# 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**.

Tap   →   → **AF mode**, 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.
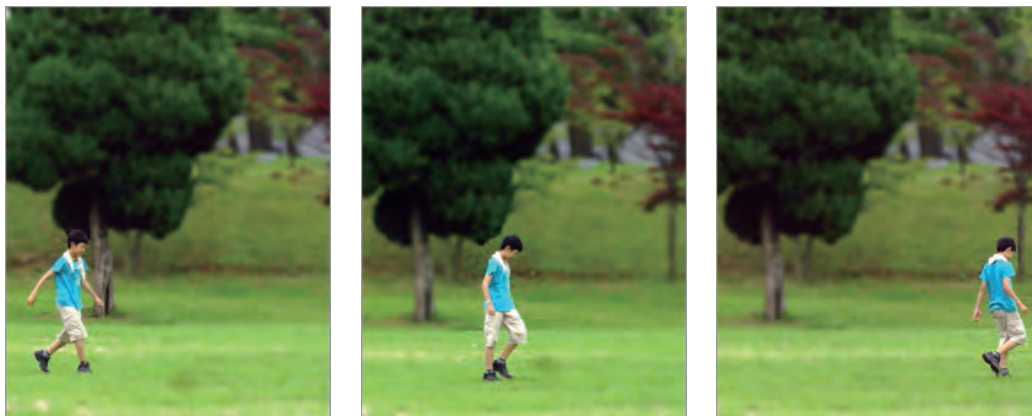
- **Manual focus**: Use this to manually focus on a subject by rotating the focus ring on the lens.

  MF Assist helps you achieve a focus easily. While you are rotating the focus ring, the focus area is magnified. (p. 89) When you use **Focus Peaking**, the colour you selected appears on the focused subject. (p. 89)

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.

Tap ⚙ → 📷 → **AF Area**, and select an option.

- **Center 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.
>   - Colours 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 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.

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.

Tap → → **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.

Tap ⚙ → 📷 → **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 colours, 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.

Image Adjust

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

Tap ⚙ → 📷 → **Image Adjust**, and drag the slider or tap ⊞ or ⊟ for each value.

Timer

Use this option to take photos with a delay of time.

Tap ![icon] → ![icon] → **Timer**, and select an option.

Press the Shutter button to start the timer. The camera takes photos after a specified length of time. 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.

Tap ![icon] → ![icon] → **MF assist**, and select an option.

- **Off**: Use to turn this option off.
- **Enlarge x5**: Use this to magnify the focus area by 5 times when you rotate the focus ring.

Focus peaking

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

Tap ![icon] → ![icon] → **Focus peaking**, and select an option.

- **Level**: Use this to set a sensitivity level for detecting the focused subject.
- **Color**: Use this to set a colour 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.

Tap ![icon] → ![icon] → **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.

Tap ⚙ → 📷 → **Framing mode**, and turn this option on or off.

OIS (anti-shake)

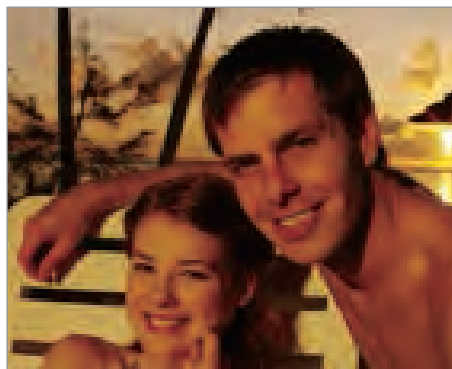Use the Optical Image Stabiliser (OIS) option to reduce or eliminate blurriness from camera shake.

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

Tap ⚙ → 📷 → **OIS (anti-shake)**, and select an option.

- **Off**: Use to turn this option off.
- **Mode1**: Use this to apply the OIS feature only when you press the Shutter button in full or half.
- **Mode2**: Use this to continuously apply the OIS feature.
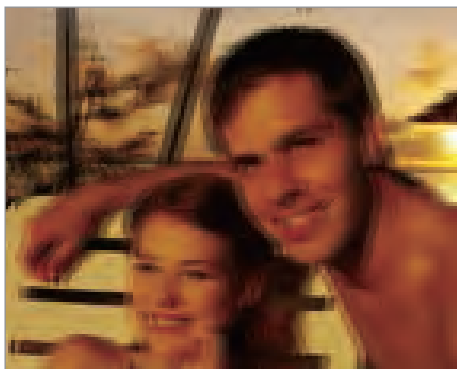
Without OIS correction   With OIS correction

> • 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.

Tap → → **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 customizing

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

Tap → → **ISO customizing**, and select an option.

- **ISO 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.

Tap ⚙ → 📷 → **DMF**, and turn this option on or off.

AF priority

Use this option to take a photo only if the focus is set correctly when you press the Shutter button.

Turn this option on to always get a properly focused photo. Turn it off to take a photo regardless of focus.

Tap ⚙ → 📷 → **AF priority**, and turn this option on or off.

> When you take continuous or burst shots, the camera will take photos even if this option is turned on and the subject is not in focus.

Noise reduction

Use this option to reduce the visual noise in photos.

Tap ⚙ → 📷 → **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.

Tap ⚙ → 📷 → **Distortions correct**, and turn this option on or off.

Color space

Use this option to select methods for representing colours. Digital imaging devices, such as digital cameras, monitors, and printers, have their own methods for representing colours, which are called colour spaces.

Tap   →   → **Color space**, and select an option.

* **S RGB**: sRGB (Standard RGB) is an international specification to define the colour space created by IEC (International Electrotechnical Commission). It is widely used for creating colours on computer monitors and is also the standard colour 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 colour range than sRGB. Its wider range of colours helps you to easily edit photos on a computer. Note that individual programs are generally compatible with a limited number of colour spaces.

> The rule for creating file names varies depending on the selected colour 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 or burst 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 or burst 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.

Tap   →   → **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**: Use this to take two photos with different exposure values and combine them to create a single image.

Over exposure guide

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

Tap   →   → **Over exposure guide**, and turn this option on or off.

Video recording options

Tap   →   , 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 playing 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.

Sharing options

Share photos as they are taken by setting sharing options. Tap   →   , and select an option.

- **Share shot**: Send a photo directly to another device via Wi-Fi Direct.

- **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.

- **Remote viewfinder**: Set a mobile device to control the camera remotely.

Camera settings

Tap → , and configure the settings for Camera.

- **AF sound**: Adjust the auto focus sound.

- **Beep**: Activate or deactivate beep sounds.

- **Description**: Display mode descriptions.

- **Guidelines**: Display a guide to help you compose a scene.

- **Display brightness**: Set the brightness of the screen.

- **Auto screen off**: Set the length of time the device waits before turning off the display's backlight.

- **Review**: Briefly display photos or videos taken.

- **Signature**: Use this to add a signature on the photo.

- **Date/time Imprint**: Use this to imprint the date and/or the time on the photos when taking them.

- **GPS tag**: Attach a GPS location tag to the photo. 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.

- **Voice control**: Activate or deactivate the voice recognition to take photos.
- **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.

- **AF lamp**: Use this to activate the AF-assist light in low-light conditions.
- **Power-on mode**: Select the default camera mode that launches when the device is turned on.
- **EVF dial control**: Select items to control with the EVF dial.
- **Storage**: Select the memory location for storage.
- **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.
- **Sensor cleaning**: Use this to remove dust from the image sensor.
- **Lens firmware**: Update the firmware of the lens.
- **Reset**: Reset the camera settings.

Media

Gallery

Use this application to view images and videos.

Tap **Gallery** on the Applications screen.

> - Some file formats are not supported depending on the software installed on the device.
> - Some files may not play properly depending on the encoding method used.

Viewing images

Launching **Gallery** displays available folders. When another application, such as **Email**, saves an image, the **Download** folder is automatically created to contain the image. Likewise, capturing a screenshot automatically creates the **Screenshots** folder. Select a folder to open it.

In a folder, images are displayed by creation date. Select an image to view it in full screen.

Scroll left or right to view the next or previous image.

> Continuous and burst photos appear as a bundle in the thumbnails view.
> Tap the thumbnail to view individual photos.

Zooming in and out

Use one of the following methods to zoom in an image:

- Double-tap anywhere to zoom in.
- Spread two fingers apart on any place to zoom in. Pinch to zoom out, or double-tap to return.

Viewing images using the motion feature

When an image is zoomed in, tap and hold a point on the screen, and then move the device in any direction to browse the image.

On the Applications screen, tap **Settings** → **My device** → **Motions and gestures** → **Motion**, drag the **Motion** switch to the right, and then turn on the switch for **Browse an image**.

To stop using the motion feature, turn off the switch for the feature.

Playing videos

Video files show the [icon] icon on the preview. Select a video to watch it and tap [icon].

Editing images

When viewing an image, tap [icon] and use the following functions:

- **Edit**: Launch **Photo Wizard** or **Paper Artist** to edit the image.
- **Details**: View image details.
- **Slideshow**: Start a slideshow with the images in the current folder.
- **Favourite**: Add the image to favourites.
- **Signature**: Add a signature to the image. Signatures are saved in the **Mysignature** folder.
- **Copy to clipboard**: Copy to clipboard.
- **Rotate left**: Rotate anticlockwise.
- **Rotate right**: Rotate clockwise.
- **Crop**: Resize the blue frame to crop and save the image in it.
- **Buddy photo share**: Send the image to a person whose face is tagged in the image.
- **Print**: Print the image via a USB or Wi-Fi connection. The device is only compatible with some Samsung printers.
- **Show on map**: View the shooting location on the map. When taking a photo or video, enable geotagging to attach GPS location tag with the photo or video. If there is no GPS location tag to attach, this option does not appear.
- **Rename**: Rename the file.

- **Scan for nearby devices**: Search for devices that have media sharing activated.
- **Set as**: Set the image as wallpaper or a contact image.
- **Settings**: Change the Gallery settings.

Favourite images

When viewing an image, tap → **Favourite** to add the image to the favourites list.

Making image collages

In a folder, tap → **Select item**, select two to four images by ticking, and then tap → **Create collage**. Select a style at the bottom of the screen, and then tap **Save**.

To add images, tap → **Add picture**.

To delete images, tap .

To change the split type, tap .

Deleting images

Use one of the following methods:

- In a folder, tap → **Select item**, select images by ticking, and then tap .
- When viewing an image, tap .

Sharing images

Use one of the following methods:

- In a folder, tap → **Select item**, select images by ticking, and then tap to send them to others.
- When viewing an image, tap to send it to others.

Setting as wallpaper

When viewing an image, tap → **Set as** to set the image as wallpaper or to assign it to a contact.

Tagging faces

Tap ▤ → **Settings**, and then tick **Face tag**. A yellow frame appears around the recognised face on an image. Tap the face, tap **Add name**, and then select or add a contact.

When the face tag appears on an image, tap the face tag and use available options, such as sending messages.

> Face recognition may fail depending on the face angle, face size, skin colour, facial expression, light conditions, or accessories the subject is wearing.

Paper Artist

Use this application to make images look like illustrations with fun effects or frames.

Tap **Paper Artist** on the Applications screen.

Use artistic tools to edit an image. The edited image is saved in **Gallery** → **Paper Pictures** folder.

Draw with a brush. Tap to change the brush thickness.

Select an existing image.

Take a photo.

Draw with a pen. Tap to change the pen thickness.

Save the image.

Share the image.

Apply frames to the image.

Erase the drawings. Tap to change the eraser size.

Apply effects to the image.

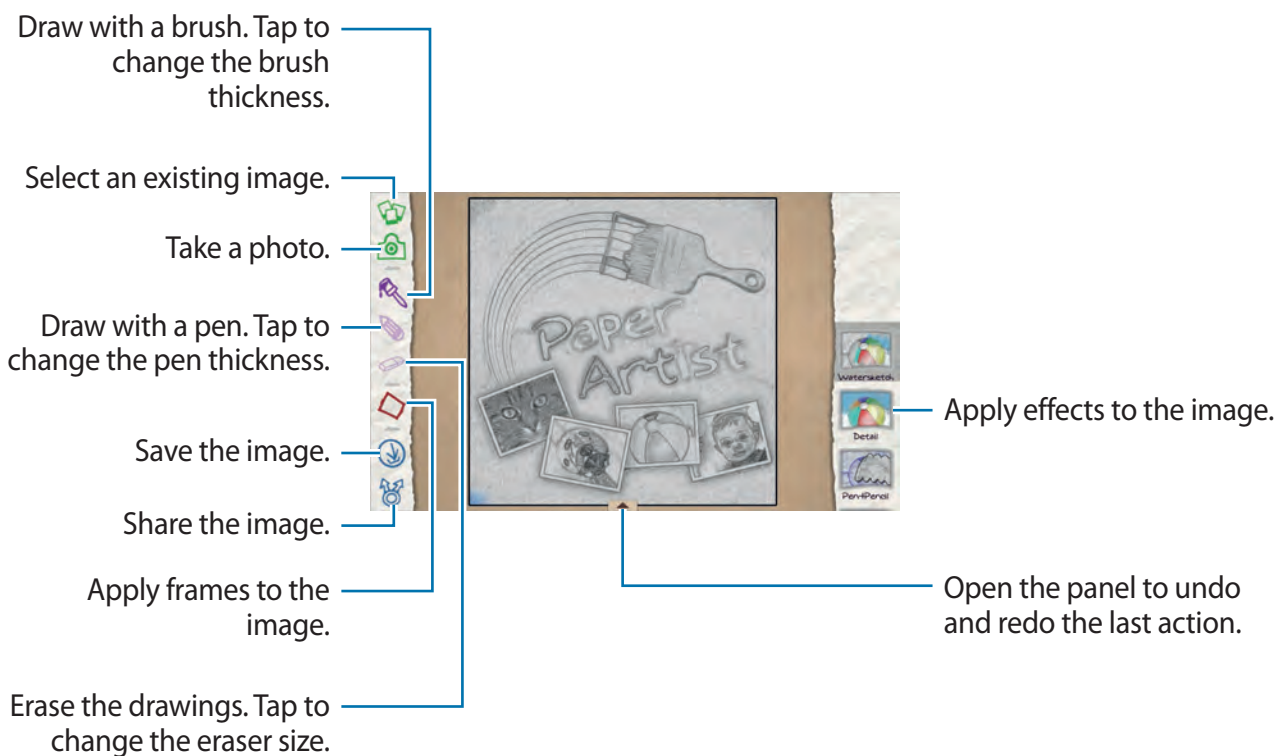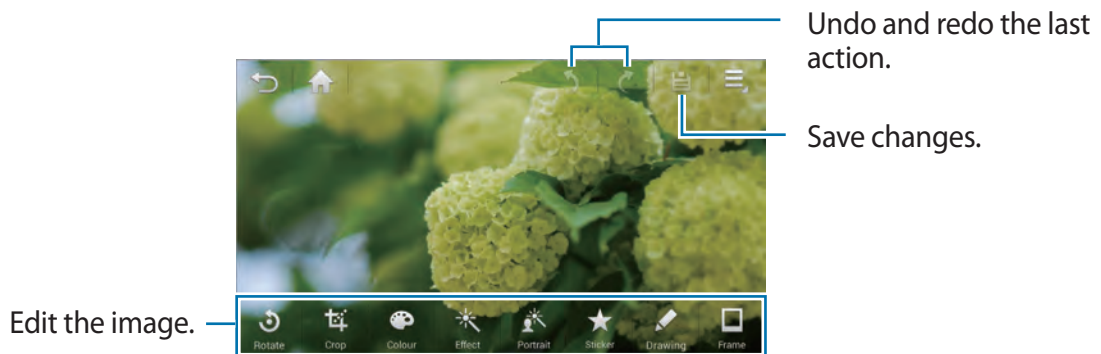Open the panel to undo and redo the last action.

Photo Wizard

Use this application to embellish images by applying various effects, such as the pop art effect.

Tap **Photo Wizard** on the Applications screen.

Undo and redo the last action.

Save changes.

Edit the image.

To select an area to edit, tap and hold the screen, and then tap **Selection mode**.

Rotating images

Tap **Rotate**, select an option at the bottom of the screen, or drag the screen to rotate, and then tap   .

Cropping photos

Tap **Crop**, select an option at the bottom of the screen, rotate or resize the frame by dragging the frame, and then tap   .

Changing colours

Tap **Colour**, select one of the colour effects that appear at the bottom of the screen, drag the slider to left or right if required, and then tap 🖫.

Applying filter effects

Tap **Effect**, select one from among the filter effects that appear at the bottom of the screen, drag the slider to left or right if required, and then tap 🖫.

Adjusting a portrait photo

Tap **Portrait**, select one of the portrait effects that appear at the bottom of the screen, drag the slider to left or right if required, and then tap 🖫.

Putting stickers on images

Tap **Sticker**, select one of the stickers that appear at the bottom of the screen, and then tap 🖫.

Drawing on images

Tap **Drawing**, draw on the image, and then tap 🖫.

Framing images

Tap **Frame**, select one of the frames that appear at the bottom of the screen, and then tap 🖫.

Video

Use this application to play video files.

Tap **Video** on the Applications screen.

> • Some file formats are not supported depending on the device's software.
> • Some files may not play properly depending on the encoding method used.

Playing videos

Select a video to play.

Scan DLNA-enabled devices.

Move forwards or backwards by dragging the bar.

Change screen ratio.

Restart the current video or skip to the previous video. Tap and hold to move backwards quickly.

Adjust the volume.

Skip to the next video. Tap and hold to move forwards quickly.

Reduce the size of the video screen.

Pause and resume playback.

Deleting videos

Tap   → **Delete**, select videos by ticking, and then tap **Delete**.

Sharing videos

Tap   → **Share via**, select videos by ticking, tap **Done**, and then select a sharing method.

Using Popup Video player

Use this feature to use other applications without closing the video player. While watching videos, tap to use the pop-up player.

Spread two fingers apart on the screen to enlarge the player or pinch to reduce it. To move the player, drag the player to another location.

Video Editor

Use this application to edit videos and apply various effects.

Tap **Video Editor** on the Applications screen.

> • Some video files in **Gallery** may not be viewable depending on video resolution and codec.
>
> • Some files may not play properly depending on the encoding method used.

Creating videos

Tap to create a new project, and then select a frame theme. To add media files, tap the icon corresponding to the desired media type at the bottom left pane of the screen, and then tap a file. Repeat file insertion as needed, and then tap **Done** to finish.

To delete a frame, tap and hold the frame, and then drag it to the rubbish bin.

To rearrange frames, tap and hold a frame, and then drag it to a new location.

Tap and add a transition effect between frames.

To save, tap → **Save**.

To export the video as a file, tap → **Export**.

Inserting text in a video

Select a frame to edit, enter text by using text insertion options at the right pane, and then save the video.

Trimming segments of a video

Select a frame to split, move the start bracket to the desired starting point, move the end bracket to the desired ending point, tap **Done**, and then save the video.

Splitting videos

Select a frame to split, drag it to the split point, tap **Done**, and then save the video.

Applying effects to a video

Select a frame to edit, select an effect option at the left pane, and then save the video.

Story Album

Use this application to create your own digital album to keep your stories by organising the images neatly and automatically.

Tap **Story Album** on the Applications screen.

Creating story albums

Tap **Create album** → **By tag information** to create a story album automatically. Select criteria, and then tap **Find pictures**. Enter a title for the album, select a theme, and then tap **Create album**.

To create it manually, tap **Create album** → **From Gallery**.

Creating recommended albums

When you take photos at one location, the device automatically sorts your photos into albums based on your specified criteria and suggests making the new albums.

Tap   → **Settings** → **Home city**, and then set a method for recognising your location. Select an album type and set a minimum number of photos.

When you take photos that meet the criteria you set, the device will suggest making an album.

Tap **Create album** → **From suggestions**. Select an album, enter a title for the album, and then tap **Save**.

> The device will recommend making story albums when you surpass the preset number of photos in a single day.

Viewing story albums

Select a story album. The cover image appears on the first page. Scroll left or right to view images in the story album.

When viewing an image, tap and use the following functions:

• **Add content**: Add more content to the current page.

• **Remove content**: Delete content on the current page.

• **Change theme**: Change the theme for the page layout.

• **Slideshow**: Start a slideshow with the images in the current album or change the slideshow settings.

• **Share via**: Send the album to others.

• **Print**: Print the album via a USB or Wi-Fi connection. The device is only compatible with some Samsung printers.

• **Order photo book**: Place an order for a printed album.

• **Export**: Export the album to other storage locations.

• **Delete album**: Delete the album.

Editing images

Tap the image of the page in an album.

To add a caption, tap .

To send the image to others, tap .

To delete the image, tap .

To apply effects to the image, tap ⌃.

To start a slideshow, tap ▤ → **Slideshow** → **Start slideshow**.

To set the image as an album cover image, tap ▤ → **Set as cover**.

To rotate the image anticlockwise, tap ▤ → **Rotate left**.

To rotate the image clockwise, tap ▤ → **Rotate right**.

Music

Use this application to listen to music.

Tap **Music** on the Applications screen.

> - Some file formats are not supported depending on the device's software version.
> - Some files may not play properly depending on the encoding method used.

Playing music

Select a music category, and then select a song to play.

Tap the album image at the bottom of the screen to open the music player screen.

Scan DLNA-enabled devices.

Adjust the volume.

Set the file as your favourite song.

Turn on shuffle.

Change the repeat mode.

Hide the music player screen.

Open the playlist.

Restart the currently-playing song or skip to the previous song. Tap and hold to move backwards quickly.

Skip to the next song. Tap and hold to move forwards quickly.

Pause and resume playback.
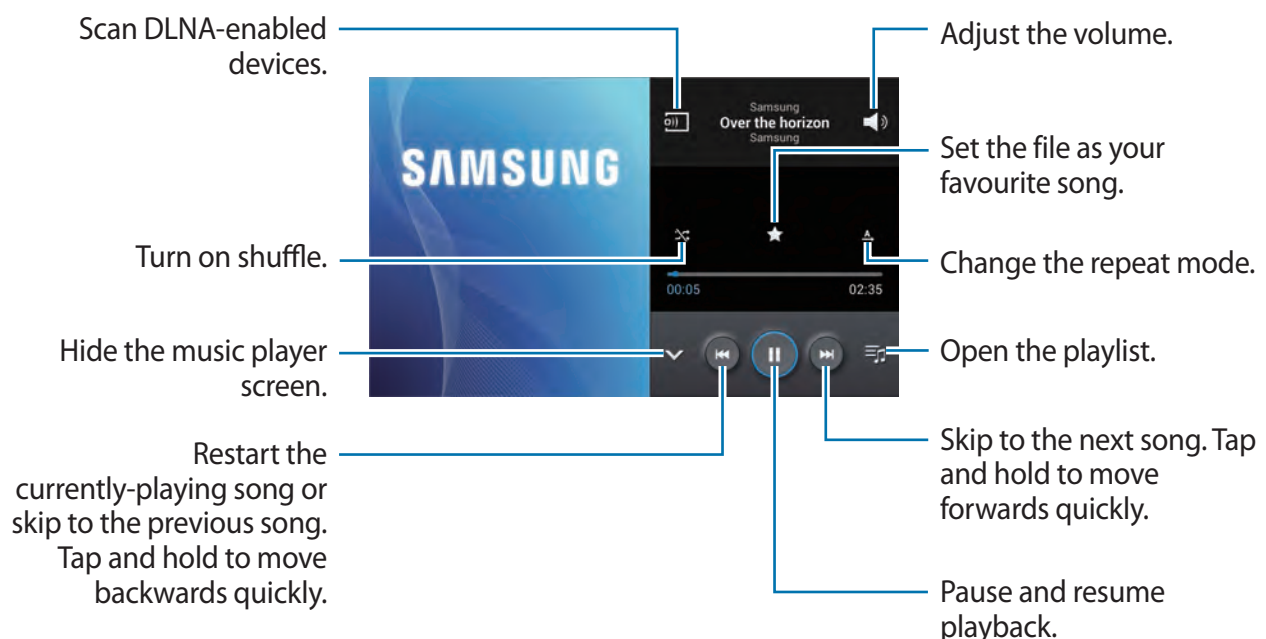
To listen to songs at equal volume levels, tap → **Settings** → **Smart volume**.

When **Smart volume** is activated, the volume may end up louder than the device volume level. Use caution to avoid long-term exposure to loud sounds to prevent damage to your hearing.

Creating playlists

Make an own selection of songs.

Tap **Playlists**, and then tap → **Create playlist**. Enter a title and tap **OK**. Tap **Add music**, select songs to include, and then tap **Done**.

To add the currently-playing song to a playlist, tap → **Add to playlist**.

Playing music by mood

Play music grouped by mood. The playlist is automatically created by the device. When a new song is added, tap **Music square** → → **Library update**.

Tap **Music square** and select a cell of mood. Or select multiple cells by dragging your finger.

YouTube

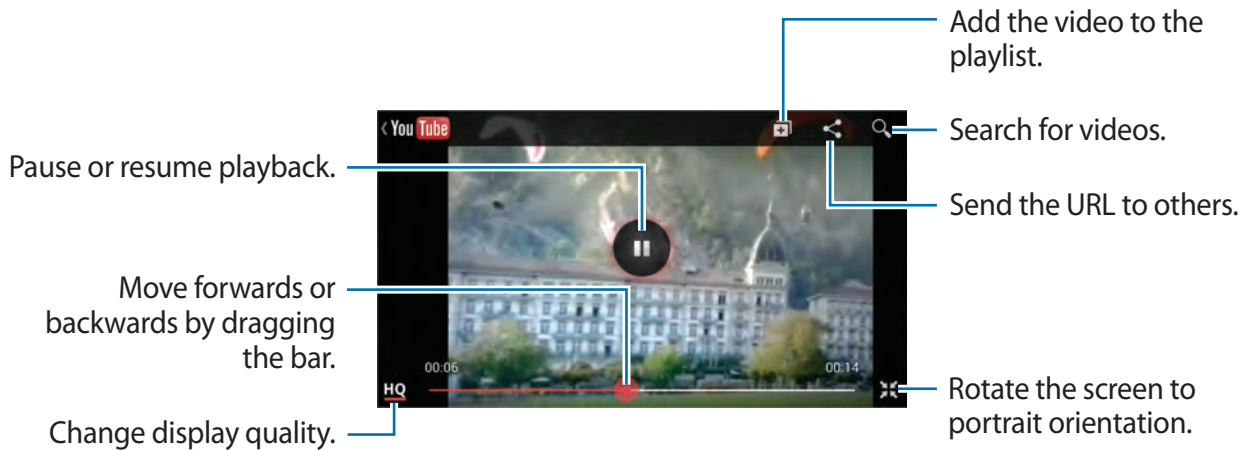Use this application to watch videos from the YouTube website.

Tap **YouTube** on the Applications screen.

This application may not be available depending on the region or service provider.

Watching videos

Tap ![search icon], and then enter a keyword. Select one of the returned search results to watch a video.

Rotate the device to landscape orientation to display full screen.

Add the video to the playlist.

Search for videos.

Pause or resume playback.

Send the URL to others.

Move forwards or backwards by dragging the bar.

Rotate the screen to portrait orientation.

Change display quality.

Sharing videos

Select the video to view, tap ![share icon], and then select a sharing method.

Uploading videos

Select your account, tap ![upload icon], select a video, enter information for the video, and then tap ![upload icon].

Weather Widget

Use this application to get the current weather and forecasts for your current location or other regions.

Tap **Weather Widget** on the Applications screen.

This application may not be available depending on the region or service provider.

Adding locations

To add a location, enter a place name in the search box, or tap   to find the current location. To add more locations, tap **My city list** → **Add**.

Deleting locations

Tap **My city list**, tap   → **Delete**, select locations by ticking, and then tap **Done**.

> To delete the current location, tap   → **Settings**, and then deselect **Show current city**.

Switching between locations

Scroll left or right at the left side of the screen.

PhotoSuggest

Use this application to view photos taken by other users of points of interest near your current location.

Tap **PhotoSuggest** on the Applications screen.

Viewing photos

Based on your current location, the device suggests photos of nearby places on a map. Search for a place and tap a thumbnail photo to view it in full screen.

While viewing a photo, tap   → **Add to favourites**/**places to visit**, add the photo or place to the favourites list, and turn on the notification setting. You will be notified when you visit the place in the photo.

Using photos as a shooting guide

You can use the suggested photos as guides for shooting the same or similar places.

While viewing a photo, tap   . The camera application launches and displays the photo. Use the shooting angle and composition in the photo as a guide for taking your own shot.

Communication

Contacts

Use this application to manage contacts, including phone numbers, email addresses, and others.

Tap **Contacts** on the Applications screen.

Managing contacts

Creating a contact

Tap ![icon] and enter contact information.

- ![icon] : Add an image.
- ![icon] / ![icon] : Add or delete a contact field.

Editing a contact

Select a contact to edit, and then tap ![icon].

Deleting a contact

Tap ![icon] → **Delete**.

Searching for contacts

Use one of the following search methods:

· Scroll up or down the contacts list.

· Use the index at the right side of the contacts list for quick scrolling, by dragging a finger along it.

· Tap the search field at the top of the contacts list and enter search criteria.

Once a contact is selected, take one of the following actions:

· ⭐ : Add to favourite contacts.

· ✉ : Compose a message.

· ✉@ : Compose an email.

Displaying contacts

By default, the device shows all saved contacts on the device, the SIM or USIM card, or another account.

Tap ▤ → **Contacts to display**, and then select a location where contacts are saved.

Moving contacts

Moving contacts to Google

Tap ▤ → **Merge accounts** → **Merge with Google**.

Contacts moved to Google Contacts appear with ⑧ in the contacts list.

Moving contacts to Samsung

Tap ▤ → **Merge accounts** → **Merge with Samsung**.

Contacts moved to Samsung Contacts appear with Ⓢ in the contacts list.

Importing and exporting contacts

Importing contacts

Tap ▤ → **Import/Export** → **Import from SIM card**, **Import from SD card**, or **Import from USB storage**.

Exporting contacts

Tap ▤ → **Import/Export** → **Export to SIM card**, **Export to SD card**, or **Export to USB storage**.

Sharing contacts

Tap ▤ → **Import/Export** → **Share namecard via**, select contacts, tap **Done**, and then select a sharing method.

Favourite contacts

Tap ▤, and then take one of the following actions:

- **Search**: Search for contacts.
- **Add to favourites**: Add contacts to favourites.
- **Remove from favourites**: Remove contacts from favourites.
- **Grid view** / **List view**: View contacts in grid or list form.

Contact groups

Adding contacts to a group

Select a group, and then tap ▤. Select contacts to add, and then tap **Done**.

Managing groups

Tap   , and then take one of the following actions:

- **Create**: Make a new group.

- **Search**: Search for contacts.

- **Change order**: Tap and hold   next to the group name, drag it up or down to another position, and then tap **Done**.

- **Delete groups**: Select user-added groups, and then tap **Delete**. Default groups cannot be deleted.

Sending a message or email to a group's members

Select a group, tap   → **Send message** or **Send email**, select members, and then tap **Done**.

Business card

Create a business card and send it to others.

Tap **Set up my profile**, enter details, such as phone number, email address, and postal address, and then tap **Save**. If user information has been saved when you set up the device, select the business card in **ME**, and then tap   to edit.

Tap   → **Share namecard via**, and then select a sharing method.

Messaging

Use this application to send text messages (SMS) or multimedia messages (MMS).

Tap **Messaging** on the Applications screen.

> You may incur additional charges for sending or receiving messages while you are outside your home service area. For details, contact your service provider.

Sending messages

Tap [icon], add recipients, enter a message, and then tap [icon].

Use the following methods to add recipients:

- Enter a phone number.
- Tap [icon], select contacts, and then tap **Done**.

Use the following methods to make a multimedia message:

- Tap [icon] and attach images, videos, contacts, memos, events, and others.
- Tap [icon] → **Add subject** to enter a subject.

Viewing incoming messages

Incoming messages are grouped into message threads by contact.

Select a contact to view the person's message.

Email

Use this application to send or view email messages.

Tap **Email** on the Applications screen.

Setting up email accounts

Set up an email account when opening **Email** for the first time.

Enter the email address and password. Tap **Next** for a private email account, such as Google Mail, or tap **Manual setup** for a company email account. After that, follow on-screen instructions to complete the setup.

To set up another email account, tap [icon] → **Settings** → **Add account**.

Sending messages

Tap the email account to use, and then tap   at the bottom of the screen. Enter recipients, subject, and message, and then tap   .

Tap   to add a recipient from the contacts list.

Tap   to attach images, videos, contacts, memos, events, and others.

Tap   to insert images, events, contacts, location information, and others into the message.

Reading messages

Select an email account to use, and new messages are retrieved. To manually retrieve new messages, tap   .

Tap a message to read.

Reply to the message.

Forward the message.

Delete the message.

Add this email address to the contacts list.

Mark the message as a reminder.

Open attachments.

samsungusermanual
samsungusermanual@yahoo.com

About Samsung
10/04/2013 19:09

Message
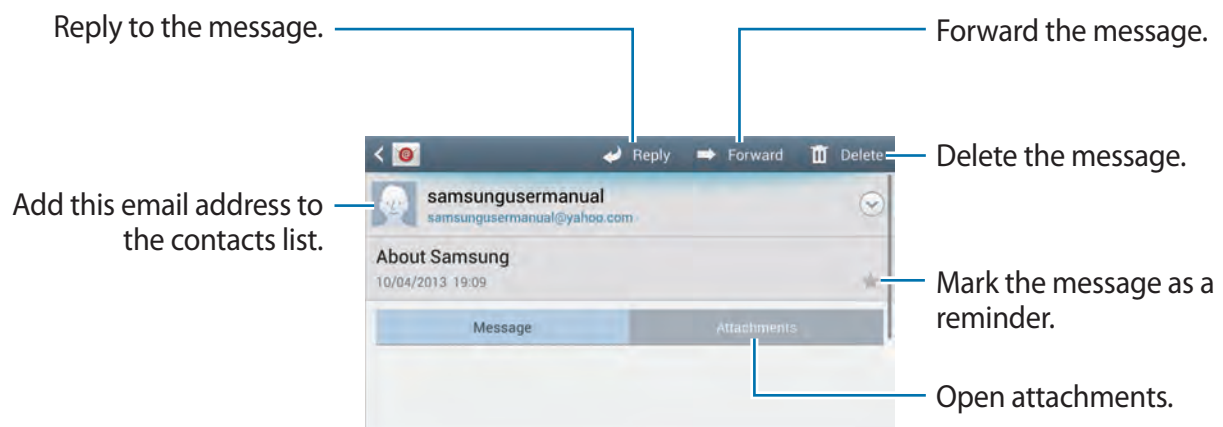
Attachments

Tap the attachment tab to open attachments, and then tap **Save** to save it.

Google Mail

Use this application to quickly and directly access the Google Mail service.

Tap **Google Mail** on the Applications screen.

> • This application may not be available depending on the region or service provider.
> • This application may be labelled differently depending on the region or service provider.

Sending messages

In any mailbox, tap ![icon], enter recipients, a subject, and a message, and then tap ![icon].

Tap ![icon] → **Attach picture** to attach images.

Tap ![icon] → **Attach video** to attach videos.

Tap ![icon] → **Add Cc/Bcc** to add more recipients.

Tap ![icon] → **Save draft** to save the message for later delivery.

Tap ![icon] → **Discard** to start over.

Reading messages

Delete this message.

Keep this message for long-term storage.

Add this email address to the contacts list.

Preview attachment.

Add a label to this message.

Mark the message as unread.

Forward this message to others.

Reply to all recipients.

Reply to this message.

Mark the message as a reminder.
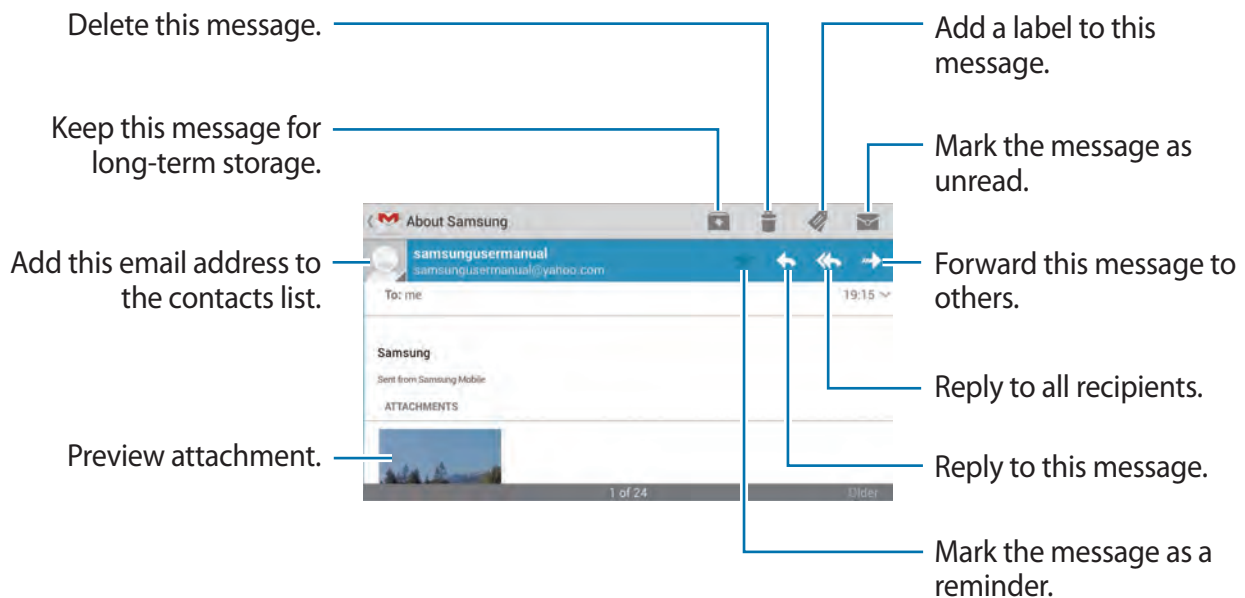
Labels

Google Mail does not use actual folders, but uses labels instead. When Google Mail is launched, it displays messages labelled Inbox.

Tap to view messages in other labels.

To add a label to a message, select the message, tap , and then select the label to assign.

Talk

Use this application to chat with others via Google Talk.

Tap **Talk** on the Applications screen.

> This application may not be available depending on the region or service provider.

Public profile

Tap the account ID at the top of the friends list to change the availability status, image, or status message.

Adding friends

Tap , enter the email address of the friend to add, and then tap **DONE**.

Chatting with friends

Select a friend from the friends list, enter a message in the field at the bottom of the screen, and then tap .

To add a friend to chat, tap → **Add to chat**.

To end the chat, tap → **End chat**.

Switching between chats

Scroll left or right.

Deleting chat history

Chats are automatically saved. To delete the chat history, tap → **Clear chat history**.

Google+

Use this application to stay connected with people via Google's social network service.

Tap **Google+** on the Applications screen.

> This application may not be available depending on the region or service provider.

Tap **All circles** to change the category, and then scroll up or down to view posts from your circles.

Tap to use other social network features.

Messenger

Use this application to chat with others via Google+ instant messaging service.

Tap **Messenger** on the Applications screen.

> This application may not be available depending on the region or service provider.

Select a friend from the friends list, enter a message in the field at the bottom of the screen, and then tap .

ChatON

Use this application to chat with any device. To use this application, you must sign in to your Samsung account.

Tap **ChatON** on the Applications screen.

![icon] This application may not be available depending on the region or service provider.

Create a buddies list by entering phone numbers or Samsung account email addresses, or by selecting buddies from the list of suggestions. Alternatively, tap **Contact sync** to manually sync contacts from the device.

Tap **Chats** → **Start chat** and select a buddy to start chatting.

Web & network

Internet

Use this application to browse the Internet.

Tap **Internet** on the Applications screen.

Viewing webpages

Tap the address field, enter the web address, and then tap **Go**.

Tap ▤ to share, save, or print the current webpage while viewing a webpage.

To change the search engine, tap the address field, and then tap the search engine icon next to the web address.

Opening a new page

Tap ▤ → **New window**.

To go to another webpage, tap ▣, scroll up or down, and tap the page to select it.

Bookmarks

To bookmark the current webpage, tap ▤ → **Add bookmark**.

To open a bookmarked webpage, tap ★, and then select one.

History

Tap ▤ → **History** to open a webpage from the list of recently-visited webpages. To clear the history, tap ▤ → **Clear history**.

Links

Tap and hold a link on the webpage to open it in a new page, save, or copy.

To view saved links, use **Downloads**. (p. 141)

Sharing webpages

To share a webpage address with others, tap → **Share via**.

To share a part of a webpage, tap and hold the desired text, and then tap **Share**.

Chrome

Use this application to search for information and browse webpages.

Tap **Chrome** on the Applications screen.

> This application may not be available depending on the region or service provider.

Viewing webpages

Tap the address field, and then enter a web address or search criteria.

Opening a new page

Tap → **New tab**.

To go to another webpage, tap → a webpage.

Searching the web by voice

Tap the address field, tap , speak a keyword, and then select one of the suggested keywords that appear.

Syncing with other devices

Sync open tabs and bookmarks to use with Chrome on another device, when you are logged in with the same Google account.

To view open tabs on other devices, tap → **Other devices**. Select a webpage to open.

To view bookmarks, tap .

Bluetooth

Bluetooth creates a direct wireless connection between two devices over short distances. Use Bluetooth to exchange data or media files with other devices.

> • Samsung is not responsible for the loss, interception, or misuse of data sent or received via the Bluetooth feature.
>
> • Always ensure that you share and receive data with devices that are trusted and properly secured. If there are obstacles between the devices, the operating distance may be reduced.
>
> • Some devices, especially those that are not tested or approved by the Bluetooth SIG, may be incompatible with your device.
>
> • Do not use the Bluetooth feature for illegal purposes (for example, pirating copies of files or illegally tapping communications for commercial purposes).
>
>   Samsung is not responsible for the repercussion of illegal use of the Bluetooth feature.

To activate Bluetooth, on the Applications screen, tap **Settings** → **Connections** → **Bluetooth**, and then drag the **Bluetooth** switch to the right.

Pairing with other Bluetooth devices

On the Applications screen, tap **Settings** → **Connections** → **Bluetooth** → **Scan**, and detected devices are listed. Select the device you want to pair with, and then accept the auto-generated passkey on both devices to confirm.

Sending and receiving data

Many applications support data transfer via Bluetooth. An example is **Gallery**. Open **Gallery**, select an image, tap → **Bluetooth**, and then select one of the Bluetooth devices. After that, accept the Bluetooth authorisation request on the other device to receive the image. The transferred file is saved in the **Bluetooth** folder. If a contact is received, it is added to the contacts list automatically.

Screen Mirroring

Use this feature to connect your device to a large screen with an AllShare Cast dongle or HomeSync and then share your contents. You can also use this feature with other devices that support the Wi-Fi Miracast feature.

- This feature may not be available depending on the region or service provider.
- Miracast-enabled devices that do not support High-bandwidth Digital Content Protection (HDCP) may not be compatible with this feature.
- Some files may be buffered during playback, depending on the network connection.
- To save energy, deactivate this feature when not in use.
- If you specify a Wi-Fi frequency, AllShare Cast dongles or HomeSync may not be discovered or connected.
- If you play videos or games on a TV, select an appropriate TV mode to get the best experience.

On the Applications screen, tap **Settings** → **Connections** → **Screen Mirroring**, and then drag the **Screen Mirroring** switch to the right. Select a device, open or play a file, and then control the display with the keys on your device. To connect to a device using a PIN, tap and hold the device name to enter the PIN.

Samsung Link

Use this application to play contents saved on various devices over the Internet. You can play and send any file on any device to another device or web storage service.

To use this application, you must sign in to your Samsung account and register two or more devices. The registration methods may vary depending on the device type. To get more details, tap   → **FAQ**.

Tap **Samsung Link** on the Applications screen.

This application may not be available depending on the region or service provider.

When opening this application, recent contents from all your registered devices will appear. You can browse and play them. To start sharing files, scroll to **DEVICES & STORAGE** and select an option.

Sending files

Send files to other devices or upload them to web storage services.

Select your device, tap , select files, and then tap **Done**.

Sharing files

Select a device or web storage, tap , select files, tap **Done**, and then select a sharing method.

Playing files on a remote device

Select a device or web storage, tap , select a file, and then select a device.

> • Supported file formats may differ depending on connected devices as a media player.
>
> • Some files may be buffered while playing depending on the network connection.

Using the Group Play feature

Share screens with multiple devices. Select a media category and tap . Select files, tap **Done**, and then tap **Group Play**. A Group Play session is created and the files are shared with other devices in the session.

Managing contents on a web storage service

Select a web storage service, and then view and manage your files.

To download files from a web storage service, tap , select files, and then tap **Done**.

To register web storage services to the device, tap   → **Settings** → **Registered storage** → , and then select a web storage service.

Group Play

Use this application to share screens with multiple devices. Create or join a Group Play session, and then share images, documents, or music.

Tap **Group Play** on the Applications screen.

> • This application may not be available depending on the region or service provider.
> • While using this application, you cannot use the Internet.

Creating a group for Group Play

Tap **Create group**, set a password, and then use the following features:

- **Share music**: Select music files to share. You can connect two or more devices and use them to achieve a surround sound effect.
- **Share pictures**: Select images to share.
- **Share documents**: Select documents to share.
- **Play games**: Play online games with friends.

Tap 　 and write a note or draw on the screen. All participants can see what you create.

Tap 　 to view all shared images in mosaic layout.

Tap 　 to select more images or documents.

Tap 　 to view the group participants.

Joining Group Play

Tap **Join group**, enter the password, and then select a Group Play session to join. Select a media category and the content that is currently being shared will appear on the device.

Application & media stores

Play Store

Use this application to purchase and download applications and games that are able to run on the device.

Tap **Play Store** on the Applications screen.

> This application may not be available depending on the region or service provider.

Installing applications

Browse applications by category, or tap [icon] to search with a keyword.

Select an application to view information. To download it, tap **Install**. If there is a charge for the application, tap the price, and follow on-screen instructions to complete the purchase process.

> • When a new version is available for any installed application, an update icon appears at the top of the screen to alert you to the update. Open the notifications panel and tap the icon to update the application.
>
> • To install applications that you downloaded from other sources, on the Applications screen, tap **Settings** → **More** → **Security** → **Unknown sources**.

Uninstalling applications

Uninstall the applications purchased from **Play Store**.

Tap [icon] → **My Apps**, select an application to delete in the list of installed applications, and then tap **Uninstall**.

Samsung Apps

Use this application to purchase and download dedicated Samsung applications. For more information, visit *www.samsungapps.com*.

Tap **Samsung Apps** on the Applications screen.

> This application may not be available depending on the region or service provider.

Installing applications

Browse applications by category.

To search for an application, tap ⌕ at the top of the screen, and then enter a keyword in the search field.

Select an application to view information. To download it, tap **Free**. If there is a charge for the application, tap the price, and follow on-screen instructions to complete the purchase process.

> When a new version is available for any installed application, an update icon appears at the top of the screen to alert you to the update. Open the notifications panel and tap the icon to update the application.

Play Books

Use this application to read and download book files.

Tap **Play Books** on the Applications screen.

> This application may not be available depending on the region or service provider.

Select a book file by scrolling left or right. While reading a book file, tap ☰ to access additional options.

To purchase book files, tap **Buy**.

Play Movies

Use this application to watch, download, and rent movies or TV shows.

Tap **Play Movies** on the Applications screen.

This application may not be available depending on the region or service provider.

Select a category at the top of the screen, and then select a movie, TV programme, or video to play or rent.

Play Music

Use this application to listen to music from the device or stream music from the Google cloud service.

Tap **Play Music** on the Applications screen.

This application may not be available depending on the region or service provider.

Play music by selecting a music category or share songs with others by uploading them to the Google cloud storage.

Play Magazines

Use this application to read and download magazines.

Tap **Play Magazines** on the Applications screen.

This application may not be available depending on the region or service provider.

Select a category, and then select a magazine.

Utilities

S Memo

Use this application to create a memo using images and voice recordings.

Tap **S Memo** on the Applications screen.

Composing memos

Create memos with enriched content by drawing sketches with your finger or adding images or voice memos.

Tap to write or draw on the screen, or tap to enter text with the keyboard.

Erase the handwritten memo.

Undo and redo the last action.

Enter a memo.

Jot down or draw a memo.

Switch to view mode.

Append another page to the current memo.

Insert a multimedia file.

Make a voice recording to insert.
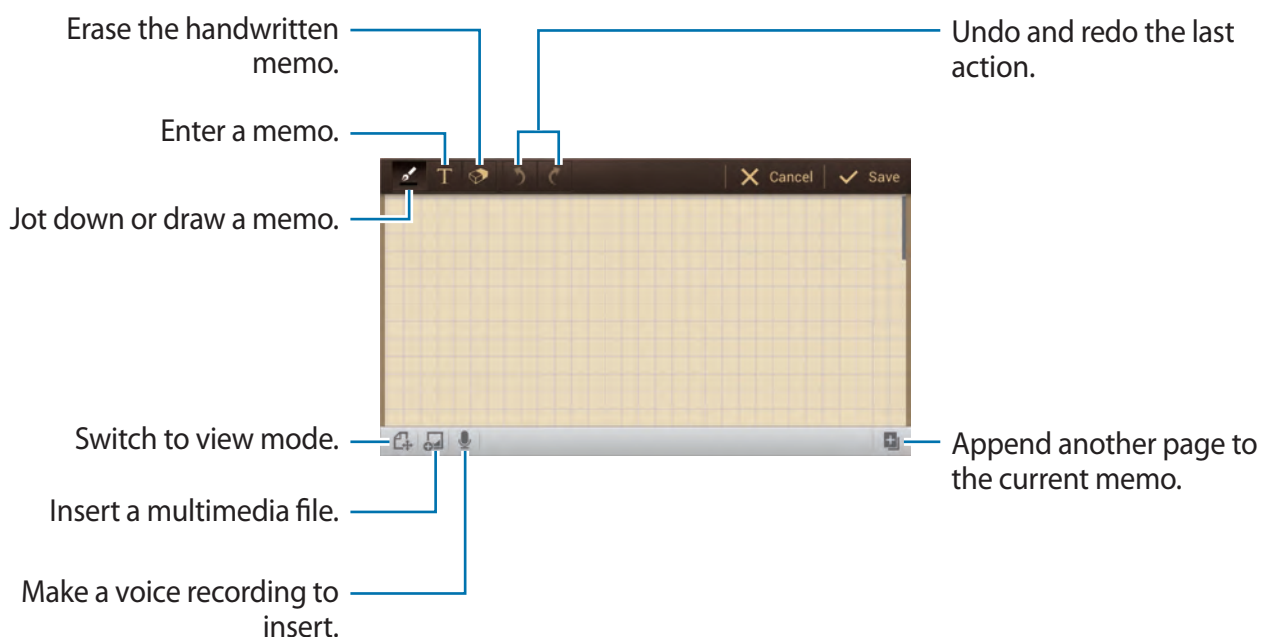
When jotting down a memo, tap once more to change the pen type, line thickness, or pen colour.

When erasing the handwritten memo, tap once more to change the eraser size or clear the memo.

Change the pen type.

Save the current setting as a pen profile.

Change the line thickness.

Expand the pen settings panel to change the pen colour.
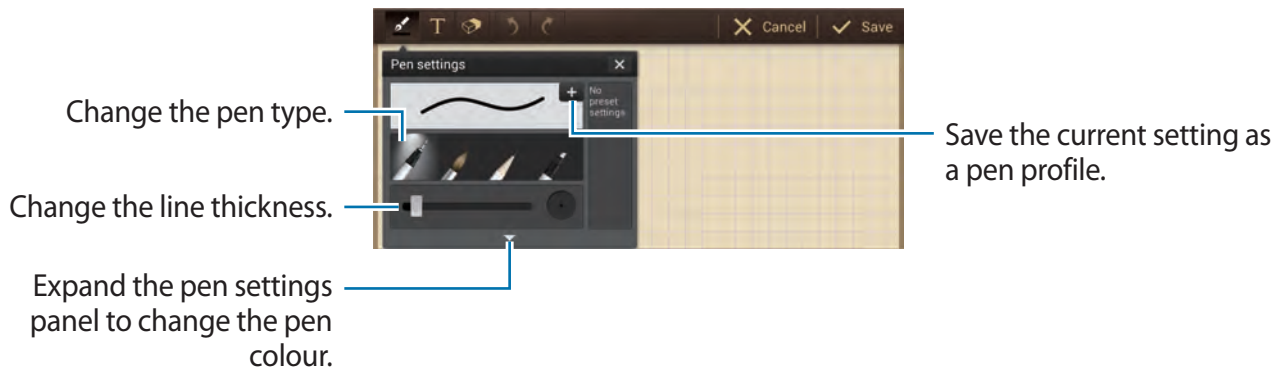
To change the sheet background, tap → **Change background.**

To add tags, tap → **Add tag.**

Browsing memos

Browse memo thumbnails by scrolling up or down.

To search for a memo, tap → **Search.**

To delete memos, tap → **Delete.**

To sort memos by date, title, tag, or others, tap → **Sort by.**

To change the view mode, tap → **List view.**

To create a memo by importing a file, tap → **Import.**

To export memos as another file format, tap → **Export.**

To create a folder, tap → **Create folder.**

To move memos to another folder, tap → **Move.**

To copy memos, tap → **Copy.**

To change the S Memo settings, tap → **Settings.**

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Viewing a memo

Tap the memo thumbnail to open it.

To delete the memo, tap → **Delete**.

To send the memo to others, tap → **Share via**.

To save the memo as an image file or a PDF file, tap → **Export**.

To add the memo as your favourites list, tap → **Add to Favourites**.

To save the memo as an event, tap → **Create event**.

To set the memo as wallpaper or to assign it to a contact, tap → **Set as**.

To print the memo via a USB or Wi-Fi connection, tap → **Print**. The device is only compatible with some Samsung printers.

To edit the memo, tap .

To play the voice recording, tap .

S Planner

Use this application to manage events and tasks.

Tap **S Planner** on the Applications screen.

Creating events or tasks

Tap , and then use one of the following methods:

- **Add event**: Enter an event with an optional repeat setting.
- **Add task**: Enter a task with an optional priority setting.

To add an event or task more briefly, tap a date to select it and tap it again.

Enter a title and specify which calendar to use or sync with. Then add more details, such as how often the event repeats, when it has an advance alert, or where it takes place.

Attach a map showing the location of the event. Enter the location in the **Location** field, tap next to the field, and then pinpoint the precise location by tapping and holding on the map that appears.

Attach a memo from S Memo. Tap **Memos**, and then compose a new memo or select one of the existing memos.

Attach an image. Tap **Images**, and then take a photo or select one of the existing images.

Syncing with Google Calendar

On the Applications screen, tap **Settings** → **Accounts** → **Google** under **My accounts** → a Google account → **Sync Calendar**. To manually sync for updating, on the Applications screen, tap **S Planner** → → **Sync**.

To display synced event or tasks, tap → **Settings** → **Calendars** → **Display**, tick the Google account, and then tap **Done**.

Changing calendar type

Select one from among different types of calendars including year, month, week, and others at the right side of the screen. A pinch gesture can be used to change calendar type. For example, pinch to change from the monthly calendar to the yearly calendar, and spread apart to change yearly calendar back to monthly calendar.

Searching for events

Tap   → **Search**, and then enter a keyword to search for.

To view today's events, tap **Today** at the top of the screen.

Deleting events

Select a date or event, and then tap   → **Delete**.

Sharing events

Select an event, tap   → **Share via**, and then select a sharing method.

Dropbox

Use this application to save and share files with others via the Dropbox cloud storage. When you save files to Dropbox, your device automatically syncs with the web server and any other computers that have Dropbox installed.

Tap **Dropbox** on the Applications screen.

This application may not be available depending on the region or service provider.

When running Dropbox for the first time, tap **Start** to activate it. Follow the on-screen instructions to complete the setup.

Once Dropbox is activated, photos and videos taken with the device's camera are uploaded to Dropbox automatically. To view the uploaded photos or videos, tap . To share or delete files or create albums, tap , and then select files.

To upload files to Dropbox, tap   →   → **Upload here** → **Photos or videos** or **Other files**. To open files in Dropbox, select a file.

While viewing images or videos, tap   to add it to the favourites list. To open files in the favourites list, tap   .

Cloud

Use this feature to sync files or back up application data with your Samsung account or Dropbox.

On the Applications screen, tap **Settings** → **Accounts** → **Cloud**.

> This feature may not be available depending on the region or service provider.

Syncing with the Samsung account

Tap your Samsung account or **Sync settings** to sync files.

Backing up or restoring data

Tap **Backup** to back up or restore data with your Samsung account.

Syncing with Dropbox

Tap **Link Dropbox account**, and then enter the Dropbox account. Follow the on-screen instructions to complete the setup.

Once you sign in, tap **Allow** and the device automatically syncs files with Dropbox whenever you make some changes.

Clock

Use this application to set alarms, check the time in any location in the world, measure the duration of an event, set a timer, or use as the desk clock.

Tap **Clock** on the Applications screen.
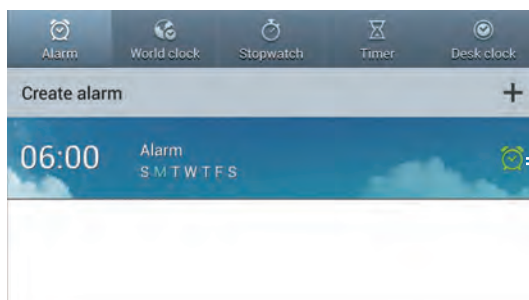
Turn this alarm on or off.

Alarm

Setting alarms

Tap **Create alarm**, set a time for the alarm to go off, select days for the alarm to repeat, and then tap **Save**.

- **Location alarm**: Set a location. The alarm goes off only when you are in the location.
- **Snooze**: Set an interval and the number of times for the alarm to repeat after the preset time.
- **Smart alarm**: Set a time for the alarm to go off before the preset time.

Stopping alarms

Drag ![X] outside the large circle to stop an alarm. Drag ![ZZ] outside the large circle to repeat the alarm after a specified length of time.

Deleting alarms

Tap and hold the alarm, and then tap **Delete**.

World clock

Creating clocks

Tap **Add city**, and then enter a city name or select a city from the cities list.

To apply summer time, tap and hold a clock, and then tap **DST settings**.

Deleting clocks

Tap and hold the clock, and then tap **Delete**.

Stopwatch

Tap **Start** to time an event. Tap **Lap** to record lap times.

Tap **Reset** to clear lap time records.

Timer

Set the duration, and then tap **Start**.

Drag ✖ outside the large circle when the timer goes off.

Desk clock

Tap 🔲 to view in full screen.

Calculator

Use this application for simple or complex calculations.

Tap **Calculator** on the Applications screen.

Rotate the device to landscape orientation to display the scientific calculator. If **Screen rotation** is disabled, tap → **Scientific calculator**.

To see the calculation history, tap to hide the keypad.

To clear the history, tap → **Clear history**.

To change the character size for the history, tap → **Text size**.

S Voice

Use this application to command the device by voice to dial a number, send a message, write a memo, and more.

Tap **S Voice** on the Applications screen. Alternatively, tap ⌂ twice.

> This application may not be available depending on the region or service provider.

Here are several examples of spoken commands:

- Open music
- Launch calculator
- Check schedule

Tips for better voice recognition

- Speak clearly.
- Speak in quiet places.
- Do not use offensive or slang words.
- Avoid speaking in dialectal accents.

The device may not recognise your commands or may perform unwanted commands depending on your surroundings or how you speak.

Google

Use this application to search not only the Internet, but also applications and their contents on the device as well.

Tap **Google** on the Applications screen.

> This application may not be available depending on the region or service provider.

Searching the device

Tap the search field, and then enter a keyword. Alternatively, tap , speak a keyword, and then select one of the suggested keywords that appear.

If no results are returned from the applications, the web browser appears, displaying the search results.

Searching with images

To search with an image, tap   → **Search with camera**. Aim the rear camera at an image, and then tap .

Search scope

To select what applications to search, tap   → **Settings** → **Phone search**, and then tick the items to search for.

Google Now

Launch Google search to view Google Now cards that show the current weather, public transit info, your next appointment, and more when you are most likely to need it.

Join Google Now when opening Google search for the first time. To change Google Now settings, tap   → **Settings** → **Google Now**.

Voice Search

Use this application to search webpages by speaking.

Tap **Voice Search** on the Applications screen.

> 🖉 This application may not be available depending on the region or service provider.

Speak a keyword or phrase when **Speak now** appears on the screen.

My Files

Use this application to access all kinds of files stored in the device, including images, videos, songs, and sound clips.

Tap **My Files** on the Applications screen.

Select a folder to open it. To go back to the parent folder, tap ⬆. To return to the root directory, tap 🏠.

In a folder, tap ☰, and then use one of the following options:

- **Select all**: Select all files to apply the same option to them at once.
- **Create folder**: Create a folder.
- **Search**: Search for files.
- **View by**: Change the view mode.
- **Sort by**: Sort files or folders.
- **Settings**: Change the file manager settings.

Downloads

Use this application to see what files are downloaded through the applications.

Tap **Downloads** on the Applications screen.

> This application may not be available depending on the region or service provider.

Select a file to open it with an appropriate application.

To sort the files by size, tap **Sort by size**.

To sort the files by date, tap **Sort by date**.

TripAdvisor

Use this application to get travel information such as destination, flight, or hotel. You can also book for a room or flight and share your reviews with others.

Tap **TripAdvisor** on the Applications screen.

Sphere

Use this application to experience the world in 360-degree panoramas. You can also preview virtual tours of hotels, restaurants, and other points of interest.

Tap **Sphere** on the Applications screen.

Travel & local

Maps

Use this application to pinpoint the location of the device, search for places, or get directions.

Tap **Maps** on the Applications screen.

> This application may not be available depending on the region or service provider.

Searching for locations

Tap 🔍, enter an address, and then tap 🔍. Select a location to view the detailed location information. To search for nearby locations, tap 📍.

Once the location is found, tap 📑 and use one of the following functions:

- **Clear Map**: Clear the map.
- **Make available offline**: Save the map of a specified area to view it offline.
- **Directions**: Get directions for the location.
- **Layers**: Overlay multiple layers including satellite images, traffic information, and more.
- **Settings**: Change the map settings.
- **Help**: View information about using the map.

To view current location, tap ◉.

Getting directions for a destination

1 Tap .

2 Tap , and then select a method to enter starting and ending locations:

- **My current location**: Use current location for starting location.
- **Contacts**: Select from the contacts list.
- **Point on map**: Pinpoint by tapping on the map.
- **My Places**: Select from the list of offline maps, starred places, recent places, and more.

3 Select a travel method, such as driving, public transit, or walking, and then tap **GET DIRECTIONS**.

4 Select one of the routes that appear, and then tap **MAP VIEW** to view details.

Local

Use this application to search for nearby restaurants, banks, bus stops, and more.

Tap **Local** on the Applications screen.

This application may not be available depending on the region or service provider.

Select a place category, and then select a place from the list of search results.

- **Map**: Pinpoint the place on the map.
- **Directions**: Search for a route to the place.
- **Call**: Add the place's phone number to the contacts list.

To add a place category, tap → **Add a search** on the category list, and then enter a keyword to search into the text field.

Navigation

Use this application to search for a route to a destination.

Tap **Navigation** on the Applications screen.

> • Navigation maps, your current location, and other navigational data may differ from actual location information. You should always pay attention to road conditions, traffic, and any other factors that may affect your driving. Follow all safety warnings and regulations while driving.
>
> • This application may not be available depending on the region or service provider.

Specify the destination by using one of the following methods:

- Speak the destination address.
- Enter the destination address.
- Select the destination address from the contacts list.
- Select the destination from the list of starred places.

Once a route is found, follow on-screen instructions to navigate to the destination.

Earth

Use this application to explore any location in the world using the satellite map view.

Tap **Earth** on the Applications screen.

> This application may not be available depending on the region or service provider.

Settings

About Settings

Use this application to configure the device, set application options, and add accounts.

Tap **Settings** on the Applications screen.

Connections

Wi-Fi

Activate the Wi-Fi feature to connect to a Wi-Fi network and access the Internet or other network devices.

To use options, tap **Wi-Fi →** ⊟.

- **Advanced**: Customise Wi-Fi settings.
- **WPS push button**: Connect to a secured Wi-Fi network with a WPS button.
- **WPS PIN entry**: Connect to a secured Wi-Fi network with a WPS PIN.

Setting Wi-Fi sleep policy

Tap **Wi-Fi →** ⊟ **→ Advanced → Keep Wi-Fi on during sleep**.

> When the screen is turned off, the device automatically turns off Wi-Fi connections. When this happens, the device automatically accesses data networks if it is set to use them. This may incur data transfer fees. To avoid data-usage bills, set this option to **Always**.

Setting Network notification

The device can detect open Wi-Fi networks and display an icon on the status bar to notify when available.

Tap **Wi-Fi →** ⊟ **→ Advanced** and tick **Network notification** to activate this feature.

Wi-Fi Direct

Wi-Fi Direct connects two devices directly via a Wi-Fi network without requiring an access point.

Tap **Wi-Fi** → **Wi-Fi Direct**.

Bluetooth

Activate the Bluetooth feature to exchange information over short distances.

To use more options, tap   .

- **Visibility timeout**: Set duration that the device is visible.
- **Received files**: View received files via the Bluetooth feature.
- **Help**: Access help information for Bluetooth.

Data usage

Keep track of your data usage amount, and customise the settings for the limitation.

- **Mobile data**: Set the device to use data connections on any mobile network.
- **Set mobile data limit**: Set a limit for the mobile data usage.
- **Data usage cycle**: Enter monthly reset date to monitor your data usage.

To use more options, tap   .

- **Data roaming**: Set the device to use data connections when you are roaming.
- **Restrict background data**: Set the device to disable sync in the background while using a mobile network.
- **Auto sync data**: Activate or deactivate auto-syncing of applications. You can select what information to sync for each account in **Settings** → **Accounts**.
- **Show Wi-Fi usage**: Set the device to show your data usage via Wi-Fi.
- **Mobile hotspots**: Select Wi-Fi hotspots to prevent applications that are running in the background from using them.

More networks

Customise settings to control networks.

Flight mode

This disables all wireless functions on your device. You can use only non-network services.

Smart network

This disables all data network functions on your device when the screen is turned off, and disconnects applications, such as SNS applications or **Email**. When the screen is turned on, all new notifications that were not received while the screen was off are retrieved.

> You can save battery power by turning on this feature.

Mobile networks

- **Mobile data**: Use to allow packet switching data networks for network services.
- **Data roaming**: Use the device to connect to another network when you are roaming or your home network is not available.
- **Access Point Names**: Set up access point names (APNs).
- **Network mode**: Select a network type.
- **Network operators**: Search for available networks and select a network for roaming.

Tethering and portable hotspot

- **Portable Wi-Fi hotspot**: Use the portable Wi-Fi hotspot to share the device's mobile network connection with computers or other devices through the Wi-Fi network.
- **USB tethering**: Use USB tethering to share the device's mobile network connection with a computer via USB. When connected to a computer, the device is used as a wireless modem for the computer.
- **Bluetooth tethering**: Use the Bluetooth tethering to share the device's mobile network connection with computers via Bluetooth.
- **Help**: Learn more about USB, Wi-Fi, and Bluetooth tethering.

VPN

Set up and connect to virtual private networks (VPNs).

Nearby devices

- **File sharing**: Activate media sharing to allow other DLNA-enabled devices to access media files on your device.

- **Shared contents**: Set the device to share your content with other devices.

- **Allowed devices list**: View the list of devices that can access your device.

- **Not-allowed devices list**: View the list of devices that are blocked from accessing your device.

- **Download to**: Select a memory location for saving media files.

- **Upload from other devices**: Set the device to accept uploads from other devices.

Screen Mirroring

Activate the screen mirroring feature and share your display with others.

Kies via Wi-Fi

Connect the device to Samsung Kies via a Wi-Fi network.

My device

Lock screen

Change settings for the locked screen.

Display

Change the settings for the display.

- **Wallpaper**:
  - **Home screen**: Select a background image for the Home screen.
  - **Lock screen**: Select a background image for the locked screen.
  - **Home and lock screens**: Select a background image for the Home screen and the locked screen.
- **Notification panel**: Customise the items that appear on the notifications panel.
- **Screen mode**:
  - **Adapt display**: Use this mode for optimising the display according to the display settings.
  - **Dynamic**: Use this mode to make the display tone more vivid.
  - **Standard**: Use this mode for normal surroundings.
  - **Movie**: Use this mode for dim surroundings, such as in a dark room.
- **Brightness**: Set the brightness of the display.
- **Auto-rotate screen**: Set the content to rotate automatically when the device is turned.
- **Screen timeout**: Set the length of time the device waits before turning off the display's backlight.
- **Daydream**: Set the device to launch a screensaver when your device is connected to a desktop dock or charging.
- **Font style**: Change the font type for display text.
- **Font size**: Change the font size.
- **Display battery percentage**: Set the device to display the remaining battery life.
- **Edit after screen capture**: Set the device to edit the screenshot after capturing it.

Sound

Change settings for various sounds on the device.

- **Volume**: Adjust the volume level for music and videos, system sounds, and notifications.
- **Vibration intensity**: Adjust the force of the vibration notification.
- **Default notification sound**: Select a ringtone for events, such as incoming messages.
- **Dialling keypad tone**: Set the device to sound when tapping the buttons on the keypad.
- **Touch sounds**: Set the device to sound when selecting an application or option on the touch screen.
- **Screen lock sound**: Set the device to sound when locking or unlocking the touch screen.
- **Vibration feedback**: Set the device to vibrate when touching keys.
- **Auto haptic**: Set the device to vibrate when playing sounds in downloaded applications.

Blocking mode

Select which notifications will be blocked and how long to block them.

Accessory

Change the accessory settings.

- **Dock sound**: Set the device to play a sound when your device is connected to or removed from a desktop dock.
- **Audio output mode**: Set the device to use the dock speaker when your device is connected to a desktop dock.
- **Desk home screen display**: Set the device to show the desk clock when your device is connected to a desktop dock.
- **Audio output**: Select a sound output format to use when connecting your device to HDMI devices. Some devices may not support the surround sound setting.
- **Audio applications**: Set the device to show which applications are available when you connect a headset to the device.

Accessibility

Accessibility services are special features for those with certain physical disabilities. Access and alert the following settings to improve accessibility to the device.

- **Auto-rotate screen**: Set the interface to rotate automatically when you rotate the device.
- **Screen timeout**: Set the length of time the device waits before turning off the display's backlight.
- **Speak passwords**: Set the device to read aloud passwords you enter with Talkback.
- **Show shortcut**: Add a shortcut to **Accessibility** on the quick menu that appears when you press and hold the Power button.
- **TalkBack**: Activate Talkback, which provides voice feedback.
- **Font size**: Change the font size.
- **Magnification gestures**: Set the device to zoom in and out with finger gestures.
- **Negative colours**: Reverse the display colours to improve visibility.
- **Colour adjustment**: Adjust the colour scheme for the screen when the device determines that you are colour blind or having difficulty reading content.
- **Accessibility shortcut**: Set the device to activate Talkback when you press and hold the Power button, and then tap and hold the screen with two fingers.
- **Text-to-speech options**:
  - **Preferred TTS engine**: Select a speech synthesis engine. To change the settings for speech synthesis engines, tap .
  - **Speech rate**: Select a speed for the text-to-speech feature.
  - **Listen to an example**: Listen to the spoken text for an example.
- **Enhance web accessibility**: Set applications to install web scripts to make their web content more accessible.
- **Sound balance**: Adjust the sound balance when using a dual headset.
- **Mono audio**: Enable mono sound when listening to audio with one earbud.
- **Turn off all sounds**: Mute all device sounds.

- **Assistant menu**: Set the device to show the assistive shortcut icon that helps you access functions supported by external buttons or features on the notifications panel. You can also edit the menu on the shortcut icon.

- **Tap and hold delay**: Set the recognition time for tapping and holding the screen.

- **Interaction control**: Set an area of the screen to be excluded from touch inputs.

Language and input

Change the settings for text input. Some options may not be available depending on the selected language.

Language

Select a display language for all menus and applications.

Default

Select a default keyboard type for text input.

Google voice typing

To change the voice input settings, tap ⚙.

- **Choose input languages**: Select input languages for text input.

- **Block offensive words**: Set the device to prevent the device from recognising offensive words in voice inputs.

- **Download offline speech recognition**: Download and install language data for offline voice input.

Samsung keyboard

To change the Samsung keyboard settings, tap ⚙.

> 📝   The available options may vary depending on the region or service provider.

- **Portrait keyboard types**: Change the keyboard layout.

- **Input languages**: Select languages for text input.

- **Predictive text**: Activate predictive text mode to predict words based on your input and show word suggestions. You can also customise the word prediction settings.

- **Continuous input**: Set the device to enter text by sweeping on the Qwerty keyboard.

- **Keyboard swipe**: Enable or disable the keyboard sweeping feature for the text input mode. Switch between input modes by scrolling left or right on the keyboard.

> This feature may not be available depending on the region or service provider.

- **Handwriting**: Customise settings for handwriting mode, such as recognition time, pen thickness, or pen colour.

- **Advanced**:

  - **Auto capitalisation**: Set the device to automatically capitalise the first character after a final punctuation mark, such as a full stop, question mark, or exclamation mark.

  - **Auto spacing**: Set the device to automatically insert a space between words.

  - **Auto-punctuate**: Set the device to insert a full stop when you double-tap the space bar.

  - **Character preview**: Set the device to display a large image of each character tapped.

  - **Key-tap vibration**: Set the device to vibrate when a key is touched.

  - **Key-tap sound**: Set the device to sound when a key is touched.

- **Tutorial**: Learn how to enter text with the Samsung keyboard.

- **Reset settings**: Reset Samsung keyboard settings.

Voice recogniser

Select a voice recognition engine.

Voice search

For Samsung voice recognition, use the following options:

- **Language**: Select a language for the voice recognition.

- **Use location data**: Set the device to use location information for voice search results.

- **Hide offensive words**: Hide offensive words from voice search results.

- **Help**: Access help information for **S Voice**.

- **About**: View version information.
- **Voice control**: Control applications by voice commands.
- **Show body of message**: Set the device to view the text of a new message received while in driving mode.
- **Wake up command**: Set the device to start voice recognition by saying a wake up command while using **S Voice**.
- **Wake up in lock screen**: Set the device to recognise your wake up command when the screen is locked.
- **Set wake-up command**: Set a wake up command to launch **S Voice** or perform a specified function.
- **Check missed events**: Set the device to check missed events when **S Voice** is launched by pressing the headset button.
- **Home address**: Enter your home address to use location information with the voice command feature.
- **Log in to Facebook**: Enter your Facebook account information to use Facebook with **S Voice**.
- **Log in to Twitter**: Enter your Twitter account information to use Twitter with **S Voice**.

For Google voice recognition, use the following options:

- **Language**: Select a language for the voice recognition.
- **Speech output**: Set the device to provide voice feedback to alert you to the current action.
- **Block offensive words**: Hide offensive words from voice search results.
- **Download offline speech recognition**: Download and install language data for offline voice input.

Text-to-speech options

- **Preferred TTS engine**: Select a speech synthesis engine. To change the settings for speech synthesis engines, tap .

- **Speech rate**: Select a speed for the text-to-speech feature.

- **Listen to an example**: Listen to the spoken text for an example.

Pointer speed

Adjust the pointer speed for the mouse or trackpad connected to your device.

Motions and gestures

Activate the motion recognition feature and change the settings that control motion recognition on your device.

- **Motion**:

 - **Zoom**: Set the device to zoom in or out while viewing images in **Gallery**, when you tap and hold two points with your fingers and then tilt the device back and forth.

 - **Move an icon**: Set the device to move an item to another page when tapping and holding the item and then panning the device to the left or right.

 - **Browse an image**: Set the device to scroll through an image by moving the device in any direction when the image is zoomed in.

- **Palm motion**:

 - **Capture screen**: Set the device to capture an image of the screen when you sweep your hand to the left or right across the screen.

 - **Mute/Pause**: Set the device to pause media playback when you touch the screen with your palm.

- **Gyroscope calibration**: Calibrate the gyroscope so your device can correctly recognise rotation.

> - Place the device on a stable surface during calibration. The calibration process may fail if the device vibrates or moves.
>
> - Calibrate the gyroscope when you experience drifting or unintended movements when using tilting or panning motions or motion-enabled games.

Voice control

Change settings to control options by voice commands.

Accounts

Add account

Add email or SNS accounts.

Cloud

Change settings for syncing data or files with your Samsung account or Dropbox cloud storage.

Backup and reset

Change the settings for managing settings and data.

- **Back up my data**: Set the device to back up settings and application data to the Google server.
- **Backup account**: Set up or edit your Google backup account.
- **Automatic restore**: Set the device to restore settings and application data when the applications are reinstalled on the device.
- **Factory data reset**: Reset settings to the factory default values and delete all data.

More

Customise settings for location services, security, and other options.

Location services

Change settings for location information permissions.

- **Access to my location**: Set the device to allow applications to use your current location information.

- **Use GPS satellites**: Set the device to use the GPS satellite for finding the current location.

- **My places**: Set up profiles that will be used for specific locations when you use GPS, Wi-Fi, or Bluetooth features to find your current location.

Security

Change settings for securing the device and the SIM or USIM card.

- **Encrypt device**: Set a password to encrypt data saved on the device. You must enter the password each time you turn on the device.

> Charge the battery before enabling this setting because it may take more than an hour to encrypt your data.

- **Encrypt external SD card**: Set the device to encrypt files on a memory card.

> If you reset your device to the factory defaults with this setting enabled, the device will not be able to read your encrypted files. Disable this setting before resetting the device.

- **Remote controls**: Set the device to allow control of your lost or stolen device remotely via the Internet. To use this feature, you must sign in to your Samsung account.

  – **Account registration**: Add or view your Samsung account.

  – **Wi-Fi & mobile network location**: Set the device to allow location data collection or to determine the location of your lost or stolen device via Wi-Fi or mobile network.

- **SIM Change Alert**: Activate or deactivate the Find my mobile feature which helps locate the device when lost or stolen.

- **Find my mobile web page**: Access the Find my mobile website (*findmymobile.samsung.com*). You can track and control your lost or stolen device on the Find my mobile website.

- **Set up SIM card lock**:

  - **Lock SIM card**: Activate or deactivate the PIN lock feature to require the PIN before using the device.

  - **Change SIM PIN**: Change the PIN used to access SIM or USIM data.

- **Make passwords visible**: By default, the device hides passwords for security. Set the device to display passwords as they are entered.

- **Device administrators**: View device administrators installed on the device. You can allow device administrators to apply new policies to the device.

- **Unknown sources**: Choose to install applications from any source. If not chosen, download applications only from **Play Store**.

- **Verify apps**: Set this to allow Google to check the application for harmful behaviour before installing it.

- **Trusted credentials**: Use certificates and credentials to ensure secure use of various applications.

- **Install from device storage**: Install encrypted certificates stored on the USB storage.

- **Clear credentials**: Erase the credential contents from the device and reset the password.

Application manager

View and manage the applications on your device.

Battery

View the amount of battery power consumed by your device.

Power

Activate power-saving mode and change the settings for power-saving mode.

- **Auto power off**: Set the length of time the device waits before turning off.

> - The device automatically turns off if the screen is not touched, or the buttons are not pressed for a preset length of time. For extended use, select a longer time period.
> - This feature is disabled when playing videos or listening to music.
> - You can save battery power by turning on this feature.

- **Power saving mode**:
  - **CPU power saving**: Set the device to limit some system resource usage.
  - **Screen power saving**: Set the device to decrease the brightness of the display.
  - **Turn off haptic feedback**: Set the device to turn off the vibration when touching keys.
  - **Learn about Power saving mode**: Discover how to reduce battery consumption.
- **Fast power-on**: Activating this causes the device to start quickly for the next 24 hours.

Storage

View memory information for your device and memory card, or format a memory card.

> Formatting a memory card permanently deletes all data from it.

> The actual available capacity of the internal memory is less than the specified capacity because the operating system and default applications occupy part of the memory.

Date and time

Access and alter the following settings to control how the device displays the time and date.

> If the battery remains fully discharged or removed from the device, the time and date is reset.

- **Automatic date and time**: Automatically update the time and date when moving across time zones.
- **Set date**: Set the current date manually.
- **Set time**: Set the current time manually.
- **Automatic time zone**: Set the device to receive time zone information from the network when you move across time zones.
- **Select time zone**: Set the home time zone.
- **Use 24-hour format**: Display time in 24-hour format.
- **Select date format**: Select a date format.

About device

Access device information and update device software.

Troubleshooting

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, tap **Portrait → Red-eye fix** in **Photo Wizard**.

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. (p. 77)

Photos are blurred

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 stabiliser option.
- Use a tripod to prevent your device from 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. (p. 77)
- 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. (p. 15)
- 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. (p. 15)

When the flash is not functional

- Press the Flash release button to pop the flash up.
- The flash option may be set to **Off**. (p. 83)
- 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 colours in the photo do not match the actual scene

Select an appropriate white balance option to suit the light source. (p. 78)

When the photo is too bright

- Turn the flash off. (p. 83)
- Adjust the ISO sensitivity. (p. 77)
- Adjust the exposure value. (p. 76)

When the photo is too dark

- Turn the flash on. (p. 83)
- Adjust the ISO sensitivity. (p. 77)
- Adjust the exposure value. (p. 76)

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.

- You cannot access some options without a subscription. Contact your service provider for more details.

The lens barrel does not retract even when the power is off

When you turn the power off while holding the lens barrel, the lens barrel may not be able to retract into the body. If this happens, do not force the lens barrel into the body. Take the device to your local Samsung Service Centre.

The touch screen responds slowly or improperly

If your device has a touch screen and the touch screen is not responding properly, try the following:

- Remove any protective covers from the touch screen. Protective covers may prevent the device from recognising your inputs and are not recommended for touch screen devices.
- Ensure that your hands are clean and dry when tapping the touch screen.
- 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, take it to your local Samsung Service Centre.

Your device freezes or has fatal errors

If your device freezes or hangs, you may need to close programs or reset the device to regain functionality. If your device is frozen and unresponsive, press and hold the Power button for 6-8 seconds. The device reboots automatically.

If this does not solve the problem, perform a factory data reset. On the Applications screen, tap **Settings** → **Accounts** → **Backup and reset** → **Factory data reset** → **Reset device** → **Erase everything**.

The device beeps and the battery icon is empty

Your battery is low. Recharge or replace the battery to continue using the device.

The battery does not charge properly or the device turns off

- The battery terminals may be dirty. Wipe both gold-coloured contacts with a clean, soft cloth and try charging the battery again.
- If the battery no longer charges completely, dispose of the old battery properly and replace it with a new battery (refer to your local ordinances for proper disposal instructions).

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 Samsung 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.

Error messages appear when opening music files

Some music files may not play on your Samsung device for a variety of reasons. If you receive error messages when opening music 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.

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, if necessary.
- 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 drivers 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.

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.

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.
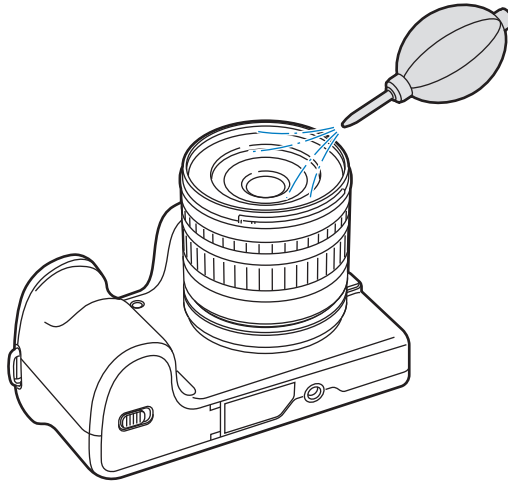
Image sensor

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. (p. 96) 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.

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

Concepts in Photography

Shooting postures

A correct posture for stabilising the camera is necessary for taking a good photo. Even if you hold a camera correctly, the wrong posture can cause the camera to shake. Stand up straight and remain still to maintain a steady base for your camera. When shooting with a slow shutter speed, hold your breath to minimise body movement.

Holding the camera

Hold the camera with your right hand and place you right index finger on the Shutter button. Place your left hand under the lens for support.
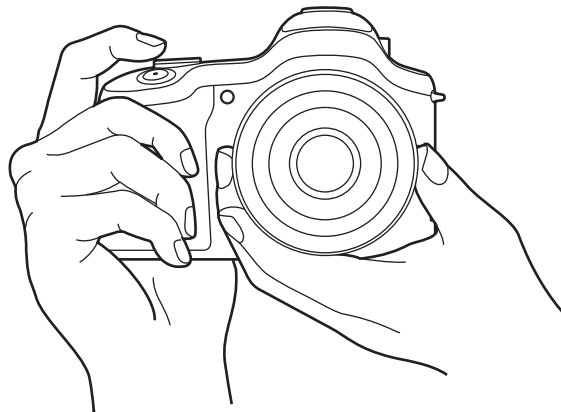
Standing photography

Compose your shot, stand up straight with your feet shoulder-length apart, and keep your elbows pointed down.

Crouching photography

Compose your shot, crouch with one knee touching the ground, and keep a straight posture.
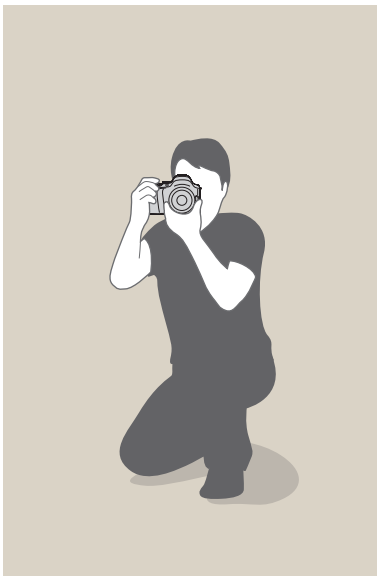
Aperture

The aperture, a hole that controls the amount of light that enters the camera, is one of the three factors that determine the exposure. The aperture housing contains thin and metal plates that open and close to let light through the aperture and into the camera. The size of the aperture is closely related to the brightness of a photo: the larger the aperture, the brighter the photo; the smaller the aperture, the darker the photo.

Darker photo
(aperture opened slightly)

Brighter photo
(aperture opened wide)

The size of the aperture is represented by a value known as an F-number. The f-number represents the focal length divided by the diameter of the lens. For example, if a lens with a 50 mm focal length has an f-number of F2, the diameter of the aperture is 25 mm. (50 mm/25 mm=F2) The smaller the f-number, the greater the size of the aperture.

The opening in the aperture is described as the exposure value (EV). Increasing the exposure value (+1 EV) means the amount of light doubles. Decreasing the exposure value (-1 EV) means the amount of light halves. You can also use the exposure compensation feature to fine-tune the amount of light by subdividing exposure values into 1/2, 1/3 EV, and so on.

+1 EV   -1 EV

F1.4   F2   F2.8   F4   F5.6   F8

Exposure value steps
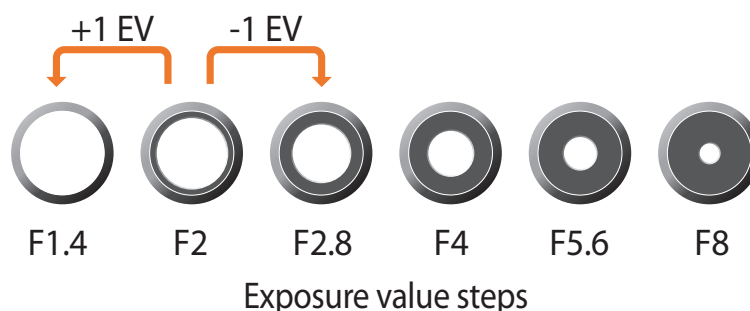
Aperture value and the depth of field

You can blur or sharpen the background of a photo by controlling the aperture. It is closely related to the depth of field (DOF), which can be expressed as small or large.

A photo with a large DOF

A photo with a small DOF

The aperture housing contains several blades. These blades move together and control the amount of light passing through the centre of the aperture. The number of blades also affects the shape of light when shooting night scenes. If an aperture has an even number of blades, light divides into an equal number of sections. If the number of blades is odd, the number of sections is double the number of blades.

For example, an aperture with 8 blades divides light into 8 sections and an aperture with 7 blades into 14 sections.
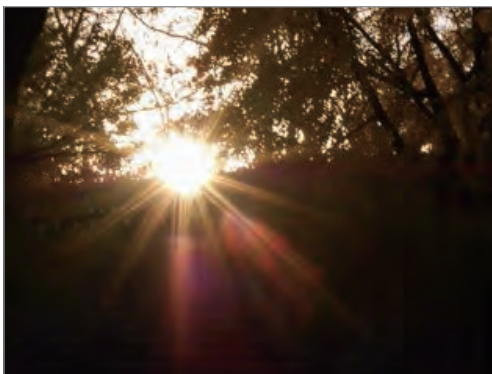
7 blades
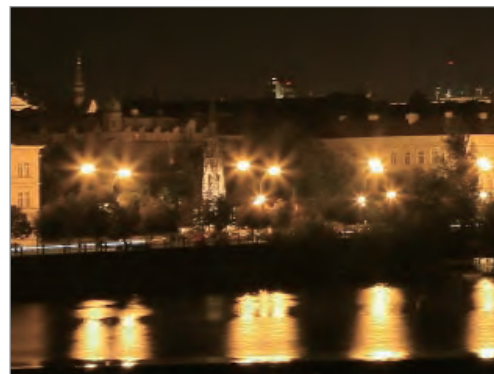
8 blades

Shutter speed

Shutter speed refers to the amount of time it takes to open and close the shutter, and it is an important factor in the brightness of a photo, as it controls the amount of light which passes through the aperture before it reaches the image sensor.

Usually, the shutter speed is manually adjustable. The measurement of the shutter speed is the exposure value (EV), which is marked in intervals of 1 s, 1/2 s, 1/4 s, 1/8 s, 1/15 s, 1/1000 s, 1/2000 s, and so on.
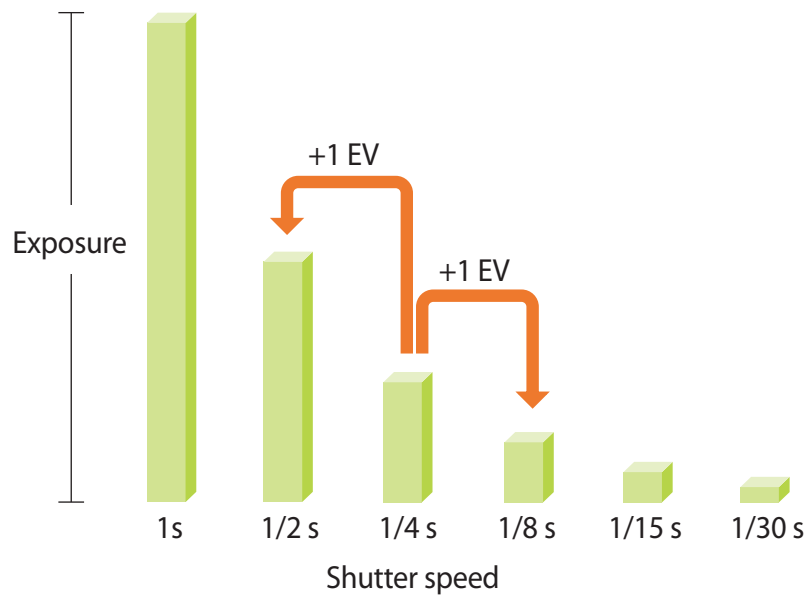
Therefore, the faster the shutter speed, the less light will be let in. Likewise, the slower the shutter speed, the more light will be let in.

As the photos below illustrate, a slow shutter speed allows more time to let light in, so the photo becomes brighter. On the other hand, a fast shutter speed allows less time to let light in and the photo becomes darker and more easily freezes subjects in motion.

| 0.8 s | 0.004 s |

ISO sensitivity

The exposure of an image is determined by the sensitivity of the camera. This sensitivity is based on international film standards, known as ISO standards. On digital cameras, this sensitivity rating is used to represent the sensitivity of the digital mechanism that captures the image.

ISO sensitivity doubles as the number doubles. For example, an ISO 200 setting is capable of taking photos at twice the speed of an ISO 100 setting. However, higher ISO settings can result in noise. As a general rule, it is best to use a low ISO setting to prevent noise in your photos, unless you are shooting in darkened environments or at night.
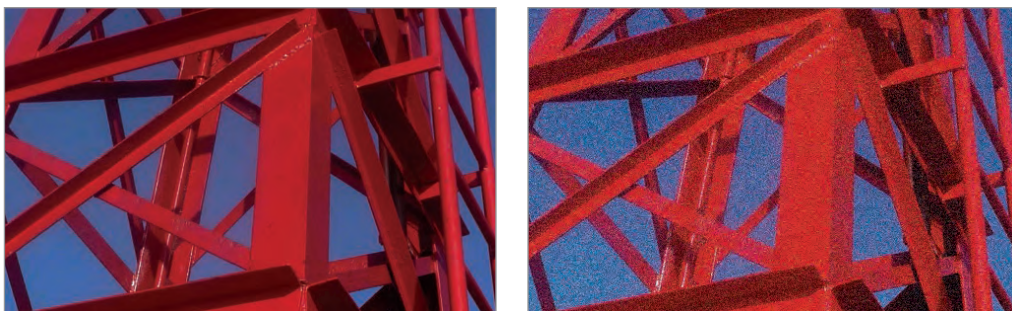
Changes in the quality and brightness according to ISO sensitivity

Because a low ISO sensitivity means the camera will be less sensitive to light, you need more light to have an optimal exposure. When using a low ISO sensitivity, open the aperture more or reduce the shutter speed to allow more light to enter the camera. For example, on a sunny day when light is abundant, a low ISO sensitivity does not require a slow shutter speed. However, in a dark place or at night, a low ISO sensitivity and a slow shutter speed will result in a blurry photo.

A photo taken with a tripod and high ISO sensitivity

A blurred photo with a low ISO sensitivity

How the aperture setting, shutter speed, and ISO sensitivity control exposure

The aperture setting, shutter speed, and ISO sensitivity are closely interconnected in photography. The aperture setting controls the opening that regulates the light that enters the camera, while the shutter speed determines the length of time that light is allowed to enter. ISO sensitivity determines the speed at which the film reacts to light. Together, these three aspects are described as the triangle of exposure.

A change in shutter speed, aperture value, or ISO sensitivity can be offset by adjustments to the others to maintain the amount of light. The results, however, change according to the settings. For example, shutter speed is useful in expressing movement, the aperture can control the depth of field, and the ISO sensitivity can control the graininess of a photo.

Aperture value

Setting	Result
Wide aperture = more light Narrow aperture = less light	Wide = small depth of field Narrow = large depth of field

Shutter speed

Setting	Result
Fast speed = less light Slow speed = more light	 Fast = still Slow = blurry

ISO sensitivity

Setting	Result
High sensitivity = more sensitive to light Low sensitivity = less sensitive to light	 High = more grainy Low = less grainy

Correlation between focal length, angle, and perspective

Focal length, which is measured in millimetres, is the distance between the middle of the lens to its focal point. It affects the angle and perspective of taken photos. A short focal length translates into a wide angle, which allows you to take wide shots. A long focal length translates into a narrow angle, which allows you to take telephoto shots.

Short focal length
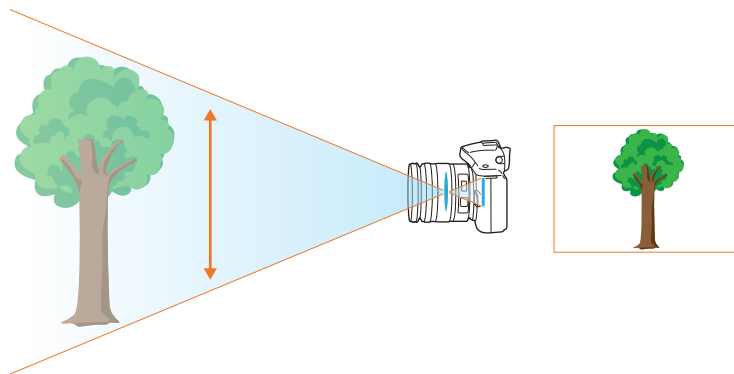
Long focal length
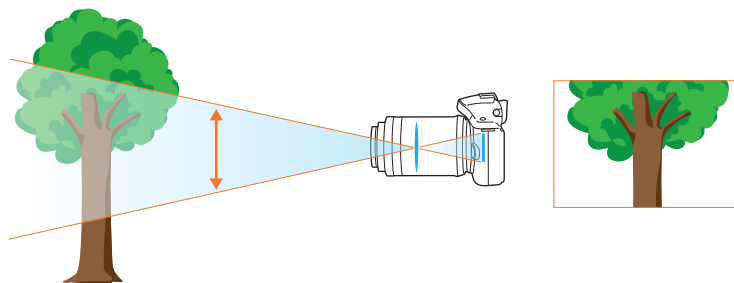
Look at these photos below and compare the changes.

| 20 mm angle | 50 mm angle | 200 mm angle |

> Normally, a lens with a wide angle is suitable for shooting landscapes and a lens with a narrow angle is recommended for shooting sports events or portraits.

Depth of field

Portraits or still-life photos mostly acclaimed by people are the ones on which the background is out of focus so the subject looks pronounced. Depending on the focused areas, a photo can be blurred or sharpened. This is called 'a low DOF' or 'a high DOF'.

The depth of field is the focused area around the subject. Therefore, a small DOF signifies that the focused area is narrow and a large DOF means the focused area is wide.

A photo with a small DOF, which stresses the subject and makes the rest of it blurred, can be obtained by using a telescope lens or selecting a low aperture value. Conversely, a photo with a large DOF which shows all the elements on the photo sharply focused can be achieved by using a wide angle lens or selecting a high aperture value.

Small depth of field   Large depth of field

What controls out-of-focus effects?

DOF depends on aperture value

The wider the aperture is (namely the lower the aperture value), the lower the DOF becomes. Under the condition where the other values including the shutter speed and ISO sensitivity are equal, a low aperture value leads to a photo with a low DOF.

50 mm F5.7   50 mm F22

DOF depends on focal length

The longer the focal length is, the lower the DOF gets. A telescope lens with a longer focal length than a telescope lens with a short focal length is better to take a photo of a low DOF.

A photo taken with a
20 mm telescope lens

A photo taken with a
100 mm telescope lens

DOF depends on the distance between the subject and the camera

The shorter the distance between the subject and the camera is, the lower the DOF gets. Therefore, taking a photo close to a subject can result in a photo of low DOF.

A photo taken with a 100 mm
telescope lens

A photo taken close to the
subject

Composition

It is fun to take a photo of the beauty of world with a camera. No matter how the world is beautiful, however, a poor composition cannot capture the beauty of it.

When it comes to composition, it is very important to prioritise subjects.

Composition in photography means arranging objects in a photo. Usually, abiding by the rule of thirds leads to a good composition.

Rule of thirds

To use the rule of thirds, divide the image into a 3x3 pattern of equal rectangles.
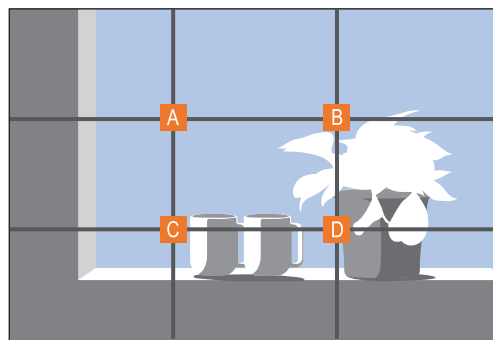
To compose photos that best emphasise the subject, make sure the subject is located at one of the corners of the centre rectangle.

Using the rule of thirds will create photos with stable and compelling compositions. Below are a few examples.
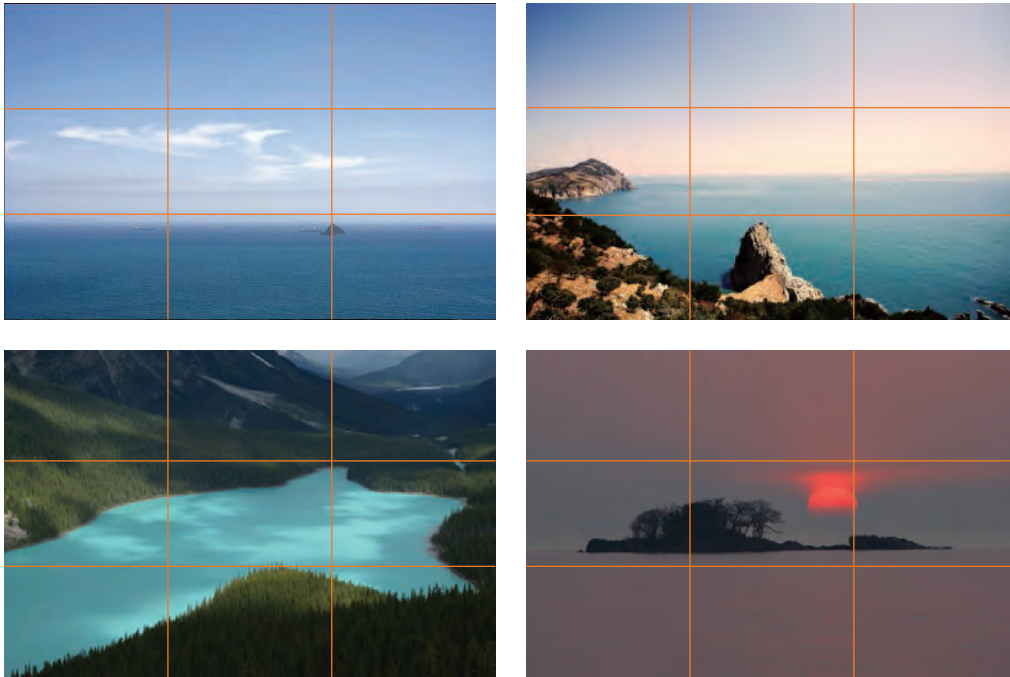
Photos with two subjects

If your subject is in one corner of the photo, it creates an unbalanced composition. You can stabilise the photo by capturing a second subject in the opposite corner to balance the weight of the photo.

Unstable   Stable

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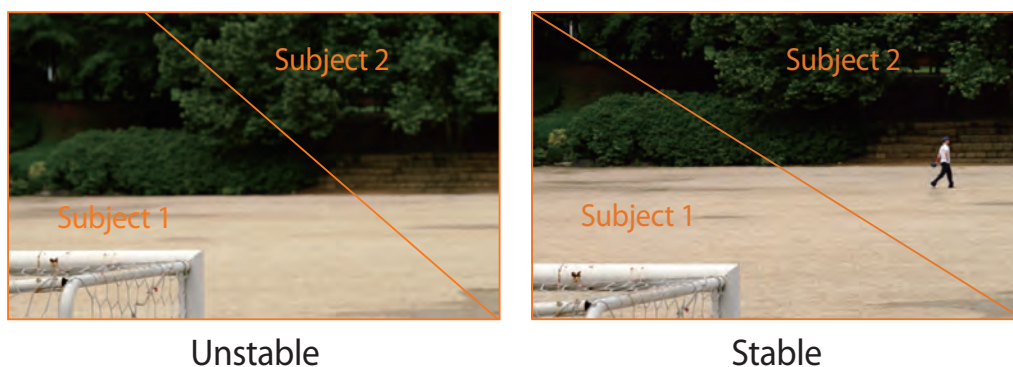
When taking landscape photos, centring the horizon will create an unbalanced effect. Give more weight to the photo by moving the horizon up or down.

| Unstable | Stable |

Flash

Light is one of the most important components in photography. It's not easy, however, to have an enough amount of light anytime and anywhere. Making use of a flash allows you to optimise light settings and create a variety of effects.

Flash, also known as strobe or speed light, helps to create adequate exposure in low-light conditions. It is also useful in light-abundant situations. For example, flash can be used in compensating the exposure of a subject's shadow or capturing clearly both the subject and the background in backlit conditions.

| Before correction | After correction |

Flash guide number

The model number of a flash refers to the flash's power, and the maximum amount of light created is represented by a value known as a guide number. The bigger the guide number, the more light is emitted from the flash. The guide number is achieved by multiplying the distance from the flash to the subject and the aperture value when the ISO sensitivity is set to 100.

Guide number = Flash to Subject Distance X Aperture value

Aperture value = Guide number / Flash to Subject Distance

Flash to Subject Distance = Guide number / Aperture value

Therefore, if you know the guide number of a flash, you can estimate an optimum flash to subject distance when setting the flash manually. For example, if a flash has a guide number of GN 20 and is 4 metres away from the subject, the optimal aperture value is F5.0.

Bounce photography

Bounce photography refers to the method of bouncing light off of the ceiling or walls so that the light spreads evenly over the subject. Normally, photos taken with flash may appear unnatural and cast shadows. Subjects in photos taken with bounce photography cast no shadows and look smooth due to evenly spread light.

Some content may differ from your device depending on the region, service provider, or software version, and is subject to change without prior notice.

Safety information

This safety information contains content for mobile devices. Some content may be not applicable to your device. To prevent injury to yourself and others or damage to your device, read the safety information about your device before using the device.

⚠ **Warning**

Failure to comply with safety warnings and regulations can cause serious injury or death

Do not use damaged power cords or plugs, or loose electrical sockets

Unsecured connections can cause electric shock or fire.

Do not touch the power cord with wet hands or disconnect the charger by pulling the cord

Doing so may result in electrocution.

Do not bend or damage the power cord

Doing so may cause electric shock or fire.

Do not use your device while it is charging or touch your device with wet hands

Doing so may cause electric shock.

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Do not short-circuit the charger or the device

Doing so may cause electric shock or fire, or the battery may malfunction or explode.

Do not use your device outdoor during a thunderstorm

Doing so may result in electric shock or device malfunction.

Use manufacturer-approved batteries, chargers, accessories, and supplies

- Using generic batteries or chargers may shorten the life of your device or cause the device to malfunction. They may also cause a fire or cause the battery to explode.
- Use only Samsung-approved battery and charger specifically designed for your device. Incompatible battery and charger can cause serious injuries or damage to your device.
- Samsung cannot be responsible for the user's safety when using accessories or supplies that are not approved by Samsung.
- When HDMI feature is used, it is necessary to use an appropriate HDMI cable which is available on the market and which contains a ferrite core.

Do not drop or cause an impact to the charger or the device

Handle and dispose of the device and charger with care

- Never dispose of the battery or device in a fire. Never place the battery or device on or in heating devices, such as microwave ovens, stoves, or radiators. The device may explode when overheated. Follow all local regulations when disposing of used battery or device.

- Never crush or puncture the device.
- Avoid exposing the device to high external pressure, which can lead to an internal short circuit and overheating.

Protect the device, battery and charger from damage

- Avoid exposing your device and battery to very cold or very hot temperatures.
- Extreme temperatures can damage the device and reduce the charging capacity and life of your device and battery.
- Prevent the battery from coming into contact with metal objects, as this can create a connection between the + and – terminals of your battery and lead to temporary or permanent battery damage.
- Never use a damaged charger or battery.

Do not store your device near or in heaters, microwaves, hot cooking equipment, or high pressure containers

- The battery may leak.
- Your device may overheat and cause a fire.

Do not use or store your device in areas with high concentrations of dust or airborne materials

Dust or foreign materials can cause your device to malfunction and may result in fire or electric shock.

Do not bite or suck the device or the battery

- Doing so may damage the device or result in an explosion or fire.

- Children or animals can choke on small parts.
- If children use the device, make sure that they use the device properly.

Do not insert the device or supplied accessories into the eyes, ears, or mouth

Doing so may cause suffocation or serious injuries.

Do not handle a damaged or leaking Lithium Ion (Li-Ion) battery

For safe disposal of your Li-Ion battery, contact your nearest authorised service centre.

⚠ **Caution**

Failure to comply with safety cautions and regulations can cause injury or property damage

Do not use your device near other electronic devices

- Most electronic devices use radio frequency signals. Your device may interfere with other electronic devices.
- Using an LTE data connection may cause interference with other devices, such as audio equipment and telephones.

Do not use your device in a hospital, on an aircraft, or in an automotive equipment that can be interfered with by radio frequency

- Avoid using your device within a 15 cm range of a pacemaker, if possible, as your device can interfere with the pacemaker.
- To minimise possible interference with a pacemaker, use your device only on the side of your body that is opposite the pacemaker.
- If you use medical equipment, contact the equipment manufacturer before using your device to determine whether or not the equipment will be affected by radio frequencies emitted by the device.
- On an aircraft, using electronic devices can interfere with the aircraft's electronic navigational instruments. Make sure the device is turned off during takeoff and landing. After takeoff, you can use the device in flight mode if allowed by aircraft personnel.
- Electronic devices in your car may malfunction, due to radio interference from your device. Contact the manufacturer for more information.

Do not expose the device to heavy smoke or fumes

Doing so may damage the outside of the device or cause it to malfunction.

If you use a hearing aid, contact the manufacturer for information about radio interference

The radio frequency emitted by your device may interfere with some hearing aids. Before using your device, contact the manufacturer to determine whether or not your hearing aid will be affected by radio frequencies emitted by the device.

Do not use your device near devices or apparatuses that emit radio frequencies, such as sound systems or radio towers

Radio frequencies may cause your device to malfunction.

Turn off the device in potentially explosive environments

- Turn off your device in potentially explosive environments instead of removing the battery.
- Always comply with regulations, instructions and signs in potentially explosive environments.
- Do not use your device at refuelling points (petrol stations), near fuels or chemicals, or in blasting areas.
- Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the device, its parts, or accessories.

If you notice strange smells or sounds coming from your device or the battery, or if you see smoke or liquids leaking from the device or battery, stop using the device immediately and take it to a Samsung Service Centre

Failure to do so may result in fire or explosion.

Comply with all safety warnings and regulations regarding mobile device usage while operating a vehicle

While driving, safely operating the vehicle is your first responsibility. Never use your mobile device while driving, if it is prohibited by law. For your safety and the safety of others, use your common sense and remember the following tips:

- Get to know your device and its convenience features, such as speed dial and redial. These features help you reduce the time needed to place or receive calls on your mobile device.
- Position your device within easy reach. Make sure you can access your wireless device without taking your eyes off the road. If you receive an incoming call at an inconvenient time, let your voicemail answer it for you.
- Suspend calls in heavy traffic or hazardous weather conditions. Rain, sleet, snow, ice, and heavy traffic can be hazardous.
- Do not take notes or look up phone numbers. Jotting down a "to do" list or flipping through your address book takes attention away from your primary responsibility of driving safely.
- Dial sensibly and assess the traffic. Place calls when you are not moving or before pulling into traffic. Try to plan calls when your car will be stationary.
- Do not engage in stressful or emotional conversations that may be distracting. Make the person you are talking to aware that you are driving and suspend conversations that could potentially divert your attention from the road.

Care and use your mobile device properly

Keep your device dry

- Humidity and liquids may damage the parts or electronic circuits in your device.
- Do not turn on your device if it is wet. If your device is already on, turn it off and remove the battery immediately (if the device will not turn off or you cannot remove the battery, leave it as-is). Then, dry the device with a towel and take it to a service centre.
- Liquids will change the colour of the label that indicates water damage inside the device. Water damage to your device can void your manufacturer's warranty.

Store your device only on flat surfaces

If your device falls, it may be damaged.

Do not store your device in very hot or very cold areas. It is recommended to use your device at temperatures from 5 °C to 35 °C

- Do not store your device in very hot areas such as inside a car in the summertime. Doing so may cause the screen to malfunction, result in damage to the device, or cause the battery to explode.
- Do not expose your device to direct sunlight for extended periods of time (on the dashboard of a car, for example).
- Store the battery at temperatures from 0 °C to 45 °C.

Do not store your device with metal objects, such as coins, keys, and necklaces

- Your device may be scratched or may malfunction.
- If the battery terminals come into contact with metal objects, this may cause a fire.

Do not store your device near magnetic fields

- Your device may malfunction or the battery may discharge from exposure to magnetic fields.
- Magnetic stripe cards, including credit cards, phone cards, passbooks, and boarding passes, may be damaged by magnetic fields.

Do not use your device or applications for a while if the device is overheated

Prolonged exposure of your skin to an overheated device may cause low temperature burn symptoms, such as red spots and pigmentation.

Do not use your device with the back cover removed

The battery may fall out of the device, which may result in damage or malfunction.

If your device has a camera flash or light, do not use it close to the eyes of people or pets

Using a flash close to the eyes may cause temporary loss of vision or damage to the eyes.

Use caution when exposed to flashing lights

- 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 Flash-based games for extended periods. If you feel any discomfort, stop using the device immediately.
- If anyone related to you has experienced seizures or blackouts while using a similar device, consult a physician before using the device.
- If you feel discomfort, such as a muscle spasm, or disoriented, stop using the device immediately and consult a physician.
- To prevent eye strain, take frequent breaks while using the device.

Reduce the 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 using the device and consult a physician.

Protect your hearing and ears when using a headset

- Excessive exposure to loud sounds can cause hearing damage.
- Exposure to loud sounds while walking may distract your attention and cause an accident.
- Always turn the volume down before plugging the earphones into an audio source and use only the minimum volume setting necessary to hear your conversation or music.
- In dry environments, static electricity can build up in the headset. Avoid using headsets in dry environments or touch a metal object to discharge static electricity before connecting a headset to the device.
- Do not use a headset while driving or riding. Doing so may distract your attention and cause an accident, or may be illegal depending on your region.

Use caution when using the device while walking or moving

- Always be aware of your surroundings to avoid injury to yourself or others.
- Make sure the headset cable does not become entangled in your arms or on nearby objects.

Do not carry your device in your back pockets or around your waist

You could be injured or damage the device if you fall.

Do not paint or put stickers on your device

- Paint and stickers can clog moving parts and prevent proper operation.
- If you are allergic to paint or metal parts of the device, you may experience itching, eczema, or swelling of the skin. When this happens, stop using the device and consult your physician.

Do not use the device if it is cracked or broken

Broken glass or acrylic could cause injury to your hands and face. Take the device to a Samsung Service Centre to have it repaired.

Install mobile devices and equipment with caution

- Ensure that any mobile devices or related equipment installed in your vehicle are securely mounted.
- Avoid placing your device and accessories near or in an airbag deployment area. Improperly installed wireless equipment can cause serious injury when airbags inflate rapidly.

Do not drop your device or cause impacts to your device

- Your device may be damaged or may malfunction.
- If bent or deformed, your device may be damaged or parts may malfunction.

Ensure maximum battery and charger life

- Avoid charging your device for more than a week, as overcharging may shorten battery life.

- Over time, unused device will discharge and must be recharged before use.
- Disconnect the charger from power sources when not in use.
- Use the battery only for their intended purposes.
- Leaving batteries unused over time may reduce their lifespan and performance. It may also cause the batteries to malfunction or explode, or cause a fire.
- Follow all instructions in this manual to ensure the longest lifespan of your device and battery. Damages or poor performance caused by failure to follow warnings and instructions can void your manufacturer's warranty.
- Your device may wear out over time. Some parts and repairs are covered by the warranty within the validity period, but damages or deterioration caused by using unapproved accessories are not.

Do not disassemble, modify, or repair your device

- Any changes or modifications to your device can void your manufacturer's warranty. If your device needs servicing, take your device to a Samsung Service Centre.
- Do not disassemble or puncture the battery, as this can cause explosion or fire.
- Turn off the device before removing the battery. If you remove the battery with the device turned on, it may cause the device to malfunction.

When cleaning your device, mind the following

- Wipe your device or charger with a towel or an eraser.
- Clean the battery terminals with a cotton ball or a towel.
- Do not use chemicals or detergents. Doing so may discolour or corrode the outside the device or may result in electric shock or fire.

Do not use the device for anything other than its intended use

Your device may malfunction.

Avoid disturbing others when using the device in public

Allow only qualified personnel to service your device

Allowing unqualified personnel to service your device may result in damage to your device and will void your manufacturer's warranty.

Handle SIM cards, memory cards, or cables with care

- When inserting a card or connecting a cable to your device, make sure that the card is inserted or the cable is connected to the proper side.
- Do not remove a card while the device is transferring or accessing information, as this could result in loss of data and/or damage to the card or device.
- Protect cards from strong shocks, static electricity, and electrical noise from other devices.

- Do not touch gold-coloured contacts or terminals with your fingers or metal objects. If dirty, wipe the card with a soft cloth.
- Inserting a card or connecting a cable by force or improperly may result in damage to the multipurpose jack or other parts of the device.

Ensure access to emergency services

Emergency calls from your device may not be possible in some areas or circumstances. Before travelling in remote or undeveloped areas, plan an alternative method of contacting emergency services personnel.

Protect your personal data and prevent leakage or misuse of sensitive information

- While using your device, be sure to back up important data. Samsung is not responsible for the loss of any data.
- When disposing of your device, back up all data and then reset your device to prevent misuse of your personal information.
- Carefully read the permissions screen when downloading applications. Be particularly cautious with applications that have access to many functions or to a significant amount of your personal information.

- Check your accounts regularly for unapproved or suspicious use. If you find any sign of misuse of your personal information, contact your service provider to delete or change your account information.
- In the event your device is lost or stolen, change the passwords on your accounts to protect your personal information.
- Avoid using applications from unknown sources and lock your device with a pattern, password, or PIN.

Do not distribute copyright-protected material

Do not distribute copyright-protected material without the permission of the content owners. Doing this may violate copyright laws. The manufacturer is not liable for any legal issues caused by the user's illegal use of copyrighted material.

Malware and viruses

To protect your device from malware and viruses, follow these usage tips. Failure to do so may result in damages or loss of data that may not be covered by the warranty service

- Do not download unknown applications.
- Do not visit untrusted websites.

- Delete suspicious messages or email from unknown senders.
- Set a password and change it regularly.
- Deactivate wireless features, such as Bluetooth, when not in use.
- If the device behaves abnormally, run an antivirus program to check for infection.
- Run an antivirus program on your device before you launch newly-downloaded applications and files.
- Install antivirus programs on your computer and run them regularly to check for infection.
- Do not edit registry settings or modify the device's operating system.

Specific Absorption Rate (SAR) certification information

THIS DEVICE MEETS INTERNATIONAL GUIDELINES FOR EXPOSURE TO RADIO WAVES

Your mobile imaging device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by an independent scientific organisation (ICNIRP) and include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The radio wave exposure guidelines use a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit for mobile imaging devices is 1.6 W/kg. Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The highest SAR values under the ICNIRP guidelines for this device model are:

During use, the actual SAR values for this device are usually well below the values stated above. This is because, for purposes of system efficiency and to minimise interference on the network, the operating power of your mobile imaging device is automatically decreased when full power is not needed for the call. The lower the power output of the device, the lower its SAR value.

FCC Notice and Cautions
FCC Notice

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.

- 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.

The Camera may cause TV or radio interference if used in close proximity to receiving
equipment. The FCC can require you to stop using the Camera 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, One Battery march Park, Quincy, MA 02269, Attn: Publication Sales Division.

Cautions
Changes or modifications made in the radio Camera, not expressly approved by Samsung, will void the user's authority to operate the equipment.
The use of any unauthorized accessories may be dangerous and void the Camera warranty if said accessories cause damage or a defect to the Camera.
Although your Camera 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 Camera or install the Camera in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty applicable to the device.
- Check regularly that all wireless Camera equipment in your vehicle is mounted and operating properly.
- Do not store or carry flammable liquids, gases or explosive materials in the

same compartment as the Camera, 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 both installed or portable wireless equipment 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 Camera off before boarding an aircraft. The use of wireless Camera in aircraft is illegal and may be dangerous to the aircraft's operation.
- Failure to observe these instructions may lead to the suspension or denial of telephone services to the offender, or legal action, or both.
- This device is capable of operating in Wi-Fi mode in the 2.4 and 5 GHz bands.   The FCC requires that devices operating within 5.15-5.25 GHz may only be used indoors, not outside, in order to avoid interference with MobileSatellite Services (MSS).

Product Performance
Getting the Most Out of Your Signal Reception
The quality of each call you make or receive depends on the signal strength in your area. Your Camera informs you of the current signal strength by displaying a number of bars next to the signal strength icon. The more bars displayed, the stronger the signal.
If you're inside a building, being near a window may give you better reception.
Understanding the Power Save Feature
If your Camera is unable to find a signal after 15 minutes of searching, a Power Save feature is automatically activated. If your Camera is active, it periodically rechecks service availability or you can check it yourself by pressing any key.
Anytime the Power Save feature is activated, a message displays on the screen. When a signal is found, your Camera returns to standby mode.
Maintaining Your Camera's Peak Performance

For the best care of your Camera, only authorized personnel should service your Camera and accessories. Faulty service may void the warranty.
There are several simple guidelines to operating your Camera properly and maintaining safe, satisfactory service.
- Do not tamper or alter the Camera's antenna.
- Don't use the Camera if the antenna is damaged.
- Avoid exposing your Camera and accessories to rain or liquid spills. If your Camera does get wet, immediately turn the power off and remove the battery. If it is inoperable, call Customer Care for service.
Availability of Various Features/Ring Tones
Many services and features are network dependent and may require additional subscription and/or usage charges. Not all features are available for purchase or use in all areas. Downloadable Ring Tones may be available at an additional cost. Other conditions and restrictions may apply. See your service provider for additional information.

Health and safety information

Exposure to Radio Frequency (RF) Signals

Certification Information (SAR)

Your 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 exposure limits are derived from the recommendations of two expert organizations, the National Counsel 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 exposure limit set by the FCC for wireless mobile device 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). The FCC exposure 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 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 device while operating can be well below the maximum value. This is because the 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.

Before a new device is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC. Tests for each model device are performed in positions and locations as required by the FCC.

For hand held operation, this device has been tested and meets the FCC RF exposure guidelines.

Non-compliance with the above restrictions may result in violation of FCC RF exposure guidelines.

SAR information on this and other models can be viewed on-line at http://www.fcc.gov/oet/ea/fccid/. Please use the device FCC ID number for search, A3LEKGN120. Once you have the FCC ID number for a particular device, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular device. Additional product specific SAR information can also be obtained on the website.

Organisations such as the World Health Organisation and the US Food and Drug Administration have suggested that if people are concerned and want to reduce their exposure, they could use a hands-free accessory to keep the wireless device away from the face and body during use, or reduce the amount of time spent using the device. For more information, visit *www.samsung.com/sar* and search for your device with the model number.

Correct disposal of this product

(Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

This EEE is compliant with RoHS.

Correct disposal of batteries in this product

(Applicable in countries with separate collection systems)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

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