
- 18x Zoom with 55mm wide angle lens
- 4G network with 1.6 gigahertz quad-core processor
- Android v 4.2.2, Jelly Bean Platform
- Brilliant 4.8" HD Super Clear Touch screen display
- Photo Wizard and Movie Wizard applications
- Ready access to the Internet

- Built-in Bluetooth and advanced Wi-Fi® technology
- HSPA+ 42 Mbps high speed download capability
- Up to 64 GB expandable memory slot
- 16 GB memory and 2 GB RAM
- Corporate and Personal Email
- Sync and update social network applications
- Over 450,000 Apps available to download via Google Play Store™
- Full Integration of Google Mobile™ Services (Gmail, YouTube, Google Maps, Google Voice Search)

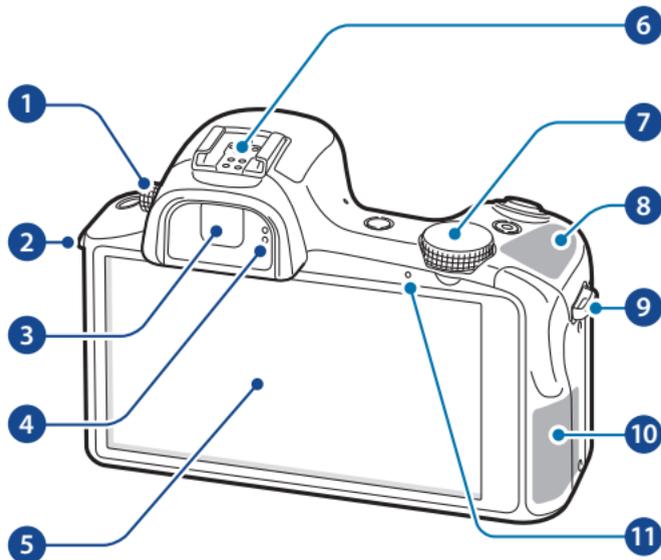
Your Camera at a Glance



1. **Microphone:** Performs noise cancellation and stereo recording.
2. **Power/Lock Key:** Turns your camera on and off. It also locks or unlocks the touch screen.

3. **Video Record Button:** Starts/stops video recording.
4. **Shutter Button:** Take a picture.
5. **AF Assist light:** Assists in taking pictures in low-light conditions.
6. **Lens Mount Index:** Marking used for matching the EF lens mount to the lens mount.
7. **Lens Mount:** Holds removable lens.
8. **Flash:** Adds light when there is not adequate lighting for taking pictures.
9. **Microphone:** Performs noise cancellation and stereo recording.
10. **Flash Release:** Raise the flash.
11. **Lens Contacts:** Connectors for additional lenses.
12. **Speaker:** Plays notifications and music.
13. **Power/Accessory Interface Connector:** allows you to connect a Travel Charger or other optional accessories such as a USB/data cable.
14. **Image Sensor:** Creates digital images.

Back View of Your Camera

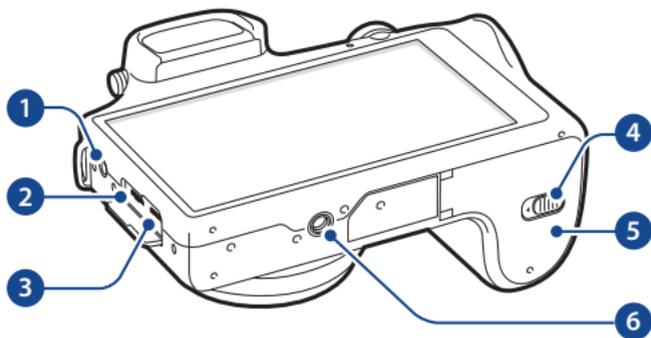


1. **Dioptr Adjustment Dial:** Adjusts the viewfinder focus to suit an individual's eyes.
2. **Eyelet for Strap:** Attaches a camera strap.
3. **Viewfinder:** Displays the composition of the picture or video.
4. **Proximity/Light Sensor:** Uses the ambient light level to adjust display brightness and other features.
5. **Touch Screen:** Displays the Home screen, apps, photos and videos, settings, etc.
6. **Hot-Shoe:** Connects optional accessories, such as an external flash.
7. **Command Dial:** Changes shooting mode when using the camera, and adjusts the volume when playing music or videos.
8. **GPS Antenna:** Provides location information.
9. **Eyelet for Strap:** Attaches a camera strap.
10. **Main Antenna:** Connects to network services.
11. **Notification light:** Provides camera feedback.

-
4. **Proximity/Light Sensor:** Uses the ambient light level to adjust display brightness and other features.
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 7. **Command Dial:** Changes shooting mode when using the camera, and adjusts the volume when playing music or videos.
 8. **GPS Antenna:** Provides location information.
 9. **Eyelet for Strap:** Attaches a camera strap.
 10. **Main Antenna:** Connects to network services.
 11. **Notification light:** Provides camera feedback.
-

Important! Do not cover the antenna area with your hands or other objects, except when you are taking photos or videos. This may cause connectivity problems or drain the battery.

Bottom View of Your Camera



1. **3.5 Headset Jack:** Connects earphones (not included) or other accessories.
2. **Power/Accessory Interface Connector:** Connects a Travel Charger or other optional accessories such as a USB/data cable.
3. **HDMI Port:** Connects your camera to HDMI devices.
4. **Battery Cover Release:** Locks the battery compartment.
5. **Battery Compartment:** Houses the battery, SIM card, and Memory card.
6. **Tripod mount:** Attaches your camera to a tripod (not included).

Cleaning the Device

Camera Lens and Display

Use a blower brush to remove dust, and then wipe the lens gently with a soft cloth. If any dust remains, apply lens cleaning liquid to a lens cleaning paper, and wipe gently.

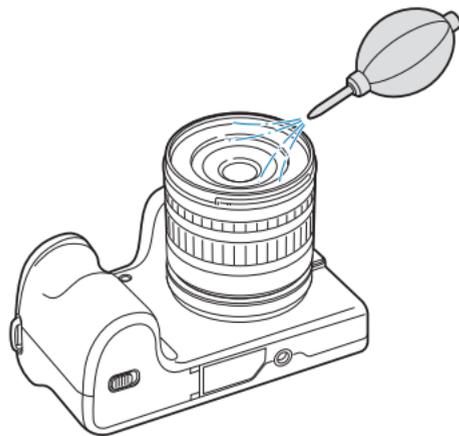


Image Sensor

Depending on different shooting conditions, dust may appear in photos because the image sensor is exposed to the external environment. This problem is normal, and the exposure to dust occurs in everyday use of the camera. You can remove dust from the sensor by operating the sensor cleaning function.

If dust remains after cleaning the sensor, contact a service centre. Do not insert the blower into the mounting opening of the lens.

Camera Body

Wipe gently with a soft, dry cloth.

Warning! Never use benzene, thinners, or alcohol to clean the device. These solutions can damage the device or cause it to malfunction.

Home Screen

The Home screen is the starting point for using your camera. It provides a wealth of information about the camera's status and options, as well as providing access to applications.



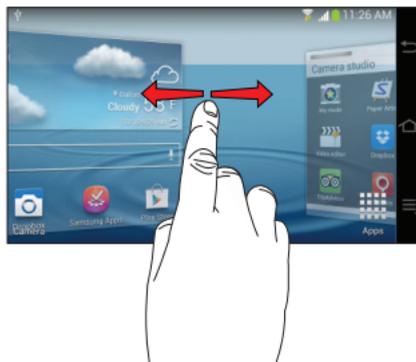
1. **Status Bar:** Displays system information, such as signal strength, battery level, time, etc.
2. **Widgets:** Small apps which run on the Home screen. The Weather widget appears on the main Home screen by default.

- 3. Notifications:** Displays notifications such as unread emails, updates available, etc.
- 4. Back Key:** Step backwards when navigating a menu or web page.
- 5. Home Key:** Return to the Home screen from any screen or menu. Press and hold to display the Task Manager.
- 6. Menu Key:** Access sub-menus with additional options for the current app or feature.
- 7. Application Icons:** Shortcuts to your favorite applications placed on the Home screen. The Camera and Apps icons appear on all Home pages and are referred to as Primary Shortcuts and cannot be removed from the Home screen.
- 8. Google Quick Search Bar:** Shortcut to Google Search that allows you to search for items on the internet.
- 9. Home Screen Indicator:** Shows which Home screen is currently displayed.

Extended Home Screen

The Home screen consists of the main Home panel plus additional panels that extend beyond the display width to provide more space for adding shortcuts and widgets.

Slide your finger horizontally across the screen to scroll to the left or right side panels.



Indicator Icons

This list identifies the symbols you'll see on your camera's Status bar.

-  Indicates that the Airplane Mode is active. You cannot send or receive any messages or access online information.
-  Displays when your camera is in Blocking mode.
-  Displays when there is a system error or alert.
-  Displays your battery charge level. Icon shown is fully charged.
-  Displays when your battery is charging. Also displays battery charge level.
-  Device Power Very Low – Shows your current battery only has between 5 and 15 percent power remaining.
-  Device Power Critical – Shows your current battery only has less than 5 percent power remaining and will immediately shutdown.
-  Displays when your camera is downloading or has downloaded a file. It will blink green when it is installing.

-  Displays when the an outbound file transfer is in progress.
-  Displays when a Play Store download has completed.
-  Displays when updates are available for download.
-  Displays when the camera is connected to a computer via a supported USB cable connection.
-  Displays when Email is received.
-  Displays when the time and date for a Calendar Event has arrived. For more information, refer to “*Calendar*” on page 107.
-  Displays when you set an alarm to ring at a specified time. For more information, refer to “*Alarm*” on page 109.
-  Displays when the Sound profile is set to Mute.
-  Displays when the Sound profile is set to Vibrate.
-  Displays when Bluetooth is activated.
-  Displays when a Bluetooth device has been paired with the camera.



Displays when Wi-Fi is connected, active, and communicating with a Wireless Access Point (WAP).



Displays when Wi-Fi is active but there is a communication issue with the target Wireless Access Point (WAP).



Displays when Wi-Fi Direct is active and your camera is connected to another device.



Displays when your camera is connected to a Digital Living Network Alliance (DLNA) certified device using the AllShare Play application.



Displays when GPS is active and acquiring a signal.



Displays when data synchronization and application sync is active and synchronization is in progress for Gmail, Calendar, and Contacts.



Displays when a Software update is available for download.



Displays when your device is connected being used to control streaming media and is connected to a Digital Living Network Alliance (DLNA) certified device using the AllShare Play application.



Displays when the keypad is active.

Customizing Your Home Screen

You can customize your Home screen by doing the following:

- Creating Shortcuts
- Adding and Removing Widgets on the Home Screen
- Creating Folders
- Changing the Wallpaper
- Adding and Deleting Home Screens

Shortcuts and Widgets

You can add, reposition, or remove shortcuts and widgets from the Home screen.

- **Shortcuts:** Icons on the Home screen which launch applications.
- **Widgets:** Self-contained applications. They appear as on-screen applications.

Adding a Shortcut or Widget

You can customize the Home screen by adding shortcuts and widgets.

1. Press  to display the Home screen, and then navigate to the desired panel.
2. Touch and hold an empty area of the Home screen. On the pop-up menu, touch **Apps and widgets**.
– or –
Tap  **Apps** to display the Apps menu.
3. For shortcuts, touch the **Apps** tab. For widgets, touch the **Widgets** tab.
4. Touch and hold the shortcut or widget, and then drag it to a position on the Home screen and release.

Removing a Shortcut or Widget

Shortcuts and widgets can be removed from the Home screen.

Note: Removing a shortcut does not delete the application, it simply removes the shortcut from the Home screen.

1. Press  to display the Home screen, and then navigate to the desired panel.
2. Touch and hold the shortcut or widget until it detaches, and then drag it to  **Remove** and release.

Folders

You can add folders to your Home screen to help organize your application shortcuts.

Adding a Folder

1. Press  to display the Home screen, and then navigate to the desired panel.
2. Touch and hold an empty area of the Home screen. On the pop-up menu, touch **Folder**.
3. Enter a name for the folder, and then touch **OK**. A folder is created on the Home screen.

Using Folders

- To add shortcuts to the folder, touch and hold the shortcut, and then drag it to the folder and release.
- Touch the folder to open it and access the shortcuts inside.
- To delete a folder, touch and hold the folder until it detaches, and then drag it to  **Remove** and release.

Note: All shortcuts contained in the folder will also be deleted.

Wallpaper

You can change the Wallpaper (background image) of your Home screen and Lock screen.

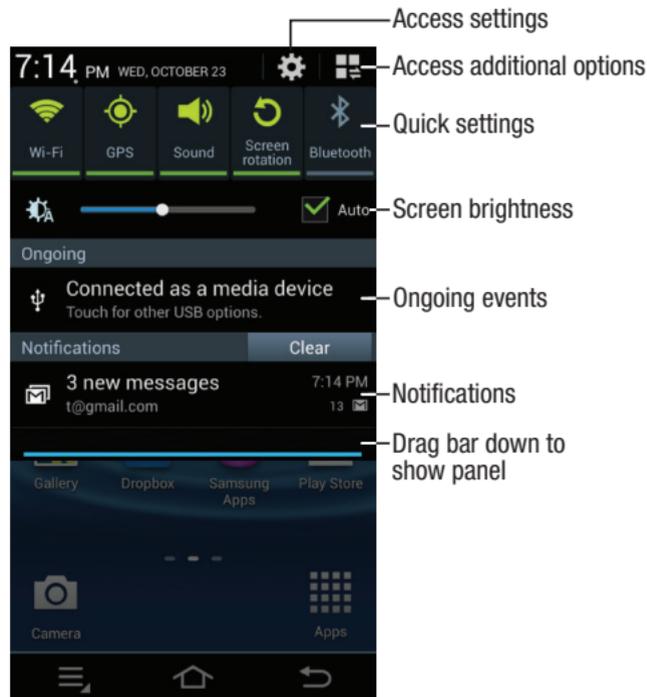
1. From any Home screen, press  and touch **Set wallpaper**.
2. Touch **Home screen**, **Lock screen**, or **Home and lock screens**.
3. Touch to select a source location:
 - **Gallery**: Select a picture from Gallery. Follow the prompts to crop the picture and save it as wallpaper.
 - **Live wallpapers**: Select a moving scene for the background (Home screen only).
 - **Travel wallpaper**: Choose options to display images from the city of your choice (Lock screen only).
 - **Wallpapers**: Choose an image from the Wallpapers gallery.
4. Select a wallpaper and touch **Set wallpaper**, **Done**, or **Cancel**.

Notification Panel

The Notification Panel displays information about connections, alerts, new messages, and more. It also has Quick settings—buttons which allow you to quickly access and change common system settings.

Access the Notifications Panel

1. Touch and slide downward from the top of the screen to display the Notification Panel. Slide the Notification Panel upward to close it.
2. Touch an ongoing event or a notification to view it or to launch its related app or feature.



Using the Touch Screen

Your camera's touch screen lets you control actions through a variety of touch gestures. Use only your fingers when touching the screen.

Caution! To avoid damaging the touch screen, do not tap it with anything sharp or apply excessive pressure to it with your fingertips.

Touch

Lightly touch items to select or launch them. For example:

- Touch the on-screen keyboard to enter characters or text.
- Touch a menu item to select it.
- Touch an application's icon to launch the application.

Touch and Hold

Activate on-screen items by a touch and hold gesture.

For example:

- Touch and hold a widget on the home screen to move it.
- Touch and hold on a field to display a pop-up menu of options.

Dragging

Touch and hold an item until it “releases,” then drag it to a new position and release. Use dragging when:

- Moving an thumbnail or preview to a new location.
- Rearranging app shortcuts

Double-Tapping

Double-tap lightly on the screen. Use double-tapping when:

- Zooming in or out on a web page, map, or image.

Pinching and Stretching

Bring two fingers together on the screen (pinching), or spread two fingers apart on the screen (stretching).

Use pinching and stretching when:

- Zooming in (stretch) and zooming out (pinch) on a web page, map, or image.

Rotating the Screen

Many applications allow display in either portrait or landscape orientation. Rotating the device causes the display to automatically adjust to fit the new screen orientation.

To prevent the display from rotating automatically, open the Notification panel and deselect **Screen rotation**.

Note: Some applications do not allow screen rotation, and some applications display a different screen depending on the orientation.

Motions and Gestures

Simple motions and gestures allow easy control of the device. For more information, refer to “*Motions and Gestures*” on page 155.

Section 3: Camera Operation

This section describes how to use your Camera to take pictures or shoot videos.

Launching the Camera

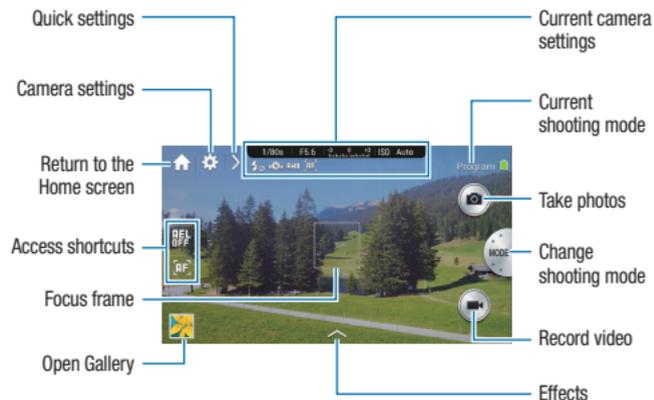
- Touch Camera  on the Home screen. Alternatively, press the Shutter button or the Video recording button.

Notes/Tips

- The camera automatically shuts off when unused.
- Make sure that the lens is clean. Otherwise, the device may not work properly in some modes that require high resolutions.

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.

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.

1. From any Home screen, touch **Camera**  to activate the camera mode.
2. Using the preview screen, adjust the image by aiming the camera at the subject.

3. Before you take a picture, use the Zoom button to zoom in or out. You can magnify the picture up to x21 (2100 percent).
4. If desired, before taking the photo, you can touch on-screen icons to access various camera options and settings.
5. You can also touch the screen to move the focus to the area you touch.
6. Press the Shutter button (ⓘ) until the shutter sounds. (You can also press the on-screen Camera icon). The picture is automatically stored within your designated storage location. For more information, refer to “Camera Settings” on page 70.
7. Touch Gallery to view your picture.

Camera Settings Icons

The icons displayed on the preview screen provide information about current shooting options and settings. The icons listed in the table below are the most common.

 Shutter speed

 Aperture value

 Exposure value

 ISO sensitivity

 Timer

 Flash

 Photo size

 White balance

 AF mode

 Metering

 Continuous shooting

 Bracket mode

 Raw format file

 Voice recognition

 Geotagging

 Share shot

 Buddy photo share

 ChatON photo share

 Remote viewfinder

Selecting the Operation Type

Select the operation type for either basic or expert use.

- Touch  (or  → ) →  → **User type**.
 - **Standard**: Use for basic camera operations.
 - **Professional**: Use for more advanced camera operations. You can conveniently change shooting options by using the smart panel, and quickly access expert modes.

Notes/Tips

- This manual is based on the standard operation type.
- The default settings for the dial control and power-on mode differ by operation type, as follows:
 - **Standard: Option 1** (dial control), **Auto mode** (power-on mode)
 - **Professional: Option 2** (dial control), **Last mode** (power-on mode)

Taking Photos

- Half-press the Shutter button to focus on the subject. When the subject is in focus, the focus frame turns green. Press the Shutter button to take the photo.

– or –

Touch the image on the preview screen where the camera should focus. When the subject is in focus, the focus frame turns green. Touch  to take the photo.

Notes/Tips

- Except in interval mode, the camera will not take a photo if it cannot focus on a subject.

Taking Videos

1. Press the **Video recording button** to take a video. To stop recording, press the Video recording button again.
– or –
Touch  to take a video and touch  to stop recording.
2. While recording, touch where you want to focus to change the focus. To set the camera to focus automatically, touch .

Notes/Tips

- You can take videos up to 20 minutes at one time.
- When using a memory card with a slow writing speed, the device may not be able to save the video properly. It may stop recording, or recorded video frames may become corrupted.
- Memory cards with slow writing speeds do not support high-resolution video. To record high-resolution video, use memory cards with faster writing speeds (micro SDHC Class10 or higher).
- The video frame size may appear smaller depending on video resolution and frame rate.
- If you set the image stabilizer option, the image stabilizer sound may be recorded.

- If you adjust the lens while taking a video, the zoom sound or other lens sounds may be recorded.
- Do not remove or replace the lens while taking a video. Doing this will interrupt the recording.
- When using an optional video lens, the auto focus noise is not recorded.
- If you change the shooting angle of the camera suddenly while taking a video, the camera may not be able to record images accurately.
- The camera supports the continuous AF, touch AF, manual focus, and face detection AF functions when taking a video.
- In expert mode, you can change the major shooting options before recording a video:
 - **Program mode:** Exposure value
 - **Aperture priority mode:** Aperture value and exposure value
 - **Shutter priority mode:** Shutter speed and exposure value
 - **Manual mode:** Shutter speed, aperture value, and ISO sensitivity (the maximum ISO sensitivity is 3200)

Taking Photos or Videos with Voice Commands

Use the voice recognition to take photos or videos with voice commands.

1. Touch  → .
2. Say a shooting command, such as “Smile”, “Cheese”, or “Record video.”
3. To check more voice commands for controlling the camera, touch  → .

Taking Photos or Videos with Filter Effects

Use the filter effects to take unique photos or videos.

- Touch  and select a filter effect. The available options vary by mode.
 - **No effect:** Do not apply an effect.
 - **Vignette:** This effect applies the retro-looking colors, high contrast, and strong vignette effect of Lomo cameras.
 - **Greyscale:** This effect makes the image black and white.
 - **Sepia:** This effect red-shifts the background scenery.
 - **Vintage:** This effect gives the image a vintage look and feel.
 - **Faded colors:** This effect fades the color of the image.
 - **Turquoise:** This effect applies a soft turquoise color effect.

- **Tint:** This effect applies a color tint effect.
- **Cartoon:** This effect applies a cartoon painting effect.
- **Moody:** This effect applies a mono cartoon painting effect.
- **Rugged:** This effect applies a rugged effect.
- **Oil pastel:** This effect applies a pastel painting effect.
- **Fisheye:** This effect blackens the edges of the frame and distorts objects to imitate the visual effect of a fisheye lens.

Viewing Photos and Videos

1. To view taken photos or videos, tap the Gallery icon.
2. Scroll left or right to view the next or previous image.

Changing Shooting Options Quickly

- Touch  to change shooting options quickly. The available options vary by mode.
-  Configure settings for Camera.
-  Activate or deactivate the flash.
-  Use this to set delayed-time shots.
-  Activate or deactivate the photo suggestion feature. For more information, refer to *“Photo Suggest”* on page 118.
-  Select a folder for saving photos or videos. To create a new folder, touch .
-  Activate or deactivate the voice recognition to take photos or videos.
-  Activate or deactivate the sharing options.

Reducing Camera Shake

Use the Optical Image Stabilizer (OIS) option to reduce or eliminate blurriness from camera shake.

1. If the lens has an OIS switch, set the switch to **ON** to use the OIS function.
2. Touch  (or  → ) →  → **OIS (anti-shake)**, and select an option.



Before correction



After correction

Closing the Camera Application

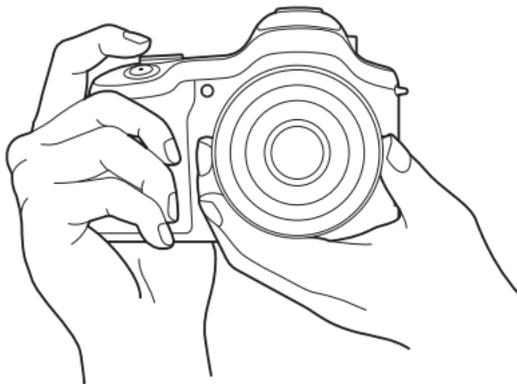
- On the preview screen, touch  to close the camera application and return to the Home screen.



Tips for Taking Clearer Photos

Holding the Camera Correctly

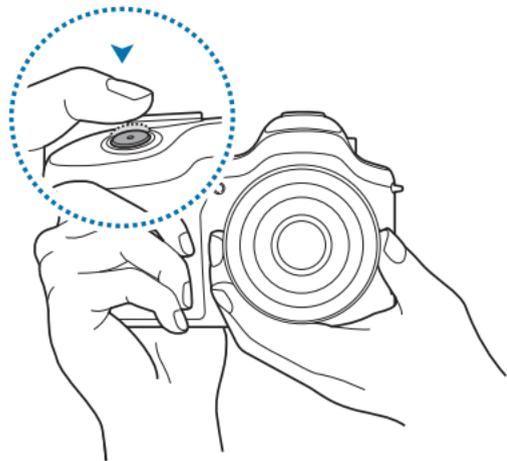
Make sure not to block the screen, lens, flash, or microphone.



Warning! Make sure not to expose the lens to direct sunlight. This may discolor the image sensor, or cause it to malfunction.

Half-Pressing the Shutter Button

Press the Shutter button halfway down to adjust the focus. The camera adjusts the focus, exposure, and white balance automatically, and the focus frame turns green. The focus frame turns red if not focused.



Reducing Camera Shake

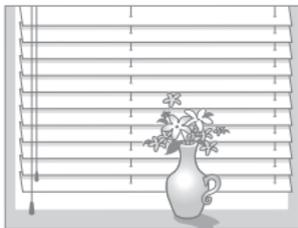
Set the Optical Image Stabilizer (OIS) option to reduce camera shake optically.



Keeping the Subject in Focus

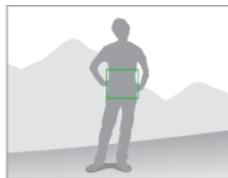
Focusing on the subject may be difficult in the following conditions:

- When the contrast between the subject and background is low. For example, the subject is wearing clothing that is similar in color to the background.
- The light behind the subject is too bright.
- The subject is shiny or reflective.
- The subject includes horizontal patterns, such as blinds.
- The subject is not positioned in the centre of the frame.



Using the Focus Lock

1. Half-press the Shutter button to focus. When the subject is focused, you can change the composition.
2. When you are ready, press the Shutter button to take the photo.



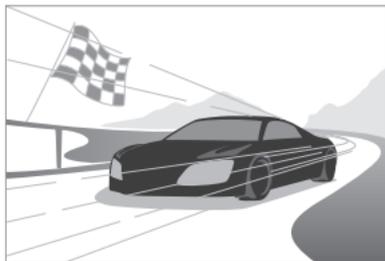
When Taking Photos in Low-Light Conditions

- Turn the flash on to take photos in low-light conditions.
- Adjust the ISO sensitivity.



When Subjects Are Moving Rapidly

- Use the continuous shooting option to take photos of moving subjects.



To take several photos continuously, use memory cards with faster writing speeds (micro SDHC Class10 or higher).

Shooting Modes

Auto Mode

Use this to take photos with scene modes selected automatically by the camera. In this mode, the camera recognizes surrounding conditions and automatically adjusts factors that contribute to exposure, including the shutter speed, aperture value, metering, and white balance.

As the camera controls most of the functions, some shooting options are limited. This mode is useful for capturing quick snapshots with the least amount of adjustment.

1. Touch **MODE** → **Auto**.
2. To display an icon for a scene mode at the top right of the preview screen when you half-press the Shutter button, touch  →  →  → **Detection display** → **On**.



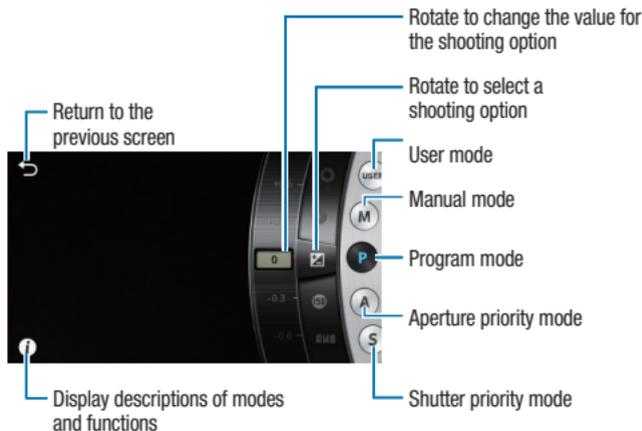
Notes/Tips

- The camera may detect different scenes, even the same subjects, depending on external factors, such as camera shake, lighting, and distance to the subject.
- If the camera does not recognise an appropriate scene mode, it uses the default settings for this mode.
- Even if it detects a face, the camera may not select a portrait mode depending on the subject's position or lighting.
- In this mode, the camera consumes more battery power due to constant changing of settings when selecting appropriate modes.

Expert Mode

Use this to take photos and videos with manual adjustment of various shooting options, including the shutter speed, aperture value, exposure value, and ISO sensitivity.

- When using the standard operation type, touch **MODE** → **Expert**, and select a mode.



When using the professional operation type, touch **MODE**, and select a mode. To adjust various shooting options, use the smart panel.

Program Mode

In this mode, the camera automatically adjusts the shutter speed and aperture value so that an optimal exposure value can be achieved. This mode is useful when you want to capture shots of constant exposure while being able to adjust other settings.

- Touch **MODE** → **Expert** → **P**, and set the desired shooting options.



Program Shift

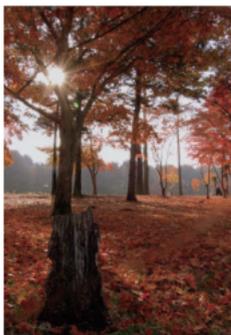
The program shift feature lets you adjust the combination of the shutter speed and aperture value while the camera maintains the same exposure.

- Touch the shutter speed or the aperture value at the top of the screen, and then touch ◀ or ▶ to adjust the value. You can also use the Command dial or the i-Function button.

Aperture Priority Mode

In this mode, the camera automatically calculates shutter speed according to the aperture value you choose. You can adjust the depth of field (DOF) by changing the aperture value. This mode is useful for taking portraits and landscape shots.

- Touch **MODE** → **Expert** → **A**, and set the desired shooting options.



Large depth of field



Small depth of field

Shutter Priority Mode

In this mode, the camera automatically adjusts the aperture value according to the shutter speed you choose. This mode is useful for taking photos of fast-moving subjects or for creating tracer effects in a photo.

- Touch **MODE** → **Expert** → **S**, and set the desired shooting options.



Slow shutter speed



Fast shutter speed

Notes/Tips

- To compensate for the reduced amount of light allowed by fast shutter speeds, adjust the aperture and let in more light. If your photos are still too dark, increase the ISO sensitivity.

Manual Mode

This mode lets you adjust the shutter speed and aperture value manually. In this mode, you can fully control the exposure of your photos. This mode is useful in controlled shooting environments, such as a studio, or when it is necessary to fine-tune camera settings. This mode is also recommended for shooting night scenes or fireworks.

- Touch **MODE** → **Expert** → **M**, and set the desired shooting options.

Notes/Tips

- If you set a high ISO sensitivity or open the shutter for a long time, image noise may increase.
- Use a tripod and shutter release to prevent your camera from shaking.
- The longer you open the shutter, the longer it takes to save a photo. Do not turn the camera off while the camera saves a photo.

Using the Bulb Feature

Use this feature to shoot night scenes or the night sky. While you are pressing the Shutter button, the shutter is left open so you can create moving light effects.

- In Manual mode, set the shutter speed to **Bulb**.

User Mode

Use this to create and save your own shooting mode by adjusting settings.

- Touch **MODE** → **Expert** → **P / A / S / M**, and set the desired shooting options. Then touch  →  **Save as User mode** to save the current settings.
- To access user mode, touch **MODE** → **Expert** → **USER**.

Notes/Tips

- Changes you make with the smart panel do not affect other expert modes.

Adjusting Major Shooting Options

In expert mode, you can adjust the shutter speed, aperture value, exposure value, or ISO sensitivity by either touching the screen, using the Command dial, or by using the i-Function button.

Notes/Tips

- Methods may vary depending on the selected operation type and Command dial control settings.

Touching the Screen

- Touch one of the major shooting options displayed at the top of the screen, and then drag left or right until the desired value is shown. To confirm the adjustment, touch an empty area on the screen or half-press the Shutter button.

Using the Command Dial

- Touch  →  → **Dial control (P/A/S/M) → Option 3**, and then return to the preview screen. Press the Command dial repeatedly to select an option, and then rotate it to adjust the value. To confirm the adjustment, touch an empty area on the screen or half-press the Shutter button.

Using the i-Function Button

- Press the i-Function button on the lens repeatedly to select an option, and then rotate the focus ring on the lens to adjust the value. To confirm the adjustment, touch an empty area on the screen or half-press the Shutter button.

Using the Smart Panel

Use the smart panel to quickly change shooting options. The smart panel can only be used when the professional operation type has been selected.

1. To enable the smart panel, touch  →  → **User type → Professional**.
2. To open the smart panel, touch  → .
3. Touch an option, and drag left or right to adjust the value or select it from the pop-up list. Alternatively, rotate the Command dial to highlight an option, press it to select the option, and then rotate it to adjust the value.
4. To save the current settings as a User mode, touch .

Using the Auto Exposure Lock

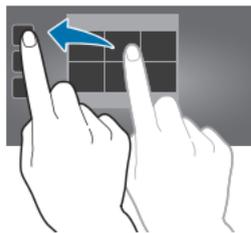
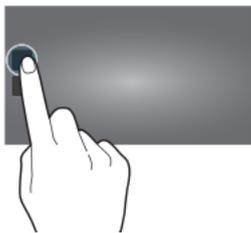
When you cannot achieve an appropriate exposure because of a strong color contrast, lock the exposure, and then take a photo.

- To lock the exposure value, adjust the photo's exposure, and touch  to lock the exposure. Aim the lens where you desire, and then press the Shutter button.

Shortcuts

Add or remove shortcuts for easy access to the camera's various options.

1. Touch and hold  or another shortcut icon.
2. Touch and hold an option and drag it to the desired location.  cannot be moved.



- **One Touch AF/MF:** Change the focus mode.
- **AF Lock:** Lock the focus by half-pressing the Shutter button to focus on the subject, and then touching the shortcut icon.
- **One Touch WB:** Manually set white balance by aiming the lens at a white surface, and then pressing the Shutter button.
- **One Touch RAW+:** Set the camera to save photos in both jpg and raw file formats.
- **Optical Preview:** View the optical preview before taking a photo. The camera adjusts the aperture to predefined settings and displays the result on the screen.
- **Display:** Change the way that information is displayed on the screen.

Smart Mode

Use this to take photos with predefined settings for various scenes.

Smart Mode Suggest

Use this to take photos with one of the smart modes that the camera automatically suggests.

1. Touch **MODE** → **Smart** → **Smart mode suggest**.
2. Half-press the Shutter button, select a mode from the suggested list, and then press the Shutter button to take a photo. If you do not select a mode from the suggested list, the camera will take a photo in auto mode.
3. To reset the selected mode, touch .

Beauty Face

Use this to take photos with lightened faces for gentler images.

1. Touch **MODE** → **Smart** → **Beauty face**.
2. Press the Shutter button to take a photo. Touch a face, and adjust effects. To switch between the original and the adjusted photo, touch **Before & After**. Touch **Save** to save the photo.
3. To set the camera to automatically adjust effects, touch  →  →  → **Enhance face** → **Off**.

Best Photo

Use this to take multiple photos in a short time, and then choose the best photos among them.

1. Touch **MODE** → **Smart** → **Best photo**.
2. Press the Shutter button to take multiple photos. Touch and hold thumbnails of photos to save, and then touch **Save**.

Continuous Shot

Use this to take a series of photos of moving subjects.

1. Touch **MODE** → **Smart** → **Continuous shot**.
2. While holding the camera steady, press and hold the Shutter button to take several photos continuously.



Notes/Tips

- To take several photos continuously, use memory cards with faster writing speeds (micro SDHC Class10 or higher).

Golf

Use this to take consecutive photos of a golf-swing to analyze technique.

1. Touch **MODE** → **Smart** → **Golf**.
2. Press the Shutter button. When the camera detects a golf-swing, it takes multiple photos at 120 fps.

Notes/Tips

- This feature is not available in portrait orientation.
- Using a tripod is recommended.
- In low-light conditions, the preview screen and photos may appear darker, due to the fixed frame rate and shutter speed. For best results, take photos in places with sufficient light.
- In low-light conditions (below 500 lux), such as indoors, the camera may not be able to detect a golf-swing.

Best Face

Use this to take multiple group shots at the same time and combine them to create the best possible image.

1. Touch **MODE** → **Smart** → **Best face**.
2. Press the Shutter button to take multiple photos. To get the best shot, hold the camera steady and remain still while taking photos. Touch the yellow frame on each face, and choose the best individual face for the subject.
3. After choosing a face for each individual, touch **Save** to merge the images into a single photo, and save it.



Color Bracket

Use this to take three photos with different color effects continuously.

- Touch **MODE** → **Smart** → **Color bracket**.

Kids Shot

Use this to play a funny sound to get a kid's attention when shooting.

1. Touch **MODE** → **Smart** → **Kids shot**.
2. Half-press the Shutter button. The camera emits the attention sound. Press the Shutter button to take five consecutive photos.
3. To change the attention sound, touch .

Vignette+

Use this to highlight the centre of the photo by darkening the edges.

- Touch **MODE** → **Smart** → **Vignette+**.



Landscape

Use this to take photos of blue skies and landscapes with richer colors.

- Touch **MODE** → **Smart** → **Landscape**.



Dawn

Use this to take photos of the dawn sky in subtle colors.

- Touch **MODE** → **Smart** → **Dawn**.

Snow

Use this to take brighter photos of snow scenery.

- Touch **MODE** → **Smart** → **Snow**.

Macro

Use this to take photos of very close subjects.

- Touch **MODE** → **Smart** → **Macro**.



Notes/Tips

- Hold the camera steady to prevent blurry photos.

Food

Use this to take photos of food in more colorful tones.

- Touch **MODE** → **Smart** → **Food**.

Party/Indoor

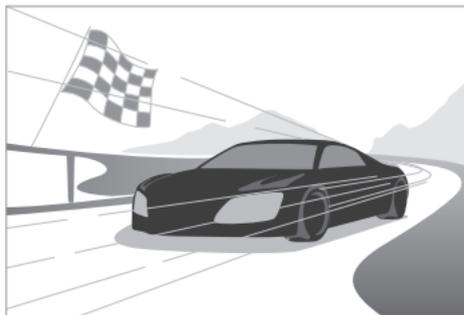
Use this to take crisp indoor photos.

- Touch **MODE** → **Smart** → **Party/Indoor**.

Action Freeze

Use this to take photos of subjects moving at high speed.

- Touch **MODE** → **Smart** → **Action freeze**.



Notes/Tips

- Use in bright daylight is recommended.

Rich Tone

Use this to take photos without losing details in bright and dark areas. The camera automatically takes three photos with various exposure values, and then merges them into one photo. The photo taken at the original exposure value is saved also.

1. Touch **MODE** → **Smart** → **Rich tone**.
2. While holding the camera steady, press the Shutter button to take three photos.



Without effect



With effect

Notes/Tips

- This feature may be affected by camera shake, lighting, movement of the subject, and shooting environment.
- The flash is disabled in this feature.
- When taking a photo of moving subjects, an afterimage may appear.
- Using a tripod is recommended.

Panorama

Use this to take wide panoramic photos.

1. Touch **MODE** → **Smart** → **Rich tone**.
2. Press the Shutter button to take a photo, and then move the camera in one direction. When the blue frame aligns with the preview screen, the camera automatically takes another shot in the panoramic sequence.
3. To stop shooting, press the Shutter button again. Photos are automatically combined into one panoramic image.



Notes/Tips

- Avoid the following for best results:
 - Moving the camera too quickly or too slowly.
 - Moving the camera too little to take the next photo.
 - Moving the camera at irregular speeds.
 - Shaking the camera.
 - Changing the camera direction while taking a photo.
 - Taking photos in low-light conditions.
 - Taking photos of moving subjects.
 - Taking photos where the brightness or color of the light changes.
 - Taking photos of a subject in front of unrecognizable backgrounds, such as empty skies or plain walls.
- Shooting is stopped under the following conditions:
 - Changing the distance from the subject while shooting.
 - Moving the camera too quickly.
 - Not moving the camera.
- The camera may stop taking photos due to composition or movement within the scene.
- The camera may not take the last scene entirely if you stop moving the camera at the exact position where you want the scene to end. To take the entire scene, move the camera slightly beyond the position you want the scene to end.

Waterfall

Use this to take photos of waterfalls.

- Touch **MODE** → **Smart** → **Waterfall**.

Notes/Tips

- The image may appear blurry due to the slow shutter speed when the camera takes photos. Make sure to use a tripod.

Animated Photo

Use this to create a photo in which selected objects move by freezing or animating moving objects automatically detected by the camera.

1. Touch **MODE** → **Smart** → **Animated photo**.
2. Press the Shutter button to take a photo. Touch **Animate** or **Freeze**, and then rub the screen to animate or freeze the detected moving objects.
3. Touch **Trim** to adjust the range to trim, or **Direction** to change the direction of the animation.
4. Touch **Save** to save the photo.

Multi Exposure

Use this to take multiple shots and create one photo by overlapping them.

1. Touch **MODE** → **Smart** → **Multi exposure**.
2. To set the number of shots, touch .
3. To set the camera to save all photos or only the final result, touch  →  →  → **Save original**.



Drama

Use this to take a series of photos and combine them to create an image that shows trails of the movement.

1. Touch **MODE** → **Smart** → **Drama**.
2. While holding the camera steady, press the Shutter button to take several photos continuously. Select shots, and then touch **Save** to save the photo.



Notes/Tips

To get the best shot, follow these tips. The camera may not take photos properly in other shooting conditions.

- Hold the camera steady and remain still while taking photos.
- Take photos of a subject that is moving in one direction.

- Take photos with backgrounds that are free of moving objects.
- Avoid taking photos of a subject and background with similar colors.
- Avoid taking photos of a subject that is too close or too far away to fit within the screen or that is too long such as a bus or a train.

Eraser

Use this to erase moving objects in the background.

1. Touch **MODE** → **Smart** → **Eraser**.
2. Press the Shutter button to take a series of photos. The camera erases moving objects. To restore the original photo, touch **Show moving objects**, and then touch the highlighted area.
3. Touch **Save** to save the photo.

Sound & Shot

Use this to take a photo with sound.

1. Touch **MODE** → **Smart** → **Sound & shot**.
2. The camera records a few seconds of audio after taking a photo.
3. To set the camera to record sound before or after taking a photo, touch .

Notes/Tips

- While taking photos in this mode, sound is recorded by the internal microphone.

Miniature

Use this to apply a miniature effect by making the center clear and blurring the top and bottom of the image.

1. Touch **MODE** → **Smart** → **Miniature**.



Creative Shot

Use this to apply an appropriate filter to a scene automatically detected by the camera.

- Touch **MODE** → **Smart** → **Creative shot**.

Interval

Use this to set the interval and number of shots to take over time.

- Touch **MODE** → **Smart** → **Interval**.

Silhouette

Use this to take photos of dark shapes against a light background.

- Touch **MODE** → **Smart** → **Silhouette**.



Notes/Tips

- To maximise the silhouette effect, take photos at a location that is bright.

Sunset

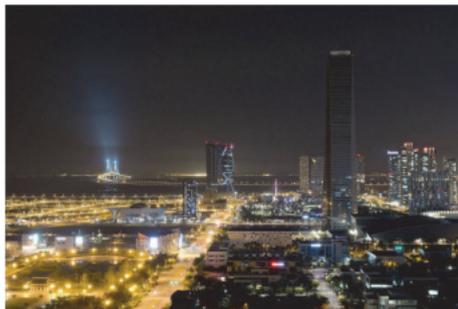
- Use this to take photos of the sunset.

 1. Touch **MODE** → **Smart** → **Sunset**.

Night

Use this to take photos in low-light conditions, without using the flash.

1. Touch **MODE** → **Smart** → **Night**.
2. While holding the camera steady, press the Shutter button to take three photos. Photos are automatically merged into a single photo.



Notes/Tips

- The image may appear blurry due to the slow shutter speed when the camera takes photos. Make sure to use a tripod.

Fireworks

Use this to take photos of fireworks.

- Touch **MODE** → **Smart** → **Fireworks**.



Notes/Tips

- The image may appear blurry due to the slow shutter speed when the camera takes photos. Make sure to use a tripod.

Light Trace

Use this to take photos of the light trailing in low-light conditions.

- Touch **MODE** → **Smart** → **Light Trace**.



Notes/Tips

- The image may appear blurry due to the slow shutter speed when the camera takes photos. Make sure to use a tripod.

My Mode

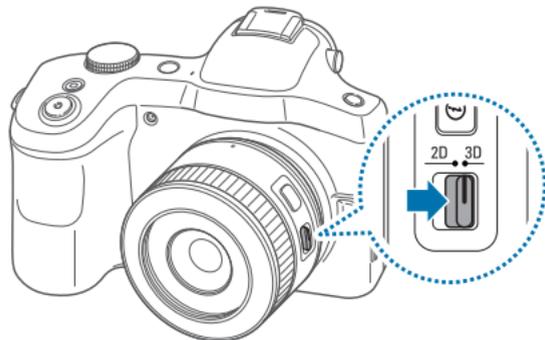
Use this to register your favorite shooting modes and select them conveniently. You can register up to 10 modes.

- Touch **MODE** → **My mode** → **Edit**, and then select your favorite shooting modes. After completing your selection, touch **Done** to save it.

3D Mode

Use this to take 3D photos or videos with an optional 3D lens.

Before using this feature, attach a SAMSUNG 45 mm F1.8 [T6] 2D/3D lens to the camera.



- Set the 2D/3D switch on the lens to 3D, and then take a photo or video 1.5-5 m away from the subject.

Notes/Tips

- Videos recorded in 3D may be dark or playback may be jittery.
- Shooting in low temperatures may result in color distortion in images and may consume more battery power.

- You may not be able to shoot properly in conditions below 8.5 LV/900 lux. For best results, take photos in places with sufficient light.
- When you photograph objects that contain polarizing material, such as a display, sunglasses, or a polarizing filter, or use the polarizing material with your lens, the images may appear dark or the 3D effect may not be applied properly.
- Use a tripod to prevent the camera from shaking.
- If you rotate or tilt the camera vertically while shooting, the 3D effect may not be applied properly. Take photos or videos with the camera in the normal position.
- If you shoot in fluorescent lighting or capture images displayed by projectors or TVs, the images may appear black due to the flicker effect.
- The camera's display shows 3D photos and videos only in 2D.
- Photos taken with the 3D feature are saved in the mpo file format.
- To view 3D files, connect your camera to a 3D TV or 3D monitor with an optional HDMI cable. While viewing, wear proper 3D glasses.
- You cannot use the flash in this mode.
- You cannot take photos or videos in this mode if an HDMI cable is connected to the camera.

Shooting Options and Settings

Customizing Shooting Options

Various shooting options are provided with your camera. With them, you can take more customized photos and videos.

1. Touch  to access shooting options. Depending on the mode selected, you may touch  .
2. Select an option, and then save it.

Note/Tips

- Available options and default settings may differ depending on the shooting mode, the lens you are using, and the shooting conditions.
- Depending on the option selected, some settings may not be available.

EV (Brightness)

The camera automatically sets the exposure by measuring the levels of light from the photo's composition and the position of a subject. If the exposure set by the camera is higher or lower than you expected, you can adjust the exposure value manually.

- Touch  →  → **EV (brightness)**, and select an option.



Darker (-)



Neutral (0)



Brighter (+)

Notes/Tips

- When taking a photo, if the appropriate exposure value cannot be decided, use the AE BKT option to take three consecutive photos with different exposure values.
- Taking photos with higher exposure values may result in blurry photos due to the slower shutter speed.

ISO (Sensitivity)

The ISO sensitivity value represents the sensitivity of the camera to light.

The higher the ISO sensitivity, the more sensitive the camera is to light. Consequently, by selecting a higher ISO sensitivity, you can take photos in dim or dark places at faster shutter speeds. However, this may increase electronic noise and result in a grainy photo.

- Touch  →  → **ISO (sensitivity)**, and select an option.

Examples



ISO 100



ISO 400



ISO 800



ISO 3200

Notes/Tips

- Increase the ISO sensitivity in places where flash use is prohibited. You can take a clear photo by setting a high ISO sensitivity without having to secure more light.
- Use the noise reduction feature to reduce the visual noise that can appear on photos of a high ISO sensitivity. (p. 95)

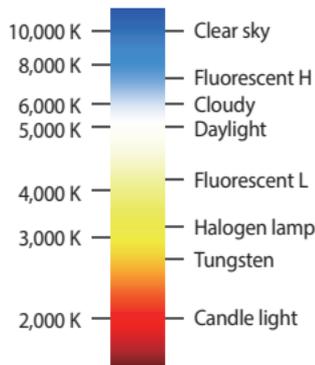
WB (Light Source)

The white balance represents the light source that influences on the color of a photo.

The color of a photo depends on the type and quality of the light source. If you want the color of your photo to be realistic, select an appropriate lighting condition to calibrate the white balance, or adjust the color temperature manually. You can also adjust color for the preset light sources so that the colors of the photo match the actual scene under mixed lighting conditions.

- Touch  →  → **WB (light source)**, and select an option.
 - **Auto**: Use automatic settings depending on the lighting conditions.
 - **Daylight**: Use this for sunny days. This option results in photos closest to the natural colors of the scene.
 - **Cloudy**: Use this for cloudy days or in shadows. Photos taken on cloudy days tend to be more bluish than on sunny days. This option offsets that effect.
 - **Fluorescent W**: Use this under a daylight fluorescent lamp, especially for white fluorescent lighting.
 - **Fluorescent NW**: Use this under a daylight fluorescent lamp, especially for white fluorescent lighting with very white hues.
 - **Fluorescent D**: Use this under a daylight fluorescent lamp, especially for white fluorescent lighting with slightly bluish hues.
 - **Tungsten**: Use this under incandescent bulbs or halogen lamps. Incandescent tungsten bulbs tend to have a reddish hue. This option offsets that effect.
 - **Flash WB**: Use this when using a flash.
 - **Custom**: Use this to set a custom white balance. Touch , aim the lens at a piece of white surface, and then press the Shutter button.

- Color temperature:** Use this to manually adjust the color temperature of the light source. Color temperature is a measurement in degrees Kelvin that indicates the specific type of light source. As the color temperature increases, the color distribution becomes cooler. Alternatively, as the color temperature decreases, the color distribution becomes warmer. Touch , and then drag the slider or touch  or  to adjust the color temperature.



Examples



Auto WB



Daylight



Fluorescent daylight



Tungsten

Notes/Tips

- When taking a photo, if the appropriate white balance option cannot be decided, use the WB BKT option to take three consecutive photos with different white balance settings.

Customizing Preset White Balance Options

Adjust the color for the preset light sources.

- Touch  next to a white balance option. Touch the arrows or touch an area on the screen to adjust the value on the coordinates.
 - **G**: Green
 - **A**: Amber
 - **M**: Magenta
 - **B**: Blue

Metering

The metering mode refers to the method the camera measures the quantity of light. The camera measures the amount of light in a scene, and in many of its modes, uses the measurement to adjust various settings. For example, if a subject looks darker than its actual color, the camera takes an overexposed photo of it. If a subject looks lighter than its actual color, the camera takes an underexposed photo of it.

- Touch  →  → **Metering**, and select an option.
 - **Multi**: The camera calculates the amount of light in multiple areas. When light is sufficient or insufficient, the camera adjusts the exposure by averaging the overall brightness of the scene. This mode is suitable for general photos.

- **Spot**: The camera calculates the amount of light in the centre. When you take a photo in conditions where there is a strong backlight behind a subject, the camera adjusts the exposure to shoot a subject correctly.
- **Centre-weighted**: The camera calculates a broader area than the camera does in spot mode. It sums up the amount of light in the centre portion of the shot (60–80 %) and that of the rest of the shot (20–40 %).

Drive

Use this option to set the shooting method. Continuous or burst shots are recommended for shooting the rapid motion of fast moving subjects, such as racing cars.

- Touch  →  → **Drive**, and select an option.
 - **Single shot:** Use this to take a single photo.
 - **Continuous normal:** Use this to take five photos per second continuously while you are pressing the Shutter button.
 - **Continuous high:** Use this to take about eight photos per second continuously while you are pressing the Shutter button.
 - **Burst shot (10 fps) / Burst shot (15 fps) / Burst shot (30 fps):** Use this to take 30 photos continuously when you press the Shutter button once.
 - **AE BKT:** Use the auto exposure bracketing option to take three consecutive photos with different exposure values (one a step lighter, the original, and one a step darker). Use a tripod to prevent blurry photos. You can adjust the interval range in **Bracket set**.

- **WB BKT:** Use the white balance bracketing option to take three consecutive photos with different white balance settings (the original and two more with different white balance settings). The original photo is taken when you press the Shutter button. The other two are automatically adjusted to the white balance you have set. You can adjust the interval range in **Bracket set**.

Notes/Tips

- Saving photos may take longer depending on the memory card's capacity and performance when taking photos continuously.
- Using a tripod is recommended when taking photos continuously.

Display

Use this option to add or remove shooting information from the screen.

- Touch  →  → **Display**, and select an option.
 - **Normal:** The camera displays basic shooting information on the screen.
 - **Histogram:** The camera displays the histogram on the screen. A histogram is a graph that shows the brightness distribution of a photo. A histogram inclined to the left indicates a dark photo. A histogram inclined to the right indicates a bright photo. The height of the graph is related to color information. The graph gets higher if a specific color is more common.



Insufficient exposure



Balanced exposure



Excessive exposure

- **Horizontal level:** The camera displays the level gauge on the screen. The level gauge helps you align the camera with the horizontal lines on the screen.



▲ Level



▲ Unlevel

- **Distance scale:** The camera displays the distance scale on the screen. The distance scale indicates the distance between a subject and the camera. This function is available only when you attach a lens that supports the distance scale function.
- **Hide:** The camera hides icons that indicate the current camera settings except major shooting options.

Save as User mode

Use this to save the current settings as your own shooting mode.

- Touch  →  → **Save as User mode**.

Flash

To take a realistic photo of a subject, the amount of light should be constant. When the light source varies, you can use a flash and supply a constant amount of light.

In auto or smart mode, the flash pops up automatically depending on the flash option when you half-press the Shutter button or touch the screen in low-light conditions.

- Touch  →  → **Flash**, and then select an option. In expert mode, press the Flash release button to open the flash manually before setting the option.
 - **Off**: Use this to turn the flash off.
 - **Smart flash**: Use this to automatically adjust the brightness of the flash according to the amount of light in the surrounding environment.
 - **Auto flash**: Use this to automatically use the flash. The flash fires when the subject or background is dark.
 - **Auto + Red-eye**: Use this to automatically use the flash and reduce red-eyes.
 - **Fill in**: Use this to always use the flash.
 - **Fill in + Red-eye**: Use this to always use the flash and reduce red-eyes.

- **1st Curtain**: Use this to fire the flash immediately after the shutter opens. The camera takes a photo of a subject earlier in an action sequence clearly.



- **2nd Curtain**: Use this to fire the flash just before the shutter closes. The camera takes a photo of a subject later in an action sequence clearly.



Warning! Keep the flash retracted when not in use to avoid damage.

Forcing the flash to open may cause damage to the camera.

Use only Samsung-approved flashes. Using incompatible flashes may damage your camera.

Notes/Tips

- There is an interval between two bursts of the flash. Do not move until the flash fires a second time.
- If you select Off, the flash does not fire even when an external flash is attached.
- If light from the flash is reflected, or if a substantial amount of dust is in the air, tiny spots may appear in the photo.
- If you attach an intensity-adjustable external flash to the camera, the intensity settings of the flash will be applied.
- If the subject is too close when you use the flash, some light may be blocked, resulting in a dark photo. Ensure that the subject is within the recommended range, which varies by lenses.
- When a lens hood is attached, the light from the flash can be blocked by the hood. Remove the hood to use the flash.

Adjusting the Flash Intensity

When the flash is on, adjust the flash intensity.

- Touch  next to an option, and then drag the slider or touch  or  to adjust the intensity.

AF Mode

Use this option to select a focus mode appropriate to the subject.

If the lens has an AF/MF switch, you must set the switch to select the focus mode that you require. Set the switch to AF to select either Single AF or Continuous AF. Set the switch to MF to select Manual focus.

- Touch  →  → **AF** and select an option.
 - **Single AF:** Use this to capture a still subject. When you half-press the Shutter button, the focus fixes in the focus area. The area turns green when the focus is achieved.
 - **Continuous AF:** Use this to capture fast moving subjects. When you half-press the Shutter button, the camera continues to focus. Once the focus area is fixed on the subject, the subject is always in focus even when moving.
 - **Manual focus:** Use this to manually focus on a subject by rotating the focus ring on the lens. MF assist helps you achieve a focus easily. While you are rotating the focus ring, the focus area is magnified. When you use Focus peaking, the color you selected appears on the focused subject.

AF Area

Use this option to change the positions of the focus area.

Generally, cameras focus on the nearest subject. When there are a lot of subjects, however, unwanted subjects can be in focus. To prevent unwanted subjects from being in focus, change the focus area so that a desired subject is in focus. You can get a clearer and sharper photo by selecting an appropriate focus area.

- Touch  →  → **AF Area** and select an option.
 - **Centre AF:** Use this to focus on the centre of the frame.
 - **Multi AF:** Use this to focus on multiple areas. The photo is divided into two or more areas, and the camera obtains focus points of each area and displays a green rectangle in places where focus is set correctly. This option is recommended for scenery photos.
 - **Face Detection:** Use this to focus on human faces preferentially. This option is recommended for shooting a group of people. This feature may not be effective in the following conditions:
 - The subject is too far from the camera.
 - The lighting is too bright or too dark.
 - The subject is not facing the device.

- The subject is wearing sunglasses or a mask.
- The subject's facial expression changes drastically.
- The subject is backlit, or the lighting conditions are unstable.
- **Tracking AF:** Use this to track and automatically focus on your subject, even when the subject is moving or when you change the shooting composition. Tracking a subject may fail in the following conditions:
 - The subject is too small.
 - The subject moves excessively.
 - The subject is backlit or you are shooting in a dark place.
 - Colors or patterns on the subject and the background are the same.
 - The subject includes horizontal patterns, such as blinds.
 - The camera shakes excessively.
 - If the camera fails to track the subject, the focus area will be reset.
 - If the camera fails to focus, the focus frame will change to red and the focus will be reset.
- **One touch shot:** Use this to take a photo with the touch of your finger. As you touch on the subject, the camera focuses on the subject and takes a photo automatically.

AF Size

Use this option to change the size of the auto focus frame.

- Touch  →  → **AF size**, and touch  or  to adjust the frame size.

Photo Size

As you increase the resolution, your photo will include more pixels, so it can be printed on larger paper or displayed on a larger screen. When you use a high resolution, the file size will also increase. Select a low resolution for photos that will be displayed in a digital picture frame or uploaded to the web.

- Touch  →  → **Photo size**, and select an option.

Quality

Use this option to select a higher photo quality for better photos. Selecting a higher photo quality also increases the file size.

- Touch  →  → **Quality**, and select an option.

The camera saves photos in either the jpg or raw file format. Photos in the jpg format are stored in the memory according to the settings of the camera at the time of shooting. However, raw format files are not transformed to jpg and are saved in the memory without any changes.

Raw format files have the srw file extension. To convert raw format files into other file formats or to calibrate exposures, white balance, tones, contrasts, and colors, use the Adobe Photoshop Lightroom program found on the supplied DVD-ROM. Ensure you have enough space in the memory to save photos in the raw file format.

Installing Adobe Photoshop Lightroom

- Insert the Adobe Photoshop Lightroom DVD into your computer, select a language, and then follow the on-screen instructions to complete the installation.

With Adobe Photoshop Lightroom, you can convert or calibrate image files, including jpg, tiff, and raw file formats. For more information, refer to the program guide.

Notes/Tips

- In Adobe Photoshop Lightroom, an image's brightness, color and other effects may be displayed differently. This occurs because the original camera settings and options applied during image capture are removed, ready for it to be processed in Adobe Photoshop Lightroom.
- If you use PTP mode to connect your device to a Mac OS computer with a USB cable, you may not be able to preview image thumbnails on the import panel in Adobe Photoshop Lightroom. In this case, click the import button and preview them in the Library module.

Adjust Image

Use this option to adjust the color, saturation, sharpness, or contrast of your photos.

- Touch  →  → **Adjust image**, and drag the slider or touch  or  for each value.

Timer

Use this option for delayed-time shots.

1. Touch  →  → **Timer**, and select an option.
2. Press the Shutter button to start the timer. The camera takes photos after a specified length of time.
3. Press the Shutter button to cancel the timer.

MF Assist

Use this option to enlarge the scene and easily adjust the focus while rotating the focus ring.

- Touch  →  → **MF assist**, and select an option.
 - **Off**: Use to turn this option off.
 - **Enlarge x5**: Use this to magnify the focus area by five times when you rotate the focus ring.

Focus Peaking

Use this option to set the color you selected appears on the focused subject to help you focus while rotating the focus ring.

- Touch  →  → **Focus peaking**, and select an option.
 - **Level:** Use this to set a sensitivity level for detecting the focused subject or turn the option off.
 - **Color:** Use this to set a color to appear on the focused subject.

Link AE to AF Point

Use this option to measure the exposure value of the focus area. When this option is on, the camera automatically sets an optimal exposure by calculating the brightness of the focus area.

- Touch  →  → **Link AE to AF Point**, and turn this option on or off.

Framing Mode

When you adjust the aperture value or shutter speed, the exposure value changes according to the settings, so the display may darken. When this option is on, the brightness of the display is constant regardless of the settings, so you can better frame your shot.

- Touch  →  → **Framing mode**, and turn this option on or off.

OIS (Anti-Shake)

Use the Optical Image Stabilizer (OIS) option to reduce or eliminate blurriness from camera shake.

If your lens has an OIS switch, set the switch to ON to use the OIS feature.

- Touch  →  → **OIS (anti-shake)**, and select an option.
 - **Off:** Use to turn this option off.
 - **OIS (half shutter):** Use this to apply the OIS feature only when you half-press the Shutter button.
 - **OIS (always):** Use this to continuously apply the OIS feature.

Notes/Tips

- This feature may not function properly in the following conditions:
 - When you move the camera to follow a moving subject.
 - If the camera is shaking too much.
 - When the shutter speed is slow (for example, when taking photos in low-light conditions).
 - If the battery power is low.
 - When you take close-up photos.
- Using this feature with a tripod may blur photos because of vibration from the OIS sensor. Deactivate this feature when using a tripod.
- The display may be blurry if the camera is hit or dropped. When this happens, restart the device.

Bracket Set

Use this option to change the settings for auto exposure bracketing and white balance bracketing.

- Touch  →  → **Bracket set**, and select an option.
 - **AE Bracket set:** Use this to adjust the exposure interval range of the three bracketed photos.
 - **WB Bracket set:** Use this to adjust the white balance interval range of the three bracketed photos.

ISO Customization

Use this option to change the settings for the ISO sensitivity.

- Touch  →  → **ISO customization**, and select an option.
 - **ISO sensitivity step:** Use this to set the size for the ISO sensitivity by either 1/3 or one step.
 - **Auto ISO Range:** Use this to set the maximum ISO value under which each EV step is chosen when you set the ISO sensitivity to Auto.

DMF

Use the Direct Manual Focus (DMF) option to adjust the focus manually by rotating the focus ring after achieving the focus by half-pressing the Shutter button.

- Touch  →  → **DMF**, and turn this option on or off.

Noise Reduction

Use this option to reduce the visual noise in photos.

- Touch  →  → **Noise reduction**, and select an option.
 - **High ISO NR:** Use this to reduce noise that may occur when you set a high ISO sensitivity. You can adjust the noise reduction intensity by selecting one from High, Normal, and Low.
 - **Long term NR:** Use this to reduce noise when you set the camera for a long exposure.

Distortions Correct

Use this option to correct distortion that might occur from lenses.

- Touch  →  → **Distortions correct**, and turn this option on or off.

Color Space

Use this option to select methods for representing colors.

Digital imaging devices, such as digital cameras, monitors, and printers, have their own methods for representing colors, which are called color spaces.

- Touch  →  → **Color space**, and select an option.
 - **sRGB:** sRGB (Standard RGB) is an international specification to define the color space created by IEC (International Electrotechnical Commission). It is widely used for creating colors on computer monitors and is also the standard color space for Exif. sRGB is recommended for regular images and images you intend to publish on the Internet.
 - **Adobe RGB:** Adobe RGB is used for commercial printing and has a larger color range than sRGB. Its wider range of colors helps you to easily edit photos on a computer. Note that individual programs are generally compatible with a limited number of color spaces.

Notes/Tips

The rule for creating file names varies depending on the selected color space option.

- **sRGB files:** YYYYMMDD_hhmmss.jpg. For example, for a photo taken on Jan. 02, 2013, at 15:30:45, the file name would be 20130102_153045.jpg. File names for continuous, burst, or bracketed photos would be YYYYMMDD_hhmmss_x.jpg, for the previous example, the file name would be 20130102_153045_1.jpg.
- **Adobe RGB files:** YYYYMMDD_hhmmss_A.jpg. File names for continuous, burst, or bracketed photos would be YYYYMMDD_hhmmss_Ax.jpg.

Dynamic Range

Use this option to correct the loss of bright detail that can occur due to shading differences in a photo.

- Touch  →  → **Dynamic range**, and select an option.
- **Off:** Use to turn this option off.
- **Smart Range+:** Use this to correct the loss of bright detail.
- **HDR (High Dynamic Range):** Use this to take three photos with different exposure values and combine them to create a single image. The photo taken at the original exposure value is saved also.

Overexposure Guide

Use this option to set the camera to indicate the overexposed area on the preview screen.

- Touch  →  → **Overexposure guide**, and turn this option on or off.

Video Recording Options

- Touch  → , and configure the settings for video recording.
 - **Movie size:** Select a resolution for videos. Use higher resolution for higher quality. Higher resolution videos take up more memory.
 - **Quality:** Set the quality level for videos. Higher quality images require more storage space.
 - **Multi motion:** Set the playback speed of videos.
 - If you select an option other than x1, sound will not be recorded.
 - **Voice:** Set the camera to record sound with videos.
 - **Windcut:** Remove some surrounding noise in addition to wind noise.
 - **Video output format:** Set the video signal output that is appropriate for your country. You can take videos at 60, 30, or 24 fps with NTSC and at 50, 25, or 24 fps with PAL.

Sharing Options

Share photos as they are taken by setting sharing options.

- Touch  → , and select an option.
 - **Share shot:** Send a photo directly to another device via Wi-Fi Direct.
 - You cannot use this feature if the signature option is activated.
 - If this feature is activated, you cannot set the quality option to RAW or RAW+JPEG.
 - **Buddy photo share:** Set the camera to recognise a person's face that you have tagged in a photo and send it to that person.
 - **ChatON photo share:** Send a photo directly to another device via ChatON.
 - You cannot use this feature if the signature option is activated.
 - **Remote viewfinder:** Set a device to control the camera remotely.

Camera Settings

- Touch  → , and configure the settings for Camera.
 - **User type:** Select the operation type for basic or expert use.
 - **Dial control:** Set Command dial functions when you first press or rotate it on the preview screen of expert mode.
 - **Option 1:** Access the mode selection screen by rotating or pressing the Command dial.
 - **Option 2:** Access the mode selection screen by rotating the Command dial. Move through the major shooting options by pressing the Command dial repeatedly.
 - **Option 3:** Move through the major shooting options by pressing the Command dial repeatedly. Adjust the option by rotating the Command dial.
 - In auto or smart mode, you can only change modes with the Command dial.
 - **Display select:** Use this to set the proximity/light sensor to automatically adjust between the screen and the viewfinder, or to always use the screen.
 - **Power-on mode:** Select the default camera mode that launches when the device is turned on.
 - **Signature:** Use this to add a signature to the image.
 - You cannot use this feature when the Date/time Imprint setting is activated.
 - **GPS tag:** Attach GPS information (location and time) and weather information to the file. Activate this feature when taking photos to create albums in Story Album or use the photo suggestion feature.
 - 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 appear on your photos when you upload them to the Internet. To avoid this, deactivate the GPS tag setting.
 - **Date/time Imprint:** Use this to imprint the time and date on photos.
 - You cannot use this feature when the Signature setting is activated.
 - The time and date cannot be imprinted on raw format files.
 - **Voice control:** Activate or deactivate the voice recognition to take photos or videos.
 - **Guidelines:** Display a guide to help you compose a scene.
 - **Description:** Display mode descriptions.

- **Storage:** Select the memory location for storage.
- **Contextual filename:** Set the camera to add contextual tags, such as location information, to filenames.
 - To use this feature, you must activate the GPS tag setting.
 - The contextual information appears in the display language used by the device at the time the files were created.
- **Review:** Briefly display photos or videos taken.
- **Auto screen off:** Set the length of time the device waits before turning off the display's backlight.
- **Beep:** Activate or deactivate beep sounds.
- **AF sound:** Adjust the auto focus sound.
- **AF lamp:** Use this to activate the AF-assist light in low-light conditions.
- **Sensor cleaning:** Use this to remove dust from the image sensor.
- **Horizontal calibration:** Calibrate the level gauge. If the level gauge is not level, position the camera on the level surface, and then follow the on-screen instructions.
 - You cannot calibrate the level gauge in portrait orientation.
 - The camera must be level (not tilted up or down) to complete the calibration.
- **Lens firmware:** Update the firmware of the lens.
 - Before updating the lens firmware, download the firmware file into the root directory of the internal memory or a memory card, access the Home screen, and then launch the camera application.
- **Reset:** Reset the camera settings.

Section 4: Entering Text

This section describes how to select the desired text input method when entering characters. This section also describes the predictive text entry system that reduces the amount of key strokes associated with entering text.

Your camera comes equipped with an orientation detector that can tell if the camera is being held in an upright (Portrait) or sideways (Landscape) orientation. This is useful when entering text.

Text Input Methods

There are two text input methods available:

- **Samsung keyboard (default):** Samsung's on-screen QWERTY keypad that can be used in both portrait and landscape orientation.
- **Google Voice typing:** Enter text by speaking.

To change the input method, see *"Default Input Method"* on page 152.

Entering Text Using the Samsung Keyboard

From a screen where you can enter text, touch a text field. The on-screen QWERTY keypad will display.



Changing the Keyboard Layout

There are two main keyboard layout keys that will change the on-screen keys within the QWERTY keypad.

The available Text Input modes are: **Sym** and **Abc**.

123
Sym

Symbol/Numeric Mode: activates the number, symbol, and emoticon keys.

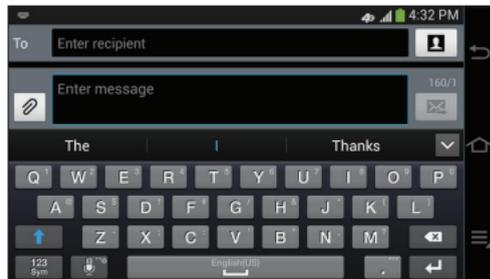
ABC

ABC Mode: activates the default alphabet keys. Can also be set to **Abc** or **abc** by using the shift () key.

Note: When in **Abc** mode, the **Sym** button will appear. When in **Sym** mode, the **Abc/ABC/abc** button will appear.

Using ABC Mode

Note: The keyboard display will differ slightly depending on the application used to enter text.

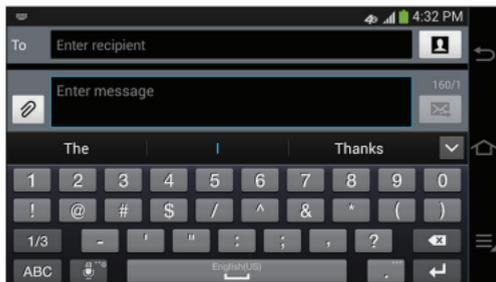


1. At the keyboard display, tap the desired alphabetic characters.
2. The screen initially opens in ABC mode. After typing the first letter, the shift key () will change to  and following letters will be lowercase.
3. Tap  to input another upper-case letter or tap  twice to switch to ABC mode. The shift key will change to  in ABC mode. All following letters will be uppercase until you tap the shift key again.

Using Symbol/Numeric Mode

Use Symbol/Numeric Mode to add numbers, symbols, or emoticons.

1. Rotate your camera counterclockwise to a Landscape orientation.
2. Tap  at the bottom of the screen. The following screen displays:

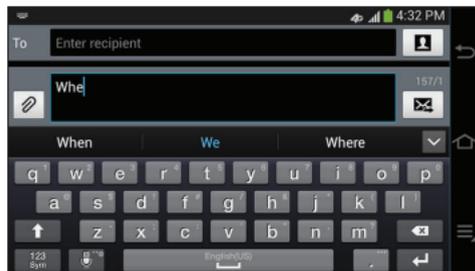


3. Tap the desired number, symbol, or emoticon characters.
4. Tap the  button to access additional symbols.
5. Tap  to return to Abc mode.

Predictive Text

By using the Predictive Text option, you can have next-letter prediction and regional error correction, which compensates for pressing the wrong keys on the QWERTY keyboard. Predictive text is turned on by default.

1. At the keyboard, touch and hold , then tap  on the pop-up menu.
2. Touch  to turn Predictive text ON ().
3. In the text portion of the message screen, begin typing a word. A list of word options is displayed. Tap one of the words to replace the word that has already been typed or scroll the line of words to the left for more word choices.



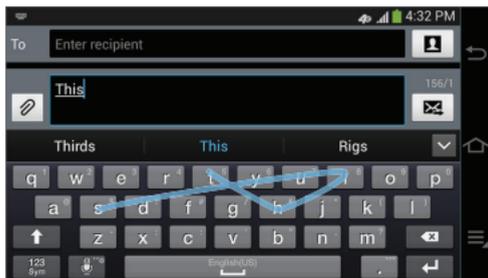
- Continue typing your message. Send the message or press  for more options. For more information, refer to “*Creating and Sending Messages*” on page 97.

Samsung Keyboard Settings

For information on how you can configure your Samsung keyboard settings, see “*Samsung Keyboard*” on page 153.

Entering Text Using Continuous Input

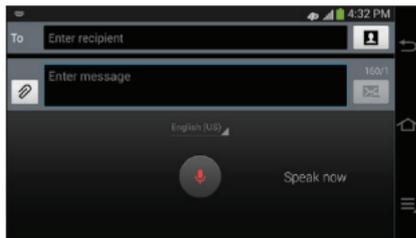
You can enter text simply by using your finger to *handwrite* letters on your screen. The following example shows how to enter the word “This”. Put your finger down on the “T”, and without lifting, glide it to the “h”, then to the “i” then over to the “s”.



Using the Google Voice Typing Feature

You can use your voice to enter text using the Google Voice typing feature.

- At the keyboard, tap . The Google voice typing screen is displayed



- At the **Speak now** prompt, speak clearly and distinctly into the microphone. The text is displayed in the message as you are speaking.
- If the red microphone turns grey, then the feature has timed out and you should tap the microphone icon to start again.

Note: The feature works best when you break your message down into smaller segments.

Section 5: Accounts and Contacts

Accounts

Your device provides the ability to synchronize information, from a variety of accounts, including Email, Facebook, Google, and your Samsung account. Depending on the account, you can choose to synchronize your calendar, contacts, and other types of content.

Contacts from your accounts appear in your device's Contacts.

With synchronization, you can ensure that information on your device is updated with any information that changes in your accounts.

Setting Up Your Accounts

Set up and manage your accounts.

Adding an Account

1. From the Home screen, touch  **Apps** →  **Settings** → **Accounts** tab →  **Add account**.
2. Select an account provider, then follow the prompts to enter your credentials and sign in.
3. The device communicates with the provider's server to set up your account on the device.

Managing Accounts

Note: Account settings and options may vary due to account type and service provider. Not all settings are available for all accounts. See your account service provider for more information.

1. From the Home screen, touch  **Apps** →  **Settings** → **Accounts** tab → (*account type*).
2. Touch **Sync all** to synchronize all accounts listed. Touch **Cancel sync** to stop the synchronization.
3. Touch **Settings** to configure general options for this account type.
4. Touch an individual account for options:
 - Touch **Sync now** to synchronize all data for the selected account.
– or –
Touch the account data to synchronize, such as, Calendar, Contacts, and so on.
 - Touch **Remove account** to remove the account and delete all of its messages, contacts, and other data.

5. For Google accounts, touch one of the items listed under Privacy to view various settings for that item.

– or –

For Samsung accounts, touch **Account settings** to manage Samsung account settings or **Device backup** to set Samsung account back up and restore options.

– or –

For Email accounts, touch **Settings** to manage various settings for that account.

Contacts

Use Contacts to store information for your friends, family and colleagues, making contacting them easy.

Access Contacts

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

Contact Tips

- Swipe right-to-left across a contact to create a message addressed to the contact.
- To quickly move to a specific section in your contact list, touch a letter on the right side of the list to go directly to that letter in the alphabetical list.

Creating Contacts

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab →  **Create contact**.
2. Touch **Device** to store the contact on your camera, or touch an account to store the contact.
3. Touch each field to enter information. To add an additional entry, touch . To delete an entry, touch .
 - Touch the **Photo** icon and assign a picture to the Contact:
 - **Image**: Choose a picture from Gallery.
 - **Pictures by people**: Choose pictures by tags.
 - **Take picture**: Take a new picture.
 - **S Memo**: Choose an image from S Memo.
 - Touch the **Name** field and use the on-screen keyboard to enter the full name. Touch  next to the Name field to display additional name fields.
 - Touch the **Phone** field, and then enter a phone number. Touch  and then choose a label for the number.
 - Touch the **Email** field, and then enter an email address. Touch  and then choose a label for the number.
 - Touch **Groups** to assign the contact to a group.

- Touch **Message alert** to choose a ringtone to play for new messages from the contact.
 - Touch **Add another field** to add additional fields for the contact.
4. Touch **Save** to save the new contact.

Updating Contacts

Make changes to update an existing contact.

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch a contact to view its information, then touch  **Edit**.
– or –
Touch and hold a contact, then select **Edit** from the menu.
3. Update contact information.

Delete Contacts

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch  **Menu** → **Delete**.
3. Touch contacts to mark them for deletion, or touch **Select all**.
4. Touch **Delete**.

Managing Contacts

Choosing Contacts to Display

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch  **Menu** → **Contacts to display**:
 - **All contacts** to show all contacts.
 - **Device**: Display only contacts stored on your device.
 - **SIM**: Display only contacts saved to the SIM card.
 - **[Account]**: Display contacts from selected accounts.
 - **Customized list**: Select contacts to display.

Contacts Options

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
 2. Touch  **Menu** → **Settings** for options:
 - **Delete:** Delete contacts.
 - **Import/Export:** Import or export the selected contact information from/to a specified location.
 - **Share namecard via:** Share contact(s) with others using Bluetooth, ChatON, Email, Gmail, Messaging, or Wi-Fi Direct.
 - **Merge accounts:** Combine contacts with a Google or Samsung Account.
 - **Accounts:** Display accounts set up on your camera.
 - **Send message/email:** Create a new text message or email to selected contacts.
 - **Contacts to display:** Choose contacts to display from your device, accounts set up on your device, or other sources.
- **Settings:** Access settings for Contacts.
 - **Only contacts with phones:** Only display contacts that have phone numbers.
 - **List by:** Sort contacts by first or last name.
 - **Display contacts by:** List contacts by first name first or last name first.
 - **Contacts sharing settings:** Choose whether to send all namecards at once or individually.
 - **Online search:** Searches your synced accounts even if they are not currently being displayed.

Individual Contact Options

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch a contact to display it, then touch  **Menu**:
 - **History**: View calls and messages to and from this contact.
 - **Edit**: Modify contact information.
 - **Delete**: Erase the contact record.
 - **Link contact/Separate contact**: Manage multiple contacts as one. For information, see “*Linking Contacts*” on page 81.
 - **Mark as default**: Set a default phone number or other field (such as IM or email address). Defaults are the contact method used when creating a message or calling a contact. You can also set a default by touching and holding on a contact field.
 - **Share namecard via**: Send the namecard. For information, see “*Sharing Contact Information*” on page 81.
 - **Print contact info**: Print the Contact’s information to a Samsung printer.
 - **Add shortcut to home**: Places this contact as a shortcut on the Home screen.

My Local Profile

My local profile is your own contact record, listed under ME at the beginning of the Contacts list.

Creating My Local Profile

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch **Set up profile**, then enter your information in the contact fields.

Sending My Local Profile

You can your contact record as a vCard via Bluetooth, as an attachment via ChatON, Email, Gmail, or Messaging, or via Wi-Fi Direct.

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch your profile to display your contact information.
3. Touch  **Menu**, then touch **Share namecard via**.
4. Choose a sending method, then follow the prompts to send the namecard.

Linking Contacts

When you have contacts from various sources (Gmail, Facebook, etc.), you may have multiple similar entries for a single contact. Your Contacts app lets you link multiple entries into a single contact.

Linking also helps you keep your contacts updated, because any changes to information in the respective accounts is automatically updated the next time you synchronize with the account.

Linking Contacts

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch and hold on a contact, then select **Link contact**.
3. Touch another contact to link to the displayed contact.

Separating Contacts

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch  under the Connection heading, and then touch  next to a contact to unlink it from the displayed contact.

Sharing Contact Information

You can send a contact namecard as a vCard via Bluetooth, as an attachment via ChatON, Email, Gmail, or Messaging, or via Wi-Fi Direct.

Important! Not all Bluetooth devices will accept contacts, and not all devices support transfers of multiple contacts. Check the target device's documentation.

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Contacts** tab.
2. Touch  **Menu** → **Share namecard via**.
3. Touch contacts to mark them for sending, or touch **Select all**.
4. Touch **Done**. At the prompt, choose a sending method, then follow the prompts to send the namecard.

Favorites

Mark contacts with a ★ star to identify them as Favorites. Favorites display on the Favorites tab.

Access Favorites

- From the Home screen, touch  **Apps** →  **Contacts** →  **Favorites** tab.

Add a Contact to Favorites

1. From the Home screen, touch  **Contacts** →  **Contacts**.
2. Touch and hold on a contact, then select **Add to favorites** from the pop-up menu.
– or –

Touch a contact to display it, then touch  at the top of the screen.

Remove a Contact from Favorites

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Favorites** tab.
2. Touch and hold on a contact, then select **Remove from favorites** from the pop-up menu.
– or –

Touch a contact to display it, then touch  at the top of the screen.

Groups

Assign contacts to Groups to make searching for contacts faster, or to quickly send messages to group members. Your device comes with pre-loaded groups, and you can create new groups.

Accessing Groups

- From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.

Create a New Group

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.
2. Touch  **Menu** → **Create**, then enter information:
 - Touch **Group name** to enter a Group Name.
 - Touch **Message alert** to choose a ringtone to play as a message alert from group members.
 - Touch **Add member** to select members from Contacts.
3. Touch **Save** to save the new group.

Add Contacts to a Group

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.
2. Touch a **Group** to display it, then touch  **Add member**.
3. Touch contacts to mark them for addition to the group, or touch **Select all**.
4. Touch **Done** to add the selected contacts.

Remove Contacts from a Group

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.
2. Touch a **Group** to display it.
3. Touch  **Menu**, then touch **Remove member**.
4. Touch contacts to mark them for removal to the group, or touch **Select all**.
5. Touch **Done** to remove the selected contacts.

Send an Email or Message to Group Members

Create a new text or email message, addressed to the group's members.

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.
2. Touch a **Group** to display it.
3. Touch  **Menu**, then touch **Send message** or **Send email**.
4. Touch contacts to mark them as recipients for the new message or email, or touch **Select all**.
5. Touch **Done**. The new message opens, with the marked contacts as recipients. Continue creating the message.

Edit a Group

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.
2. Touch a Group to display it.
3. Touch  **Menu** → **Edit**, then update information for the group.

Delete a Group

1. From the Home screen, touch  **Apps** →  **Contacts** →  **Groups** tab.
2. Touch  **Menu**, then touch **Delete groups**.
3. Touch groups to tag them for deletion, or touch **Select all**. (You cannot delete pre-loaded groups.)
4. Touch **Delete**, then choose **Group only** or **Group and group members**.

Importing and Exporting Contacts

You can import/export your contacts from/to USB storage (your device's memory) or an installed memory card.

Contacts are imported/exported as vCards.

1. From the Home screen, touch  **Apps** →  **Contacts**
→  **Contacts** tab.
2. Touch  **Menu**, then touch **Import/Export**.
3. Select an option, then follow the prompts to complete the operation:
 - **Import from USB storage:** Copy contacts that are saved in device memory.
 - **Export to USB storage:** Copy contacts to device memory.
 - **Import from SD card:** Imports contacts from the SD card.
 - **Export to SD card:** Exports contacts to the SD card.

Section 6: Multimedia

This section explains how to use the multimedia features of your camera.

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 contact image, and share as a picture message.

1. From the Home screen, touch **Gallery** .

All of the Albums that hold your pictures and videos will be displayed with folder name and number of files.

2. Touch an Album and thumbnails of the contents will be displayed.

Viewing Pictures

1. From the main gallery, touch  → **Slideshow** to see a slideshow of all of the pictures in the current folder.
2. Touch a thumbnail to view a single picture.

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

3. The following options are available while viewing photos.
 -  **Select device:** Select a different AllShare/Samsung Link device from your available list.
 -  **Details:** View details about the picture, such as the title, the time it was taken, file size, etc.
 -  **Share via:** allows you to share the picture via Bluetooth, Wi-Fi Direct, and various accounts such as email, Gmail, etc.
 -  **Delete:** Permanently delete the picture.

-  **Options:** Display additional options (available options may vary with different file types and storage locations):
 - **Edit:** Edit the current image.
 - **Favorite:** Tag the current item as a favorite.
 - **Download:** Download photos from online accounts (such as Picasa) to your camera.
 - **Slideshow:** View your photos in a slideshow.
 - **Photo frame:** Create a surrounding photo frame that can be edited with edited text or drawn object.
 - **Photo note:** Write notes on your current image.
 - **Signature:** Sign an autograph on the photo.
 - **Copy to clipboard:** Copy one or more pictures to the clipboard.
 - **Print:** Print the current image on a compatible Samsung printer.
 - **Rename:** Rename the current file.
 - **Buddy photo share:** Share the current image with active ChatON buddies.
 - **Set as:** Assign the current image as a Contact photo, or as wallpaper for the Home screen and Lock screen.
 - **Settings:** Configure your synced accounts, such as Gmail. Choose to sync your accounts only via Wi-Fi, and configure options for Tag buddy and Face tag.

Viewing Videos

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

1. From the Home screen, touch **Gallery** .
2. Select a folder location and touch a video preview.

The following options are available while viewing video previews.

-  **Select device:** Select a different AllShare/Samsung Link device from your available list.
-  **Details:** View details about the picture, such as the title, the time it was taken, file size, etc.
-  **Share via:** allows you to share the picture via Bluetooth, Wi-Fi Direct, and various accounts such as email, Gmail, etc.
-  **Delete:** Permanently delete the picture.

-  **Options:** Display additional options:
 - **Trim:** Edit the length of the video.
 - **Slideshow:** View your video as a slideshow.
 - **Favorite:** Tag the video as a favorite.
 - **Rename:** Rename the video.
 - **Settings:** Configure your synced accounts, such as Gmail. Choose to sync your accounts only via Wi-Fi, and configure options for Tag buddy and Face tag.

3. Touch  to play the video. The following options are available while playing videos:

-  Pause the video.
-  Start the video after being paused.
-  Press and hold to rewind the video. Tap to go to previous video.
-  Press and hold to fast-forward the video. Tap to go to next video.
-  Volume control.

 PIP (Picture In Picture) view. The video will be played in a small window so you can use your phone for other purposes while watching the video. Double-tap screen to return to previous size.

 Original size view. The video will be played in its original size.

 Full-screen in ratio view. The video is enlarged as much as possible without becoming distorted.

 Full-screen view. The entire screen is used, which may cause some minor distortion.

 Streams the video to another device via Samsung Link.

Manage Your Video Files

You can perform actions such as renaming, moving, etc. on your video files.

1. From the Home screen, touch **Gallery** .
2. Select a folder location to view thumbnails of videos.
3. Touch and hold a video thumbnail to select it, or press  and touch **Select all**.
4. Touch  for options:
 - **Slideshow**: View your files in a slideshow.
 - **Copy**: Create a duplicate of the selected file.
 - **Move**: Move a selected file to a new location.
 - **Hide items**: Hide selected items.
 - **Show hidden items**: Show items that were previously hidden.
 - **Rename**: Rename the selected video.
 - **Details**: View file information.

Editing a Photo

The Gallery's photo editing tools provides basic editing functions for pictures and videos. Along with basic image adjustments such as brightness, contrast, and color, a wide variety of effects are available.

Note: Only photos which are stored on your camera can be edited. To edit photos which are stored online (such as with Picasa), touch  → **Download** (this places a copy of the file in the Gallery on your camera).

1. From the Home screen, touch **Gallery** .
2. Select a folder location and touch a file to open it.
3. With the image displayed, press  → **Edit**.
 - **Edit**: allows you to edit the current image. Launches the Photo Editor application.
4. Select an image area by touching and holding the image, and then select an 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**: Copy the currently selected area to your device's clipboard.

5. Use the following controls to edit your picture:

-  **Undo:** Undo the last operation.
-  **Redo:** Redo the previous operation.
-  **Cancel/Delete:** Exit the current photo editing session.
-  **Save:** Save the edited photo.
-  **Rotate:** Rotate a photo in all 4 directions, as well as flipping the image horizontally/vertically.
-  **Crop:** Crop an area of a photo.
-  **Color:** Adjust the color of the image. Options include Auto adjust color, Brightness, Contrast, Saturation, Adjust RGB, Temperature, Exposure, and Hue.
-  **Effects:** Add various effects to your photo.
-  **Portrait:** Apply various face touch-up effects. Options include Red-eye fix, Airbrush face, Face brightness, Out-of-focus, Beauty face, Face reshaping, and Spot healing.

 **Sticker:** Place various stickers, icons, and other fun graphics on your image.

 **Drawing:** Draw directly on your picture using either a brush, pen, or eraser.

 **Frame:** Place a border around your image.

6. Press  for options:

- **Save as:** Rename the image and save it to the Gallery.
- **Select image:** Select a new image for editing.
- **Take picture:** Activate the camera and take a new image for editing.
- **Share via:** Share your photo via Add to Dropbox, Bluetooth, ChatON, Email, Gmail, Google+, Group Play, Hangouts, Messages, Picasa, S Note, Wi-Fi Direct.
- **Set as:** Assign the image as a Contact photo, or as wallpaper for the Home screen and Lock screen.

Video Editor

With the Video Editor, you can edit videos you take with your camera. You can add themes and also add additional media to your videos such music and photos.

1. From the Home screen, touch  **Apps** →  **Video Editor**.
2. Follow the on-screen instructions for using the Video Editor.

Video Player

The Video Player application plays video files stored on your microSD card.

1. Touch  **Apps** →  **Video Player**.
2. All videos that you have on your camera and memory card will be displayed. Touch the video that you want to play.
3. The video will begin to play.
4. The following video controls are available:
 -  Pause the video.
 -  Start the video after being paused.

 Press and hold to rewind the video. Touch to go to previous video.

 Press and hold to fast-forward the video. Touch to go to next video.

 Volume control.

 Capture Icon

 PIP (Picture In Picture) view. The video will be played in a small window so you can use your camera for other purposes while watching the video. Double-touch screen to return to previous size.

 Original size view. The video will be played in its original size.

 Full-screen in ratio view. The video is enlarged as much as possible without becoming distorted.

 Full-screen view. The entire screen is used, which may cause some minor distortion.

Note: The screen view icons are a three-way toggle. The icon that is displayed, is the mode that will appear after the icon is touched.

Music Player

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, touch  **Apps** →  **Music**.
2. Touch a library category at the top of the screen (All, Playlists, Albums, Artists, Music square, Folders, or Nearby devices) to view the available music files.
3. Scroll through the list of songs and touch an entry to begin playback.

4. The following Music Player controls are available:
 -  Pause the song.
 -  Start the song after being paused.
 -  Press and hold to rewind the song. Touch to go to previous song.
 -  Press and hold to fast-forward the song. Touch to go to next song.
 -  Volume control.
 -  Repeat one: repeats the currently playing song.
 -  Repeat all: replays the current list when the list ends.
 -  Play All: plays the current song list once.
 -  Shuffle On: the current list of songs are randomly shuffled for playback.
 -  Shuffle Off: songs play in order and are not shuffled.

-  Provides access to the Music square.
-  Lists the current playlist songs.
-  Displays the current song in the player window.
-  Provides access to the SoundAlive feature.

Using Playlists

Playlists are used to assign songs to a list of preferred media which can then be grouped into a list for later playback. These Playlists can be created via either the handset's Music Player options menu or from within a 3rd party music application (such as Windows Media Player) and then downloaded to the handset.

Creating a Playlist

1. From the Home screen, touch  **Apps** →  **Music**.
2. Touch the **Playlists** tab.
3. Press  → **Create playlist**.
4. Type a name for this playlist in the field and touch **OK**.

Adding Music to a Playlist

1. From the Home screen, touch  **Apps** →  **Music**.
2. Touch the **Playlists** tab.
3. Touch the playlist name in which to add music.
4. Touch  **Add music**.
5. Touch a music file, or touch **Select all** to add all the music tracks to this playlist then touch **Done**.

Removing Music from a Playlist

1. From the Home screen, touch  **Apps** →  **Music**.
2. Touch the **Playlists** tab.
3. Touch the playlist name in which to delete music.
4. Press  → **Delete**.
5. Touch the checkbox to the left of each track you want to remove from this playlist, or touch **Select all** to remove all the music tracks from this playlist, then touch **Delete**.

Editing a Playlist

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

1. From the Home screen, touch  **Apps** →  **Music**.
2. Touch **Playlists**.
3. Press  → **Edit title**.
4. Touch a playlist name to edit.
5. Enter a new name for the playlist then touch **OK**.

Music Player Options

To access additional options, follow these steps:

1. From the Home screen, touch  **Apps** →  **Music**.
2. Press .
3. The follow options are available:
 - **Add to play list:** Add the current music file to the Play list.
 - **Via Bluetooth:** Scan for devices and pair with a Bluetooth device.
 - **Via Bluetooth:** Share your music using Bluetooth.
 - **Delete:** Delete the selected song.
 - **Search:** Search for a specific song.
 - **Scan for nearby devices:** Scan for devices nearby to connect to and share the song.
 - **Settings:** Access Music Player settings. For more information, refer to “*Music Player Settings*” on page 95.
 - **End:** End the Music Player app.

Music Player Settings

The Music Player 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 the Home screen, touch  **Apps** →  **Music**.
2. Press  → **Settings**.
3. Select one of the following settings:
 - **SoundAlive:** Set the type of equalization that you desire.
 - **Play speed:** Set the play speed anywhere between 0.5X and 2.0X using the slider.
 - **Music menu:** Select which categories you want to display. Choices are: Albums, Artists, Genres, Music square, Folders, Composers, Years, Most played, Recently played, or Recently added.
 - **Lyrics:** Display lyrics, if available.
 - **Smart volume:** Automatically adjust each track's volume to an equal level.
 - **Voice control:** Use voice commands to control Music Player.

Google Play Music

With Google Play Music, you can play music that you have added to your music file as well as any music you copied from your PC. While offline, you can listen to music you have copied from your PC.

1. From the Home screen, touch  **Apps** →  **Play Music**.
2. Follow the on-screen instructions to use the Play Music app.

Play Movies & TV

With Google Play Movies & TV, you can rent thousands of different movies and television shows. You can watch instantly, or download your movie or show for offline viewing at a later time.

1. From the Home screen, touch  **Apps** →  **Play Movies & TV**.
2. Log on to your Google account if you have not already done so.
3. Following the on-screen instructions for renting and viewing movies and TV shows.

Section 7: Messaging

This section describes how to send and receive messages and other features associated with messaging.

Types of Messages

Your device supports these types of messages:

- Text Messages
- Multimedia (Picture, Video, and Audio) Messages
- Email
- Gmail
- Hangouts
- Google+
- ChatON

The Short Message Service (SMS) lets you send and receive text messages to and from other mobile phones or email addresses. To use this feature, you may need to subscribe to your service provider's message service.

The Multimedia Messaging Service (MMS) lets you send and receive multimedia messages (such as picture, video, and audio messages) to and from other mobile phones or email addresses. To use this feature, you may need to subscribe to your service provider's multimedia message service.

Important! When creating a message, adding an image, a sound file, or a video clip to a text message changes the message from a text message to a multimedia message.

New Messages Notification

Depending on your notification settings, the phone will play a ringtone, vibrate, or display the message briefly in the Status bar when you receive a new message. To change the notification for new messages, see “*Messaging Settings*” on page 101 for details.

A new message icon  appears in the notifications area of the Status bar, and the Messaging application icon  also displays the number of new messages.

To open the message, touch and hold the Status bar, and then slide the Status Bar down to open the Notifications panel. Touch the new message to open and read it. For information on reading and replying to messages see “*Managing Messages*” on page 99.

Creating and Sending Messages

Quickly compose and send text and multimedia messages on your phone.

1. From a Home screen, touch  **Apps** →  **Messaging** →  **Compose**.
2. Touch  **Enter recipient**, and then enter a contact name, a mobile phone number, or an email address. As you type, possible matches from your accounts and contacts display on the screen. Touch a match to add it to the message.

Note: Enter additional recipients by separating each entry with a semicolon (;).

3. Touch the **Enter message** field and type your message.
4. To add an attachment, touch  and select a file:
 - **Image:** Choose a picture from Gallery.
 - **Take a picture:** Launch the Camera to take a photo, and then add it to your message by touching Save.
 - **Video:** Choose a video from Gallery.
 - **Record video:** Launch the Camera to record a video, and then add it to your message by touching Save.

- **Audio:** Choose a sound from Music.
 - **Record audio:** Launch Voice Recorder to record a new sound.
 - **S Memo:** Launch S Memo to choose or create a memo.
 - **Calendar:** Add an event from your calendar.
 - **Location:** Attach a map showing your location.
 - **Contacts:** Add a contact entry (namecard) to the message.
5. When finished, touch  to send the message.

Note: If you exit a message before you send it, it will be automatically saved as a draft.

Options While Composing a Message

1. While composing a message, press  to reveal additional messaging options.
 - **Discard:** Delete the message.
 - **Insert smiley:** Add emoticons, such as a happy face, to your message.
 - **Add text:** Insert text or data from S Memo, Contacts, a Location, Calendar, or from Text templates.
 - **Add to contacts:** Add the recipient to your Contacts. This option only appears if the recipient is not already in your Contacts.
 - **View contact:** View Contact information on the recipient. This option only appears if the recipient is in your Contacts.
 - **Add slide:** Add a new page to a message.
 - **Add recipients:** Add additional recipients.
 - **Scheduling:** Assign the current message for scheduled delivery at a designated time.
 - **Add to spam numbers:** Tag a number as spam so that these messages can be directly delivered to your spam folder.
- **Remove from spam numbers:** Unregister a number from the spam number list. This option only appears if the number was previously registered as spam.
- **Discard:** allows you to delete the current message.
- **Translate:** launches a Translate popup menu. Here you can both assign the sender's original language and assign a target language for the recipient (they will receive your message in the designated language).

Managing Messages

Messages that are sent to and received from a contact (or a number) are grouped into conversations or “threads” in the All messages screen. Threads let you see all exchanged messages with a contact.

View a Message

1. From a Home screen, touch  **Apps** →  **Messaging**.
2. From the message list, touch a message to display it.
 - To view the details of a particular message, in the message thread, touch and hold the message to open the options menu, and then touch **View message details**.
 - If a message contains a link to a Web page, touch the message and then touch the link to open it in the Web browser.
3. While viewing a MMS message, touch the play icon (on a video or audio file) to play back the file or touch an image to view a picture.

Note: File attachments on a MMS message can be saved to an optional memory card (not included). Touch and hold on the attachment, and then touch **Save attachment**. Select the attachment and touch **Save**.

Reply to a Message

1. From a Home screen, touch  **Apps** →  **Messaging**.
2. From the message list, touch a message to display it.
3. Touch the **Enter message** field and then type your reply message.
4. When finished, touch  **Send**.

Delete a Message

1. From a Home screen, touch  **Apps** →  **Messaging**.
2. From the message list, touch and hold the message or thread that you want to delete.
3. From the pop-up menu, touch **Delete message** or **Delete thread**.

Tip: To delete several message threads at once, touch  → **Delete threads**. Select the threads you want to delete and touch **Delete**.

Protect a Message from Deletion

You can lock a message so that it will not be deleted even if you delete the other messages in the thread.

1. From a Home screen, touch  **Apps** →  **Messaging**.
2. From the message list, touch a message thread.
3. Touch and hold the message that you want to lock.
4. Touch **Lock message** on the pop-up menu. A lock icon displays at the lower right hand side of the message.

Message Options

1. From a Home screen, touch  **Apps** →  **Messaging**.
2. Before composing a message, press  to reveal additional messaging options:
 - **Search:** Search through all messages for a certain word or phrase. Enter a search string in the Search field and touch .
 - **Delete threads:** Delete message threads. Touch each message thread you want to delete, or touch **Select all**. Touch **Delete**.
 - **Draft messages:** Display messages saved as drafts.
 - **Locked messages:** Display locked messages.
 - **Scheduled messages:** Display scheduled messages.
 - **Spam messages:** Display messages tagged as spam.
 - **Settings:** Access messaging settings.

Messaging Settings

To configure the settings for text messages and multimedia messages.

1. From a Home screen, touch  **Apps** →  **Messaging**
→  → **Settings**.

2. The following settings are available:

- **Delete old messages:** Automatically delete the oldest messages when the maximum number of messages is reached. Set the maximum number of messages with the Text message limit and Multimedia message limit settings below.
- **Text message limit:** Set the maximum number of text messages per conversation.
- **Multimedia message limit:** Set the maximum number of multimedia messages per conversation.
- **Delivery reports (TXT):** Request a delivery report for each message you send.
- **Input mode:** Uses text message input mode.
- **Delivery reports (MMS):** Request a delivery report for each message you send.

- **Auto retrieve:** Control whether message attachment(s) are automatically downloaded when you display a multimedia message. If you disable this option, only the message header displays in the message list, and you'll be prompted to download the attachment(s).
- **Roaming auto retrieve:** Automatically retrieve messages while roaming.
- **Creation mode:** Use multimedia message creation mode.
- **MMS alert:** Set the device to alert you when you make a change to a message that will convert the message to a multimedia message (MMS).
- **Bubble style:** Control how messages appear on the screen. Bubbles are the boxes that surround each message.
- **Background style:** Set the background of the message screen.
- **Use the volume key:** Enable changing the text size while reading a message by pressing the Volume Key up or down.
- **Push messages:** Receive push messages from network.
- **Service loading:** Set prompts for service loading.
- **Notifications:** Control whether notifications for new messages display in the Status bar.

- **Select ringtone:** Set the ringtone for your message notifications.
- **Vibrate:** Set whether vibration plays along with the ringtone for new message notifications.
- **Message alert repetition:** Set how often your device notifies you of new message(s).
- **Preview message:** Control whether a preview of a new message appears in the Status bar with the message notification.
- **Add signature:** Add a text signature to all messages you send.
- **Signature text:** Create your text signature.
- **Spam settings:** Filter incoming messages for spam messages.
- **Add to spam numbers:** Add telephone numbers which will be automatically flagged as spam, when Spam settings is enabled.
- **Add to spam phrases:** Add text phrases which will be automatically flagged as spam, when Spam settings is enabled.
- **Block unknown senders:** Automatically blocks messages from numbers that are not stored as contacts on your phone.

Gmail

Send and receive email with Gmail, Google's web-based email service.

Setting Up Your Gmail Account

If you did not set up a Google account during the initial configuration, the first time you launch Gmail, your device prompts you to set up your Google account.

1. From a Home screen, touch  **Apps** →  **Gmail**.
2. Follow the prompts to sign in or create a new account. The device communicates with the Google server to set up your account and synchronize your email. When complete, your Gmail displays in the Inbox.

Note: You can use more than one Google account on your device. To add another account, touch  **Menu** → **Settings** → **General** tab → **Accounts** → **Add account**.

Composing and Sending Gmail

1. From a Home screen, touch  **Apps** →  **Gmail**.
2. Touch  **Compose**, then touch fields to compose the message. While composing a message, touch  **Menu** for options.
3. Touch  **SEND** to send this message.
– or –
Touch  **Menu** → **Save draft** to save a draft of this message.

Refreshing Your Gmail Account

Refresh your account to update your device from the Gmail servers.

1. From a Home screen, touch  **Apps** →  **Gmail**.
2. While viewing your Inbox, drag your finger downward across your messages.

Gmail Settings

Use the Gmail Settings to configure your Gmail preferences.

1. From a Home screen, touch  **Apps** →  **Gmail**.
2. Touch  **Menu** → **Settings** for settings.

Tip: Touch  **Menu** → **Help** for more information.

Email

Use Email to view and manage all your email accounts in one application.

Configuring Email Accounts

You can configure Email for most accounts in just a few steps.

1. From a Home screen, touch  **Apps** →  **Email**.
2. The first time you set up an email account, at the Set up email screen, enter an **Email address** and **Password**, then touch **Next**.
– or –
For additional accounts, touch  **Menu** → **Settings** → **Add account**.
3. Follow the on-screen instructions to set up your email account.
4. Touch **Next** to go to the next screen or touch **Previous** to go to the Apps screen.

Note: For Exchange ActiveSync accounts, the *Activate device administrator?* screen may appear. Read the information and touch **Activate** to continue.

5. Enter an account name and your name, if required.
6. Touch **Done**.
The device communicates with the appropriate server to set up your account and synchronize your email. When complete, your email appears in the Inbox for the account.

Note: To configure email account settings at any time, use  **Menu** → **Settings**. Touch the account to display Account settings.

Managing Your Email Accounts

You can view email you receive for all accounts in the **Combined view** screen or you can view email accounts individually.

1. From a Home screen, touch  **Apps** →  **Email**.
2. Touch the  drop-down menu at the top left of the screen to select:
 - **Combined view**: View all email in a combined inbox.
 - **<Account Name>**: View email for the account.

Refreshing Your Email Account

Refresh your account to update your device from your email servers.

1. From a Home screen, touch  **Apps** →  **Email**.
2. In the Application Bar, touch  **Refresh**.

Deleting Email Accounts

To delete an Email account:

1. From a Home screen, touch  **Apps** →  **Email**.
2. Touch  **Menu** → **Settings** → **Delete account**.

Email Settings

Use the Email Settings to configure your Email preferences.

Note: Available settings depend on the email provider.

1. From a Home screen, touch  **Apps** →  **Email**.
2. Touch  **Menu** → **Settings**, then touch **General settings**. The following options display:
 - **Display:** Set how email is shown in the email list and when you open them.
 - **Composing and sending:** Set what functions are available while composing and sending email.
 - **Auto-advance:** Set the screen to show after deleting a message. Choices are: Next email, Previous email, or Email list.
 - **Confirm deletions:** Ask for confirmation before deleting email.
 - **Priority senders:** Enter email addresses that you want treated as a priority.
 - **Spam addresses:** Manage your spam address list.
 - **Rules for filtering:** Create rules for filtering email based on names, address, or subject.
3. Touch an account to configure specific settings.
Available options depend on the account.

Composing and Sending Email

1. From a Home screen, touch  **Apps** →  **Email**.
2. If you have multiple accounts set up, choose an account from the menu at the top of the screen.
3. Touch  **Compose**, then touch fields to enter recipients and the email text.
4. While composing a message:
 - Touch displayed buttons to set Priority, Tracking options, Security options, and so on.
 - Touch  **Attach** to add a file to the message.
Available options depend on the type of email account.
5. Touch the body of the email to enter the text of your email. Touch the text option buttons to edit and format your message text.
6. Touch  **Send** to send the message.
– or –
Touch  **Save** to save the email to the Drafts folder.

Hangouts

Previously known as Google Talk, Hangouts is an online place to meet friends and family, share photos, and host video calls. Conversation logs are automatically saved to a Chats area in your Gmail account.

- From a Home screen, touch  **Apps** →  **Hangouts**.

Google+

Google+ makes messaging and sharing with your friends a lot easier. You can set up Circles of friends, visit the Stream to get updates from your Circles, use Messenger for fast messaging with everyone in your Circles, or use Instant Upload to automatically upload videos and photos to your own private album on Google+.

- From a Home screen, touch  **Apps** →  **Google+**.

ChatON

A smart-messaging app that gives you a host of innovative ways to stay connected with all your friends and family, regardless of their device or platform. Use ChatON to send and receive instant messages from any device that has a mobile phone number.

1. From a Home screen, touch  **Apps** →  **ChatON**.
If you are launching this application for the first time, follow the on-screen instructions to complete the account setup.
2. Enter and send your message.

Section 8: Applications

This section contains a description of each application that is available in the Apps Menu, its function, and how to navigate through that particular application. If the application is already described in another section of this user manual, then a cross reference to that particular section is provided.

Tip: To open applications quickly, add the icons of frequently-used applications to one of the Home screens. For details, see “*Customizing Your Home Screen*” on page 19. You can also add an application icon as a Primary Shortcut that will display on all Home screens.

Calculator

With this feature, you can use the camera as a calculator.

- From the Home screen, touch  **Calculator** .

Note: Turn your camera sideways to the landscape position to display the scientific calculator.

Calendar

With the Calendar feature, you can consult the calendar by day, week, or month, create events, and set an alarm to act as a reminder, if necessary.

1. From the Home screen, touch  **Calendar** .
2. Touch a tab to change the view:
 - **Year:** displays the Year view.
 - **Month:** displays the Month view.
 - **Week:** displays the Week view.
 - **Day:** displays the Day view.
 - **List:** displays the List view.
 - **Task:** allows you to search for tasks.

3. Touch  (**Create event**) to create a new Calendar event.
4. Touch **Today** to display the current date indicated by a blue box.
5. Touch **Calendars** to select the calendar options that you want displayed.
6. Press  and select one of the following options:
 - **Go to:** Display a specific date.
 - **Delete:** Delete All events, All events before today, or an individual event.
 - **Delete memo:** Delete memos.
 - **Search:** Search within your current events.
 - **Sync:** Synchronize your calendar with one or all of your accounts.
 - **Settings:** Access settings.
5. Touch **Hide declined events** to activate this option. A check mark indicates selection.
6. Touch **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.
7. Touch **Show week number** to display the week numbers along the side of the week entries.
8. Touch **Weather** to configure weather information from AccuWeather.com.
9. Touch **Set alerts & notifications** to adjust the event notification method. Choose from: **Alert**, **Status bar notification**, and **Off**.
10. Touch **Select ringtone** to assign a ringtone to a calendar event notification.
11. Touch **Vibration** to set the Event notification tone to vibrate.
12. Touch **Quick responses** to select quick responses to emailing guests.

Calendar Settings

1. From any Calendar view, press  **Settings**.
2. Touch **View styles** and select an option.
3. Touch **Week view** and select a type: **Timeline** or **Analog**.
4. Touch **First day of week** and select either **Local default**, **Saturday**, **Sunday** or **Monday**.

Camera

Launch the Camera app to take photos or record videos. For more information, refer to “*Camera Operation*” on page 25.

- From the Home screen, touch  **Apps** →  **Camera**.

ChatON

With the ChatON application, you can interact with friends and family with text, images, hand-written notes and video shared instantly. You can chat in groups, while a Web client will allow the easy sharing of content and conversations between your camera and PC. For more information, refer to “*ChatON*” on page 106.

- From the Home screen, touch  **Apps** →  **ChatON**.

Chrome

The Google Chrome app allows you to use the Google Chrome web browser on your camera.

- From the Home screen, touch  →  **Chrome**.

Clock

The Clock application allows you to access alarms, view the World Clock, set a stopwatch, and use a timer.

Alarm

This feature allows you to set an alarm to ring at a specific time.

1. From the Home screen, touch  →  **Clock** → **Alarm** tab →  **Create alarm**. The following options display:
 - **Time**: touch  **(Up)** or  **(Down)** to set the new time for the alarm to sound. Touch AM or PM.
 - **Alarm repeat**: use this option to set the repeating status for the alarm by touching one the days that you want the alarm to sound. Touch the Repeat weekly checkbox to have the alarm repeat weekly.
 - **Alarm type**: sets the way in which the alarm sounds when activated (Melody, Vibration, Vibration and melody, and Briefing).
 - **More**: displays the following additional options:
 - **Alarm volume**: drag the slider to adjust the alarms volume.
 - **Alarm tone**: sets the sound file which is played when the alarm is activated. Select an option or touch Add for additional options.

- **Snooze:** use this option to set a Duration (3, 5, 10, 15, or 30 Minutes) and Snooze repeat (1, 2, 3, 5, or 10 Times). Touch the ON/OFF slider to activate.
- **Smart alarm:** tracks body movements and calculates the best time for sounding the alarm. Place the camera somewhere on your bed then the camera's movement sensor (also known as accelerometer) is sensitive enough to work from any part of the bed. Set the Duration and the Tone. Touch the ON/OFF slider to activate.
- **Name:** allows you to use a specific name for the alarm. The name will appear on the display when the alarm activates.

2. Touch **Save** to store the alarm details.

Turning Off an Alarm

- To stop an alarm when it sounds, touch and sweep the  icon to the right.

Setting the Snooze Feature

- To activate the Snooze feature after an alarm sounds, touch and sweep the  icon to the left. Snooze must first be set in the alarm settings.

Deleting Alarms

To delete an alarm, follow these steps:

1. From the Home screen, touch  →  **Clock** → **Alarm** →  → **Delete**.
2. Touch the alarm or alarms you wish to delete, or touch **Select all** to delete all alarms.
3. Touch **Delete**.

World Clock

World Clock allows you to view the time of day or night in other parts of the world. World Clock displays time in hundreds of different cities, within all 24 time zones around the world.

1. From the Home screen, touch  →  **Clock** → **World Clock**. The clock for your time zone is displayed.
2. Touch **Add city** to add another city to the World Clock.
3. Scroll through the list of cities to find the city you want to add, or touch the Search bar and use the keypad to enter a city to search for.
4. Touch the city you want to add. The clock for that city will display.

- To set Daylight Savings time, press and hold a city, then touch **DST settings**.
- Select **Automatic, Off, or 1 hour**.
- If Daylight Savings Time is selected, a sun symbol on the World Clock listing will appear.

Deleting a World Clock Entry

- From the Home screen, touch  →  **Clock** → **World Clock** →  → **Delete**.
- Press and hold the city clocks you wish to delete.
- Touch **Delete**.

Stopwatch

You can use this option to measure intervals of time.

- From the Home screen, touch  → **Clock**  → **Stopwatch**.
- Touch **Start** to start the stopwatch and touch **Lap** to mark a unit of time per lap.
- Touch **Stop** to stop the stopwatch.
- Touch **Restart** to continue or touch **Reset** to erase all times recorded.

Timer

You can use this option to set a countdown timer. Use a timer to count down to an event based on a preset time length (hours, minutes, and seconds).

- From the Home screen, touch  →  **Clock** → **Timer**.
- Touch the **Hours** field to set hours if desired. As you touch different fields, they will become highlighted.
- The **Minutes** field is highlighted and set to 1 minute. Use the keypad to set the number of minutes you want.
- Touch the **Seconds** field to set seconds.
- Touch **Start** to begin the timer and touch **Stop** to pause the timer.
- After stopping, touch **Restart** to continue or touch **Reset** to set the timer back to the original setting.

Desk Clock

You can use the Desk clock when you have a desk dock and you want your camera to display the time, day, date, location, and weather conditions when it is docked.

1. From the Home screen, touch  →  **Clock** → **Desk clock**.

The default Desk clock is displayed.

2. Touch  to display the Desk clock in full-screen mode.
3. To make changes, touch .
4. The following options are displayed while in full-screen mode:
 - **Hide status bar**: when this is checked, the status bar is hidden from view.
 - **Wallpaper**: touch to select Desk clock wallpaper from Default, Gallery, or Same as home screen.
 - **Calendar**: when this is checked, the calendar is displayed.
 - **Weather**: when this is activated, the location, temperature, and weather condition is displayed.

Contacts

Use Contacts to store information for your friends, family and colleagues, making contacting them easy.

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

For more information, refer to “*Accounts and Contacts*” on page 76.

Downloads

The Downloads application allows you to manage all of your downloads from the Play Store and the Browser.

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

All of your downloads are listed.

2. Touch the **Internet downloads** tab to see all of the downloads you have made from the Browser.
3. Touch the **Other downloads** tab to see all other downloads.
4. Touch **Sort by size** to see your downloads sorted in size order.
5. Touch **Sort by date** to see your downloads sorted in time order.

Dropbox

Dropbox provides access to your personal computer files directly from your device. It allows you to take your files with you when you are on the go, edit files in your Dropbox from your device, upload photos and videos to Dropbox, and share your selected files freely with family and friends.

The in-device application works together with a partner program placed on a target computer using an active Internet connection.

Dropbox creates a folder that automatically synchronizes its contents across all of your connected devices on your account. Update a file to your dropbox on your computer, and it is automatically updated to the same folder on your other devices.

Download the Desktop Application

1. Use your computer's browser to navigate to dropbox.com.
2. Follow the on-screen instructions to install this application on your target computer containing the desired files.

Important! The computer application must be installed on the computer containing the desired files and that computer must have an active Internet connection.

Note: It might be necessary to configure your routers firewall settings to allow this application to gain access to the Internet.

Accessing Dropbox On Your Device

1. From a Home screen, touch  **Apps** →  **Dropbox**.
2. Follow the on-screen instructions.

Email

Email enables you to review and create email using various email services. You can also receive message alerts when you receive an important email. For more information, refer to “*Email*” on page 103.

- From a Home screen, touch  **Apps** →  **Email**.

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 contact image, and share as a picture message. For more information, refer to “*Gallery*” on page 86.

- From the Home screen, touch **Gallery** .

Gmail

Gmail is a web-based email service. Gmail is configured when you first set up your camera. Depending on your synchronization settings, Gmail can automatically synchronize with your Gmail account on the web. For more information, refer to “*Gmail*” on page 102.

- From a Home screen, touch  **Apps** →  **Gmail**.

Google

Search the Internet using Google Search.

- From a Home screen, touch  **Apps** →  **Google**.

Google Settings

As Google has become more intertwined with other applications, this menu provides a quick and ready access point to configure preferences for Google+, Maps & Latitude, Location, and so on.

Note: You must be signed in to the application in which you want to configure (ex: sign in to Google+ to configure Google+ settings).

- From the Home screen, touch  **Apps** →  **Google Settings**.

Google+

Google+ makes messaging and sharing with your friends a lot easier. You can set up Circles of friends, visit the Stream to get updates from your Circles, use Messenger for fast messaging with everyone in your Circles, or use Instant Upload to automatically upload videos and photos to your own private album on Google+. For more information, refer to “*Google+*” on page 106.

- From the Home screen, touch  **Apps** →  **Google+**.

Group Play

This application lets you share documents, photos or music in real-time with other connected friends.

Important! To share a Group Play, all users must be connected to the same Wi-Fi access point.

1. From the Home screen, touch  **Apps** →  **Group Play**.
2. Read the various on-screen information and touch **Next** to continue.
3. Follow the on-screen tutorials.

To share a picture with other Group Play users:

1. From the Home screen, touch  **Apps** →  **Group Play**.
2. Touch the available Wi-Fi indicated at the top and verify you are connected to an active Wi-Fi. This must be the same Wi-Fi being used by your external recipients.
3. Touch **Share Picture** and then select a image by placing a green checkmark on it and touching **Done**.
4. Enter a PIN code and touch **Done** (to secure you session). Pass this PIN along to all your recipients.

5. Your recipients must then:

- Launch the Group Cast feature on their device.
- Touch the active Group Cast session (shown at the bottom of the application screen).
- Your recipients must enter the PIN code you created for the session.

Hangouts

Hangouts is a free web-based application for instant messaging offered by Google.

For more information, refer to “*Hangouts*” on page 106.

- From a Home screen, touch  **Apps** →  **Hangouts**.

Help

Use this app to learn more about your camera, change important settings, use key applications, and link to product videos.

- From a Home screen, touch  **Apps** →  **Help**.

Internet

Open the web browser to start surfing the web. The browser is fully optimized and comes with advanced functionality to enhance the Internet browsing feature on your camera.

- From a Home screen, touch  **Apps** →  **Internet**.

Local

Local is an application that uses Google Maps and your location to help you find Restaurants, Cafes, Bars, Attractions, and other businesses. You can also add your own locations.

- From the Home screen, touch  **Apps** → **Local** .

Maps

Use Google Maps to find your current location, plus get directions and other location-based information.

Note: You must enable location services to use Maps, and some features require Standalone or Google location services. For more information, refer to “*Location Services*” on page 159.

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

Messaging

Send and receive text and multimedia messages. For more information, refer to “*Messaging*” on page 96.

- From the Home screen, touch **Apps** →  **Messaging**.

Music Player

Music Player allows you to play music files that you have stored on your device and memory card. You can also create playlists. For more information, refer to “*Music Player*” on page 92.

- From the Home screen, touch  **Apps** →  **Music**.

My Files

My Files allows you to manage your sounds, images, videos, bluetooth files, Android files, and other memory card data in one convenient location.

1. From the Home screen, touch  **Apps** →  **My Files** → **All files**.
2. Touch **sdcard0** to see the contents of your internal SD card.

Note: Different folders may appear depending on how your camera is configured.

3. The following folders may display:
 - **Alarms:** this folder contains any alarm files you may have.
 - **Android:** the Android folder stores files that are used in Android applications.
 - **Application:** this folder contains app info for S Memo.
 - **Bluetooth:** this folder stores files sent via a Bluetooth device.
 - **DCIM:** this is the default location for pictures and videos taken by the device. Touch **DCIM Camera** to view the picture or video files.
 - **Download:** this folder contains downloads you have made.

- **Movies:** this folder contains your Video and Movie files.
 - **Music:** this folder contains your Music files.
 - **Notifications:** this folder contains all of the notifications you have received.
 - **Pictures:** this folder contains your photos and screenshots.
 - **Podcasts:** this folder contains all of your podcasts.
 - **Ringtones:** this folder contains any ringtones you have purchased.
 - **Samsung:** this folder contains Samsung Videos, Images, and Music.
4. If you have an external SD card inserted, touch **extSdCard** to see the contents of your external SD card (memory card).

Navigation

Use Google Navigation to search for locations, and get turn-by-turn directions.

Note: You must enable location services to use Navigation, and some features require Standalone or Google location services. For more information, refer to “*Location Services*” on page 159.

- From the Home screen, touch  **Apps** →
 **Navigation.**

Paper Artist

Paper Artist provides access to an in-device graphics program. You can start from an empty canvas or import a picture from your Gallery to get you started.

- From the Home screen, touch  **Apps** →
 **Paper Artist.**

Photo Suggest

Pictures of exciting new places are shown as recommendations, based on your nearby favorites and places you'd like to visit.

- From the Home screen, touch  **Apps** →
 **Photo Suggest.**

Play Books

With Google Play Books, you can find more than 3 million free e-books and hundreds of thousands more to buy in the eBookstore.

- From the Home screen, touch  **Apps** →
 **Play Books.**

Play Magazines

With Google Play Magazines, you can subscribe to your favorite magazines and have them available to read on your camera at any time or any place.

- From the Home screen, touch  **Apps** →
 **Play Magazines.**

Play Movies & TV

With Google Play Movies & TV, you can rent thousands of different movies and television shows. You can watch instantly, or download your movie or show for offline viewing at a later time. For more information, refer to “*Play Movies & TV*” on page 95.

- From the Home screen, touch  **Apps** →  **Play Movies & TV.**

Play Music

With Google Play Music, you can play music that you have added to your music file as well as any music you copied from your PC. While offline, you can listen to music you have copied from your PC. For more information, refer to “*Google Play Music*” on page 95.

- From the Home screen, touch  **Apps** →  **Play Music.**

Play Store

Play Store provides access to downloadable applications and games to install on your camera. Play Store also allows you to provide feedback and comments about an application, or flag an application that might be incompatible with your camera.

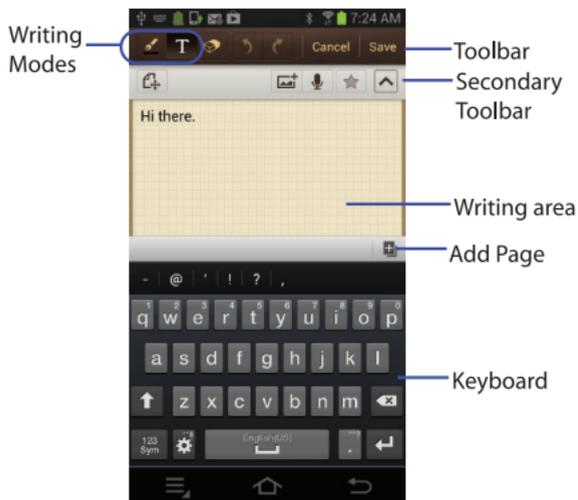
- From the Home screen, touch  **Apps** →  **Play Store.**

S Memo

Record ideas instantly and freely with memos containing text, pictures, handwritten notes or drawings, and voice recordings.

Creating a New Memo

1. From the Home screen, touch  **Apps** →  **S Memo**.
2. Touch an existing Memo to open it then touch the screen to enter edit mode.



The icons that you see displayed on the screen are described in the following table:

-  Saves the current memo and creates a new one.
-  Changes the view mode.
-  Allows you to add free-format drawing.
-  Displays the keypad to you can add text.
-  Eraser tool allows you to erase marks and drawings.
-  Undo the last action.
-  Redo the last action that was undone.
-  Make a voice recording to add to the memo.
-  Hide the secondary toolbar.
-  Show the secondary toolbar.
-  Add an additional page to the memo.

3. Press  to access the following options:

Note: Depending on whether you have saved the memo, are in keypad mode, or in handwriting mode, the options will appear differently.

- **Share via:** allows you to share your memo as either a JPG, PDF or TXT via ChatON, Dropbox, Flipboard, Picasa, Google+, Bluetooth, Wi-Fi Direct, Messaging, Gmail, or Email.
- **Export:** allows you to save the memo to your Gallery as either a JPG or as a PDF.
- **Save as:** allows you to save the memo with a different name.
- **Add tag:** allows you to set tags to add in searches.
- **Change background:** allows you to set the background for your memo. Swipe the screen to the left or right to select a background and then touch **Done**.
- **Set as:** allows you to set a memo as a contact icon, Home screen wallpaper, or Lock screen wallpaper.
- **Print:** allows you to print the screen or web page on a Samsung printer using Wi-Fi.

When you are finished creating your memo, touch **Save** on the top menu bar.

S Translator

Use the translator to translate from one language to another.

- From the Home screen, select  **Apps** →  **S Translator**.

S Voice

Use S Voice to speak commands to perform operations on your phone, and to speak criteria for searches and other operations. Just speak naturally, and S Voice understands what you're looking for. Use the power of S Voice to find everything from directions to trivia answers to the current weather forecast.

1. From the Home screen, touch  **Apps** →  **S Voice**.
2. Say "Hi Galaxy", or touch  to wake up S Voice; then speak a command or question. Touch  for a list of commands; then touch a command to see examples.
3. Touch  **Menu** → **Settings** to configure settings to your preferences.

Samsung Apps

Connect to Samsung Apps and make your smart device even smarter. Simply and easily download an abundance of applications to your tablet such as games, news, reference, social networking, navigation, and more.

- From a Home screen, touch  **Apps** →



Samsung Apps.

Samsung Link

Samsung Link allows users to share their in-device media content with other external devices using DLNA certified™ (Digital Living Network Alliance) Devices. These external devices must also be DLNA-compliant. Wi-Fi capability can be provided to TVs via a digital multimedia streamer.

Important! You must first connect both of your communicating devices to the same Wi-Fi and be using an active/registered Samsung account prior to using this application. For more information, refer to “*Wi-Fi*” on page 131.

1. From the Home screen, select  **Apps** →  **Samsung Link.**
2. Touch **Sign in** to sign in to Samsung Link.
3. Touch **Sign in** again and sign in to your Samsung account.
4. Follow the on-screen instructions.

Settings

Configure your device's settings. For more information, refer to “*Changing Your Settings*” on page 141.

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

Sphere

Connect to Samsung Apps and make your smart device even smarter. Simply and easily download an abundance of applications to your tablet such as games, news, reference, social networking, navigation, and more.

- From a Home screen, touch  **Apps** →  **Sphere.**

Story Album

Create an album with your story on one timeline.

- From the Home screen, select  **Apps** →  **Story Album.**

TripAdvisor

TripAdvisor allows you to access traveler reviews and opinions on hotels, restaurants and more. You can also compare prices and check availability on hotels, flights, car rentals and more.

Note: This application requires a Samsung account for access.

- From the Home screen, select  **Apps** →  **TripAdvisor.**

Video Player

The Video Player application plays video files stored on your memory card. For more information, refer to “*Video Player*” on page 91.

- From the Home screen, select  **Apps** →  **Video.**

Video Editor

Edit your videos with advanced editing tools.

- From the Home screen, select  **Apps** →  **Video editor.**

Voice Search

The Google Voice Search application allows you to search the web using only your voice.

- From the Home screen, touch  **Apps** →  **Voice Search.**

YouTube

YouTube is a video sharing website on which users can upload and share videos.

- From the Home screen, touch  **Apps** →  **YouTube.**

Section 9: Connections

This section describes the various connections your camera can make including accessing the Internet with your Browser, Wi-Fi, Bluetooth, and Connecting your PC.

Internet

The Browser is your access to the mobile web. This section explains how to navigate the Browser and introduces you to the basic features.

Accessing the Mobile Web

To access the Browser:

- From the Home screen, touch  **Internet**.

Navigating with the Browser

1. To select an item, touch an entry.
2. To scroll through a website, sweep the screen with your finger in an up or down motion.
3. Sweep the screen left to right to move laterally across a web page.
4. To return to a previous page, press .
5. To move forward to a web page, press .

Zooming In and Out of the Browser

There are several ways to Zoom in and out on your browser. After touching on a link or article, use one of these methods:

- **Double touch:** Quickly touch the screen twice on the web page to zoom in or out.
- **Pinching:** Sweep in opposite directions at the same time to zoom in or out (use a pinching-in or pinching-out motion).

Browser Options

1. From the home page, press  to access the following options:
 - **New window:** displays a new window so you can browse multiple URLs. For more information, refer to “*Adding and Deleting Windows*” on page 125.
 - **Add bookmark:** allows you to add a URL to your bookmark list
 - **Add shortcut to home screen:** allows you to add a shortcut to your Home screen.
 - **Share page:** allows you to share the page using Gmail or as a message.
 - **Find on page:** allows you to search in the current page.

- **Desktop view:** allows you to assign the browser to display the current page in the desktop view (to closely mimic the display as it would appear on a desktop computer).
- **Save for offline reading:** allows you to store the current page in memory so that it can be read later even if you lose your Internet connection.
- **Brightness:** allows you to set the screen brightness.
- **Downloads:** displays the download history.
- **Print:** allows you to print the screen or web page on a Samsung printer using Wi-Fi.
- **Settings:** allows you to modify your web settings. For more information, refer to “*Browser Settings*” on page 129.

Enter a URL

You can access a website quickly by entering the URL. Websites are optimized for viewing on your camera.

To enter a URL and go to a particular website, follow these steps:

1. Touch the **URL** field at the top of your screen.
2. Enter the URL using the on-screen keypad.

The website displays.

Adding and Deleting Windows

You can have up to eight Internet windows open at one time. To add a new window, follow these steps:

1. From your browser, press  → **New window**.
A new browser window is opened.
2. Touch  (**Windows**) to see thumbnails of all open windows. The number displayed on the icon shows how many open windows you have.
3. Touch a window listing to open up that Internet window.
4. Touch  at the top right corner of the web page thumbnail to delete the window.

Going Incognito

The incognito feature allows you to view Internet sites outside of the normal browsing. Pages viewed in this incognito window won't appear within your browser history or search history, and no traces (such as cookies) are left on your device.

Note: Any downloaded files will be preserved and will stay on your device after you exit the incognito mode.

To add a new incognito window:

1. From your browser window, touch  (Windows) →  (Incognito page).
2. A new browser window displays.

Note: The incognito icon appears in the upper-left of the new browser window while you are in this mode.

To exit from the incognito window:

1. From your browser window, touch  (Windows) →  (New window).
2. Scroll across the available windows and locate the incognito window.
3. Touch  next to the incognito listing to delete this window.

Using Bookmarks

While navigating a website, you can bookmark a site to quickly and easily access it at a future time. The URLs (website addresses) of the bookmarked sites are displayed in the Bookmarks page. From the Bookmarks page you can also view your Most visited websites and view your History.

1. From the Home webpage, touch  (Bookmarks).
The Bookmarks page is displayed.
2. Press  to display the following options:
 - **List/Thumbnail view:** Select **Thumbnail view** (default) to view a thumbnail of the webpage with the name listed, or select **List view** to view a list of the bookmarks with Name and URL listed.
 - **Create folder:** Create a new folder in which to store new bookmarks.
 - **Change order:** Rearrange the current bookmarks.
 - **Move to folder:** Move bookmarks to a selected folder.
 - **Delete:** Erase selected bookmarks.

3. Touch a bookmark to view the webpage, or touch and hold a bookmark for the following options:
- **Open:** Opens the webpage of the selected bookmark.
 - **Open in new window:** Opens the webpage in a new window.
 - **Edit bookmark:** Allows you to edit the name or URL of the bookmark. For more information, refer to “*Editing Bookmarks*” on page 127.
 - **Add shortcut to home screen:** Adds a shortcut to the bookmarked webpage to your camera’s Home screen.
 - **Share link:** Allows you to share a URL address using many different options.
 - **Copy link URL:** Allows you to copy the URL address to use in a message.
 - **Delete bookmark:** Allows you to delete a bookmark. For more information, refer to “*Deleting Bookmarks*” on page 127.
 - **Set as homepage:** Sets the bookmark to your new homepage.

Adding Bookmarks

1. From any webpage, touch  →  **Add**.
2. Use the on-screen keypad to enter the Name, Address, and the Location.
3. Touch **Save**.
4. **Saved to Bookmarks** will appear at the bottom of the page.

Editing Bookmarks

1. From the Bookmarks page, touch and hold the bookmark you want to edit.
2. Touch **Edit bookmark**.
3. Use the on-screen keypad to edit the Name, Address, and the Location.
4. Touch **Save**.

Deleting Bookmarks

1. From the Bookmarks page, touch and hold the bookmark you want to delete.
2. Touch **Delete bookmark**.
3. At the **Delete** confirmation window, touch **OK**.

Emptying the Cookies

A cookie is a small file which is placed on your camera by a website during navigation. In addition to containing some site-specific information, it can also contain some personal information (such as a username and password) which can pose a security risk if not properly managed. You can clear these cookies from your camera at any time.

1. From the Home webpage, press  → **Settings** → **Privacy and security** → **Clear all cookie data**.
2. At the **Clear** prompt, touch **OK** to delete the cookies or touch **Cancel** to exit.

Using Your History

The History list provides you with a list of the most recently visited websites. These entries can be used to return to previously unmarked web pages.

1. From the Home webpage, touch  → **History** tab.
A list of your most recently visited websites is displayed with Name and URL address.
2. Touch on a category such as **Today**, **Yesterday**, **Last 7 days**, or **Most visited**.
3. Touch any entry to display the webpage.
4. Press  → **Clear history** to delete the History list.

Saved Pages

The Saved pages list provides you with a list of the websites that you have saved.

1. From the Home webpage, touch  → **Saved pages** tab.
A list of your saved webpages is displayed with Name and URL address. The webpages that have been visited the most will appear at the top.
2. Touch any entry to display the webpage.

Browser Settings

To make adjustments in your browser settings, follow these steps:

1. Touch  **Internet** →  → **Settings**.
2. The following options are available:

General

- **Set home page:** Sets the current home page for the Web browser.
- **Form auto-fill:** allows you to fill in web forms with a single touch.
- **Auto-fill text:** allows you to enter text to be used in the Form auto-fill feature.

Privacy and security

- **Clear cache:** Deletes all currently cached data. Touch **OK** to complete the process.
- **Clear history:** Clears the browser navigation history. Touch **OK** to complete the process.
- **Show security warnings:** Notifies you if there is a security issue with the current website.
- **Accept cookies:** Allows sites, that require cookies, to save and read cookies from your device.

- **Clear all cookie data:** Deletes all current browser cookie files.
- **Remember form data:** Allows the device to store data from any previously filled out forms. Remove the checkmark to disable this function.
- **Clear form data:** Deletes any stored data from previously filled out forms. Touch **OK** to complete the process.
- **Enable location:** Allows websites to request access to your location.
- **Clear location access:** Clears location access for all websites. Touch **OK** to complete the process.
- **Remember passwords:** Stores usernames and passwords for visited sites. Remove the checkmark to disable this function.
- **Clear passwords:** Deletes any previously stored usernames or passwords. Touch **OK** to complete the process.
- **Enable notifications:** Allows website notifications. Select **Always on**, **On demand**, or **Off**.
- **Clear notifications:** Deletes website notification access information.

Accessibility

- **Force zoom:** allows you to override the website's request to control zoom.
- **Text size:** allows you to preview the text size, scale the text size using a slider bar, set the zoom amount on double touch, and minimize the font size using a slider bar.
- **Inverted screen rendering:** allows you to preview a website page, select Inverted rendering (black becomes white and vice versa), and adjust the Contrast using a slider bar.

Advanced

- **Select search engine:** allows you to set your default search engine to Google, Yahoo!, or Bing.
- **Open in background:** New pages are launched in a separate page and displayed behind the current one. Remove the checkmark to disable this function.
- **Enable JavaScript:** Enables Javascript for the current Web page. Without this feature, some pages may not display properly. Remove the checkmark to disable this function.
- **Allow multiple tabs per app:** Allows you to use multiple navigation tabs per application.

- **Enable plug-ins:** Allows the download of plug-ins such as Adobe Flash.
- **Default storage:** Allows you to set your default storage to Device or Memory Card.
- **Website settings:** View advanced settings for individual websites.
- **Default zoom:** Adjusts the zoom feature. Set to Far, Medium, or Close.
- **Open pages in overview:** Shows an overview of newly opened web pages.
- **Auto-fit pages:** Allows web pages to be resized to fit as much of the screen as possible.
- **Block pop-ups:** Prevents popup advertisement or windows from appearing onscreen. Remove the checkmark to disable this function.
- **Text encoding:** Adjusts the current text encoding.
- **Reset to default:** Clears all browser data and resets all settings to default.

Bandwidth management

- **Preload search results:** Allows the browser to preload high confidence search results in the background to help speed up searches.
- **Page preloading:** Allows the browser to preload pages in the background.
- **Load images:** Allows web page images to be loaded along with the other text components of a loaded website.

Labs

- **Quick controls:** allows you to open quick controls and hide the app and URL bars by swiping your thumb from the left or right edge of the screen.
- **Full screen:** allows you to access Full screen mode and hide the status bar.

Wi-Fi

Wi-Fi (short for “wireless fidelity” and sometimes referred to as wi-fi) is a term used for certain types of Wireless Local Area Networks (WLAN). These device types use an 802.11 wireless specification to transmit and receive wireless data. Wi-Fi communication requires access to an existing and accessible Wireless Access Point (WAP). These WAPs can either be Open (unsecured) as within most Hot Spots, or Secured (requiring knowledge of the Router name and password).

Turning Wi-Fi On and Off

By default, your device’s Wi-Fi feature is turned off. Turning Wi-Fi on makes your device able to discover and connect to compatible in-range WAPs.

1. From the Home screen, touch  → **Settings**.
2. Touch  to turn Wi-Fi **ON** () or **OFF** ()

Note: Use of wireless data connections such as Wi-Fi can cause an added drain to your battery and reduce your use times.

Connect to a Wi-Fi Network

1. From the Home screen, touch  → **Settings** → **Wi-Fi**.
The network names and security settings (Open network or Secured with WEP) of detected Wi-Fi networks are displayed in the Wi-Fi networks section.
2. Touch the network you want to connect to.

Note: When you select an open network, you will be automatically connected to the network.

3. Enter a wireless password if necessary.

Manually Add Your New Network Connection

1. Touch **Add Wi-Fi network**.
2. Enter the **Network SSID**. This is the name of your Wireless Access Point.
3. Touch the **Security** field and select a security option. This must match the current security setting on your target WAP.
4. If secured, you will also need to enter your WAP's password.
5. Touch **Save** to store the new information and connect to your target WAP.

Note: The next time your device connects to a previously accessed or secured wireless network, you are not prompted to enter the WAP key again, unless you reset your device back to its factory default settings.

Manually Scan for a Wi-Fi Network

1. From the Home screen, touch  → **Settings** → **Wi-Fi**.
2. Touch **Scan**.

All available Wi-Fi networks are displayed.

Wi-Fi Status Indicators

The following icons show your Wi-Fi connection status at a glance:



Displays when Wi-Fi is connected, active, and communicating with a Wireless Access Point (WAP).



Displays when Wi-Fi is active but there is a communication issue with the target Wireless Access Point (WAP).



Displays when connected to another device using Wi-Fi Direct. For more information, refer to “*Wi-Fi Direct*” on page 134.

Wi-Fi Advanced Settings

The Advanced Wi-Fi menu allows you to set up many of your device’s Wi-Fi service, including:

- Network notification when an open network is available
- Setting your Wi-Fi sleep policy
- Checking for Wi-Fi Internet service
- Automatically connecting to a Wi-Fi hotspot when detected
- Specifying your Wi-Fi frequency band
- Viewing your device’s MAC and IP Address

To access the Advanced Wi-Fi menu:

1. From the Home screen, touch  → **Settings** → **Wi-Fi**.
2. Touch  **Menu** → **Advanced**.

For more information, refer to “*Advanced Wi-Fi Settings*” on page 141.

Wi-Fi Direct

Wi-Fi Direct allows device-to-device connections so you can transfer large amounts of data over a Wi-Fi connection.

Note: See your service plan for applicable charges for Wi-Fi Direct.

1. From the Home screen, touch  → **Settings** → **Wi-Fi**.
2. Touch  turn Wi-Fi **ON**.
3. At the top of the Wi-Fi screen, touch the **Wi-Fi Direct** button.
4. Repeat **steps 1 - 3** on the other device you want to connect with. The steps on a different device model may be different.
5. On your camera, touch **Scan**.
The device scans for other Wi-Fi Direct devices.
6. Once the device you want to connect to is displayed, touch on it.
7. The other device has 2 minutes to touch **Accept** for the connection to be made.

8. Once connected, the other device will show as **Connected** in your list of Wi-Fi Direct devices and the  icon will display at the top of your screen.
9. To change your Device name, press  → **Rename device**.
10. For additional information about Wi-Fi Direct, press  → **Help**.

Sharing Information with Connected Device

To share Videos, Photos, or other information with the connected device, follow these steps:

1. View the information that you want to share. For example, if you want to share a photo, find the photo in your camera viewer or **My Files** folder, then touch the **Share**, **Share via**, or **Send via** option.
2. Touch the **Wi-Fi Direct** option.
3. Touch the connected device name. For example, `Android_49ba`.
4. The other device will receive a prompt to receive the information and must touch **Accept**.
5. The file is transferred and the other device will receive a screen notification that a Wi-Fi file has been received. The file can be found in **My files** → `sdcard0` in the **ShareViaWifi** folder.

Note: Depending on the other device model, the prompts and shared folder information may differ.

Bluetooth

Bluetooth is a short-range communications technology that allows you to connect wirelessly to a number of Bluetooth devices, such as headsets and hands-free car kits, and Bluetooth-enabled handhelds, computers, printers, and wireless devices. The Bluetooth communication range is usually up to approximately 30 feet.

Turning Bluetooth On and Off

To turn Bluetooth on:

1. From the Home screen, touch  → **Settings**.
2. Touch  to turn Bluetooth **ON** ().
When active,  appears within the Status area.

To turn Bluetooth off:

1. From the Home screen, touch  → **Settings**.
2. Touch the ON/OFF slider, located to the right of the Bluetooth field, to turn Bluetooth **OFF** (.

Bluetooth Status Indicators

The following icons show your Bluetooth connection status at a glance:

-  Displays when Bluetooth is active.
-  Displays when Bluetooth is connected (paired) and communicating.

Bluetooth Settings

The Bluetooth settings menu allows you to set up many of the characteristics of your device's Bluetooth service, including:

- Entering or changing the name your device uses for Bluetooth communication and description
- Setting your device's visibility (or "discoverability") for other Bluetooth devices
- Displaying your device's Bluetooth address.

To access the Bluetooth Settings menu:

1. From the Home screen, touch  → **Settings**.
2. Verify your Bluetooth is **ON**.
3. Touch **Bluetooth**.

To change your Bluetooth name:

1. From the Bluetooth settings page, press  → **Rename device**.
2. Enter a new name.
3. Touch **OK** to complete the rename process.

To make your device visible:

1. From the Bluetooth settings page, press  → **Visible timeout**.
 - Making your device visible allows it to be detected by other devices for pairing and communication.
2. Select a time that you would like your device visibility to time-out.

To show received files:

- From the Bluetooth settings page, press  → **Received files**.
A list of all files received from Bluetooth is displayed.

To scan for Bluetooth devices:

1. Verify your Bluetooth is active.
2. From the Bluetooth settings page, touch **Scan** to search for visible external Bluetooth-compatible devices such as headsets, devices, printers, and computers.

Pairing Bluetooth Devices

The Bluetooth pairing process allows you to establish trusted connections between your device and another Bluetooth device. When you pair devices, they share a passkey, allowing for fast, secure connections while bypassing the discovery and authentication process.

To pair your device with another Bluetooth device:

1. Verify your Bluetooth is active.
2. Touch **Scan**. Your device will display a list of discovered in-range Bluetooth devices.
3. Touch a device from the list to initiate pairing.
4. Enter the passkey or PIN code, if needed, and touch **OK**.
5. The external device will then have to also accept the connection and enter your device's PIN code.

Once successfully paired to an external device,  appears within the Status area.

Note: Due to different specifications and features of other Bluetooth-compatible devices, display and operations may be different, and functions such as transfer or exchange may not be possible with all Bluetooth compatible devices.

Note: Pairing between two Bluetooth devices is a one-time process. Once a pairing has been created, the devices will continue to recognize their partnership and exchange information without having to re-enter a passcode again.

Disconnecting a Paired Device

Disconnecting a paired device breaks the connection between the device and your camera, but retains the knowledge of the pairing. At a later point when you wish to reconnect the device, there is no need to setup the connection information again.

1. Verify your Bluetooth is active.
2. From the Bluetooth settings page, touch the previously paired device (from the bottom of the page).
3. At the **Disconnect?** prompt, touch **OK** to confirm disconnection.

Note: Disconnections are manually done but often occur automatically if the paired device goes out of range of your camera or it is powered off.

Deleting a Paired Device (Unpair)

Deleting a device from your list removes its “connection record” and upon reconnection would require that you re-enter all the previous pairing information.

1. Verify your Bluetooth is active.
2. From the Bluetooth settings page, touch  next to the previously paired device. This opens the connected device’s menu options.
3. Touch **Unpair** to delete the paired device.
4. Touch **Rename** to change the name of the paired device.
5. Touch **Call audio** to enable or disable call audio from the paired device.

Sending Contacts via Bluetooth

Depending on your paired devices' settings and capabilities, you may be able to send pictures, Contact information, or other items using a Bluetooth connection.

Note: Prior to using this feature, Bluetooth must first be enabled, and the recipient's device must be visible.

1. Verify your Bluetooth is active.
 2. From the Home screen, touch  → **Contacts** .
 3. Press  → **Import/Export** → **Send namecard via**.
 4. Touch each contact that you would like to send via Bluetooth. A green checkmark will appear next to each entry you select.
 5. Touch **Done**.
 6. Touch **Bluetooth**.
 7. Select the paired device to send the contacts to.
-

Note: The external Bluetooth device must be visible and communicating for the pairing to be successful.

8. A Bluetooth share notification will appear in your notifications list.

PC Connections

You can connect your device to a PC using your PC data cable using various USB connection modes.

Storage: allows you to use the onboard storage capacity of the camera to store and upload files. This option allows your computer to detect the camera as a removable storage drive.

Kies: allows you to manage music, movies and photos. You can also backup precious contacts and calendars, download apps and podcasts and automatically upgrade device firmware. Kies conveniently syncs your life across all your devices.

Note: To sync your device to your 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.

Connecting as a Storage Device

You can connect your device to a PC as a removable disk and access the file directory. If you insert a memory card in the device, you can also access the files directory from the memory card by using the device as a memory card reader.

Note: The file directory of the memory card displays as a removable disk, separate from the internal memory.

1. Connect the USB cable to the device and connect the cable to the computer. After a few seconds, a pop-up window displays on the PC when connected.
2. On the PC pop-up, click **Open device to view files**.
3. You can now copy, move, create, delete, or organize files between your PC and the memory card.

Section 10: Changing Your Settings

This section explains the settings used for customizing your device.

Accessing Settings

- From any Home screen, touch  → **Settings** .
- or –
- From any Home screen, press  → **Settings**.

Connections Settings

Wi-Fi Settings

This section describes the Wi-Fi settings. For information on how to use Wi-Fi, see “Wi-Fi” on page 131.

Activating Wi-Fi

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Wi-Fi**.
2. Touch  to activate Wi-Fi.
3. Touch **Scan** to scan for available Wi-Fi networks. For more information, refer to “Connect to a Wi-Fi Network” on page 132.

Advanced Wi-Fi Settings

The advanced Wi-Fi settings allow you to set up and manage wireless access points.

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Wi-Fi**.
2. Press  → **Advanced**.

The following options are available:

- **Network notification:** alerts you when a new WAP is available.
- **Keep Wi-Fi on during sleep:** allows you to specify when to disconnect from Wi-Fi.
- **Wi-Fi timer:** Touch  to turn Wi-Fi timer **ON**. Press the time and use the arrow keys to set the **Starting time** and the **Ending time**. Press **Cancel** to return or **Done** to save.
- **MAC address:** view your device's MAC address, required when connecting to some secured networks (not configurable).
- **IP address:** view your device's IP address.

Bluetooth Settings

In this menu you can activate Bluetooth, view or assign a device name, activate your camera so other Bluetooth devices can discover it, or scan for other, available Bluetooth devices with which to pair.

Activating Bluetooth

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Bluetooth**.
2. Touch  to turn Bluetooth **ON**. The Bluetooth icon  is displayed.

Additional Bluetooth Settings

When Bluetooth is on, additional settings are available.

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Bluetooth**.
2. Touch **Scan** to scan for nearby discoverable devices. After searching, touch a device to pair with it. For more information, refer to “*Pairing Bluetooth Devices*” on page 137.

3. Press  and select a Bluetooth setting to configure:
 - **Rename device:** Your device’s default name displays on screen. Touch to change the device name. Available when Bluetooth is turned On.
 - **Visibility timeout:** Use this setting to control when to automatically turn off the Discoverable option: 2 minutes, 5 minutes, 1 hour, or Never timeout.
 - **Received files:** Show the list of files received by using Bluetooth.
4. Touch the checkbox next to **EK-GN120A** if you do not want your camera visible to other Bluetooth devices.

Data Usage

From this screen you can view your Mobile data usage and turn your Mobile data capability On or Off.

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Data usage**.
2. Touch the **Data usage cycle** drop-down menu and select a date.

The data usage displays as a visual (chart) and also displays a list of each application with a breakdown of how much data was used per application.

3. Slide the vertical white bars to the left to expand the date range of the display.

Note: Data is measured by your device. Your service provider may account for data usage differently.

4. Press  to display additional options. Touch to activate.
 - **Auto-sync data:** allows your accounts to automatically sync
 - **Mobile hotspots:** displays available mobile hotspots.

More Settings

This option displays additional Connectivity information.

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **More networks**.
Options display for Airplane mode, Smart network, VPN, Nearby devices, AllShare Cast, and Kies via Wi-Fi.

Airplane Mode

Airplane mode allows you to use many of your device's features, such the Camera, Games, and more, when you are in an airplane or in any other area where making or receiving data is prohibited.

Important! When your camera is in Airplane Mode, it cannot access online information or applications.

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **More networks**.
2. Touch **Airplane mode**. A check mark displayed next to the feature indicates Airplane mode is active.
3. At the **Airplane mode** prompt, touch **OK**.
The Airplane mode icon  is displayed at the top of your screen.

Smart Network

The Smart network feature allows you to extend battery life by only enabling networks when the screen is turned on.

1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **More networks**.
2. Touch the **Smart network** checkbox to create a checkmark and activate the feature.

VPN

The VPN settings menu allows you to set up and manage Virtual Private Networks (VPNs).

Important! Before you can use a VPN you must establish and configure one.

Before you add a VPN you must determine which VPN protocol to use: PPTP, L2TP/IPSec PSK, L2TP/IPSec RSA, IPsec Xauth PSK, IPsec Xauth RSA, IPsec Hybrid RSA.

1. Before using VPN, you must first set up a screen unlock PIN or password. For more information, refer to “*Lock Screen Settings*” on page 146.
2. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **More networks** → **VPN**.
3. Touch **Add VPN network**.
4. Enter a name for the VPN network in the **Name** field.
5. Select a VPN type from the **Type** drop-down menu.
6. Enter the **Server address** and any other required fields that are dependent upon the **Type** you entered previously.
7. Touch the **PPP encryption (MPPE)** check box if desired.

8. Touch the **Show advanced options** check box to display additional VPN options.
9. Touch **Save** to save your VPN settings.

Nearby Devices

This option allows you to share your media files with nearby devices using DLNA and connected to the same Wi-Fi.

1. Connect to a Wi-Fi network. For more information, refer to “*Activating Wi-Fi*” on page 141.
1. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Nearby devices**.
2. Verify Wi-Fi Direct is enabled and you are paired with the device you wish to detect and share content with.
3. Touch the **File sharing** checkbox to create a checkmark and activate File sharing.
4. Verify  (**Nearby devices**) appears at the top of the screen.
5. At the Nearby devices prompt, touch **OK**.
6. Touch **Shared contents**, then check the media you would like to share. Touch **OK**.
7. Touch **Device name**, then use the on-screen keyboard to change the name shown to others. Touch **Save**.

8. Touch **Allowed devices list**, then select the connected devices you would like to allow.
9. Touch **Not-allowed devices list**, then select the connected devices you would like to not allow.
10. Touch **Download to**, then select the destination of any downloaded (shared) content. Choose from Device or SD card.
11. Touch **Upload from other devices**, then select the actions you'll take when you upload content from other devices. Choose from either Always accept, Always ask, or Always reject.

Screen Mirroring

With feature enabled, you can wirelessly mirror what is currently displayed on your device's screen with an external TV via devices such as the AllShare Cast Hub®.

Note: Screen mirroring can only be done with a compatible wireless TV or one enabled with the AllShare Cast Hub.

1. From the main **Settings** page, touch **Connections** tab → **Screen Mirroring**.
2. In a single motion touch and slide the **Screen Mirroring** slider to the right to turn it on. The slider color indicates the activation status.

Note: This feature allows a connection between your device and the optional AllShare Cast Hub, via a shared Wi-Fi Direct connection. The AllShare Cast Hub then allows the communicating TV to mirror what is being shown on the device's display.

Kies via Wi-Fi

Kies via Wi-Fi allows you to sync your PC wirelessly with your device provided they are both on the same Wi-Fi network. You can view and share videos, photos, music, ringtones, and more.

1. From your PC, download the Samsung Kies application if you don't already have it. You can find it at samsung.com.
2. From your PC, launch the Samsung Kies application.
3. From your PC, connect to a Wi-Fi network.
4. From the Home screen, touch  **Apps** → **Settings** → **Connection** tab → **Kies via Wi-Fi**.
5. From your device, connect to the same Wi-Fi network that your PC is connected to if you have not already done so. For more information, refer to “*Connect to a Wi-Fi Network*” on page 132.

My Device Settings

Lock Screen Settings

Choose settings for unlocking your screen. For more information about using the lock and unlock features, see “*Locking and Unlocking the Touch Screen*” on page 10.

Screen Lock

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Lock screen**.
2. Touch **Screen lock** for these options:
 - **Swipe**: Swipe the screen to unlock it.
 - **Pattern**: A screen unlock pattern is a touch gesture you create and use to unlock your device. Follow the prompts to create or change your screen unlock pattern.
 - **PIN**: Select a PIN to use for unlocking the screen.
 - **Password**: Create a password for unlocking the screen.
 - **None**: No pattern, PIN, or password is required. The screen will never lock.

Lock Screen Options

Activate or deactivates various Unlock screen functions.

Note: The Lock screen options are only available when the **Screen lock** option is set to **Swipe** or **Motion**.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Lock screen** → **Lock screen options**.
2. The following options are available:
 - **Clock** allows you to display the digital clock while the Lock screen is active. Enabled by default.
 - **Weather** displays the current area weather on the Lock screen. Touch  to turn the option **ON**. Touch and set both the temperature units (F or C) and a refresh time.
 - **Ripple effect** activates/deactivates the ripple effect on the lock screen when you touch it.
 - **Help text** shows help information on the Lock screen.
 - **Wake up in lock screen** requires that you say a command to wake-up S Voice.
 - **Set wake-up command** designates your S Voice wake-up commands. Touch Wake-up S Voice and follow the on-screen prompts to create a new verbal command.

Note: These options vary depending on the Lock screen.

Owner Information

This option allows you to show owner information on the lock screen. You can also enter text to display on the lock screen.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Lock screen** → **Owner information**.
2. Enter text that you would like displayed on your lockscreen and touch **OK**.

Display

In this menu, you can change various settings for the display.

- From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Display**.
The following options display:
 - **Wallpaper:** allows you to set the Wallpaper for your Home screen, Lock screen, or both.
 - **Notification panel:** Configure Quick settings buttons on the Notification panel.
 - **Screen mode:** allows you to select from several different color modes.

- **Brightness:** configures the LCD Brightness levels. Touch and drag the slider and touch OK.
- **Auto rotate screen:** allows you to switch the display orientation automatically when you rotate the camera.
- **Screen timeout:** adjusts the delay time before the screen automatically turns off. Selections are: 15 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes, and 30 minutes.
- **Daydream:** allows you to control what your screen does when your device is docked or sleeping. Touch the adjacent OFF / ON icon to turn it on. Follow the on-screen instructions.
- **Font style:** allows you to set the font style that your camera will use. You can also touch Get fonts online to choose from a wider selection.
- **Font size:** allows you to select which size of font is displayed.
- **Show battery percentage:** allows you to see the battery charge percentage next to the battery charge icon at the top of the display.
- **Edit after screen capture** when enabled, this feature takes you to the Edit screen after capturing a screen image.

Sound

From this menu you can control the sounds on the camera.

- From the Home screen, touch  **Apps** → **Settings** → **My device tab** → **Sound**.

Volume

The Volume option allows you to change the volume for all camera sounds in one easy location.

1. From the Home screen, touch  **Apps** → **Settings** → **My device tab** → **Sound** → **Volume**.
2. Touch and drag the slider to adjust the sound volume for Music, video, games and other media, Notifications, and System.
3. Touch **OK**.

Default Notifications

This option allows you to set the notification that will sound for notifications and alarms.

1. From the Home screen, touch  **Apps** → **Settings** → **My device tab** → **Sound**.
2. Touch **Default notifications**.
3. Touch a Default notification sound and touch **OK**.

System Sounds

There are several sounds you can set for system activity.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Sound**.
2. Touch the **Keytones** check box to create a checkmark and activate the feature if you would like sounds played when the keypad is pressed.
3. Touch the **Touch sounds** check box to create a checkmark and activate the feature if you would like sounds played when making screen selections.
4. Touch the **Screen lock sound** check box to create a checkmark and activate the feature if you would like sounds played when locking and unlocking the screen.

Blocking Mode

When Blocking mode is enabled, notifications for selected features will be disabled. You will only receive notifications of incoming calls from people on your allowed list.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Blocking mode**.
2. Touch  to turn Blocking mode **ON**.
Confirm that the Blocking mode active icon  appears in the Status bar.
3. Place a green checkmark adjacent to those features you would like to enable. Choose from: Disable notifications and Disable alarm and timer.
4. Configure a timeframe for these features to be active. Remove the checkmark from the **Always** field to configure the **From** and **To** time fields.

Driving Mode

When enabled, alarm and scheduled alarm information is read aloud.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab.
2. Touch **ON/OFF** next to Driving mode to enable or disable the setting.
3. Touch **Driving mode** for options:
 - **Message:** Read out senders' information when new messages arrive.
 - **Alarm:** Read out alarm information when alarms sound.
 - **Schedule:** Read out scheduled alarm information when alarms sound.

Accessory Settings

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

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab.
2. Touch **Accessory** for options:
 - **Audio output mode:** Play audio through the dock speakers when the device is docked.

Accessibility Settings

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

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab.
2. Touch **Accessibility** for options:
 - **Auto rotate screen:** Enable automatic rotation of the screen when you rotate the device.
 - **Screen timeout:** Set a period of time for the screen to remain lit-after which it will dim and lock.
 - **Speak passwords:** Read aloud password information.
 - **Show shortcut:** Display a shortcut to Accessibility settings on the Device options menu. (The Device options menu displays when you press and hold the **Power/Lock Key**.)
 - **Manage accessibility:** Choose settings for exporting, updating, and sharing the accessibility settings as a file.
 - **TalkBack:** Activate the TalkBack feature and configure options.
 - **Font size:** Change the size of the fonts used on the screen.
 - **Magnification gestures:** Control whether your device recognizes gestures to pan, and zoom in or out.

- **Negative colors:** Reverse the display of on-screen colors from White text on a Black background to Black text on a White background.
- **Color adjustment:** Adjust the color of the screen if you are color blind or have difficulty reading the display because of the screen color. Touch **ON/OFF** to turn color adjustment on, then touch Color adjustment for options.
- **Accessibility shortcut:** Control whether your device recognizes a gesture to quickly enable accessibility features. To use the gesture, press and hold the **Power/Lock Key** until you hear a sound or feel a vibration, then touch and hold two fingers on the screen until you hear an audio confirmation.
- **Text-to-speech options:** Configure options for converting text to speech. For more information, see “*Text-To-Speech Options*” on page 155.
- **Enhance web accessibility:** Choose whether to allow apps to install scripts from Google that make their Web content more accessible.
- **Sound balance:** Control the signal sent to the left and right when using ear devices.
- **Mono audio:** Enable stereo audio to be compressed into a single mono audio stream for use with a single ear device.
- **Turn off all sounds:** Mute every sound made by the device during touches, selections, notifications, etc.
- **Assistant menu:** Display a special menu to improve device accessibility for users with reduced dexterity. Touch **ON/OFF**, then touch **Assistant menu** for options.
 - **Dominant hand:** Display the Assistant menu on the left or right side of the screen.
 - **Edit:** Reorder or remove items on the Assistant menu.
- **Press and hold delay:** Select a time interval for using the Touch and hold gesture.
- **Interaction control:** Adjust how your device interprets motions and screen touches. You can turn motions and screen timeout on or off. You can also block areas of the screen from touch interaction, turn Auto rotate and hard key functions (Power/Lock Key, Volume Key, etc.) off, and display app notifications only on the Notification panel and Status bar. Touch **ON/OFF**, then touch **Interactive control** for options.

Language and Input

Use Language and input settings to choose a default language for your device's operations, plus settings for text entry and other inputs.

Default Language

Choose the default language for operating your device.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Language and input**.
2. Touch **Language** to select a default language.

Default Input Method

Select default input method you will use when accessing the keyboard.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Language and input**.
2. Touch **Default** to select Samsung keyboard.

Google Voice Typing Settings

Google voice typing allows you to speak your entries. When you enable Google voice typing, it's available for use when you touch a field to enter text.

For more information, see “Using the Google Voice Typing Feature” on page 75.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Language and input**.
2. Touch the **Google voice typing** check box to enable it.
3. Touch  beside **Google voice typing** for 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:** Hide words many people find offensive are in results of Google voice searches. Offensive words are replaced in results with a placeholder (#####).
 - **Download offline speech recognition:** Download and install speech recognition engines, to allow you to use voice input while not connected to the network, such as during Airplane mode.

Samsung Keyboard

The Samsung Keyboard is an on-screen QWERTY keyboard, so you can enter text by “typing” on the keyboard. Samsung keyboard is enabled by default.

For more information, see “*Entering Text Using the Samsung Keyboard*” on page 72.

1. From the Home screen, touch  **Apps** → **Settings** → **My device** tab → **Language and input**.
2. **Samsung keyboard** is enabled by default. Touch  to configure options:
 - **Portrait keyboard types:** Choose a keyboard configuration to be used when entering letters (Qwerty keyboard [default] or 3x4 keyboard).
 - **Input language:** Choose language(s) for use with Samsung keyboard. When you have more than one language enabled, you can slide your finger on the space bar while entering text to switch languages.

- **Predictive text:** Touch **ON/OFF** to enable predictive text. Predictive text suggests 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.
 - **Learn from Messages:** Allow your device to learn from your text and multimedia messages.
 - **Learn from Contacts:** Allow your device to learn from your Contacts entries.
 - **Clear remote data:** Delete your information stored on the personalization server.

- **Clear personal data:** Remove all personalized data you have entered.
- **Privacy:** Read the privacy policy.
- **SwiftKey flow:** Enter text by sliding your finger across the keys on the keyboard.
- **Cursor control:** Slide your finger across the keyboard to move the cursor to begin entering text.
- **Key-touch vibrate:** Cause a vibration when a key is touched.
- **Key-touch sound:** Play a sound when a key is touched.
- **Advanced:**
 - **Auto capitalization:** Automatically capitalize words in your text based on common usage, such as at the beginning of sentences.
 - **Auto spacing:** Automatically inserts spaces between words.
 - **Auto punctuate:** Automatically enter a period and space to end a sentence when you touch the space bar twice.
 - **Character preview:** Display the character in a bubble when you touch it on the keyboard.
- **Tutorial:** Learn about Samsung Keyboard.
- **Reset setting:** Return settings to the defaults.

Voice Search Settings

1. From the Home screen, touch  **Apps** →  **Settings** → **My device** tab → **Language and input**.
2. Set options:
 - **Language:** Choose a language for voice searching.
 - **Speech output:** Set whether search results use speech output. Always, Informative only, or Hands-free mode only.
 - **Block offensive words:** Hide words many people find offensive from the results of Google voice searches. Offensive words are replaced in results with a placeholder (#####).
 - **Hotword detection:** Launch a voice search by saying the word “Google.”
 - **Download offline speech recognition:** Install a language module for offline speech recognition.
 - **Personalized recognition:** Allow your device to improve recognition based on your speech. (This option is only available when you are signed in to a Google Account.)
 - **Google Account dashboard:** View and manage your collected data. (This option is only available when you are signed in to a Google Account.)
 - **Bluetooth headset:** Record audio through an optional Bluetooth headset (not included).

Text-To-Speech Options

Text-to-speech (TTS) provides audible readout of text, such as the contents of text messages.

1. From the Home screen, touch  **Apps** →  **Settings** → **My device** tab → **Language and input**.
2. Touch **Text-to-speech options** for options:
 - **Preferred TTS engine**
 - Select **Samsung text-to-speech engine** or **Google Text-to-speech Engine** as your default TTS engine. Touch  to configure.
 - **General**
 - **Speech rate**: Choose a speed at which the text is spoken.
 - **Listen to an example**: Play a sample of speech synthesis.

Mouse/Trackpad

This option sets the pointer speed for an externally connected mouse or trackpad (not included).

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

Motions and Gestures

Configure various motion and gestures features.

Motion

Control your device with natural hand movements, such as putting the device to your ear to call a displayed contact.

1. From the Home screen, touch  **Apps** →  **Settings** → **My device** tab → **Motions and gestures**.
2. Touch **Motion**, the touch **ON/OFF** to enable each feature:
 - **Zoom**: Tilt the device to zoom in or out when viewing pictures in Gallery.
 - **Move an icon**: Move the device left or right while touching an icon to reposition it to another page.
 - **Browse an image**: Move the device in a side-to-side motion to pan from side to side while viewing an image.

Palm Motion

Control the device by touching the screen with the palm of your hand.

1. From the Home screen, touch  **Apps** →  **Settings** → **My device** tab → **Motions and gestures**.
2. Touch **Palm motion**, then touch **ON/OFF** to enable the feature:
 - **Capture screen:** Create a screen capture by swiping the screen from right to left or vice versa with the side of your hand.
 - **Mute/pause:** Mute or pause sounds by covering the screen with your hand.

Gyroscope Calibration

Control the device by touching the screen with the palm of your hand.

1. From the Home screen, touch  **Apps** →  **Settings** → **My device** tab → **Motions and gestures**.
2. Touch **Gyroscope calibration** and follow the instructions to calibrate your device's motion sensors.

Voice Control

Use voice commands to control functions of your device.

Note: If you set the alert type for calls or notifications to vibrate, voice command is not available.

1. From the Home screen, touch  **Apps** →  **Settings** → **My device** tab.
2. Touch **OFF/ON** next to Voice control to enable/disable the feature.
3. Touch **Voice control** for options:
 - **ChatON:** Answer or reject calls with the voice commands "Answer" and "Reject." When you answer a call with the voice command, the speaker will automatically be turned on for hands-free talking.
 - **Alarm:** Stop or snooze alarms with the voice commands "Stop" and "Snooze."
 - **Camera:** Take pictures with the voice commands "Smile", "Cheese", "Capture", and "Shoot."
 - **Music:** Control the Music app with the voice commands "Next", "Previous", "Pause", "Play", "Volume Up", and "Volume Down."

Accounts Settings

When you set up accounts on your device, such as your Google Account, Samsung Account, email account, or social networking accounts, you can synchronize information between your device and the account. Types of information you can synchronize include contacts, pictures, videos, and other types of files (options may vary by account type and service provider).

You can also set up options for backing up information from your device to the cloud, and back up or reset your device.

Add an Account

Add an account to your device to share information between your device and the account.

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

For more information, refer to “*Setting Up Your Accounts*” on page 76.

Cloud

This feature allows you to use your external cloud storage solution to both synchronize your device to your Samsung account and then backup that local content to the cloud.

Your device comes with a built-in Cloud storage solution known as Dropbox.

Important! This feature requires an active Wi-Fi connection prior to use.

1. Log into your Samsung account and verify it is active.
2. Log into your external cloud storage solution. In our case we are using a Dropbox account.
3. From the Home screen, touch  **Apps** → **Settings** → **Accounts** tab → **Cloud**.
4. Touch **Storage used** to display an overview of your total used space.
5. Touch **Sync settings**, select which device parameters will be synced, and touch **Sync now**. Choose from: Sync Calendar, Sync Contacts, Sync Internet, and Sync Scrapbook.
6. Touch **Backup** or **Restore** to launch the feature.

- **Backup:** manually loads up the currently selected categories and backs up the data to your cloud storage location. Touch **Backup** to begin the manual backup process.
- **Restore:** allows you to retrieve your previously backed up data from your Samsung account and then download it to your device.

Backup and Reset

Back up application data, Wi-Fi passwords, and other settings to Google servers.

Backup Your Data

1. From the Home screen, touch  **Apps** → **Settings** → **Accounts** tab → **Backup and reset**.
2. Touch **Back up my data** to enable automatic back up of your data to a Google Account.
3. Touch **Backup account** to set up a Google Account for backups. You can create a new Google Account, or sign in to an existing account.
4. Touch **Automatic restore** to restore an app's settings and other information from the backup (if available) when you reinstall that app.

Factory Data Reset

Reset all settings to the factory defaults, and permanently delete all data from the device.

1. From the Home screen, touch  **Apps** → **Settings** → **Accounts** tab → **Backup and reset**.
2. Touch **Factory data reset** → **Reset device**.

More Settings

Use the settings on the More tab to manage security, location services, storage, and other features of the phone.

Location Services

These settings allow you to configure how the phone determines its location.

Note: Some apps may require one or more location services be turned on for full functionality.

GPS signals may be affected by your surroundings, including:

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

Note: E911 location service is standard on all mobile phones, to allow sharing of GPS information with emergency personnel when you make a call to emergency services, such as 911.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab.
2. Touch **Location services** for options:
 - Touch **Access to my location** to allow apps to use your location information.
 - When enabled, you are allowing Google's location service to collect anonymous location data. Some data may be stored on your phone, and collection may occur even when no apps are running.
 - **Use GPS satellites:** Obtain location information from GPS satellites.
 - **Use wireless networks:** Obtain location information from Wi-Fi and/or mobile networks.
 - **My places:** Save your favorite locations for use with services that require location information.
 - Touch **Home**, **Office**, or **Car**, and follow the prompts to configure options for identifying the location.
 - Touch  to set up a different location.

Security Settings

Configure options for securing information on your phone.

Encryption

You can encrypt accounts, settings, downloaded apps and their data, media, and other files. After encryption, you must enter the PIN or password you set each time you turn on your phone. You can also encrypt information stored on an optional installed memory card (not included).

Encryption may take an hour or more to complete. Start with a charged battery, and keep the phone on the charger until encryption is complete. Interrupting the encryption process may result in the loss of some or all data.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab.
2. Touch **Security**, and then touch an option:
 - **Encrypt device**: Touch **Set screen lock type** to start, and then follow the prompts to encrypt information.
 - **Encrypt external SD card**: Touch **Set screen lock type to** start, and then follow the prompts to encrypt information.

Make Passwords Visible

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

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab → **Security**.
2. Touch **Make passwords visible** to turn the option on.

Device Administration

Some applications, such as Corporate email, may require you allow access to your phone by device administrators in certain circumstances, such as if your phone 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** → **More** tab → **Security**.
2. Touch **Device administrators**, and then touch the agent(s) to use.

Unknown Sources

Allow applications from sources other than the Google Play Store to be installed on the phone.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab → **Security**.
2. Touch **Unknown sources** to turn the option on.

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.

Verify Apps

Block or display a warning before installing apps that might cause harm to the phone.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab → **Security**.
2. Touch **Verify apps** to turn the option on.

Credential Storage

You can install credentials from an optional installed memory card (not included), and use the Credential storage settings to allow applications to access the security certificates and other credentials.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab → **Security**.
2. Touch **Trusted credentials** to view installed certificates.
3. Touch **Install from device storage** and choose a certificate and follow the prompts to install.
4. Touch **Clear credentials** and follow the prompts to clear stored credentials and reset the password.

Application Manager

You can download and install applications from the Google Play Store or Samsung Apps, or create applications using the Android SDK and install them on your phone. Use Application manager to manage applications on your phone.

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** → **More** tab → **Application manager**.
2. Touch **DOWNLOADED**, **SD CARD**, **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.

Battery

View what is using battery power.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab.
2. Touch **Battery** to view battery usage for apps and services. Touch an item for more information, or to configure options for managing power use.

Power

Set power saving mode options.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab → **Power**.
2. Touch **Auto power off** to set the time period before the camera turns off.
3. Touch **Power saving mode** to enable the feature.
4. Touch **Fast power-on** to enable a speedy start-up for 24 hours.

Storage

Manage the use of memory resources in your phone's memory and on an optional memory card (not included).

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab →.
2. Touch **Storage** to view information about memory usage and options:
 - **Device memory:** View memory usage for the different types of information stored on your phone's memory. Touch an item for more information.
 - **SD card:** View total space and available space on an optional memory card (not included).

Memory Card

Your device lets you use a microSD or microSDHC card to expand available memory space.

View Total and Available Storage Space

You can view the total amount and available amount to storage space on the installed SD card.

1. From the Home screen, touch  **Apps** → **Settings** → **More** tab → **Storage**.
2. Under the *SD card* heading, the **Total space** and **Available space** on the card is displayed.

Mounting the SD Card

Before use, a memory card must first be connected, or “mounted,” to your camera. Normally, a memory card is automatically mounted when it is inserted into the camera.

To manually mount an installed memory card:

1. From the Home screen, touch  → **Settings** → **More** tab → **Storage**.
2. Touch **Mount SD card**.

Unmounting the Memory Card

When you need to remove an optional installed microSD card, you must unmount the card first to prevent corrupting the data stored on it or damaging the card.

1. From the Home screen, touch  → **Settings** → **More tab** → **Storage**.
2. Touch **Unmount SD card**.
3. The card is now safe to remove.

Formatting the Memory Card

Formatting a memory card permanently removes all files stored on the card.

1. Ensure the SD card is mounted.
2. From the Home screen, touch  → **Settings** → **Storage**.
3. Touch **Format SD card** and follow the prompts to format the memory card.

Warning! Formatting erases all the data on the memory card. Once formatted, files CANNOT be retrieved.

Date and Time

By default, your phone 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 and time settings.

1. From the Home screen, touch  **Apps** → **Settings** → **More tab** → **Date and time**.
2. Touch a setting to configure:
 - **Automatic date and time:** When enabled, the phone 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 phone 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.

Section 11: Troubleshooting

Before contacting a Samsung Service Centre, please attempt the following solutions. Some situations may not apply to your device.

The subject's eyes appear red

Red eyes occur when the subject's eyes reflect light from the camera flash.

- Set the flash option to **Auto + Red-eye** or **Fill in + Red-eye**.
- If the photo has already been taken, touch  **Edit** → **Portrait** → **Red-eye fix** in Gallery.



Photos have dust spots

If dust particles are present in the air, you may capture them in photos when you use the flash.

- Turn the flash off or avoid taking photos in a dusty place.
- Adjust the ISO sensitivity.



Photos are blurred when shooting at night

Blurring can occur if you take photos in low light conditions or hold the device incorrectly.

- Half-press the Shutter button to ensure the subject is focused.
- Set the image stabilizer option.
- Use a tripod to prevent shaking.



Photos are blurred when shooting at night

As the device tries to let in more light, the shutter speed slows. This can make it difficult to hold the device steady long enough to take a clear picture and may result in device shake.

- Set **Night** in smart mode.
- Turn the flash on.
- Adjust the ISO sensitivity.
- Use a tripod to prevent your device from shaking.



Subjects come out too dark because of backlighting

When the light source is behind the subject or when there is a high contrast between light and dark areas, the subject may appear too dark.

- Avoid shooting toward the sun.
- Set the flash option to **Fill in**.
- Adjust the exposure value.
- Set the metering option to Spot if a subject is in the centre of the frame.



When you cannot turn on the device

- Ensure that the battery is inserted.
- Charge the battery.

When you cannot take photos or videos

- Your storage may be full. Delete unnecessary files, or insert a new memory card.
- Format the memory card.
- The memory card may be defective. Purchase a new card.
- Ensure that the device is turned on.
- Charge the battery.
- Ensure that the battery is inserted.

When the flash is not functional

- Press the Flash release button to pop the flash up.
- The flash option may be set to Off.
- In some modes, the flash is disabled.

When the flash fires unexpectedly

- The flash may fire unexpectedly due to static electricity. The device is not malfunctioning.

When the colors in the photo do not match the actual scene

- Select an appropriate white balance option to suit the light source.

When the photo is too bright

- Turn the flash off.
- Adjust the ISO sensitivity.
- Adjust the exposure value.

When the photo is too dark

- Turn the flash on.
- Adjust the ISO sensitivity.
- Adjust the exposure value.

When you turn on your device or while you are using the device, it prompts you to enter one of the following codes:

- **Password:** When the device lock feature is enabled, you must enter the password you set for the device.
- **PIN:** When using the device for the first time or when the PIN requirement is enabled, you must enter the PIN supplied with the SIM or USIM card. You can disable this feature by using the Lock SIM card menu.
- **PUK:** Your SIM or USIM card is blocked, usually as a result of entering your PIN incorrectly several times. You must enter the PUK supplied by your service provider.
- **PIN2:** When you access a menu requiring the PIN2, you must enter the PIN2 supplied with the SIM or USIM card. For details, contact your service provider.

Your device displays network or service error messages

- When you are in areas with weak signals or poor reception, you may lose reception. Move to another area and try again. While moving, error messages may appear repeatedly.
- You cannot access some options without a subscription. Contact your service provider for more details.

Your device does not turn on

- When the battery is completely discharged, your device will not turn on. Charge the battery completely before turning on the device.
- The battery may not be inserted properly. Insert the battery again.
- Wipe both gold-colored contacts and insert the battery again.

The touch screen responds slowly or improperly

- If you attach a protective cover or optional accessories to the touch screen, the touch screen may not function properly.
- If you are wearing gloves, if your hands are not clean while touching the touch screen, or if you touch the screen with sharp objects or your fingertips, the touch screen may malfunction.
- The touch screen may malfunction in humid conditions or when exposed to water.
- Restart your device to clear any temporary software bugs.
- Ensure that your device software is upgraded to the latest version.
- If the touch screen is scratched or damaged, visit a Samsung Service Centre.

Your device freezes or has fatal errors

- If your device freezes or hangs, you may need to close applications or reinsert the battery and turn on the device to regain functionality. If your device is frozen and unresponsive, press and hold the Power button for 6-8 seconds to reboot.
- If this does not solve the problem, perform a factory data reset. On the Applications screen, touch **Settings → Accounts → Backup and reset → Factory data reset → Reset device → Erase everything**. Before performing the factory data reset, remember to make back-up copies of all important data stored on the device.
- If the problem is still not resolved, contact a Samsung Service Centre.

The battery icon is empty

- Your battery is low. Recharge or replace the battery.

The battery does not charge properly (for Samsung-approved chargers)

- Ensure that the charger is connected properly.
- If the battery terminals are dirty, the battery may not charge properly or the device may turn off. Wipe both gold-colored contacts and try charging the battery again.
- The batteries in some devices are not user-replaceable. To have the battery replaced, visit a Samsung Service Centre.

The battery depletes faster than when first purchased

- When you expose the battery to very cold or very hot temperatures, the useful charge may be reduced.

Battery consumption increases when you use messaging features or some applications, such as games or the Internet.

- The battery is consumable and the useful charge will get shorter over time.

Your device is hot to the touch

- When you use applications that require more power or use applications on your device for an extended period of time, your device may feel hot to the touch. This is normal and should not affect your device's lifespan or performance.

Error messages appear when launching the camera

- Your device must have sufficient available memory and battery power to operate the camera application. If you receive error messages when launching the camera, try the following:
 - Charge the battery or replace it with a battery that is fully charged.
 - Free some memory by transferring files to a computer or deleting files from your device.
 - Restart the device. If you are still having trouble with the camera application after trying these tips, contact a Samsung Service Centre.

Photo quality is poorer than the preview

- The quality of your photos may vary, depending on the surroundings and the photography techniques you use.
- If you take photos in dark areas, at night, or indoors, image noise may occur or images may be out of focus.

Error messages appear when opening multimedia files

- If you receive error messages or files do not play, when opening multimedia files on your device, try the following:
 - Free some memory by transferring files to a computer or deleting files from your device.
 - Ensure that the music file is not Digital Rights Management (DRM)-protected. If the file is DRM-protected, ensure that you have the appropriate licence or key to play the file.
 - Ensure that your device supports the file type.
 - Your device supports photos and videos captured with the device. Photos and videos captured by other devices may not work properly.
 - Your device supports multimedia files that are authorised by your network service provider or providers of additional services. Some content circulated on the Internet, such as ringtones, videos, or wallpapers, may not work properly.

Another Bluetooth device is not located

- Ensure that the Bluetooth wireless feature is activated on your device.
- Ensure that the Bluetooth wireless feature is activated on the device you wish to connect to.
- Ensure that your device and the other Bluetooth device are within the maximum Bluetooth range (10 m).
- If the tips above do not solve the problem, contact a Samsung Service Centre.

A connection is not established when you connect the device to a computer

- Ensure that the USB cable you are using is compatible with your device.
- Ensure that you have the proper driver installed and updated on your computer.
- If you are a Windows XP user, ensure that you have Windows XP Service Pack 3 or higher installed on your computer.
- Ensure that you have Samsung Kies 2.0 or Windows Media Player 10 or higher installed on your computer.

Your device cannot find your current location

- GPS signals may be obstructed in some locations, such as indoors. Set the device to use Wi-Fi or a mobile network to find your current location in these situations.

Data stored on the device has been lost

- Always make backup copies of all important data stored on the device. Otherwise, you cannot restore data if it is corrupted or lost. Samsung is not responsible for the loss of data stored on the device.

A small gap appears around the outside of the device case

- This gap is a necessary manufacturing feature and some minor rocking or vibration of parts may occur.
- Over time, friction between parts may cause this gap to expand slightly.

Section 12: Health and Safety Information

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

Exposure to Radio Frequency (RF) Signals

Although GALAXY is not a cell phone, it can operate on the same network as cell phones and can use the same Radio Frequency (RF) signals to communicate with the network as a cell phone. Therefore, although the following information refers specifically to RF exposure from wireless phones, it may apply similarly to GALAXY when it is being used on a cell phone network.

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 mobile device 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 devices 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 devices to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg).

Galaxy Camera meets the FCC Radio Frequency Emission Guidelines. Galaxy Camera has Body SAR levels that do not exceed FCC SAR limit of 1.6 W/kg.

SAR values for this camera are measured in reference to (hand) extremity and in simultaneous (multiple) transmitter conditions for each frequency band operation this camera supports.

The FCC limit for Hand SAR is 4.0 W/kg and is measured at an average of 10g.

Galaxy Camera has a Hand SAR level that does not exceed FCC SAR limit of 4.0 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 mobile device 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 mobile device while operating can be well below the maximum reported value. This is because the mobile device 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 mobile device.

Before a new model mobile device 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 mobile device are performed in positions and locations (e.g. near the body) as required by the FCC.

For typical operations, this mobile device has been tested and meets FCC SAR guidelines.

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 device has a FCC ID number: A3LEKGN120A Model Number: EK-GN120A and the specific SAR levels for this device 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 mobile devices 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 mobile device, this site uses the mobile device FCC ID number, which is usually printed somewhere on the case of the mobile device.

Once you have the FCC ID number for a particular mobile device, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular mobile device. 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.

Smart Practices While Driving

On the Road - Off the Device

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 using a mobile device - 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 using your device, consider your circumstances. Let your sharing wait when driving conditions require. Remember, driving comes first, nothing else!

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 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

The battery in GALAXY is not intended to be replaced by the consumer. If you believe the battery is damaged or needs to be replaced, take the GALAXY to a service center for inspection and replacement.

- **Do not let the GALAXY or battery come in contact with liquids.** Liquids can get into the GALAXY's circuits, leading to corrosion. Even when the GALAXY appears to be dry and appears to operate normally, the circuitry could slowly corrode and pose a

safety hazard. If the GALAXY 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 GALAXY or the battery and could cause the GALAXY 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 GALAXY in your car in high temperatures.
- **Do not dispose of the GALAXY or the battery in a fire.** The GALAXY or the battery may explode when overheated.
- **Avoid dropping the GALAXY.** Dropping the GALAXY, especially on a hard surface, can potentially cause damage to the GALAXY. If you suspect damage to the GALAXY or battery, take it to a service center for inspection.
- **Never use any charger or battery that is damaged in any way.**

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

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 GALAXY caused by non-Samsung-approved batteries and/or chargers.

- **Do not use incompatible 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 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.

For more information about recycling your GALAXY, go to: <http://mobile.samsungusa.com/recycling/index.jsp> or call 1-800-822-8837 for more information.

To find the nearest recycling location, go to: www.samsung.com/recyclingdirect or call 1-877-278-0799.

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

UL Certified Travel Charger

The Travel Charger for this mobile device 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

GALAXY 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.

Your Location

Location-based information includes information that can be used to determine the approximate location of a mobile device. Mobile devices which are connected to a wireless network transmit location-based information. Additionally, if you use applications that require location-based information (e.g. driving directions), such applications transmit location-based information. The location-based information may be shared with third-parties, including your wireless service provider, applications providers, Samsung, and other third-parties providing services.

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 Communication

GALAXY should not be relied upon for essential communications (medical emergencies, calls to 911, or communications to emergency services). GALAXY is not designed or intended to be used for such communications. Voice Over Internet Protocol (VOIP) services which may be used on GALAXY to make phone calls do not support 911 calls and are only intended for talking with friends.

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>

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.

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 applicable (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.

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 use services 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. 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.

Cautions

Any changes or modifications to your mobile device not expressly approved in this document 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. Faulty service may be dangerous and may invalidate any warranty applicable to the device.
- Ensure that any mobile devices or related equipment used 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 network 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 13: Warranty Information

Standard Limited Warranty

What is covered and for how long?

SAMSUNG TELECOMMUNICATIONS AMERICA, LLC ("SAMSUNG") warrants that SAMSUNG's devices 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:

Camera	1 Year
Batteries (Including Internal Batteries)	1 Year
Case	90 Days
Other Camera Accessories	1 Year

What is not covered?

This Limited Warranty is conditioned upon proper use of Product by Purchaser.

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 Tablet 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, without charge to Purchaser, or at SAMSUNG's sole option, refund the purchase price.

SAMSUNG may, at SAMSUNG's sole option, use rebuilt, reconditioned, or new parts or components when repairing any Product, or may replace Product with a rebuilt, reconditioned or new Product. Repaired/replaced cases 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. This Limited Warranty is extended to the Purchaser and is not transferable or assignable to any other person or entity.

What must you do to obtain warranty service?

To obtain service under this Limited Warranty, Purchaser must return the Product to an authorized Tablet 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 1-800-SAMSUNG. If SAMSUNG determines that any Product is not covered by this Limited Warranty, Purchaser must pay all parts, shipping, and labor charges for the repair or return of such Product.

Purchaser 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.

SAMSUNG MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, AS TO THE QUALITY, CAPABILITIES, OPERATIONS, PERFORMANCE OR SUITABILITY OF ANY THIRD-PARTY SOFTWARE OR EQUIPMENT USED IN CONJUNCTION WITH THE PRODUCT, OR THE ABILITY TO INTEGRATE ANY SUCH SOFTWARE OR EQUIPMENT WITH THE PRODUCT, WHETHER SUCH THIRD-PARTY SOFTWARE OR EQUIPMENT IS INCLUDED WITH THE PRODUCT DISTRIBUTED BY SAMSUNG OR OTHERWISE. RESPONSIBILITY FOR THE QUALITY, CAPABILITIES, OPERATIONS, PERFORMANCE AND SUITABILITY OF ANY SUCH THIRD-PARTY SOFTWARE OR EQUIPMENT RESTS SOLELY WITH THE PURCHASER AND THE DIRECT VENDOR, OWNER OR SUPPLIER OF SUCH THIRD-PARTY SOFTWARE OR EQUIPMENT.

Nothing in the Product instructions or information shall be construed to create an express warranty of any kind with respect to the Products. No agent, employee, dealer, representative or reseller is authorized to modify or extend this Limited Warranty or to make binding representations or claims, whether in advertising, presentations or otherwise, on behalf of SAMSUNG regarding the Products or this Limited Warranty.

This Limited Warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

What is the procedure for resolving disputes?

ALL DISPUTES WITH SAMSUNG ARISING IN ANY WAY FROM THIS LIMITED WARRANTY OR THE SALE, CONDITION OR PERFORMANCE OF THE PRODUCTS SHALL BE RESOLVED EXCLUSIVELY THROUGH FINAL AND BINDING ARBITRATION, AND NOT BY A COURT OR JURY. Any such dispute shall not be combined or consolidated with a dispute involving any other person's or entity's Product or claim, and specifically, without limitation of the foregoing, shall not under any circumstances proceed as part of a class action.

The arbitration shall be conducted before a single arbitrator, whose award may not exceed, in form or amount, the relief allowed by the applicable law. The arbitration shall be

conducted according to the American Arbitration Association (AAA) Commercial Arbitration Rules applicable to consumer disputes. This arbitration provision is entered pursuant to the Federal Arbitration Act. The laws of the State of Texas, without reference to its choice of laws principles, shall govern the interpretation of the Limited Warranty and all disputes that are subject to this arbitration provision. The arbitrator shall decide all issues of interpretation and application of this arbitration provision and the Limited Warranty.

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.

Administrative, facility and arbitrator fees for arbitrations in which your total damage claims, exclusive of attorney fees and expert witness fees, exceed \$5,000.00 ("Large Claim")

shall be determined according to AAA rules. In a Large Claim case, the arbitrator may grant to the prevailing party, or apportion among the parties, reasonable attorney fees, expert witness fees and costs. Judgment may be entered on the arbitrator's award in any court of competent jurisdiction.

This arbitration provision also applies to claims against SAMSUNG's employees, representatives and affiliates if any such claim arises from the Product's sale, condition or performance.

You may opt out of this dispute resolution procedure by providing notice to SAMSUNG no later than 30 calendar days from the date of the first consumer purchaser's purchase of the Product. To opt out, you must send notice by e-mail to optout@sta.samsung.com, with the subject line: "Arbitration Opt Out." You must include in the opt out e-mail (a) your name and address; (b) the date on which the Product was purchased; (c) the Product model name or model number; and (d) the IMEI or MEID or Serial Number, as applicable, if you have it (the IMEI or MEID or Serial Number can be found (i) on the Product box; (ii) on the Product information screen, which can be found under "Settings;" (iii) on a label on the back of the Product beneath the battery, if the battery is removable; and (iv) on the outside of the Product if the battery is not removable). Alternatively, you may opt out by calling 1-888-987-4357 no

later than 30 calendar days from the date of the first consumer purchaser's purchase of the Product and providing the same information. These are the only two forms of notice that will be effective to opt out of this dispute resolution procedure. Opting out of this dispute resolution procedure will not affect the coverage of the Limited Warranty in any way, and you will continue to enjoy the benefits of the Limited Warranty.

Severability

If any portion of this Limited Warranty is held to be illegal or unenforceable, such partial illegality or unenforceability shall not affect the enforceability of the remainder of the Limited Warranty.

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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