

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

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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

Do not disassemble or attempt to repair your camera.

This may result in electric shock or damage to the camera.

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

This may cause a fire or explosion.

Do not insert flammable materials into the camera or store these materials near the camera.

This may cause a fire or electric shock.

Do not handle your camera with wet hands.

This may result in electric shock.

Prevent damage to subjects' eyesight.

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

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.

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 covering the camera or charger with blankets or clothes.

The camera may overheat, which may distort the camera or cause a fire.

If liquid or foreign objects enter your camera, immediately disconnect all power sources, such as the battery or charger, and then contact a Samsung service center.



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

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.

Use only authentic, manufacturer-recommended, Lithium-ion replacement batteries. Do not damage or heat the battery.

Inauthentic, damaged, or heated batteries may cause a fire or personal injury.

Use only Samsung-approved batteries, chargers, cables and accessories.

- Using unauthorized batteries, chargers, cables or accessories can cause batteries to explode, damage your camera, or cause injury.
- Samsung is not responsible for damage or injuries caused by unapproved batteries, chargers, cables or accessories.

Use the battery only for its intended purpose.

Misusing the battery may cause a fire or electric shock.

Do not touch the flash while it fires.

The flash is very hot when fired and may burn your skin.

When you use the AC charger, turn off the camera before you disconnect the power to the AC charger.

Failing to do so may result in fire or electric shock.

Disconnect the charger from the wall socket when not in use.

Failing to do so may result in fire or electric shock.

Do not use a damaged power supply cord, plug, or loose outlet when you charge batteries.

This may cause a fire or electric shock.

Do not allow the AC charger to come in contact with the +/terminals on the battery.

This may cause a fire or electric shock.

Do not force the camera's parts or apply pressure to the camera.

This may cause your camera to malfunction.

Exercise caution when you connect cables or adapters and install batteries and memory cards.

If you force the connectors, improperly connect cables, or improperly install batteries and memory cards, you can damage ports, connectors, and accessories.

Keep cards with magnetic strips away from the camera case.

Information stored on the card may be damaged or erased.

Never use a damaged charger, battery, or memory card.

This may result in electric shock or camera malfunction or cause a fire.

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.

You must plug the small end of the USB cable into your camera.

If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.

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- Trademarks and trade names used in this manual are the property of their respective owners.
 - 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 the country where you purchase it.
 - You are not allowed to reuse or distribute any part of this manual without prior permission.
 - For Open Source License information, refer to the 'OpenSourceInfo.pdf' in the provided CD-ROM.

Outline of the User Manual

Basic functions	13
Learn about your camera's layout, icons, and basic functions for shooting.	
Extended functions	34
Learn how to capture a photo and record a video by selecting a mode.	
Shooting options	57
Learn how to set the options in Shooting mode.	
Playback/Editing	84
Learn how to play back photos or videos, and edit photos or videos. Also, learn how to connect your camera to your computer, photo printer, TV, HDTV, or 3D TV.	
Wireless network	111
Learn to connect to wireless local area networks (WLANs) and use functions.	
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Refer to options to configure your camera's settings.	
Appendixes	137
Get information about error messages, specifications, and maintenance.	

Indicators used in this manual

Shooting mode	Indicator
Smart Auto	SMART
Program	P
Aperture Priority, Shutter Priority, Manual	A·S·M
DUAL IS	«CDUAL
Scene	SCN
Panorama	Ш
Creative Movie Maker	₩
Movie	**

Shooting mode icons

These icons appear in the text when a function is available in a mode. See the example below.

Note: The **SCN** mode may not support functions for all scenes.

For example:



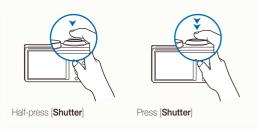
Icons used in this manual

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

Expressions used in this manual

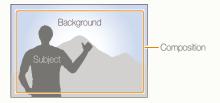
Pressing the shutter

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



Subject, background, and composition

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



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 sensitivity. By altering the exposure, your photos will be darker or lighter.





▲ Normal exposure

▲ Overexposure (too bright)

Basic troubleshooting

Learn to solve common problems by setting shooting options.

10	The subject's eyes appear red.	Red eye occurs when the subject's eyes reflect light from the camera flash. • Set the flash option to ● Red-eye or Red-eye Fix. (p. 61) • If the photo has already been captured, select Red-eye Fix in the edit menu. (p. 98)
	Photos have dust spots.	If dust particles are present in the air, you may capture them in photos when you use the flash. Turn off the flash or avoid capturing photos in a dusty place. Set ISO sensitivity options. (p. 63)
*	Photos are blurred.	Blurring can occur if you capture photos in low light conditions or hold the camera incorrectly. • Use the OIS function or half-press [Shutter] to ensure the subject is focused. (p. 32) • Use the Pual mode. (p. 47)
	Photos are blurred when shooting at night.	As the camera tries to let in more light, the shutter speed slows. This can make it difficult to hold the camera steady long enough to take a clear picture and may result in camera shake. • Select * Night in SCN mode. (p. 37) • Turn on the flash. (p. 61) • Set ISO sensitivity options. (p. 63) • Use a tripod to prevent your camera from shaking.
4)	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. • Select * Backlight in SCN mode. (p. 37) • Set the flash option to * Fill in. (p. 61) • Adjust the exposure. (p. 73) • Set the metering option to • Spot if a subject is in the center of the frame. (p. 74)

Quick reference



Capturing photos of people

- . SCN mode > Beauty Shot ▶ 40
- · Red-eve/Red-eye Fix (to prevent or correct red-eve) ▶ 61
- Face Detection ▶ 68
- Self-Portrait ▶ 69



Capturing photos at night or in the dark

- . SCN mode > Night, Sunset, Dawn ▶ 37
- Flash options ▶ 61
- . ISO sensitivity (to adjust the sensitivity to light) ▶ 63



Capturing action photos

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- High-speed burst mode ▶ 78
- Precapture ▶ 79



Adjusting the exposure (brightness)

- SCN mode > HDR ▶ 38
- · ISO sensitivity(to adjust the sensitivity to light) ▶ 63
- EV (to adjust exposure) ▶ 73
- Metering ▶ 74
- Bracket ▶ 79



Capturing panoramic action photos

• III mode > Action Panorama ▶ 50



Capturing photos of text, insects, or flowers

- SCN mode > Text ▶ 37
- Macro ► 64



Capturing photos of scenery

- SCN mode > Landscape ► 37
- III mode ▶ 48



Capturing 3D photos

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- Image: mode > 3D Panorama ► 48



Applying effects to photos

- SCN mode > Zooming Shot ▶ 41
- Smart Filter effects ▶ 81.
- · Image Adjust (to adjust Contrast, Sharpness, or Saturation) ▶ 83



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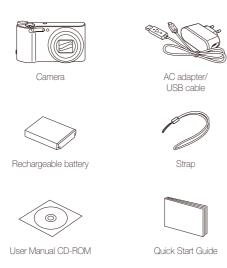
Basic functions

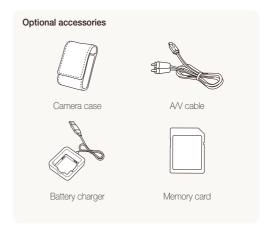
Learn about your camera's layout, icons, and basic functions for shooting.

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Turning on your camera	Cantumina plantas
erforming the initial setup	Zooming 20
· ·	Reducing camera shake (OIS)
earning icons	Tips for getting a clearer photo

Unpacking

The following items are included in your product box.



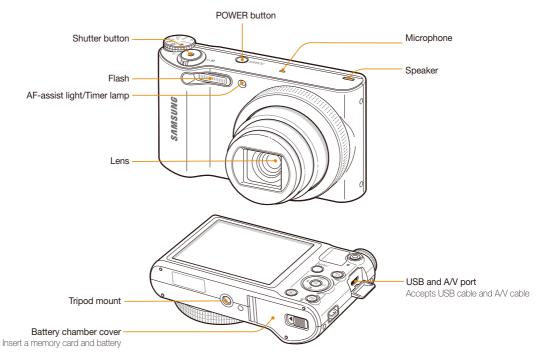


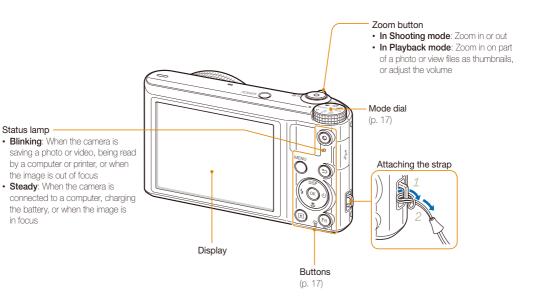


- The illustrations may differ slightly from the items shipped with your product.
- The items included in the box may differ depending on the model.
- You can purchase optional accessories at a retailer or a Samsung service center. Samsung is not responsible for any problems caused by using unauthorized accessories.

Camera layout

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





Mode dial

SMART	Smart Auto: Capture a photo with a scene mode selected automatically by the camera.	
P		m: Capture a photo by setting options except the speed and aperture value which the camera sets tically.
A·S·M	Α	Aperture Priority: The camera selects a shutter speed based on the aperture value you have set manually.
	S	Shutter Priority: The camera selects an aperture value based on the shutter speed you have set manually.
	М	Manual : Adjust various camera settings including shutter speed and aperture value.
((DUAL	DUAL IS : Capture a photo with options that reduce camera shake.	
SCN	Scene : Capture a photo with options preset for a specific scene.	
	Panorama: Capture and combine a series of photos to create a panoramic image.	
₩	Creative Movie Maker: Create movies from photos and videos stored on the memory card.	
•	Movie:	Customize settings to record a video.

Buttons

ledow	Start recording a video.		
MENU	Access options or menus.		
⊕	Go back.		
		Basic functions	Other functions
DISP	DISP	Change the display option.	Move up
(4 (OK) ઇ)	*	Change the macro option.	Move down
<u>.</u>	4	Change the flash option.	Move left
	ণ্ড	Change the timer option.	Move right
(OK)	Confirm the highlighted option or menu.		
(E)	Enter Playback mode.		
Fn		ss options in Shooting mode. e files in Playback mode.	

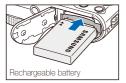
Inserting the battery and memory card

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

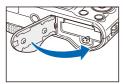




Insert a memory card with the gold-colored contacts facing up.



Insert the battery with the Samsung logo facing up.

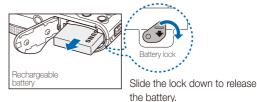




Removing the battery and memory card



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



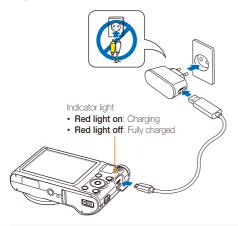


You can use the internal memory for temporary storage if a memory card is not inserted.

Charging the battery and turning on your camera

Charging the battery

Before you use the camera for the first time, you must charge the battery. Plug the small end of the USB cable into your camera, and then plug the other end of the USB cable into the AC adapter.



Use only the AC adapter and USB cable supplied with your camera. If you use another AC adapter (such as SAC-48), the camera battery may not charge or work properly.

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. 20)



Turning on your camera in Playback mode

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





If you turn on your camera by pressing and holding [127] for about 5 seconds, the camera does not emit any sounds.

Performing the initial setup

When you turn on your camera for the first time, the initial setup screen appears. Follow the steps below to configure the camera's basic settings.

1 Verify that **Language** is highlighted, and then press [**Ö**] or [**OK**].



- 2 Press [DISP/♣/♦/ॐ] to select a language, and then press [OK].
- 3 Press [♥] to select Time Zone, and then press [♥] or [0K].

- 4 Press [DISP/♥] to select Home, and then press [OK].
 - When you travel to another country, select Visit, and then select a new time zone.
- 5 Press [4/8] to select a time zone, and then press [0K].
 - To set daylight-savings time, press [DISP].



6 Press [♥] to select **Date/Time Set**, and then press [♥] or [**0K**].



- · The screen may differ depending on the language selected.
- 7 Press [\$/\omega] to select an item.
- 8 Press [DISP/\$] to set the date and time, and then press [OK].

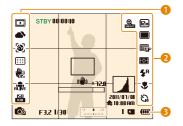
- 9 Press [♥] to select Date Type, and then press [♥] or [0K].
- 10 Press [DISP/₺] to select a date type, and then press [OK].



- The default date type may differ depending on the language selected.
- 11 Press [MENU] to switch to Shooting mode.

Learning icons

The icons the camera displays on the screen change according to the mode you select or the options you set.



Shooting options (left)

Icon	
3	Smart filter
2	Face tone
[PAT]	Image adjustment (contrast, sharpness, and saturation)
A	White balance
△ > <u>+</u>	White balance adjusted
½	Face retouch
[83]	Face detection
:::	Focus area
心 》	Optical Image Stabilization (OIS)
ALIVE	Sound Alive on
150 100	ISO sensitivity

2 Shooting options (right)

Icon	Description
EMARI	Smart zoom on
12m	Photo resolution
FULL	Video resolution
	Single shot mode
3	High-speed burst mode
<u>_2</u>	Precapture mode
DENK	Bracket mode
30 ≠	Frame rate
©5F	Photo quality
- ♦-	Metering
4 8	Flash
± ≰ ⁿ	Flash intensity adjusted
	Auto focus option
63	Timer

Shooting information

0	.9
Icon	Description
©	Shooting mode
F3.2	Aperture value
1/30	Shutter speed
2 0 +2 Introductor1	Exposure value
I	Available number of photos
	Memory card inserted
(III)	 III: Fully charged IIII III: Partially charged III: Empty (Recharge)
00:00:10	Available recording time
	Auto focus frame
((👑))	Camera shake
	Zoom indicator
×72.0	Zoom ratio
	Histogram (p. 26)
2011/07/01 10:00 AM	Current time and date

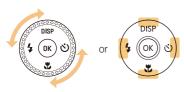
Selecting options or menus

To select an option or a menu, press [MENU] or [Fn].

Using [MENU]

To select options, press [MENU], and then rotate the navigation button or press [DISP/ $\sqrt[4]{5}$] or [OK].

- 1 In Shooting mode, press [MENU].
- 2 Rotate the navigation button or press [DISP/₺/\$/ॐ] to scroll to a menu or an option.



3 Press [OK] to confirm the highlighted option or menu.

Going back to the previous menu

Press $[\mbox{MENU}]$ again to go back to the previous menu.



Half-press [Shutter] to return to Shooting mode.

For example, to select a White Balance option in Program mode:

1 Rotate the mode dial to P.



2 Press [MENU].



3 Rotate the navigation button or press [DISP/♥] to select ♠, and then press [♦] or [OK].

4 Rotate the navigation button or press [DISP/♣] to select White Balance, and then press [₺] or [0K].



5 Rotate the navigation button or press [\$/\omega] to select a White Balance option.



- 6 Press [OK] to save your settings.
- 7 Press [MENU] to return to Shooting mode.

Using [Fn]

You can access shooting options by pressing $[\mathbf{Fn}]$, but some options are not available.

For example, to select a White Balance option in Program mode:

1 Rotate the mode dial to P.



2 Press [Fn].



3 Press [DISP/♥] to scroll to ■.



4 Rotate the navigation button or press [�/ல] to select a White Balance option.



5 Press [OK] to save your settings.

Setting the display and sound

Learn how to change the basic display information and sound settings.

Setting the display type

You can select a display type for the Shooting or Playback mode. Each type displays different shooting or playback information. See the table below.

Press [DISP] repeatedly to change the display type.



Mode	
Shooting	 Hide all information about shooting. Hide information about shooting, except the information on the bottom line. Display all information about shooting. Display histogram.
Playback	 Hide all information about the current file. Display information about the current file, except the shooting settings and histogram. Display all information about the current file.

About histograms

A histogram is a graph that illustrates how light is distributed in your photo. If the histogram has a high peak on the left, the photo is underexposed and will appear dark. A peak on the right of the graph means that the photo is overexposed and will appear washed out. The height of the peaks is related to color information. The more of a particular color, the taller the peak.







▲ Over-exposed

Setting the sound

Turn on or off the sound your camera emits when you perform functions.

- 1 In Shooting or Playback mode, press [MENU].
- 2 Select **◄)** → **Beep Sound**.
- 3 Select an option.

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

Capturing photos

Learn how to capture photos easily and quickly in Smart Auto mode.

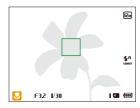
1 Rotate the mode dial to **SMART**.



2 Align your subject in the frame.



- 3 Half-press [Shutter] to focus.
 - · A green frame means the subject is in focus.
 - · A red frame means the subject is out of focus.



- 4 Press [Shutter] to capture a photo.
- 5 Press [] to view the captured photo.
 - · To delete the photo, press [Fn], and then select Yes.
- 6 Press [] to return to Shooting mode.



See page 32 for tips to get clearer photos.

Zooming

You can capture close-up photos by adjusting the zoom.





Zoom ratio

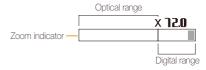




The wider you rotate the zoom button, the faster the camera zooms in or out.

Digital zoom P A S M SCN

The Digital zoom is supported by default in Shooting mode. If you zoom in on a subject in Shooting mode and the zoom indicator is in the digital range, your camera is using the Digital zoom. By using both the 18X Optical zoom and 4X Digital zoom, you can zoom in up to 72 times.



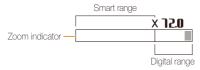


- The Digital zoom is not available with the Face detection option, Smart Filter effect, Tracking AF option, Burst option, or Manual Focus.
- If you capture a photo with the Digital zoom, the photo quality may be lower than normal.

Smart zoom

PASM

You can use 24X Smart zoom which lets you zoom in with less degradation of picture quality than the Optical zoom and Digital zoom. By using both the Smart zoom and Digital zoom, you can zoom in up to 72 times.





- Smart zoom is not available with the Face detection option, Smart Filter effect, Tracking AF option, Burst option, or Manual Focus.
- If you capture a photo with the Smart zoom, the photo quality may be lower than normal.

Setting Smart zoom

- 1 In Shooting mode, press [MENU].
- 2 Select **⑤** → Smart Zoom.
- 3 Select an option.

Icon	
⊙ ⊠0FF	Off: The Smart zoom is deactivated.
<u> </u>	On: The Smart zoom is activated.

Reducing camera shake (OIS) PASMSCN ₩

Reduce camera shake optically in Shooting mode.





▲ Before correction

▲ After correction

- 1 In Shooting mode, press [MENU].
- 2 Select \bigcirc or \bigcirc \rightarrow OIS.
- 3 Select an option.

Icon	Description
(III)) OFF	Off: OIS is deactivated.
心) (015	On: OIS is activated.



- OIS may not function properly when:
 - you move your camera to follow a moving subject
 - you use the Digital zoom
 - there is too much camera shake
 - the shutter speed is slow (for example, when you capture night scenes)
 - the battery is low
 - you capture a close-up shot
- If you use the OIS function with a tripod, your images may be blurred by the vibration of the OIS sensor. Deactivate the OIS function when you use a tripod.
- If the camera is hit or dropped, the display will be blurry. If this occurs, turn off the camera, and then turn it on again.

Tips for getting a clearer photo





Ensure nothing is blocking the lens, flash, or microphone.

Reducing camera shake



- Set the Optical Image Stabilization option to reduce camera shake optically. (p. 31)
- Select the County mode to reduce camera shake both optically and digitally. (p. 47)





Half-press [Shutter] and adjust the focus. The camera adjusts the focus and exposure automatically.

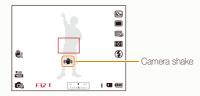


Focus frame

- Press [Shutter] to capture the photo if the focus frame appears in green.
- Change the composition and half-press [Shutter] again if the focus frame appears in red.

The camera sets the aperture value and shutter speed automatically.





When you shoot 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 steady long enough to capture a clear photo.

- Use a tripod or set the flash option to Fill in. (p. 61)
- · Set ISO sensitivity options. (p. 63)



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 (for example, when your subject is wearing clothing that is similar in color to the background)
- the light source behind the subject is too bright
- the subject is shiny or reflective
- the subject includes horizontal patterns, such as blinds
- the subject is not positioned in the center of the frame



Using 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 capture your photo.





· When you capture photos in low light



Turn on the flash. (p. 61)

· When subjects are moving rapidly



Use the High-speed burst mode or Precapture function. (p. 78)

Extended functions

Learn how to capture a photo and record a video by selecting a mode.

Using the Smart Auto mode	Using the DUAL IS mode
Using the Scene mode	Using the Panorama mode 4
Using the 3D Photo mode	Using the 2D or 3D Panorama mode 4
Using the HDR mode	Using the Action Panorama mode 5
Using the Magic Frame mode	Using the Movie mode 5
Using the Beauty Shot mode 40	Recording high-speed videos 5
Using the Zooming Shot mode	Using the Smart Scene Detection mode 5
Using the Program mode	Using the Creative Movie Maker mode 5
Jsing the Aperture Priority, Shutter	Making a movie with the
Priority, or Manual mode 43	Creative Movie Maker 5
Using the Aperture Priority mode 44	View a movie made in
Using the Shutter Priority mode 45	Creative Movie Maker mode 5
Using the Manual mode	

Using the Smart Auto mode

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

- 1 Rotate the mode dial to **SMART**.
- 2 Align your subject in the frame.
 - The camera automatically selects a scene. An appropriate scene icon appears at the bottom left of the screen.
 The icons are listed below.



Icon	Description
<u></u>	Landscapes
WHITE	Scenes with bright white backgrounds
*)	Landscapes at night (when the flash is off)
2	Portraits at night
*	Landscapes with backlighting

	Portraits with backlighting
	Portraits
3	Close-up photos of objects
*	Close-up photos of text
	Sunsets
<u> </u>	Blue skies
A \	Forested areas
	Close-up photos of colorful subjects
7	Camera is stabilized or on a tripod (when shooting in the dark)
<i>"7</i> 5;	Actively moving subjects
*	Fireworks (when using a tripod)

- 3 Half-press [Shutter] to focus.
- 4 Press [Shutter] to capture the photo.



- If the camera does not recognize an appropriate scene mode, it uses the default settings for the SMART mode.
 - . Even if it detects a face, 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 the shooting conditions, such as camera shake, lighting, or distance to the subject.
 - Even if you use a tripod, the camera may not detect the 🤼 mode if the subject is moving.
 - . In SMART mode, the camera consumes more battery power, because it changes settings often to select appropriate scenes.

Using the Scene mode

In Scene mode, you can capture a photo with options that are preset for a specific scene.

- 1 Rotate the mode dial to SCN.
- 2 Select a scene.



Option	
3D Photo	Capture scenes with a 3D effect (the 3D effect works only on a 3D TV or 3D monitor).
HDR	Capture scenes with emphasis on mid-tones, by minimizing the dark and bright areas.
Magic Frame	Capture scenes with various frame effects.
Beauty Shot	Capture a portrait with options to hide facial imperfections.
Night	Capture scenes at night or in low lighting (using a tripod is recommended).
Landscape	Capture still-life scenes and landscapes.

Option	Description
Text	Clearly capture text from printed or electronic documents.
Sunset	Capture scenes at sunset, with natural-looking reds and yellows.
Dawn	Capture scenes at sunrise.
Backlight	Capture backlit subjects.
Beach & Snow	Reduce underexposure of subjects caused by sunlight reflected from sand or snow.
Zooming Shot	Capture scenes with blurred edges.

- To change a scene mode, press [MENU], and then select ... You can select any of the scenes listed.
- 3 Align your subject in the frame, and then half-press [Shutter] to focus.
- 4 Press [Shutter] to capture the photo.

Using the 3D Photo mode

In 3D Photo mode, you can capture scenes with a 3D effect.

- 1 Rotate the mode dial to SCN.
- 2 Select 3D Photo.
- 3 Align your subject in the frame, and then half-press [Shutter] to focus.
- 4 Press [Shutter] to capture the photo.
 - The camera captures 2 photos in both JPEG and MPO file formats.



- . In 3D Photo mode, some shooting options are not available.
- You can view an MPO file that supports the 3D effect only on an MPO-compatible display, such as a 3D TV or 3D monitor. On your camera's display, you can view only JPEG files.
- Use proper 3D glasses when you view an MPO file on a 3D TV or 3D monitor.

Using the HDR mode

In HDR(High Dynamic Range) mode, your camera captures two photos with different exposures, and then overlays the bright area of the underexposed photo and the dark area of the overexposed photo. You can capture photos with soft, rich colors.





▲ Without HDR effect

▲ With HDR effect

- 1 Rotate the mode dial to SCN.
- 2 Select HDR.
- 3 Align your subject in the frame, and then half-press [Shutter] to focus.
- 4 Press [Shutter] to capture the photo.
 - The camera captures 2 photos, and then automatically merges them into a single photo.



- The HDR effect may be affected by camera shake, lighting, movement of the subject, and the shooting environment.
- . You cannot use the flash when you use the HDR mode.
- It may take longer to save a photo using the HDR mode.
- When you use the HDR mode, the preview image on the screen and the captured photo may appear slightly larger than a photo captured without this effect.
- When you capture a moving subject using the HDR mode, an afterimage may appear.

Using the Magic Frame mode

In Magic Frame mode, you can apply various frame effects to your photos. The shape and the feel of the photos will change according to the frame you select.

- 1 Rotate the mode dial to SCN.
- 2 Select Magic Frame.
- 3 Press [MENU].

- 4 Select → Frame.
- 5 Select an option.



- 6 Press [MENU] to return to Shooting mode.
- 7 Align your subject in the frame, and then half-press [Shutter] to focus.
- 8 Press [Shutter] to capture the photo.



In Magic Frame mode, the resolution is automatically set to 2m.

Using the Beauty Shot mode

In Beauty Shot mode, you can capture a portrait with options to hide facial imperfections.

- 1 Rotate the mode dial to SCN.
- 2 Select Beauty Shot.
- 3 Press [MENU].
- 4 Select → Face Tone.
- 5 Select an option.
 - For example, increase the face tone setting to make skin appear lighter.



6 Select Face Retouch.

- 7 Select an option.
 - For example, increase the face retouch setting to hide more imperfections.



- 8 Press [MENU] to return to Shooting mode.
- 9 Align your subject in the frame, and then half-press [Shutter] to focus.
- 10 Press [Shutter] to capture the photo.



Using the Zooming Shot mode

In Zooming Shot mode, you can emphasize the center of a photo by blurring the edges.





▲ Without Zooming Shot effect

▲ With Zooming Shot effect

- Rotate the mode dial to SCN.
- 2 Select Zooming Shot.
- 3 Align your subject in the frame, and then half-press [Shutter] to focus.
- 4 Press [Shutter] to capture the photo.

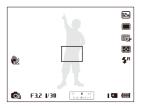


In Zooming Shot mode, the resolution is automatically set to 🖼 or below.

Using the Program mode

In Program mode, you can set most options, except the shutter speed and aperture value, which the camera sets automatically.

- 1 Rotate the mode dial to P.
- 2 Set the desired options. (For a list of options, refer to "Shooting options" starting on page 57.)



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

Using the Aperture Priority, Shutter Priority, or Manual mode

Adjust the aperture value or shutter speed to control the exposure of your photos. You can use these options in the Aperture Priority, Shutter Priority, and Manual modes.

Aperture value

The aperture is a hole that lets light into the camera. The aperture housing contains thin, metal plates that open and close, widening or narrowing the aperture, and controlling the amount of light that enters 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. Note that the larger the aperture value, the smaller the aperture size. For example, an aperture set to 5.6 is larger than an aperture set to 11.



▲ Small aperture value (The size of the aperture is large.)



▲ Large aperture value (The size of the aperture is small.)

Shutter speed

Shutter speed, which is an important factor in the brightness of a photo, refers to the amount of time it takes to open and close the shutter. A slow shutter speed allows more time to let light in. All things being equal, photos are brighter, but fast moving objects tend to blur. On the other hand, a fast shutter speed allows less time to let light in. Photos are darker, but objects in motion are captured more clearly.



▲ Slow shutter speed

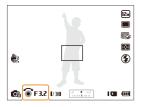


▲ Fast shutter speed

Using the Aperture Priority mode

The Aperture Priority mode allows you to set the aperture value manually while the camera automatically selects an appropriate shutter speed.

- 1 Rotate the mode dial to A:S:M.
- 2 Select Aperture Priority.
 - To select another mode when the mode dial is set to A·S·M, press [MENU], and then select a mode.
- 3 Press [OK], and then rotate the navigation button or press [DISP/♥] to adjust the aperture value.
 - See page 43 for more information about the aperture value.



- 4 Set options. (For a list of options, refer to "Shooting options" starting on page 57.)
- 5 Align your subject in the frame, and then half-press [Shutter] to focus.
- 6 Press [Shutter] to capture the photo.

Using the Shutter Priority mode

The Shutter Priority mode allows you to set the shutter speed manually while the camera automatically selects an appropriate aperture value.

- 1 Rotate the mode dial to A:S:M.
- 2 Select Shutter Priority.
 - To select another mode when the mode dial is set to A·S·M, press [MENU], and then select a mode.
- 3 Press [OK], and then rotate the navigation button or press [DISP/♥] to adjust the shutter speed.
 - · See page 43 for more information about the shutter speed.

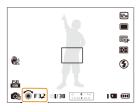


- 4 Set options. (For a list of options, refer to "Shooting options" starting on page 57.)
- 5 Align your subject in the frame, and then half-press [Shutter] to focus.
- 6 Press [Shutter] to capture the photo.

Using the Manual mode

The Manual mode allows you to adjust both the aperture value and the shutter speed manually.

- 1 Rotate the mode dial to A·S·M.
- 2 Select Manual.
- 3 Press [OK] to select the aperture value or shutter speed.



- 4 Rotate the navigation button or press [DISP/♥] to adjust the aperture value or shutter speed.
- 5 Set options. (For a list of options, refer to "Shooting options" starting on page 57.)
- 6 Align your subject in the frame, and then half-press [Shutter] to focus.
- 7 Press [Shutter] to capture the photo.

Using the DUAL IS mode

Reduce camera shake and prevent blurred photos with Optical and Digital Image Stabilization functions.





- ▲ Before correction
- ▲ After correction
- 1 Rotate the mode dial to Chual.
- 2 Align your subject in the frame, and then half-press [Shutter] to focus.
- 3 Press [Shutter] to capture the photo.



- The Digital zoom and Smart zoom are not available in ChuaL mode.
- The camera will correct photos optically only when the light source is brighter than fluorescent light.
- . If your subject is moving rapidly, the photo may be blurry.
- Set the Optical Image Stabilization option to reduce camera shake in different shooting modes. (p. 31)

Using the Panorama mode

In Panorama mode, you can capture a wide panoramic scene in a single photo. Capture and combine a series of photos to create a panoramic image.

Using the 2D or 3D Panorama mode

In Panorama mode, you can capture a normal or 3D panoramic photo.



- ▲ Shooting example
- 1 Rotate the mode dial to
- 2 Press [MENU].
- 3 Select → Panorama → Live Panorama or 3D Panorama.
- 4 Press [MENU] to return to Shooting mode.
- 5 Align your subject in the frame, and then half-press [Shutter] to focus.
 - Align the camera with the far left or the far right, or very top or bottom, of the scene you want to capture.
- 6 Press and hold [Shutter] to start shooting.

- 7 With [Shutter] pressed, slowly move the camera in the direction that will let it capture the rest of the panorama.
 - In 3D Panorama mode, you can capture a scene only in horizontal directions.
 - When the viewfinder is aligned with the next scene, the camera captures the next photo automatically.



- 8 When you are finished, release [Shutter].
 - When you have captured all the necessary shots, the camera combines them into one panoramic photo.



- . For best results when capturing panoramic photos, avoid the following:
 - moving the camera too guickly or too slowly
 - moving the camera too little to capture the next image
 - moving the camera at irregular speeds
 - shaking the camera
 - changing the camera direction while capturing a photo
 - shooting in dark places
 - capturing moving subjects nearby
 - shooting conditions where the brightness or color of light is changing
- . Selecting Panorama mode will disable the digital and optical zoom functions. If you select Panorama mode while the lens is zoomed in, the camera automatically zooms out to the default position.
- . In Panorama mode, some shooting options are not available.
- . The camera may stop shooting due to the shooting composition or movement within the scene.
- . In Panorama mode, your camera may not capture the last scene in its entirety if you stop moving the camera exactly where you want the scene to end. To capture the entire scene, move your camera slightly beyond the point where you want the scene to end.
- . In 3D Panorama mode, your camera may not capture the very beginning or end of a scene due to the nature of the 3D effect. To capture the entire scene, move slightly beyond the beginning and end points you want to capture.

- . In 3D Panorama mode, photos are captured in both JPEG and MPO file formats.
- . You can view an MPO file that supports the 3D effect only on an MPO-compatible display, such as 3D TV or 3D monitor. On your camera's display, you can view only JPEG files.
- . Use proper 3D glasses when you view an MPO file on a 3D TV or 3D monitor.

Using the Action Panorama mode

In Action Panorama mode, you can capture and combine a series of photos of a moving subject.



- ▲ Shooting example
- Press [MENU].
- Press [MENU] to return to Shooting mode.
- 5 Align your subject in the frame, and then half-press [Shutter] to focus.
 - · Align the camera with the far left or the far right side of the scene you want to capture.
- 6 Press and hold [Shutter] to start shooting.

- 7 With [Shutter] pressed, slowly move the camera in the direction that will let it capture the rest of the panorama.
 - · If there is more than one moving subject, the camera may not recognize the correct subject.
 - · If subjects are outside of the guide frame while capturing, the camera does not capture the movement of the subjects.
- 8 When you are finished, release [Shutter].
 - The camera automatically combines the shots into one photo.



- . For best results when capturing panoramic photos, avoid the following:
- moving the camera too guickly or too slowly
- moving the camera too little to capture the next image
- moving the camera at irregular speeds
- shaking the camera
- changing the camera direction while capturing a photo
- shooting in dark places
- capturing moving subjects nearby
- shooting conditions where the brightness or color of light is changing
- . The camera may take time to save panoramic photos.
- . In Action Panorama mode, some shooting options are not available.

Using the Movie mode

In Movie mode, you can customize settings to record full HD videos of up to 20 minutes in length. The camera saves recorded videos as MP4 (H.264) files.



- . H.264 (MPEG-4 part10/AVC) is a high-compression video format established by the international standards organizations ISO-IEC and ITU-T.
- Some memory cards may not support high definition recording. If your card does not, set a lower resolution.
- Memory cards with slow writing speeds will not support high-resolution videos and high-speed videos. To record high-resolution or high-speed videos, use memory cards with faster write speeds.
- · If you activate the OIS function while recording a video, the camera may record the operating sound of the OIS function.
- If you use the zoom function when recording a video, the camera may record the noise of the zoom operating. To decrease zoom noise, use the Sound Alive function. See Steps 3 and 4 below.
- 1 Rotate the mode dial to 12.
- 2 Press [MENU].
- 3 Select → Voice.
- 4 Select a Sound Alive option.

Sound Alive Off: Turn off the Sound Alive function to record the zoom noise. Sound Alive On: Turn on the Sound Alive function to reduce the zoom noise. Mute: Do not record sounds.



- Do not block the microphone when you use the Sound Alive function.
- Recordings made with Sound Alive may differ from actual sounds.

- 5 Set desired options. (For a list of options, refer to "Shooting options" starting on page 57.)
- 6 Press (Video recording) to start recording.
- 7 Press (Video recording) again to stop recording.



- You can start recording a video in some modes by pressing
 (Video recording) without having to rotate the mode dial to
- The video frame size may appear smaller while you are recording a video depending on the video resolution and frame rate.
- If you perform no operations for approximately 3 minutes while recording a video, the screen will become dim. To activate the screen, perform any camera operation. If you operate POWER, Zoom, Shutter, or Video recording button, the camera will carry out the assigned function, even when the screen is dim.

Pause recording

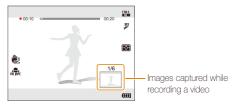
The camera allows you to temporarily pause a video while recording. With this function, you can record separate scenes as a single video.



- Press [OK] to pause while recording.
- \bullet Press [0K] to resume.

Capturing still images while recording a video

You can capture still images while recording a video without switching to the photo shooting modes (up to 6 photos). This feature is available only when you use a memory card.



- Press [Shutter] to capture images while recording a video.
- · Captured images will be saved automatically.



- Captured images will be automatically resized, depending on the size of the recorded video.
- You cannot capture still images while recording high-speed videos.
- . You cannot capture still images when you pause the video recording.
- The quality of images captured while recording a video may be lower than those captured normally.

Recording high-speed videos

You can record high-speed videos by setting frame rates. High-speed videos will be played in slow motion at 30 FPS, regardless of the frame rate of the video.



- Memory cards with slow write speeds do not support high-speed videos.
- You cannot set Smart Filter effects or Smart Scene Detection mode when recording high-speed videos.
- The camera does not record audio when recording high-speed videos.
- The image quality of high-speed video may be lower than normal speed video.

- 1 Rotate the mode dial to ₩.
 - mode only allows you to record a high-speed video.
- 2 Press [4], and then select a frame rate.

Icon	Descripion
440 F	440fps : Record 440 frames per second (for up to 10 seconds).
250 F	250fps : Record 250 frames per second (for up to 10 seconds).
30 ≠	30fps : Record 30 frames per second (for up to 20 minutes). 30fps is not a high-speed recording option.

- 3 Press (Video recording) to start recording.
- 4 Press () (Video recording) again to stop recording.

Using the Smart Scene Detection mode

In Smart Scene Detection mode, your camera automatically chooses the appropriate camera settings based on the scene it has detected

- 2 Press [MENU].
- 4 Press [MENU] to return to Shooting mode.
- 5 Align your subject in the frame.
 - The camera automatically selects a scene. An appropriate scene icon will appear at the bottom left of the screen.



Icon	Description
A \(\)	Landscapes
	Sunsets
<u></u>	Blue skies
<u> </u>	Forested areas

- 6 Press (Video recording) to start recording.
- 7 Press (Video recording) again to stop recording.



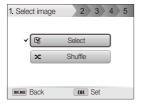
- If the camera does not recognize an appropriate scene mode, it uses the default settings for the Smart Scene Detection mode.
- The camera may not select the correct scene depending on the shooting conditions, such as camera shake, lighting, and distance to the subject.
- · Smart Filter effects are not available in Smart Scene Detection mode.

Using the Creative Movie Maker mode

In the Creative Movie Maker mode, you can easily make movies from the photos and videos stored on your memory card.

Making a movie with the Creative Movie Maker

- 1 Rotate the mode dial to 2.
- 2 Select + Movie Creation.
- 3 Select Select, and then select files.
 - · You must select at least 2 files.
 - If you select a folder, every photo in the folder will be selected.
 - If you select a wideo, every photo captured while recording the video will be selected.
 - Select Shuffle to let the camera select photos and videos randomly. The movie cannot exceed 2 minutes 30 seconds in length.





- You cannot select photos captured in Panorama mode, videos made in Creative Movie Maker mode, videos recorded with some Smart Filter effects (Miniature, Vignetting, Half Tone Dot, Sketch, or Fish-eye), or some high-speed videos (440fps).
- · You can select up to 60 photos and 10 videos.
- 4 Press [Fn] to confirm the selection.
- 5 Press [3] to select **Theme**, and then select a theme.
- 6 Press [3] to select Music, and then select music.
- 7 Press [*\odots] to select Movie Size, and then select a movie size.
- 8 Press [3] to select Creation, and then select Creation Start.
 - If your camera does not have enough available memory to store the movie, you cannot select **Creation Start**. Delete files from the memory card to make more memory available. (p. 90)
 - If the pop-up message appears when you select Creation Start, select a smaller movie size in the Movie Size option.
 - The video rendering may take longer depending on the number and size of the selected files.
 - · Press [MENU] to cancel the video rendering.

View a movie made in Creative Movie Maker mode

- 1 Rotate the mode dial to .
- 2 Press [DISP/\$] to select a movie.
- 3 Press [**0K**] to play the movie.



To view the movie in Playback mode, press [1.]. (p. 85)