

This user manual includes detailed usage instructions for your camera. Please read this manual thoroughly.

 *Click a topic*

Common questions

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Health and safety information

Always comply with the following precautions and usage tips to avoid dangerous situations and ensure peak performance of your camera.



Warning—situations that could cause injury to yourself or others



Caution—situations that could cause damage to your camera or other equipment



Note—notes, usage tips, or additional information



Safety warnings

Do not use your camera near flammable or explosive gases and liquids

Do not use your camera near fuels, combustibles, or flammable chemicals. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the camera or its accessories.

Keep your camera away from small children and pets

Keep your camera and all accessories out of the reach of small children and animals. Small parts may cause choking or serious injury if swallowed. Moving parts and accessories may present physical dangers as well.

Prevent damage to subjects' eyesight

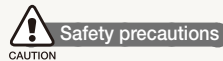
Do not use the flash in close proximity (closer than 1 m/3 ft) to people or animals. Using the flash too close to your subject's eyes can cause temporary or permanent damage.

Handle and dispose of batteries and chargers with care

- Use only Samsung-approved batteries and chargers. Incompatible batteries and chargers can cause serious injuries or damage to your camera.
- Never dispose of batteries in a fire. Follow all local regulations when disposing of used batteries.
- Never place batteries or cameras on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explode when overheated.
- Do not use a damaged power supply cord, plug, or loose outlet when charging batteries. This may cause a fire or electric shock.

Avoid interference with pacemakers

Maintain a minimum of 15 cm (6 inches) between cameras and pacemakers to avoid potential interference, as recommended by manufacturers and the independent research group, Wireless Technology Research. If you have any reason to suspect that your camera is interfering with a pacemaker or other medical device, turn off the camera immediately and contact the manufacturer of the pacemaker or medical device for guidance.



Handle and store your camera carefully and sensibly

- Do not allow your camera to get wet—liquids can cause serious damage. Do not handle your camera with wet hands. Water damage to your camera can void your manufacturer's warranty.
- Do not expose the camera to direct sunlight or high temperatures for an extended period of time. Prolonged exposure to sunlight or extreme temperatures can cause permanent damage to your camera's internal components.
- Avoid using or storing your camera in dusty, dirty, humid, or poorly-ventilated areas to prevent damage to moving parts and internal components.
- Remove the batteries from your camera when storing it for an extended period of time. Installed batteries may leak or corrode over time and cause serious damage to your camera.
- Protect your camera from sand and dirt when using it on beaches or in other similar areas.
- Protect your camera and the display from impact, rough handling, and excessive vibration to avoid serious damage.
- Exercise caution when connecting cables or adapters and installing batteries and memory cards. Forcing the connectors, improperly connecting cables, or improperly installing batteries and memory cards can damage ports, connectors, and accessories.
- Do not insert foreign objects into any of your camera's compartments, slots, or access points. Damage due to improper use may not be covered by your warranty.

- Do not swing your camera by the strap. This may cause injury to yourself or others.
- Do not paint your camera, as paint can clog moving parts and prevent proper operation.
- Paint or metal on the outside of the camera may cause allergies, itchy skin, eczema, or swelling for people with sensitive skin. If you have experience any of these symptoms, stop using the camera immediately and consult a doctor.

Protect batteries, chargers, and memory cards from damage

- Avoid exposing batteries or memory cards to very cold or very hot temperatures (below 0° C/32° F or above 40° C/104° F). Extreme temperatures can reduce the charging capacity of your batteries and can cause memory cards to malfunction.
- Prevent batteries from making 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. Also, this may cause a fire or electric shock.
- Prevent memory cards from making contact with liquids, dirt, or foreign substances. If dirty, wipe the memory card clean with a soft cloth before inserting in your camera.
- Do not allow liquids, dirt, or foreign substances to come in contact with the memory card slot. Doing so may cause the camera to malfunction.
- Insert a memory card in the correct direction. Inserting a memory card in the wrong direction may damage your camera and memory card.

- Turn off the camera when inserting or removing the memory card.
- Do not bend, drop, or subject memory cards to heavy impact or pressure.
- Do not use memory cards that have been formatted by other cameras or by a computer. Reformat the memory card with your camera.
- Never use a damaged charger, battery, or memory card.
- When carrying a memory card, use a case to protect the card from electrostatic.
- Transfer important data to other media, such as a hard disk or CD/DVD.
- When using the camera for an extended period, the memory card may become warm; this is normal and not a malfunction.
- When the lifespan of a memory card has expired, you cannot store any more photos on the card. Use a new memory card.
- Do not remove the memory card or turn off your camera while the lamp is blinking, as this may damage your data.

Use only Samsung-approved accessories

Using incompatible accessories may damage your camera, cause injury, or void your warranty.

Protect your camera's lens

- Do not expose the lens to direct sunlight, as this may discolor the image sensor or cause it to malfunction.
- Protect your lens from fingerprints and scratches. Clean your lens with a soft, clean, debris-free lens cloth.

Follow all safety warnings and regulations

Comply with any regulations that restrict the use of a camera in a certain area.

Turn off the camera near medical equipment

Your camera can interfere with medical equipment in hospitals or health care facilities. Follow all regulations, posted warnings, and directions from medical personnel.

Turn off the camera when in an aircraft

Your camera can cause interference with aircraft equipment. Follow all airline regulations and turn off your camera when directed by airline personnel.

Avoid interference with other electronic devices

Your camera emits radio frequency (RF) signals that may interfere with unshielded or improperly shielded electronic equipment, such as pacemakers, hearing aids, medical devices, and other electronic devices in homes or vehicles. Consult the manufacturers of your electronic devices to solve any interference problems you experience.



Important usage information

Allow only qualified personnel to service your camera

Do not allow unqualified personnel to service the camera or attempt to service the camera yourself. Any damage that results from unqualified service is not covered by your warranty.

Ensure maximum battery and charger life

- Overcharging batteries may shorten battery life. After charging is finished, disconnect the cable from your camera.
- Over time, unused batteries will discharge and must be recharged before use.
- Disconnect chargers from power sources when not in use.
- Use batteries only for their intended purpose.

Exercise caution when using the camera in humid environments

When transferring the camera from a cold environment to a warm and humid one, condensation can form on the delicate electronic circuitry and memory card. In this situation, wait for at least 1 hour until all moisture has evaporated before using the camera.

Check that the camera is operating properly before use

The manufacturer takes no responsibility for any loss of files or damage that may result from camera malfunction or improper use.

Use your camera in the normal position

Avoid contact with your camera's internal antenna.

- Data transferred via WLAN could be leaked, so avoid transferring sensitive data in public areas or on open networks.
- The camera manufacturer is not liable for any data transfers that infringe on copyrights, trademarks, intellectual property laws, or public decency ordinances.

Copyright information

- Microsoft Windows and the Windows logo are registered trademarks of the Microsoft Corporation.
- Mac is a registered trademark of the Apple Corporation.
- Wi-Fi®, the Wi-Fi CERTIFIED logo, and the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance.

- Camera specifications or contents of this manual may be changed without prior notice due to upgrade of camera functions.
- We recommend using your camera within a country where you purchase it.
- For Open Source License information, refer to the "OpenSourceInfo.pdf" in the provided CD-ROM.

Organization of the user manual

Basic functions 13

Learn about your camera's layout, icons, and basic functions for shooting.

Extended functions 30

Learn how to take a photo by selecting a mode and how to record a video or voice memo.

Shooting options 40

Learn about the options you can set in Shooting mode.

Playback/Editing 64

Learn how to play back photos, videos, or voice memos and edit photos or videos. Also, learn how to connect your camera to your computer, photo printer or TV.

Wireless network 91

Learn to use several functions that use wireless local area networks (WLANs) feature.






Settings 106

Refer to options to configure your camera's settings.

Appendixes 112

Refer to error messages, specifications, and maintenance tips.

Indications used in this manual

Shooting mode	Indication
Smart Auto	
Auto	
Program	
Scene	SCENE
Smart Scene Detection	
Movie	

Shooting mode icons

These icons indicate that a function is available in the corresponding modes. The **SCENE** mode may not support functions for all scenes.

For example:

Adjusting the exposure manually (EV)

 Depending on the intensity of the ambient light, your photos may be too bright or dark. In these cases, you can adjust the exposure to get a better photo.









Darker (-)
Neutral (0)
Brighter (+)

Available in Program and Movie modes.

Icons used in this manual

Icon	Function
	Additional information
	Safety warnings and precautions
[]	Camera buttons; For example: [Shutter] represents the shutter button
()	Page number of related information
→	The order of options or menus you must select to perform a step; for example: Select ▶ →  (represents Select ▶ , and then )
*	Annotation

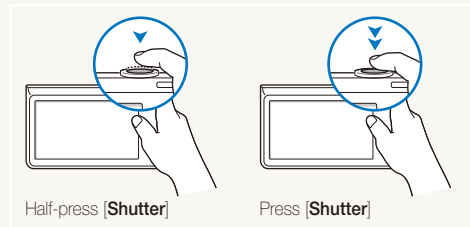
Abbreviations used in this manual

Abbreviation	Definition
ACB	Auto Contrast Balance
AEB	Auto Exposure Bracket
AF	Auto Focus
AP	Access Point
DIS	Digital Image Stabilization
DPOF	Digital Print Order Format
EV	Exposure Value
WB	White Balance

Expressions used in this manual

Pressing the shutter

- Half-press **[Shutter]**: press the shutter halfway down
- Press **[Shutter]**: press the shutter all the way down



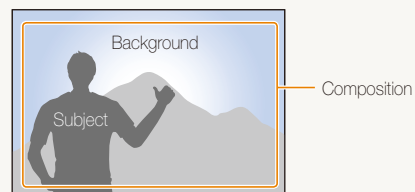
Exposure (Brightness)

The amount of light that enters your camera determines the exposure. You can alter the exposure with shutter speed, aperture value, and ISO speed. By altering the exposure, your photos will be darker or lighter.















Subject, background, and composition

- **Subject**: the main object of a scene, such as a person, animal, or still life
- **Background**: the objects around the subject
- **Composition**: the combination of a subject and background



Common questions

You can get answers to common questions. Solve problems easily by setting shooting options.

	<p>The subject's eyes appear red.</p>	<p>This is caused by a reflection from the camera flash.</p> <ul style="list-style-type: none"> • Set the flash option to  Red-eye or  Red-eye Fix. (p. 45) • If the photo has already been taken, select  Red-eye Fix in the edit menu. (p. 80)
	<p>Photos have dust spots.</p>	<p>Dust particles floating in the air may be captured in photos when you use the flash.</p> <ul style="list-style-type: none"> • Turn off the flash or avoid taking photos in a dusty place. • Set ISO speed options. (p. 46)
	<p>Photos are blurred.</p>	<p>This may be caused by taking photos in low light conditions or holding the camera incorrectly.</p> <ul style="list-style-type: none"> • Press [Shutter] halfway down to make sure the subject is focused. (p. 28)
	<p>Photos are blurred when shooting at night.</p>	<p>As the camera tries to let in more light, the shutter speed slows. This can make it difficult to steady the camera and may result in camera shake.</p> <ul style="list-style-type: none"> • Select  Night in SCENE mode. (p. 34) • Turn on the flash. (p. 45) • Set ISO speed options. (p. 46) • Use a tripod to prevent your camera from shaking.
	<p>Subjects come out too dark because of backlighting.</p>	<p>When the light source is behind the subject or when there is a high contrast between the light and dark areas, the subject may come out too dark.</p> <ul style="list-style-type: none"> • Avoid shooting in front of the sun. • Select  Backlight in SCENE mode. (p. 32) • Set the flash option to  Fill in. (p. 45) • Adjust the exposure. (p. 54) • Set the Auto Contrast Balance (ACB) option. (p. 55) • Set the metering option to  Spot if a bright subject is in the center of the frame. (p. 56)

Quick reference



Taking photos of people

- **SCENE** mode > Beauty Shot, Portrait, Children ▶ 32
- Red-eye, Red-eye Fix (to prevent or correct red-eye) ▶ 45
- Face Detection ▶ 50



Taking photos at night or in the dark

- **SCENE** mode > Night, Dawn, Fireworks ▶ 32
- Flash options ▶ 45
- ISO speed (to adjust the sensitivity to light) ▶ 46



Taking action photos

- Continuous, Motion Capture ▶ 59



Taking photos of text, insects, or flowers

- **SCENE** mode > Close Up, Text ▶ 32
- Macro, Auto Macro (to take close-up photos) ▶ 47
- White Balance (to change the color tone) ▶ 57



Adjusting the exposure (brightness)

- ISO speed (to adjust the sensitivity to light) ▶ 46
- EV (to adjust exposure) ▶ 54
- ACB (to compensate for subjects against bright backgrounds) ▶ 55
- Metering ▶ 56
- AEB (to take 3 photos of the same scene with different exposures) ▶ 59



Applying a different effect

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- Image adjustment (to adjust saturation, sharpness, or contrast) ▶ 62



Reducing camera shake

- Digital Image Stabilization (DIS) ▶ 27

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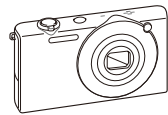
Basic functions

Learn about your camera's layout, icons, and basic functions for shooting.

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Unpacking

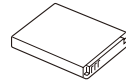
Check your product box for the following items.



Camera



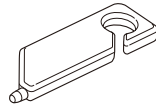
AC adapter/
USB cable



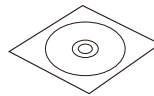
Rechargeable battery



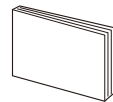
Strap



Touch pen



User Manual CD-ROM

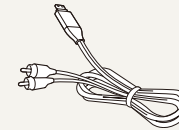


Quick Start Manual

Optional accessories



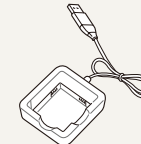
Camera case



AV cable



Memory card
(microSD™)



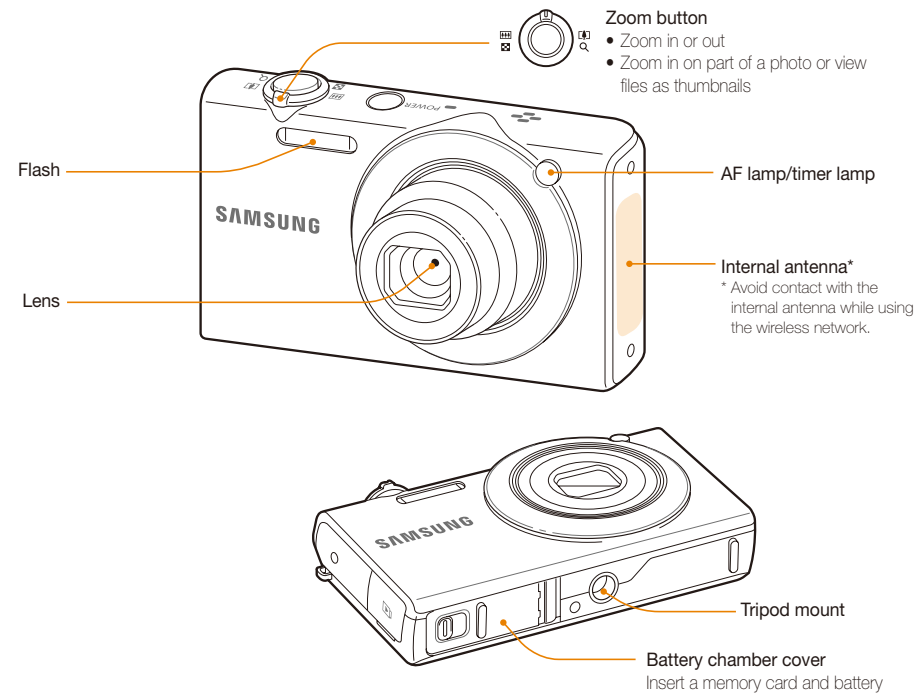
Battery charger

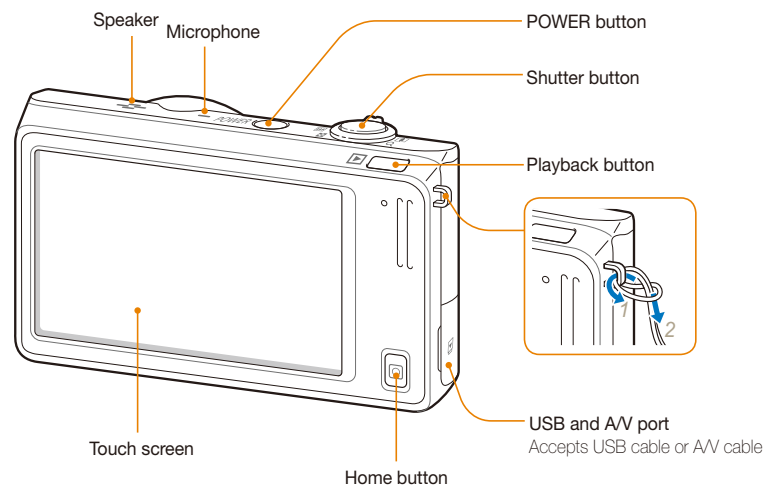


The illustrations may differ from your actual items.

Camera layout

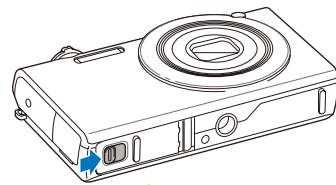
Before you start, familiarize yourself with your camera's parts and their functions.



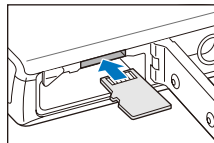


Inserting the battery and memory card

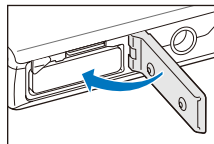
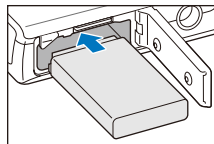
Learn to insert the battery and an optional memory card into the camera.



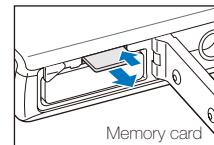
Insert a memory card with the gold-colored contacts facing up.



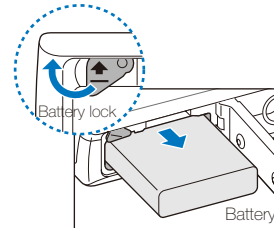
Insert the battery with the Samsung logo facing down.




Removing the battery and memory card



Push gently until the card disengages from the camera and then pull it out of the slot.



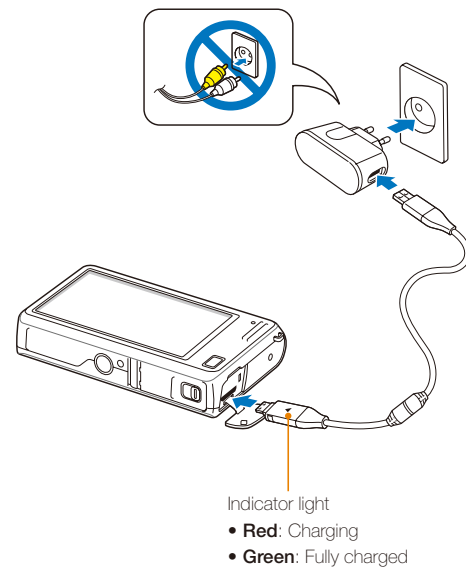
Push the lock up to release the battery.

 The internal memory can be used as a temporary storage device when the memory card is not inserted.

Charging the battery and turning your camera on

Charging the battery

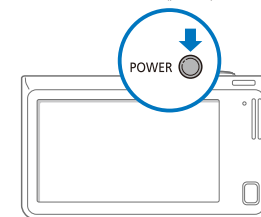
Before using the camera for the first time, you must charge the battery. Attach the USB cable to the AC adapter, and then plug the end of cable with the indicator light into your camera.



Turning on your camera

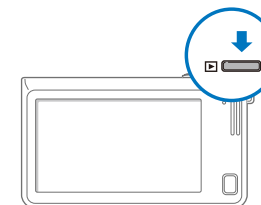
Press **[POWER]** to turn your camera on or off.

- The initial setup screen appears when you turn on the camera for the first time. (p. 19)



Turning on your camera in Playback mode

Press **[Playback]**. The camera turns on and accesses Playback mode immediately.



Performing the initial setup

When the initial setup screen appears, follow the steps below to configure the camera's basic settings.

- 1 Select **Language**.

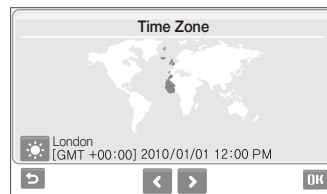


- 2 Select a language.

- 3 Select **Time Zone**.

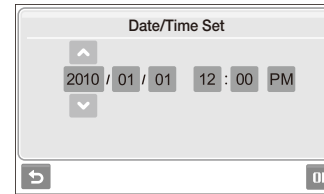
- 4 Select a time zone and select **OK**.

- To set the daylight-saving time, select .



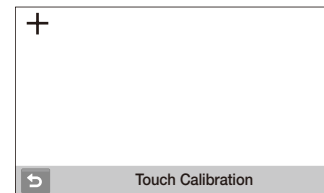
- 5 Select **Date/Time Set**.


- 6 Set the date and time, and select **OK**.



- 7 Select **Touch Calibration**.

- 8 Tap the target on the screen with your touch pen.

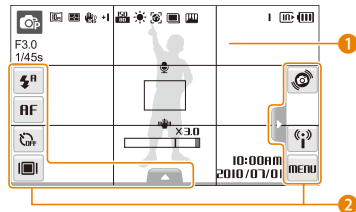


 Tap directly in the center of the target for optimal performance.

- 9 Select **OK** to switch to Shooting mode.

Learning icons

The icons displayed will change according to the mode you select or the options you set.



1 Status icons

Icon	Description
	Shooting mode
F3.0 1/45s	Aperture and shutter speed
	Photo resolution
	Video resolution
	Metering
	Digital Image Stabilization (DIS)
	Frame rate
	Exposure value
	ISO speed
	White balance
	Face detection
	Burst mode
	Image adjustment (sharpness, contrast, saturation)
	Photo styles

Icon	Description
	Smart filter effect
	Available number of photos
00:00:20	Available recording time
	Internal memory
	Memory card inserted
	<ul style="list-style-type: none"> : Fully charged : Partially charged : Charging needed
	Zoom ratio
	Voice memo
	Auto focus frame
	Camera shake
	Option set 1 (of 3)
10:00 AM 2010/07/01	Current date and time
	Grid lines

2 Option icons (touch)

Icon	Description
	Flash option
	Auto focus option
	Timer option
	Display type
	Touch screen lock

Icon	Description
	• : Motion recognition
	• : Network menus
	• MENU : Shooting options and settings menu
	Image setting options
	• : Exposure value
	• : White balance
	• : ISO speed
	• : Face tone
	• : Face retouch
	• : Focus area option
	• : Face detection option
	• : Photo resolution
	• : Video resolution
	• : Photo quality
	• : Frame rate
	• : Exposure with ACB
	• : Metering option
	• : Burst type
	• : Photo styles
	• : Smart filter effect
	• : Image adjustment (sharpness, contrast, saturation)
	• L.T. : Long time shutter
	• : Digital Image Stabilization (DIS)
	• : Audio recording
	• : Another row of options

Using the touch screen

Learn basic actions to use the touch screen. Use the supplied touch pen to touch or drag on the screen.



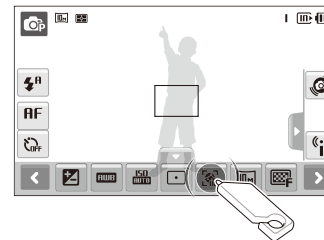
Do not use other sharp objects, such as pens or pencils, to touch the screen. Doing so may damage the screen.



- When you touch or drag on the screen, discolorations may occur. It is not a malfunction but a characteristic of the touch screen. Touch or drag lightly to reduce these effects.
- The touch screen may not recognize your touches correctly when:
 - you touch multiple items at the same time
 - you use the camera in high humidity environments
 - you use the camera with an LCD protection film or another LCD accessory
- If you touch the screen with your finger, the screen may not recognize your input.
- Depending on the viewing angle, the screen may appear darker. Adjust the brightness or angle.

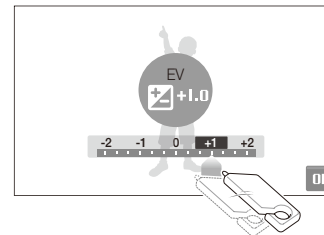
Touching

Touch an icon to select a menu or option.



Dragging

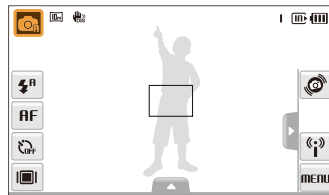
Drag left or right to scroll horizontally.



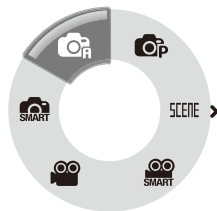
Selecting a shooting mode






Learn how to select a shooting mode. Your camera provides you with various modes for shooting.

- 1 Select the mode icon.




- 2 Select a mode.

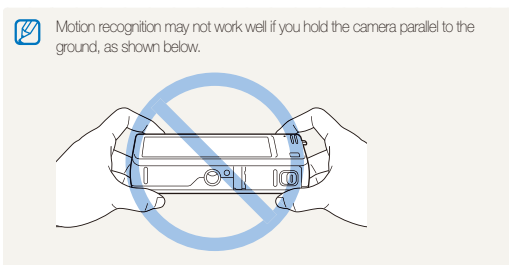


Mode	Description
	Smart Auto: Take a photo by letting the camera select a scene mode as it detects. (p. 31)
	Auto: Take a photo quickly and easily with minimal settings. (p. 25)
	Program: Take a photo by setting options. (p. 35)
SCENE	Scene: Take a photo with options preset for a specific scene. (p. 32)
	Smart Scene Detection: Record a video by letting the camera select a scene mode as it detects. (p. 37)
	Movie: Record a video. (p. 36)

Selecting a shooting mode using motion recognition

Your camera features a built-in motion sensor that allows you to quickly switch the shooting mode by tilting the camera.



In Shooting mode, tilt the camera while touching and holding .



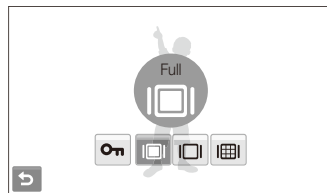
Setting the touch screen and sound







Learn how to change the basic settings for the touch screen and sound according to your preferences.



Setting the display type for the touch screen

1 In Shooting mode, select .
(In Playback mode, select .)

2 Select an option.




Option	Description
	Touch Lock: The touch screen is locked during shooting. (Tap and hold  until  reaches  to unlock the touch screen).
	Full: In Shooting mode, always display icons on the screen. In Playback mode, display icons and information.
	Basic: In Playback mode, always display icons on the screen.

Option	Description
	Hide: Hide icons on the screen if you perform no operations for 3 seconds (touch the screen to display icons again).
	Guide Line: Display grid lines. The grid lines are helpful for getting the photo aligned with a surface, such as the horizon or the edges of buildings. This option is available only in Shooting mode.

Setting the sound

Set whether your camera emits a specified sound when you operate your camera.

1 In Shooting or Playback mode, select **MENU**.

2 Select  → **Beep Sound**.


3 Select an option.

Option	Description
Off	The camera does not emit any sounds.
On	The camera emits sounds.

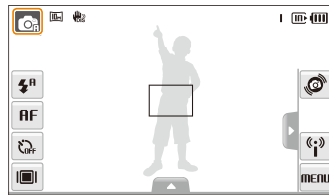
4 Select  to return to the previous mode.

Taking photos

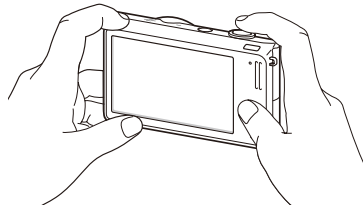
Learn basic actions to take photos easily and quickly in Auto mode.

- 1 Make sure that the camera is in  mode (Auto), the camera's default shooting mode.

- If not, select the mode icon → .

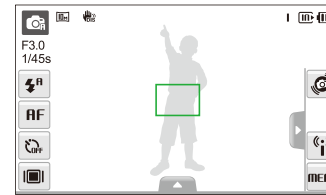


- 2 Align your subject in the frame.



- 3 Half-press **[Shutter]** to focus.

- A green frame means the subject in focus.
- A red frame means the subjects is out of focus.



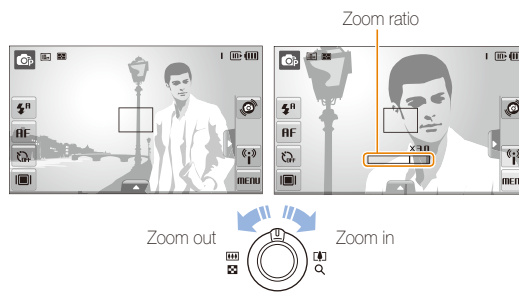
- 4 Press **[Shutter]** to take a photo.

 See page 28 for tips to get clearer photos.

Zooming

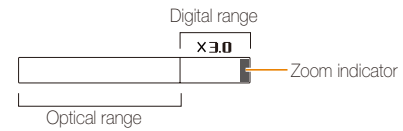
You can shoot close-up photos by adjusting the zoom. Your camera has a 3X optical zoom and 3X digital zoom. By using both, you can zoom in up to 9 times.

Rotate **[Zoom]** right to zoom in on your subject. Rotate **[Zoom]** left to zoom out.



Digital zoom

If the zoom indicator is in the digital range, your camera is using the digital zoom. The picture quality may deteriorate when you use the digital zoom.



- The digital zoom is not available when using **SCENE** (in some scenes), **SCENE**, and **SCENE** modes and when used with **Face Detection**, and **Smart Filter**.
- It may take longer to save a photo when using the digital zoom.

The zoom ratio available for videos differs.

Reducing camera shake (DIS)




Reduce camera shake digitally in Shooting mode.



Before correction



After correction

1 In Shooting mode, select  →  → .

2 Select an option.

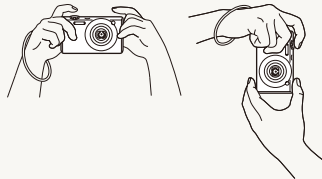
Option	Description
	Off: Deactivate the DIS function.
	On: Activate the DIS function.



- DIS may not function properly when:
 - you move your camera to follow a moving subject
 - you use digital zoom
 - there is too much camera shake
 - the shutter speed is slow (e.g., when you select **Night** in **SCENE** mode)
 - the battery is low
 - you take a close-up shot
- In some scene modes, the DIS function is unavailable.
- If the camera is impacted, the display will be blurry. In this case, turn off the camera and turn it on again to use the DIS function correctly.

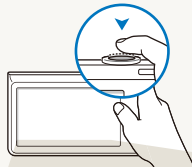
Tips for getting a clearer photo

Holding your camera correctly

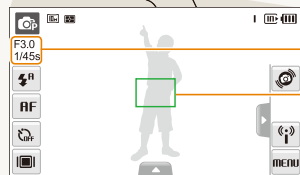


Make sure nothing is blocking the lens.

Half-pressing the shutter button



Half-press **[Shutter]** and adjust the focus. Focus and exposure will be adjusted automatically.



The aperture value and shutter speed are automatically set.

Focus frame

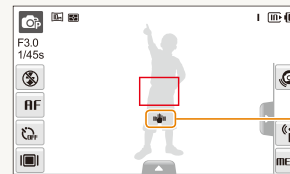
- Press **[Shutter]** to take the photo if displayed in green.
- Change the frame and half-press **[Shutter]** again if displayed in red.

Reducing camera shake



Set the Digital Image Stabilization option to reduce camera shake. (p. 27)

When is displayed



Camera shake

When shooting in the dark, avoid setting the flash option to **Slow Sync** or **Off**. The aperture remains open longer and it may be harder to hold the camera still.

- Use a tripod or set the flash option to **Fill in**. (p. 45)
- Set ISO speed options. (p. 46)

Preventing your subject from being out of focus

It may be difficult to get your subject in focus when:

- there is little contrast between the subject and background
(When your subject is wearing a color of clothing that is similar to the background)
- the light source behind the subject is too bright
- the subject is shiny
- the subject includes horizontal patterns, such as blinds
- the subject is not positioned in the center of the frame



Use the focus lock

Half-press **[Shutter]** to focus. When the subject is in focus, you can reposition the frame to change the composition. When you are ready, press **[Shutter]** to take your photo.

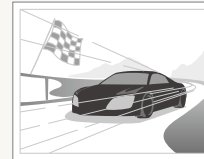


- When you take photos in low light



Turn on the flash.
(p. 45)

- When subjects are moving fast



Use the continuous
or motion capture
function. (p. 59)

Extended functions

Learn how to take a photo by selecting a mode and how to record a video or voice memo.

Shooting modes	31
Using the Smart Auto mode	31
Using the Scene mode	32
Using the Beauty Shot mode	33
Using the frame guide	34
Adjusting the exposure in the Night mode	34
Using the Program mode	35
Recording a video	36
Using the Smart Scene Detection mode	37
Recording voice memos	39
Recording a voice memo	39
Adding a voice memo to a photo	39

Shooting modes

Take photos or record videos by selecting the best shooting mode for the conditions.

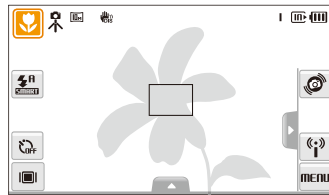
Using the Smart Auto mode




In this mode, your camera automatically chooses the appropriate camera settings based on a detected type of scene. The mode is helpful if you are not familiar with the camera settings for various scenes.

1 In Shooting mode, select  → .

2 Align your subject in the frame.

- The camera selects a scene automatically. An appropriate mode icon will appear at the top left of the screen.





Icon	Description
	Appears when taking photos of landscapes.
	Appears when taking photos of bright white backgrounds.
	Appears when taking photos of landscapes at night. This is available only when the flash is off.

Icon	Description
	Appears when taking portraits at night.
	Appears when taking photos of landscapes with backlighting.
	Appears when taking portraits with backlighting.
	Appears when taking portraits.
	Appears when taking close-up photos of objects.
	Appears when taking close-up photos of text.
	Appears when taking photos of sunsets.
	Appears when taking photos of clear skies.
	Appears when taking photos of forested areas.
	Appears when taking close-up photos of colorful subjects.
	Appears when taking close-up portraits of people.
	Appears when the camera and subject are stable for a while. This is available only when you are shooting in the dark.
	Appears when taking photos of actively moving subjects.
	Appears when taking photos of fireworks. This is available only when you use a tripod.

3 Half-press **[Shutter]** to focus.

4 Press **[Shutter]** to take the photo.

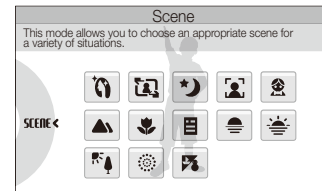
- If the camera does not recognize a proper scene mode,  will not change and the default settings will be used.
- Even if there is a face detected, the camera may not select a portrait mode depending on the subject's position or lighting.
- The camera may not select the correct scene depending on shooting environments, such as camera shake, lighting and distance to the subject.
- Even if you use a tripod,  mode may not be detected depending on the subject's movement.

Using the Scene mode

Take a photo with options preset for a specific scene.

1 In Shooting mode, select  → **SCENE**.

2 Select a scene.



- For the Beauty Shot mode, see "Using the Beauty Shot mode" on page 33.
- For the Frame Guide mode, see "Using the frame guide" on page 34.
- For the Night mode, see "Adjusting the exposure in the Night mode" on page 34.

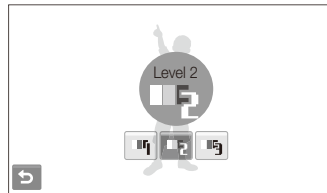
3 Align your subject in the frame and half-press **[Shutter]** to focus.

4 Press **[Shutter]** to take the photo.

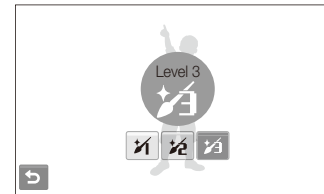
Using the Beauty Shot mode

Take a photo of a person with options to hide facial imperfections.

- 1 In Shooting mode, select → **SCENE** → .
- 2 To make the subject's skin tone appear lighter (face only), select → → an option.
 - Select a higher setting to make skin tone appear lighter.



- 3 To hide facial imperfections, select → an option.
 - Select a higher setting to hide a greater number of imperfections.



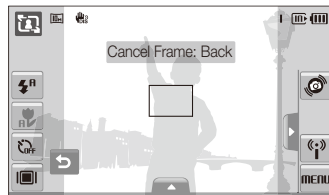
- 4 Align your subject in the frame and half-press [**Shutter**] to focus.
- 5 Press [**Shutter**] to take the photo.

The focus distance will be set to **Auto Macro**.

Using the frame guide

When you want another person to take a photo of you, you can compose the scene with the frame guide feature. The frame guide will help the other person take a photo of you by showing the part of the pre-composed scene.

- 1 In Shooting mode, select → **SCENE** → .
- 2 Align your subject in the frame and press **[Shutter]**.
 - Transparent guides will appear on the left and right of the frame.

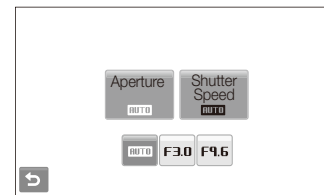


- 3 Ask another person to take a photo.
 - The person must align the subject in the frame by using the guides, and then press **[Shutter]** to take the photo.
- 4 To cancel the guide, select .

Adjusting the exposure in the Night mode

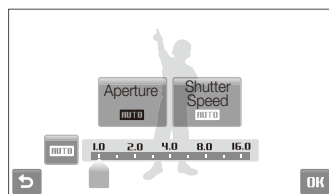
In Night mode, you can catch brief flashes of light as curved streaks by extending the exposure. Use a slow shutter speed to extend the time until the shutter closes. Increase the aperture value to prevent overexposure.

- 1 In Shooting mode, select → **SCENE** → .
- 2 Select → **LT** → **Aperture**.



- 3 Select an option.

4 Select **L T** → **Shutter Speed**.





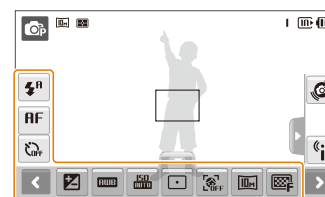
- 5 Select a value to adjust the shutter speed and select **OK**.
- 6 Align your subject in the frame and half-press **[Shutter]** to focus.
- 7 Press **[Shutter]** to take the photo.

 Use a tripod to prevent your photos from blurring.

Using the Program mode

Set various options (except for shutter speed and aperture value) in Program mode.

- 1 In Shooting mode, select  → .
- 2 Set options. (For a list of options, refer to “Shooting options.”)



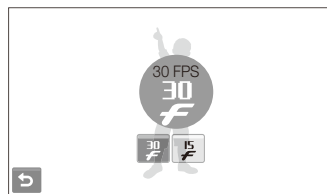
- 3 Align your subject in the frame and half-press **[Shutter]** to focus.
- 4 Press **[Shutter]** to take the photo.

Recording a video

Record videos of up to 20 minutes in length in high definition. The recorded video is saved as an MP4 (H.264) file.

- H.264 (MPEG-4 part10/AVC) is a high-compression video format established by international standard organizations ISO-IEC and ITU-T.
- The zoom sound may be recorded if you use the zoom while recording a video.
- Some memory cards may not support high definition recording. In this case, set a lower resolution.
- Memory cards with slow writing speed will not support high-resolution videos and high-speed videos. To record high-resolution or high-speed videos, use memory cards with fast writing speed.

- 1 In Shooting mode, select → .
- 2 Select → → a frame rate (the number of frames per second).
 - As the number of frames increases, action appears more natural, but the file size is increased.



is available only when the video resolution is 320 X 240.

- 3 Select → → a sound option.

Option	Description
	Off: Record a video without sound.
	On: Record a video with sound.
	Zoom Mute: Record a video without sound while zooming.

- 4 Set other options as desired. (For options, refer to “Shooting options.”)
- 5 Press **[Shutter]** to start recording.
- 6 Press **[Shutter]** again to stop recording.

To pause recording



The camera allows you to pause temporarily while recording a video. With this function, you can record your favorite scenes as a single video.

Select  to pause while recording. Select  to resume.







Using the Smart Scene Detection mode

In this mode, your camera automatically chooses the appropriate camera settings based on a detected type of scene.

- 1 In Shooting mode, select  → .
- 2 Align your subject in the frame.
 - The camera selects a scene automatically. An appropriate mode icon will appear at the top left of the screen.




Icon	Description
	Appears when recording videos of landscapes.
	Appears when recording videos of clear skies.
	Appears when recording videos of forested areas.
	Appears when recording videos of sunsets.

3 Press **[Shutter]** to start recording.


4 Press **[Shutter]** again to stop recording.



- If the camera does not recognize a proper scene mode,  will not change and the default settings will be used.
- The camera may not select the correct scene depending on shooting environments, such as camera shake, lighting and distance to the subject.
- In Smart Scene Detection mode, you cannot set smart filter effects and photo styles.

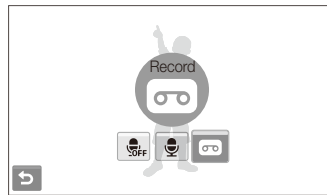
Recording voice memos SCENE




Learn how to record a voice memo that you can play back at any time. You can add a voice memo to a photo as a short reminder of shooting conditions.

 You will get the best sound quality when recording 40 cm away from the camera.

Recording a voice memo

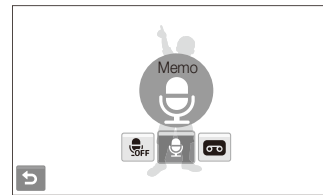
- 1 In Shooting mode, select  →  → .
(In some modes, select  →  (Twice) →  → .)



- 2 Press **[Shutter]** to record.
 - Select  to pause and  to resume.
 - Once recording begins, the available recording time displayed at the top of the screen will be changed to reflect file number.
 - You can record voice memos of up to 10 hours in length.
- 3 Press **[Shutter]** to stop.
- 4 Select  to switch to Shooting mode.

Adding a voice memo to a photo

- 1 In Shooting mode, select  →  → .
(In some modes, select  →  (Twice) →  → .)



- 2 Align your subject in the frame and take a photo.
 - The camera begins to record a voice memo right after you take the photo.
- 3 Recording automatically started (10 seconds maximum).
 - Press **[Shutter]** to stop recording a voice memo.

Shooting options

Learn about the options you can set in Shooting mode.

Selecting a resolution and quality	41	Taking a smile shot	51
Selecting a resolution	41	Detecting eye blinking	52
Selecting image quality	42	Using smart face recognition	52
Using the timer	43	Registering faces as your favorites (My Star) ...	53
Shooting in the dark	45	Adjusting brightness and color	54
Preventing red-eye	45	Adjusting the exposure manually (EV)	54
Using the flash	45	Compensating for backlighting (ACB)	55
Adjusting the ISO speed	46	Changing the metering option	56
Changing the camera's focus	47	Selecting a light source (White balance)	57
Using macro	47	Using burst modes	59
Using auto focus	47	Improving your photos	60
Using smart touch focus	48	Applying photo styles	60
Using one touch shooting	49	Applying smart filter effects	61
Adjusting the focus area	49	Adjusting your photos	62
Using face detection	50		
Detecting faces	50		
Taking a self portrait shot	51		



Selecting a resolution and quality

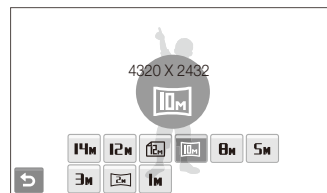
Learn how to change the image resolution and quality settings.










Selecting a resolution

As you increase the resolution, your photo or video 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.




When taking a photo:

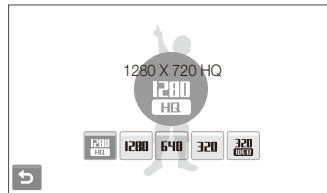
- 1 In Shooting mode, select  → .
- 2 Select an option.








Option	Description
	4320 X 3240: Print on A1 paper.
	4000 X 3000: Print on A1 paper.
	4320 X 2880: Print on A1 paper in wide ratio (3:2).
	4320 X 2432: Print on A2 paper in panorama ratio (16:9) or play back on an HDTV.
	3264 X 2448: Print on A3 paper.
	2560 X 1920: Print on A4 paper.
	2048 X 1536: Print on A5 paper.
	1920 X 1080: Print on A5 paper in panorama ratio (16:9) or play back on an HDTV.
	1024 X 768: Attach to an email.

When recording a video:



- 1 In  and  modes, select  → .
- 2 Select an option.

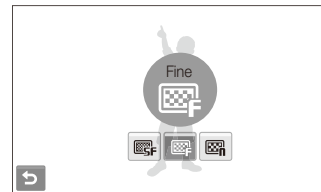





Option	Description
	1280 X 720 HQ: Play back high-quality files on an HDTV.
	1280 X 720: Play back on an HDTV.
	640 X 480: Play back on a general TV.
	320 X 240: Post on a web page.
	For Sharing: Post on a website using the wireless network (30 seconds maximum).

Selecting image quality   SCENE

Photos you take are compressed and saved in JPEG format. Higher quality images will result in larger sizes.


- 1 In Shooting mode, select  → .
- 2 Select an option.



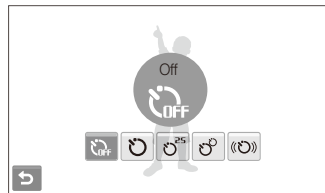
Option	Description
	Super Fine
	Fine
	Normal






Using the timer

Learn how to set the timer to delay shooting.

1 In Shooting mode, select .

2 Select an option.



Option	Description
	Off. The timer is not active.
	10 Sec: Take a photo in 10 seconds.
	2 Sec: Take a photo in 2 seconds.
	Double: Take a photo in 10 seconds and take another in 2 seconds.
	Motion Timer: Detect your movement and then take a photo. (p. 44)

The options may differ depending on the shooting mode.



3 Press **[Shutter]** to start the timer.

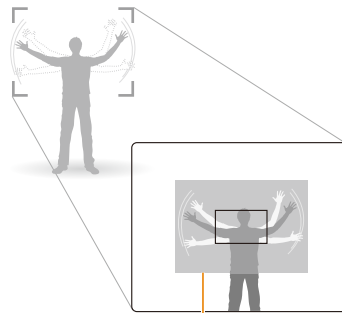
- The AF lamp/timer lamp blinks. The camera will automatically take a photo at the specified time.



- Select the timer icon or press **[Shutter]** to cancel the timer.
- Depending on the selected face detection option, the timer is not available or some timer options are not available.

Using the motion timer

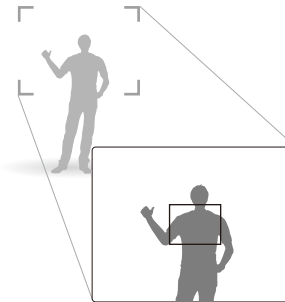
- 1 In Shooting mode, select  → .
- 2 Press **[Shutter]**.
- 3 Stand within 3 m from the camera within 6 seconds after pressing **[Shutter]**.
- 4 Make a motion, such as waving your arms, to activate the timer.
 - The AF lamp/timer lamp will start to blink rapidly when the camera detects you.



The detection range of the motion timer

- 5 Pose for your photo while the AF-lamp/timer lamp is blinking.

- The AF-lamp/timer lamp will stop blinking just before the camera automatically takes a photo.



 The motion timer may not work when:

- you are more than 3 m away from the camera
- your movements are too subtle
- there is too much light or backlight
- the subject is close enough to reflect the AF light

Shooting in the dark

Learn how to take photos at night or in low light conditions.

Preventing red-eye


If the flash fires when you take a photo of a person in the dark, a red glow may appear in the eyes. To prevent this, select **Red-eye** or **Red-eye Fix**. Refer to flash options in "Using the flash."

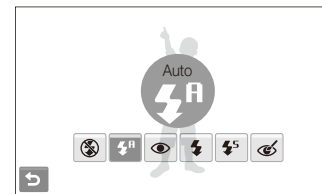







 This option is available in some scene modes.





Using the flash

Use the flash when taking photos in the dark or when you need more light on your photos.

- 1 In Shooting mode, select .
- 2 Select an option.



Option	Description
	Off: <ul style="list-style-type: none">• The flash will not fire.• Camera shake warning () will be displayed when shooting in low light.
	Auto: The camera will select a proper flash setting for the detected scene in  mode.
	Auto: The flash fires automatically when the subject or background is dark.

Option	Description
	Red-eye*: <ul style="list-style-type: none"> The flash fires when the subject or background is dark. The camera reduces red-eyes.
	Fill in: <ul style="list-style-type: none"> The flash always fires. Light intensity is adjusted automatically.
	Slow Sync: <ul style="list-style-type: none"> The flash fires and the shutter stays open longer. Select this when you want to capture ambient light to reveal more details in the background. Use a tripod to prevent your photos from blurring.
	Red-eye Fix*: <ul style="list-style-type: none"> The flash fires when the subject or background is dark. The camera corrects red-eyes through its advanced software analysis.

The options may differ depending on the shooting mode.




* There is an interval between two bursts of the flash. Do not move until the flash fires a second time.

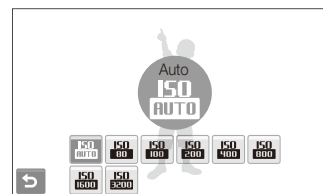


- Flash options are not available if you set burst options or select **Blink Detection** or **Self-Portrait**.
- Make sure that your subjects are within the recommended distance from the flash. (p. 122)
- If there is reflected light or much dust in the air, tiny spots may appear on your photo.

Adjusting the ISO speed

The ISO speed is the measure of a film's sensitivity to light as defined by the International Organization for Standardization (ISO). The higher ISO speed you select, the more sensitive to light your camera becomes. With a higher ISO speed, you can get a better photo without using the flash.

- In Shooting mode, select  → .
- Select an option.
 - Select  to use an appropriate ISO speed based on the brightness of the subject and lighting.



The higher ISO speed you select, the more image noise you may get.


Changing the camera's focus

Learn how to adjust the camera's focus according to your subjects.

Using macro

Use macro to take close-up photos of subjects, such as flowers or insects. Refer to macro options in "Using auto focus."

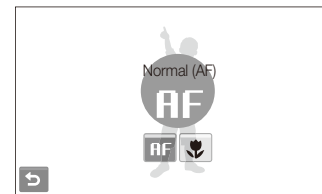




-  Try to hold the camera very still to prevent blurry photos.
- Turn off the flash if the distance to the subject is less than 40 cm.

Using auto focus

To take sharp photos, select the appropriate focus according to your distance from the subject.

- In Shooting mode, select **AF**.
- Select an option.






Option	Description
AF	Normal (AF): Focus on a subject farther than 80 cm.
	Auto Macro: Focus on a subject farther than 10 cm (farther than 50 cm when using zoom).
	Macro: Focus on a subject 10 - 80 cm (50 - 80 cm when using zoom).

The options may differ depending on the shooting mode.

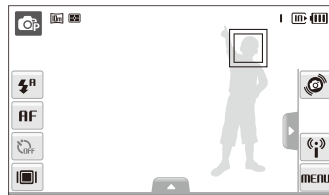
Using smart touch focus SCENE

Smart Touch AF allows you to track and auto focus on your subject, even when you are moving.

1 In Shooting mode, select  →  → .

2 Touch the subject you want to track in the touch area (indicated by a frame).

- A focus frame will appear on the subject and will follow the subject as you move the camera.






- The white frame means that your camera is tracking the subject.
- The green frame means that your subject is in focus when you half-press **[Shutter]**.

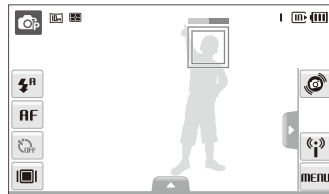



- If you do not touch any area on the screen, the focus frame will appear in the center of the screen.
- Tracking a subject may fail when:
 - the subject is too small or the subject moves excessively.
 - the subject is backlit or you are shooting in a dark place
 - colors or patterns on the subject and the background are the same
 - the camera shakes excessivelyIn these cases, the focus frame will appear as a white single-line frame.
- If the camera fails to track the subject, you must reselect the subject to track.
- If the camera fails to fix the focus, the focus frame will change to a red single-line frame.
- If you use this function, you cannot set face detection, photo style options, and smart filter effects.

Using one touch shooting SCENE

You can focus on your subject and take a photo with a touch of your finger.



- 1 In Shooting mode, select  →  → .
- 2 Touch a subject to focus.
- 3 Touch and hold the subject to take the photo.
 - Touch and hold until the level indicator fills up.

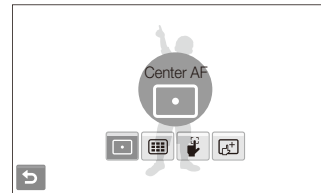






-  If you touch and hold any other area, the frame to detect faces will change to a normal frame.
- If you use this function, you cannot set burst options, photo style options, and smart filter effects.

Adjusting the focus area SCENE

You can get clearer photos by selecting an appropriate focus area according to your subject's location in the scene.

- 1 In Shooting mode, select  → .
- 2 Select an option.



Option	Description
	Center AF: Focus on the center (suitable when subjects are located in the center).
	Multi AF: Focus on one or more of 9 possible areas.
	One Touch Shooting: Focus on the subject by touching the image on the screen. Touch and hold the subject to take the photo.
	Smart Touch AF: Focus on and track the subject that you touch on the screen. (p. 48)

The options may differ depending on the shooting mode.

Using face detection SCENE

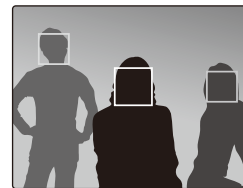
If you use face detection options, your camera can automatically detect a human face. When you focus on a human face, the camera adjusts the exposure automatically. Take photos quickly and easily by using **Blink Detection** to detect closed eyes or **Smile Shot** to capture a smiling face. You can also use **Smart Face Recognition** to register faces and prioritize the focus on them.



- In some scene modes, face detection is unavailable.
- Face detection may not be effective when:
 - the subject is far from the camera (The focus frame will appear orange for **Smile Shot** and **Blink Detection**)
 - it is too bright or too dark
 - the subject is not facing the camera
 - the subject is wearing sunglasses or a mask
 - the subject is in backlighting or the lighting condition is unstable
 - the subject's facial expression changes remarkably
- Face detection is not available when using a photo style, a smart filter effect, or smart touch AF.
- When you use the face detection option, the digital zoom will not work.
- Depending on the selected face detection option, the timer is not available or some timer options are not available.
- Depending on the selected face detection option, some burst options are not available.
- When you take photos of detected faces, they will be registered in the face list.
- You can view registered faces in order of priority in Playback mode. (p. 68) Even though faces are registered successfully, they may not be classified in Playback mode.
- The detected face in Shooting mode may not appear in the face list or Smart Album.

Detecting faces

Your camera automatically detects human faces (up to 10 human faces).



In Shooting mode, select  →  → . The nearest face appears in a white focus frame and the rest of the faces appear in gray focus frames.



- The closer you are to the subject, the quicker your camera will detect faces.
- If you want to focus faces in gray focus frames, touch them to focus.
- When you use the burst option, the detected faces may not be registered.