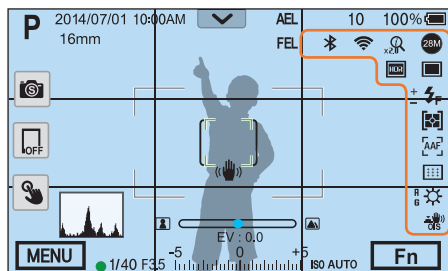


2. Shooting options

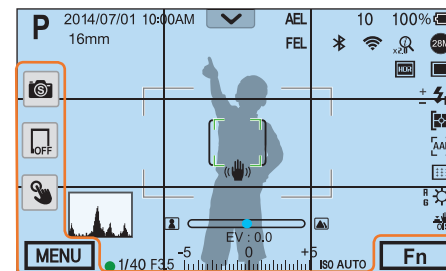


Icon	Description
	Photo size
	RAW file
	Drive mode
	Flash (p. 108)
	Flash intensity adjustment
	Metering (p. 114)
	AF mode (p. 91)
	Focus area
	Face detection
	White Balance (p. 87)

Icon	Description
	White Balance micro adjustment
	Optical Image Stabilization (OIS) (p. 101)
	intelli-zoom on
	intelli-zoom ratio
	Dynamic Range (p. 117)
	OLED Color (p. 86)
	Wi-Fi on
	Bluetooth on
	Firmware update notification*

* This icon appears only when the camera is connected to a Wi-Fi network.

3. Shooting options (Touch)



Icon	Description
	Change Smart mode*
	Save a custom mode**
	Quick Transfer (p. 148)
	Touch AF options
	Shooting options
	Smart panel

* This icon appears only when you select Smart mode.

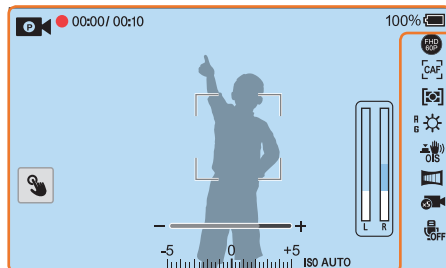
** This icon appears when you select Custom1 or Custom2 mode.



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

Recording videos

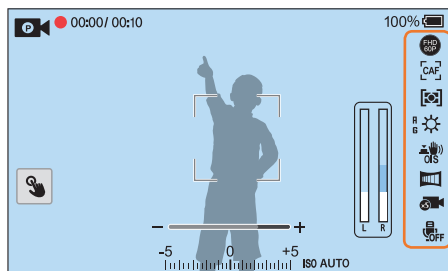
1. Shooting information



Icon	Description
	Shooting mode
	Touch AF option (Touch)
00:00 / 00:10	Current recording time/ Available recording time
	Multi Motion (p. 123)
00:02	Playback time after applying the Multi Motion feature
100%	Battery percentage
	- Fully charged - Partially charged (Red): Empty (recharge the battery) - Charging - Internal battery in use (when the vertical grip is connected) - External battery in use (when the vertical grip is connected)

Icon	Description
	Zoom indicator*
-5 0 +5 	Exposure value
ISO AUTO	ISO sensitivity (p. 85)
	Video sound level

2. Shooting options



Icon	Description
	Video size
	AF mode (p. 91)
	Metering (p. 114)
	White Balance (p. 87)
	White Balance micro adjustment
	Optical Image Stabilization (OIS) (p. 101)
	Digital Image Stabilization (DIS) (p. 124)

Icon	Description
	Fader (p. 124)
	Multi Motion (p. 123)
	Voice recording off (p. 125)
	Zoom button*
	OLED Color (p. 86)

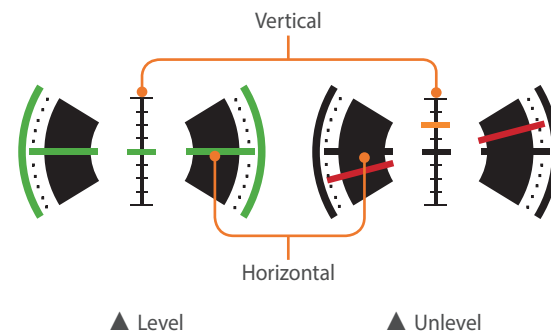
* This icon appears when you attach the Power Zoom lens.



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

About the level gauge

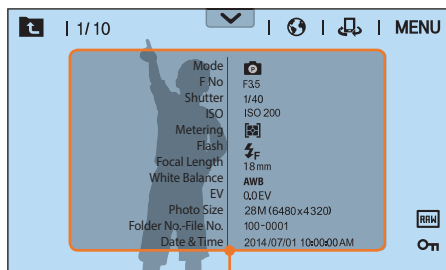
The level gauge helps you align the camera with the horizontal and vertical lines on the display. If the level gauge is not level, calibrate the level gauge using the Horizontal Calibration function. (p. 177)



You cannot use the level gauge when you shoot in portrait orientation.

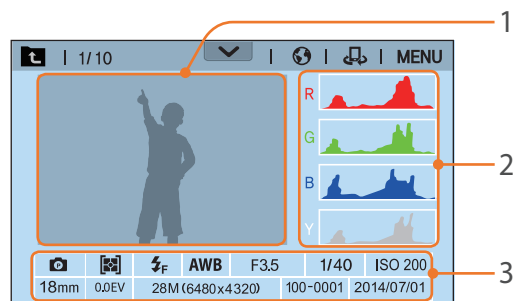
In Playback mode

Viewing photos



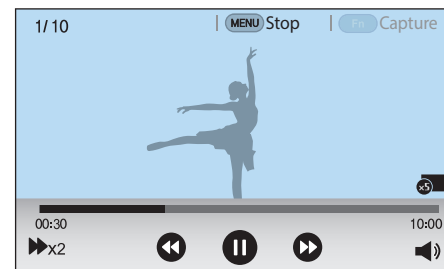
Information

Icon	Description
	View image thumbnails. (Touch)
1/10	Current file/The total number of files
	Notification panel bar (Touch)
	Share files via Wi-Fi network. (Touch)
	Share files with other devices. (Touch)
MENU	Playback/Editing/Setting menu (Touch)
	RAW file
	3D file
	Protected file



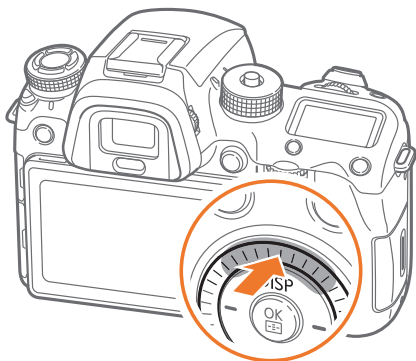
No.	Description
1	Captured photo
2	RGB histogram (p. 173)
3	Shooting mode, Metering, Flash, White Balance, Aperture value, Shutter speed, ISO, Focal length, Exposure value, Photo size, Folder number-File number, Date

Playing videos



Icon	Description
	Playback speed
00:30	Current playback time
10:00	Video length
	Multi Motion
	View previous file/Scan backward. (Each time you touch the scan backward icon, you change the scan speed in this order: 2X, 4X, 8X.)
	Pause or resume playback.
	View next file/Scan forward. (Each time you touch the scan forward icon, you change the scan speed in this order: 2X, 4X, 8X.)
	Adjust the volume or mute the sound.

Changing the information displayed

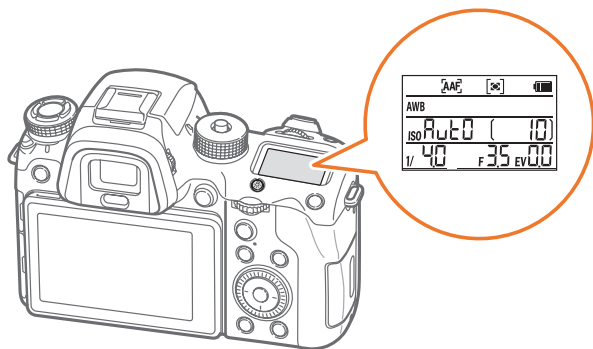


Press [DISP] repeatedly to change the display type.

Mode	Display type
Shooting	Basic shooting information (Shooting mode, Shutter speed, Aperture value, Exposure value, ISO sensitivity, etc.)
	Basic shooting information + Shooting option buttons (MENU, Fn, Quick Transfer, Touch AF) + Current shooting options information (Photo size, Drive mode, Flash, Metering, AF mode, etc.) + Histogram
	Basic shooting information + Shooting option buttons + Current shooting options information + Level gauge
	Basic shooting information + Shooting option buttons + Current shooting options information
	No information (when connected to an HDTV or an HDMI-enabled monitor)
Playback	Basic information
	Display all information about the current file.
	Display all information about the current file including RGB histogram.

Viewing the status display panel

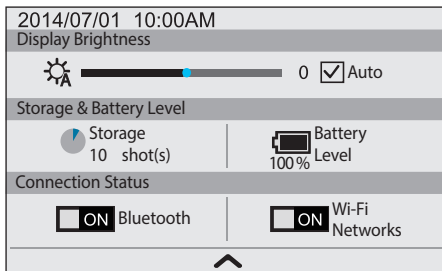
View basic shooting information, such as AF mode, metering option, and battery life on the status display panel without having to view the display. Press [>] to illuminate the status display panel.



Icon	Description
	AF mode (p. 91)
	Metering (p. 114)
RAW+	RAW file
	Battery life
AWB	White Balance (p. 87)
	ISO sensitivity (p. 85)
	Available number of photos
	Shutter speed
	Aperture value
	Exposure adjustment value
USB	Connect the camera to your computer with the USB cable.
	Enter Power Save mode when the camera is connected to a power adapter.

Viewing the notification panel

Touch  at the top of the display to open the notification panel. You can adjust the display brightness or view the current date and time, battery life, and data storage information. You can also view the status of a Bluetooth or Wi-Fi connection and enable or disable it. Touch the bottom of the notification panel or press [MENU] or [Fn] to close it.



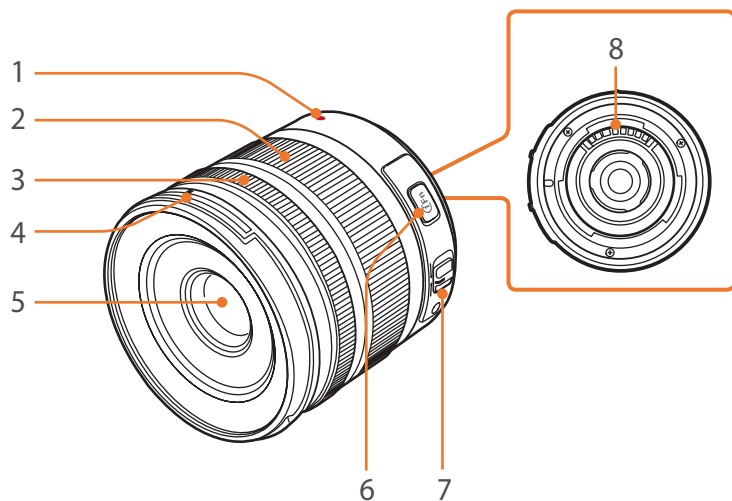
Lenses

You can purchase optional lenses made exclusively for your NX series camera.

Learn about the functions of each lens and select one that suits your needs and preferences.

Lens layout

SAMSUNG 18-55 mm F3.5-5.6 OIS III lens (example)

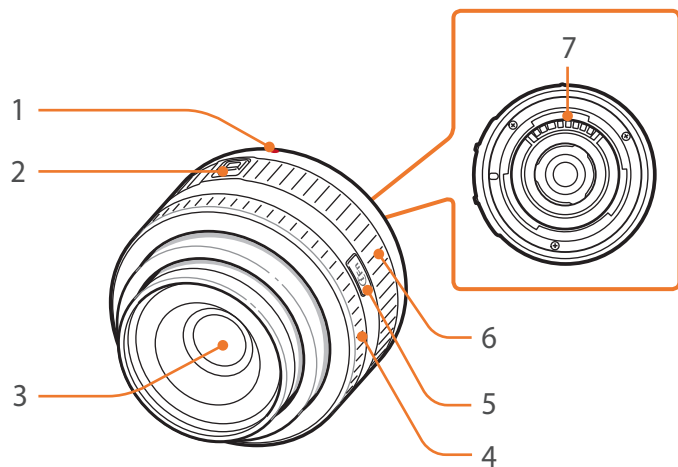


No.	Description
1	Lens mount index
2	Zoom ring
3	Focus ring (p. 99)
4	Lens hood mount index
5	Lens
6	i-Function button (p. 47)
7	AF/MF switch (p. 91)
8	Lens contacts



When not using the lens, attach the lens cap and lens mount cover to protect the lens from dust and scratches.

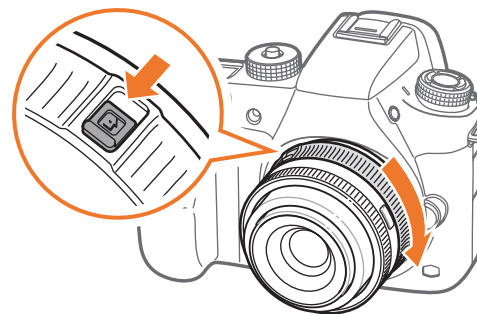
SAMSUNG 20-50 mm F3.5-5.6 ED II lens (example)



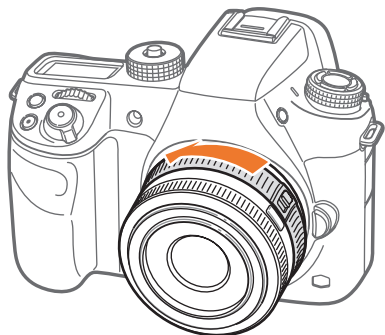
No.	Description
1	Lens mount index
2	Zoom lock switch
3	Lens
4	Focus ring (p. 99)
5	i-Function button (p. 47)
6	Zoom ring
7	Lens contacts

Locking or unlocking the lens

To lock the lens, pull and hold the zoom lock switch away from the camera body and rotate the zoom ring as shown in the illustration.

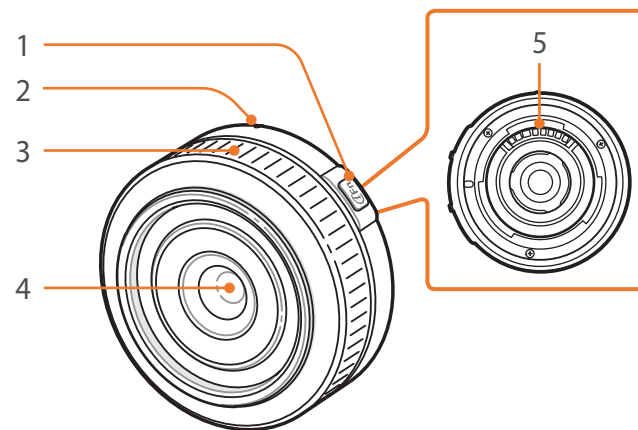


To unlock the lens, rotate the zoom ring as shown in the illustration until you hear the click.



You cannot capture a photo when the lens is locked.

SAMSUNG 16 mm F2.4 lens (example)

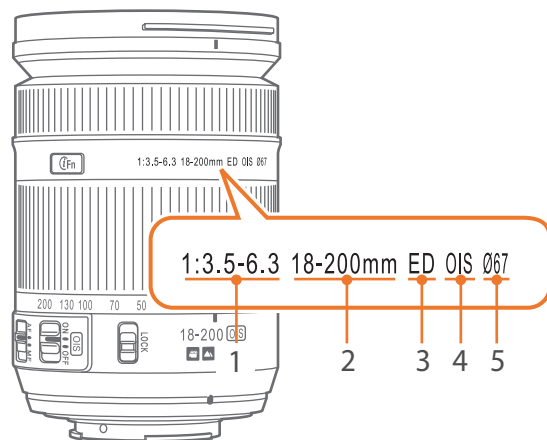


No.	Description
1	i-Function button (p. 47)
2	Lens mount index
3	Focus ring (p. 99)
4	Lens
5	Lens contacts

Lens markings

Find out what the numbers on the lens signify.

SAMSUNG 18-200 mm F3.5-6.3 ED OIS lens (example)



No.	Description
1	Aperture value A range of supported aperture values. For example, 1:3.5–6.3 means the maximum aperture value range from 3.5 to 6.3.
2	Focal length The distance from the middle of the lens to its focal point (in millimeters). This figure is expressed in a range: minimum focal length to maximum focal length of the lens. Longer focal lengths result in narrower angles of view and the subject is magnified. Shorter focal lengths result in wider angles of view.
3	ED ED stands for Extra-low Dispersion. Extra-low dispersion glass is effective in minimizing chromatic aberration (a distortion that occurs when a lens fails to focus all colors to the same convergence point).
4	OIS (p. 101) Optical Image Stabilization. Lenses with this feature can detect camera shake and effectively cancel out the movement inside the camera.
5	Ø The lens diameter. When you attach a filter to the lens, make sure that the diameters of the lens and the filter are the same.

You can use accessories such as external flash that can help you capture better and more convenient photos.

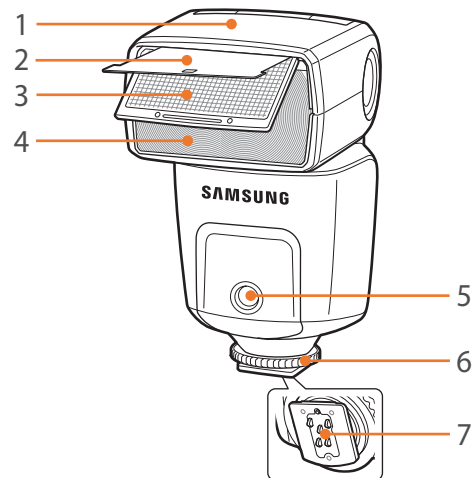
For more information about optional accessories, refer to the manual for each accessory.



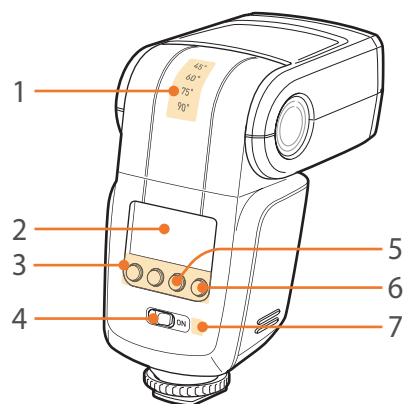
- The illustrations may differ from the actual items.
- You can purchase Samsung-approved accessories at a retailer or a Samsung service center. Samsung is not responsible for damage caused by using another manufacturer's accessories.

External flash layout

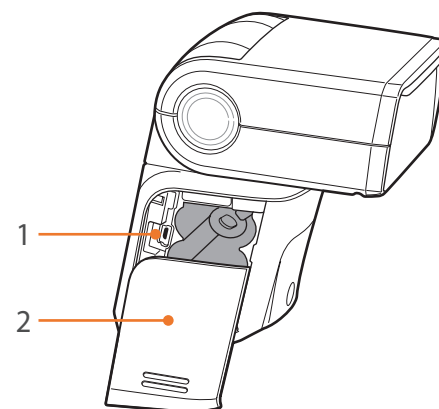
SEF-580A (example) (optional)



No.	Description
1	Flash head
2	Reflector card
3	Wide-angle panel
4	Lamp
5	AF-assist light
6	Hot-shoe fastening dial
7	Hot-shoe connection



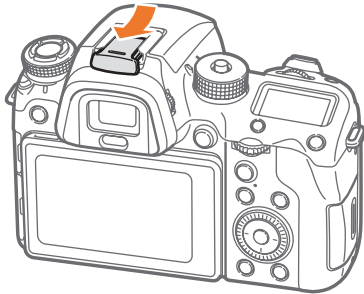
No.	Description
1	Flash head angles
2	Flash screen
3	Flash buttons
4	Power switch
5	Correct exposure indicator
6	Manual firing button/Flash-ready indicator
7	Light sensor for wireless remote flash



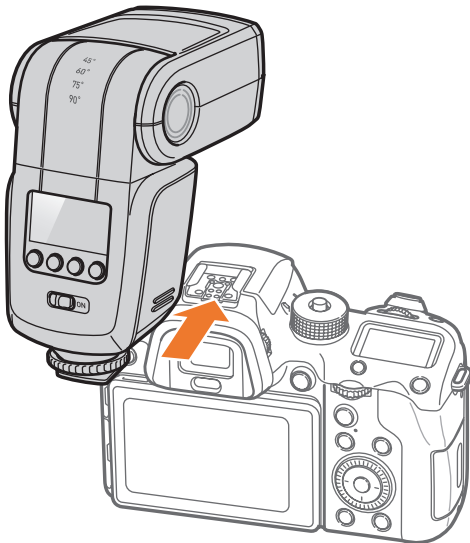
No.	Description
1	USB port
2	Battery chamber cover

Connecting the external flash

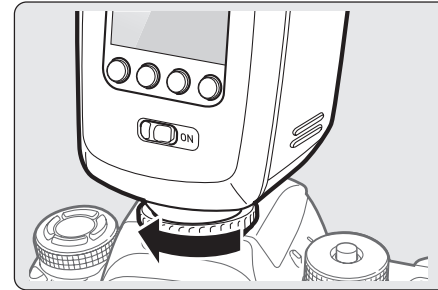
- 1 Remove the hot-shoe cover from the camera.



- 2 Mount the flash by sliding it into the hot-shoe.



- 3 Rotate the hot-shoe fastening dial as shown in the illustration to lock the flash into place.



- 4 Slide the power switch towards **ON** to turn on the flash.



- You can capture a photo with a flash that is not fully charged, but it is recommended to use a fully charged flash.
- The available 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.
- For more details about optional flashes, refer to the user manual for the flash.



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

Shooting modes

Two simple shooting modes—Smart Auto and Smart mode—help you capture photos with numerous automatic settings. Additional modes allow for greater customization of settings.



Icon	Description
AUTO	Smart Auto mode (p. 65)
P	Program mode (p. 67)
A	Aperture Priority mode (p. 69)
S	Shutter Priority mode (p. 70)
M	Manual mode (p. 71)
C ₁	Custom1 mode (p. 72)
C ₂	Custom2 mode (p. 72)
S	Smart mode (p. 74)

AUTO Smart Auto mode

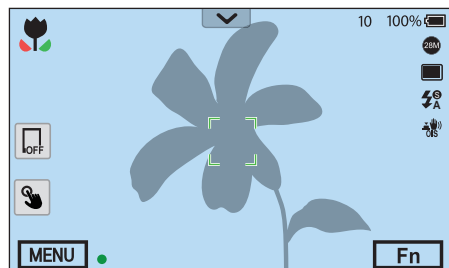
In Smart Auto mode, the camera recognizes surrounding conditions and automatically adjusts factors that contribute to exposure, including shutter speed, aperture value, metering, White Balance, and exposure compensation. As the camera controls most of the functions, some shooting functions are limited. This mode is useful for capturing quick snapshots with the least amount of adjustment.



- 1 Rotate the mode dial to **AUTO**.
- 2 Align your subject in the frame.

3 Half-press [Shutter] to focus.

- The camera selects a scene. An appropriate scene icon appears at the screen.



Recognizable scenes

Icon	Description
	Landscapes
	Scenes with bright white backgrounds
	Landscapes at night
	Portraits at night
	Landscapes with backlighting
	Portraits with backlighting
	Portraits
	Close-up photos of objects
	Close-up photos of text

Icon	Description
	Sunsets
	Partially lit
	Close-up with spot lighting
	Portraits with spot lighting
	Blue skies
	Forested areas typically consist of green-colored subjects
	Close-up photos of colorful subjects
	Camera is stabilized on a tripod and the subject is not moving for a certain period of time. (when shooting in the dark)
	Actively moving subjects

4 Press [Shutter] to capture the photo.



- The camera may detect different scenes, even the same subjects, depending on external factors such as camera shake, lighting, or distance to the subject.
- If the camera does not recognize an appropriate scene mode, it uses the default settings for the Smart Auto mode.
- Even if it detects a face, the camera may not select a portrait mode depending on the subject's position or lighting.
- Even if you use a tripod, the camera may not detect the tripod mode () if the subject is moving.
- The camera consumes more battery power, because it changes settings often to select appropriate scenes.

P Program mode

The camera automatically adjusts shutter speed and aperture value so that an optimal exposure value can be achieved.

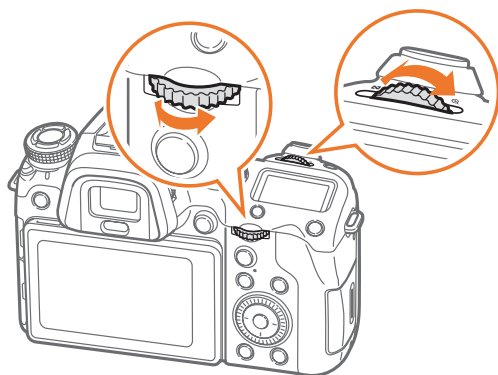
This mode is useful when you want to capture shots of constant exposure while being able to adjust other settings.



- 1 Rotate the mode dial to P.
- 2 Set the desired options.
- 3 Half-press [**Shutter**] to focus, and then press [**Shutter**] to capture the photo.

Program Shift

Program Shift function lets you adjust the shutter speed and aperture value while the camera maintains the same exposure. When you scroll the command dial 1 or command dial 2 to the left, the shutter speed decreases and the aperture value increases. When you scroll the command dial 1 or command dial 2 to the right, the shutter speed increases and the aperture value decreases.



Direction	Adjustable item
←	Shutter speed decreases and aperture value increases.
→	Shutter speed increases and aperture value decreases.

Minimum shutter speed

Set the shutter speed not to be slower than the selected speed. However, if an optimal exposure value cannot be achieved because the ISO sensitivity reached the maximum ISO value that is set by Auto ISO Range, shutter speed may be slower than the selected minimum shutter speed.

To set the minimum shutter speed,

In Shooting mode, press [MENU] → → **Minimum Shutter Speed** → an option.



- This feature is available only when the ISO sensitivity is set to Auto.
- This feature is available only in Program or Aperture Priority mode.

A Aperture Priority mode

In Aperture Priority mode, the camera automatically calculates shutter speed according to the aperture value you choose.

You can adjust the depth of field (DOF) by changing the aperture value. This mode is useful for taking portraits, flowers, or landscape shots.



Large Depth of Field



Small Depth of Field

- 1 Rotate the mode dial to A.
- 2 Scroll the command dial 1 or command dial 2 to adjust the aperture value.
 - You can also adjust the aperture value by pressing [Fn], moving to the aperture value, and then scrolling the command dial 1 or dragging your finger on the screen.
- 3 Set the desired options.
- 4 Half-press [Shutter] to focus, and then press [Shutter] to capture the photo.

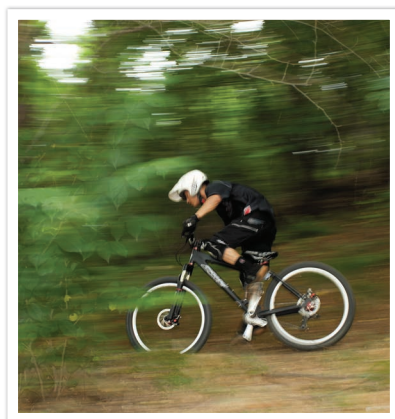


- In low-light settings, you may need to increase the ISO sensitivity to prevent blurred photos.
- To set the minimum shutter speed, in Shooting mode, press [MENU] →  → **Minimum Shutter Speed** → an option.

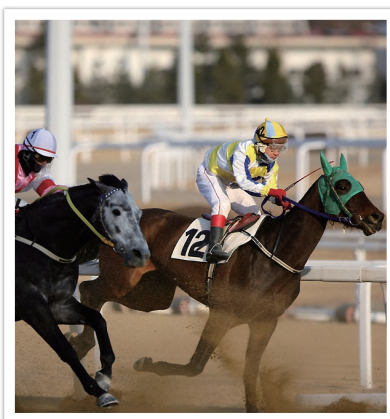
S Shutter Priority mode

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

For example, set the shutter speed to over 1/500 s to freeze the subject. To make the subject appear blurred set the shutter speed to below 1/30 s.



Slow shutter speed



Fast shutter speed

- 1 Rotate the mode dial to S.
- 2 Scroll the command dial 1 or command dial 2 to adjust the shutter speed.
 - You can also adjust the shutter speed by pressing [Fn], moving to the shutter speed, and then scrolling the command dial 1 or dragging your finger on the screen.
- 3 Set the desired options.
- 4 Half-press [**Shutter**] to focus, and then press [**Shutter**] to capture the photo.



In order to compensate for the reduced amount of light allowed by fast shutter speeds, open the aperture and let in more light. If your photos are still too dark, increase the ISO value.

M Manual mode

Manual mode lets you adjust the shutter speed and aperture value manually. In this mode, you can fully control the exposure of your photos.

This mode is useful in controlled shooting environments, such as a studio, or when it is necessary to fine-tune camera settings. The Manual mode is also recommended for shooting night scenes or fireworks.

- 1 Rotate the mode dial to **M**.
- 2 Scroll command dials 1 and 2 to adjust the shutter speed and aperture value, respectively.
 - Press [MENU] →  → **Command Dial**, and then you can select an item to adjust when scrolling each dial. (p.174)
 - You can also adjust the shutter speed or the aperture value by pressing [Fn], moving to the shutter speed or the aperture value, and then scrolling the command dial 1 or dragging your finger on the screen.
- 3 Set the desired options.
- 4 Half-press [**Shutter**] to focus, and then press [**Shutter**] to capture the photo.

Using the Bulb function

Use the Bulb function to shoot night scenes or the night sky. While you are pressing [**Shutter**], the shutter is left open so you can create moving light effects.

To use a bulb,

Completely scroll command dial 1 or 2 to the left to **Bulb** → Press and hold [**Shutter**] for the desired time.



- If you set a high ISO value or open the shutter for a long time, image noise may increase.
- Drive options, flash, and One touch shot cannot be used with the Bulb function.
- The Bulb function is available only in Manual mode.
- Use a tripod and shutter release to prevent your camera from shaking.
- The longer you open the shutter, the longer it takes to save a photo. Do not turn the camera off while the camera saves a photo.
- If you use this function for a long time, use a fully charged battery.

C1 C2 Custom mode

Custom mode lets you create your own shooting modes by customizing options and saving them. Save frequently used option settings and then open it as your own shooting mode customized for the shooting environment. Use custom mode when you capture photos in various environments, you have preferred shooting settings, or you frequently use preset options in certain conditions.

Saving custom modes

- 1 Rotate the mode dial to P, A, S, M, C1, or C2.
- 2 Set shooting options.
- 3 Press [MENU], and then select  → **Manage Custom Mode** → **Save**.
 - You can also save a custom mode by touching  on the screen.
 - You can also save a custom mode by pressing [Fn], and then touching .

- 4 Verify the shooting options, and then select **Save** or **Save as**.
- 5 Use the on-screen keyboard to enter a name for the mode. (p. 154)
- 6 Press [] to save the mode name.
- 7 Capture a representative photo for the mode to save.
- 8 Select **Save**.



You can save up to 40 custom modes.

Downloading custom modes

You can download various shooting settings (film) on a smart phone and share with the camera.

- 1 Connect the camera and a smart phone via Bluetooth.
- 2 On the smart phone, turn on Samsung Camera Manager.
- 3 Select **Pro Suggest Market**.
- 4 Download a desired film.



- The custom mode saved on the camera is automatically shared to a smart phone when the camera and a smart phone are connected.
- Some of the shooting settings (film) may not be supported on the camera.

Selecting custom modes

- 1 Rotate the mode dial to **C1** or **C2**.
- 2 On a pop-up window, select **Yes** → a mode.
 - You can also press [MENU], and then select ⌵ → **Manage Custom Mode** → **Open** → a mode.
 - If there is no custom mode saved, you can select a shooting mode from a pop-up window on the camera, set shooting options, and save new custom modes.
- 3 Verify the shooting options, and then select **OK**.

Deleting custom modes

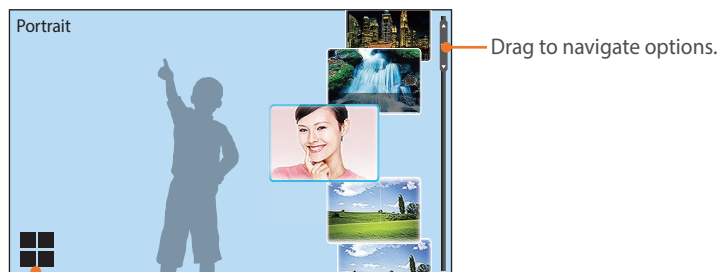
- 1 Rotate the mode dial to **P**, **A**, **S**, **M**, **C1**, or **C2**.
- 2 Press [MENU], and then select ⌵ → **Manage Custom Mode** → **Delete**.
- 3 Select a mode to delete, and then press [⏏].

Smart mode

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

1 Rotate the mode dial to .

2 Select a scene.



Switch to the grid view.



Switch to the list view.

Option	Description
Beauty Face	Capture a portrait with options to hide facial imperfections.
Landscape	Capture still-life scenes and landscapes.
Action Freeze	Capture subjects moving at high speed.
Rich Tones	Capture a photo with vibrant colors.
Panorama	Capture a wide panoramic scene in a single photo.
Waterfall	Capture scenes with waterfalls.
Multi Exposure	Capture multiple photos and overlap them to create one photo.
Auto Shutter	Set an area to automatically capture a subject when movement is detected.
Silhouette	Capture subjects as dark shapes against a light background.
Sunset	Capture scenes at sunset, with natural-looking reds and yellows.

Option	Description
Night	Capture multiple photos in low light conditions without a flash. The camera combines them to create a single image that is brighter and has less blurring.
Fireworks	Capture scenes with fireworks.
Light Trace	Capture scenes with the light trailing in low-light conditions.

Some options are not available when you use the viewfinder.

- Half-press [**Shutter**] to focus, and then press [**Shutter**] to capture.



Capturing panoramic photos

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

1 Rotate the mode dial to **S**, and then select **Panorama**.

2 Press and hold [**Shutter**] to start shooting.

3 With [**Shutter**] pressed, slowly move the camera in the direction you selected.

- An arrow toward the direction of motion is displayed, and the entire shooting image is displayed in the preview box.
- When the scenes are aligned, the camera captures the next photo automatically.



4 When you are finished, release [**Shutter**].

- The camera will automatically save the shots into one photo.
- If you release [**Shutter**] while shooting, the panoramic shooting stops and photos that have been captured are saved.



- The resolution varies depending on the panoramic photo you captured.
- In Panorama mode, some shooting options are not available.
- The camera may stop shooting due to the shooting composition or the subject's movement.
- In Panorama mode, your camera may not capture the entire last scene if you stop moving the camera to improve the photo quality. To capture the entire scene, move your camera slightly beyond the point where you want the scene to end.
- For best results when capturing panoramic photos, avoid the following:
 - moving the camera too quickly or too slowly
 - moving the camera too little to capture the next image
 - moving the camera at irregular speeds
 - shaking the camera
 - shooting in dark places
 - capturing moving subjects nearby
 - shooting conditions where the brightness or color of light is changing
- Photos taken are automatically saved, and shooting is stopped under the following conditions:
 - if you change the shooting direction while shooting
 - if you move the camera too rapidly
 - if you do not move the camera

Using the Auto Shutter mode

In Auto Shutter mode, the camera will automatically capture a photo when movement is detected. This mode is useful when capturing movements, such as batters hitting a ball or jumping.

1 Rotate the mode dial to **S**, and then select **Auto Shutter**.

2 Touch **Auto**, and then select **Baseball** or **Jump Shot**.

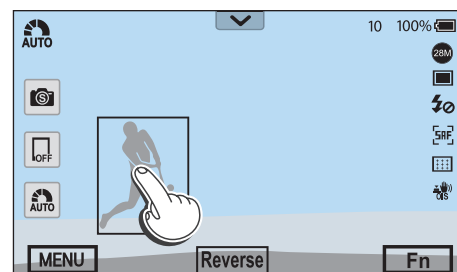
3 Press **[Shutter]** to capture a photo.

- If you select **Jump Shot**, the photo is automatically taken when jumping is detected.
- If you selected **Baseball**, the photo is automatically taken when the camera detects someone swinging a bat. To set an area for detecting movement, please refer to the following.

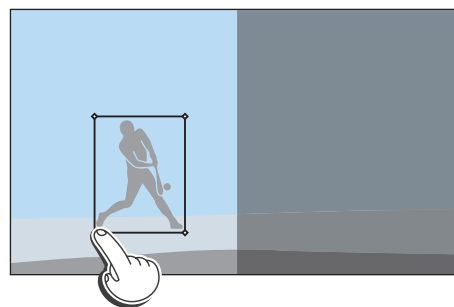
Setting a movement detection area

1 Tap the person-shaped icon on the screen, and then drag it to the desired location.

- You cannot drag the box to the opaque area on the screen.
- Touch **Reverse** to move the box to the other half of the screen.



2 Drag the corners of the box to adjust its size to fit the subject.





- Use a tripod to prevent your camera from shaking.
- In dark environments the movement of a subject may not be taken properly.
- If you select **Jump Shot**, the photo may be taken using the person jumping highest as a reference when a lot of people jump.
- If you select **Baseball**, a subject's movement is clearly detected under the following situation:
 - maintaining a $\pm 20^\circ$ angle of view from a batter's side (in the direction of a ball's path)
 - maintaining distance of 3-3.5 m between the camera and a batter
 - there is no net between the camera and a batter

Recording a video

In Shooting mode, you can record UHD videos (4096X2160) by pressing  (Video recording). The camera lets you record a video up to 29 minutes and 59 seconds long, or until the size of the movie file reaches 4 GB in length at 60, 30, 24, or 15 fps, and then saves the file in HEVC format. (For 3840X2160 (30 fps), you can record up to 14 minutes and 12 seconds. For 4096X2160 (30 fps), you can record up to 15 minutes and 50 seconds.) 15 fps is available only with some Smart Filter options. The sound is recorded via the camera's microphone. (If you attach an external microphone, the sound will be recorded via the external microphone.)

You can set the exposure by adjusting the aperture value and shutter speed for the mode you selected. When you use a lens that does not have an AF/MF switch while recording a video, press [**AF**] to deactivate or activate the AF function. When you use the lens that has an AF/MF switch, the AF function works according to the switch's setting.

Select **Fader** to fade in or out a scene. You can also select **Voice**, **Wind Cut**, or other options to set recording options. (p. 124)

While recording a video, touch  to select a touch AF option. If Touch AF is selected, the focus holds on the focus area by touching a subject on the screen and if Tracking AF is selected, the focus tracks and automatically focuses on your subject, even when the subject is moving or when you change the picture composition.

1 Set the desired options.

- If [—/I/—] is set to **Movie STBY**, press [—/I/—] to enter the Video recording standby mode.

2 Press (Video recording) to start recording.

- Video recording may not be supported depending on the selected shooting options.

3 Press (Video recording) again to stop.

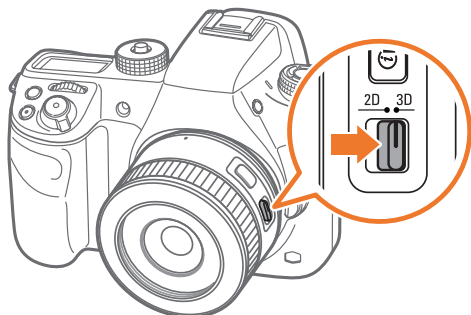


- High-efficiency Video Coding (HEVC) is the latest video encoding format established in 2013 collaboratively by ISO-IEC and ITU-T. Because this format uses a high compression rate, more data can be saved in less memory space. Depending on your computer's specifications, files may not play at full resolution due to the high compression on some computers.
- If you have the image stabilizer option on when shooting a movie, the camera may record the image stabilizer sound.
- The zoom sound or other lens sounds may be recorded if you adjust the lens while recording a video.
- When using an optional video lens, the autofocus noise is not recorded.
- If you remove the camera lens while recording a movie, the recording will be interrupted. Do not change the lens while recording.
- If you attach or remove an external microphone while recording a movie, sound will be recorded via the camera's microphone.

- If you change the shooting angle of the camera suddenly while shooting a movie, the camera may not be able to record images accurately. Use a tripod to minimize camera shake.
- When the size of a movie file exceeds 4 GB, the camera automatically stops recording even if the maximum recording time (29 minutes and 59 seconds) has not been reached.
- If you use a slow writing memory card, the recording of your movie can be interrupted because the card cannot process data at the rate the video is being shot. If this occurs, replace the card with a faster memory card or reduce the video size (for example, from 1280X720 to 640X480).
- When recording a UHD video, it is recommended to use a memory card with a writing speed of faster than 30 MB/sec.
- When formatting a memory card, always format using the camera. If you format on another camera or a PC, you can lose files on the card or cause a change in the capacity of the card.
- When you press the video recording button, intelli-zoom turns off.
- While recording a video in the same ISO sensitivity, the screen may be darker than taking a photo. Adjust the ISO sensitivity.
- When you record a video in P, A, or S mode, ISO is automatically set to **Auto**.

3D mode

You can capture 3D photos or videos with an optional 3D lens.



SAMSUNG 45 mm F1.8 [T6] 2D/3D lens (example)

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

- 3D mode is always on, regardless of the mode dial of the camera.
- To use auto 3D options that enable the camera to set shooting options automatically depending on shooting conditions in 3D mode, press [MENU] → → **3D Auto Mode** → **On**.



- Available shooting options differ compared to other shooting modes.
- You can select either 5.9M (3232X1824) or 2.1M (1920X1080) photo size.
- The video resolution is set to 1920X1080.
- Videos recorded in 3D may be dark or playback may be jittery.
- Shooting in low temperatures may result in color distortion in images and may consume more battery power.
- You may not be able to shoot properly in conditions below 8.5 LV/900 lux. For best results, capture photos in places with sufficient light.
- When you photograph objects that contain polarizing material, such as a display, sunglasses, or a polarizing filter, or use the polarizing material with your lens, the images may appear dark or the 3D effect may not be applied properly.
- Use a tripod to prevent your camera from shaking.
- If you rotate or tilt the camera vertically while shooting, the 3D effect may not be applied properly. Capture images with the camera in the normal position.
- If you shoot in fluorescent lighting or capture images displayed by projectors or TVs, the images may appear black due to the flicker effect.
- In 3D mode, the **Enlarge x8** option of **MF Assist** may not be available.
- The camera's display shows 3D videos only in 2D.
- Photos captured with the 3D function are saved in JPEG (2D) and MPO (3D) formats. On your camera's display, you can view only JPEG files.
- To view 3D files, connect your camera to a 3D TV or 3D monitor with an optional HDMI cable. While viewing, wear proper 3D glasses.
- You cannot use the flash in 3D mode.

Available functions by shooting mode

For details about shooting functions, see Chapter 2.
Press a shortcut for each function.

Function	Available in	Shortcut
Framing Mode (p. 119)	P/A/S/M	-
Photo Size (p. 83)	P/A/S/M/*/*/ 3D *	-
Quality (p. 84)	P/A/S/M/*/*/ 3D *	-
ISO (p. 85)	P/A/S/M	Fn/ISO
OLED Color (p. 86)	P/A/S/M//	-
White Balance (p. 87)	P/A/S/M/ 3D	Fn/ WB
Picture Wizard (p. 89)	P/A/S/M/ 3D	Fn
Smart Filter (p. 90)	P/A/S/M	-
AF Mode (p. 91)	P/A/S/M/*/*/ 3D *	Fn
AF Area (p. 94)	P/A/S/M/*	Fn/ AF
Touch AF (p. 97)	P/A/S/M/*// 3D *	-

Function	Available in	Shortcut
MF Assist (p. 99)	P/A/S/M/// 3D *	-
Focus Peaking (p. 100)	P/A/S/M//	-
OIS (Anti-Shake) (p. 101)	P/A/S/M/*/	-
Drive (Single/Continuous/Timer/Bracketing) (p. 102)	P/A/S/M/*/*/ 3D *	Fn
Interval Capture (p. 107)	P/A/S/M	-
Flash (p. 108)	P*/A*/S*/M*/*/*	Fn
Metering (p. 114)	P/A/S/M	Fn/
Link AE to AF Point (p. 116)	P/A/S/M	-
Dynamic Range (p. 117)	P/A/S/M	-
Exposure compensation (p. 118)	P/A/S/M/ 3D	Fn
Exposure/Focus lock (p. 120)	P/A/S/M	AEL

* Some functions are limited in these modes.



Chapter 2

Shooting Functions

Learn about the functions you can set in Shooting mode.
You can enjoy more customized photos and videos by using the shooting functions.

Size and Resolution

Photo size

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. Select a low resolution for photos that will be displayed in a digital picture frame or uploaded to the web.



To set the size,

In Shooting mode, press [MENU] → → **Photo Size** → an option.

* Default

Icon	Size	Recommended for
	(3:2) 6480X4320*	Printing on A0 paper.
	(3:2) 4560X3040	Printing on A2 paper.
	(3:2) 3264X2176	Printing on A3 paper.
	(3:2) 2112X1408	Printing on A5 paper.
	(16:9) 6480X3648	Printing on A0 paper or viewing on an HDTV.
	(16:9) 4608X2592	Printing on A2 paper or viewing on an HDTV.
	(16:9) 3328X1872	Printing on A4 paper or viewing on an HDTV.
	(16:9) 2048X1152	Printing on A5 paper or viewing on an HDTV.
	(1:1) 4320X4320	Printing a square photo on A1 paper.
	(1:1) 3088X3088	Printing a square photo on A2 paper.
	(1:1) 2160X2160	Printing a square photo on A4 paper.
	(1:1) 1408X1408	Printing a square photo on A5 paper.



Available options may differ depending on shooting conditions.

Quality

The camera saves photos in either the JPEG or RAW format.

Photos captured by a camera are often transformed to the JPEG format and stored in the memory according to the settings of the camera at the time of shooting. RAW files are not transformed to the JPEG format and are stored in the memory without any changes.

RAW files have the file extension “SRW”. To adjust and calibrate exposures, White Balances, tones, contrasts, and colors of the RAW files, or to convert them into JPEG or TIFF format, use the supplied Samsung RAW Converter program.

Ensure you have enough space on the memory card to save photos in the RAW format.

To set the quality,

In Shooting mode, press [MENU] →  → **Quality** → an option.

Icon	Format	Description
	JPEG	Super Fine* : - Compressed for the best quality. - Recommended for printing in large size.

Icon	Format	Description
	JPEG	Fine: - Compressed for better quality. - Recommended for printing in normal size.
	JPEG	Normal: - Compressed for normal quality. - Recommended for printing in small size or uploading to the web.
	RAW	RAW: - Save a photo without data loss. - Recommended for editing after shooting.
	RAW+JPEG	RAW + S.Fine: Save a photo in both the JPEG (S.Fine quality) and RAW format.
	RAW+JPEG	RAW + Fine: Save a photo in both the JPEG (Fine quality) and RAW format.
	RAW+JPEG	RAW + Normal: Save a photo in both the JPEG (Normal quality) and RAW format.



Available options may differ depending on shooting conditions.

ISO sensitivity

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

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

To set ISO sensitivity,

In Shooting mode, press [ISO] → an option.

Examples



ISO 100



ISO 400



ISO 800



ISO 3200



- You can also set the option by pressing [MENU] →  → **ISO** → an option in Shooting mode.
- Increase the ISO value in places where flash use is prohibited. You can capture a clear photo by setting a high ISO value without having to secure more light.
- Use the Noise Reduction function in order to reduce the visual noise that can appear on photos of a high ISO value. (p. 170)
- Available options may differ depending on the shooting conditions.

OLED Color

Set the camera to optimize colors for an OLED display when you capture or play back photos. An OLED display has a wider color reproduction range than a crystal liquid display and produces brighter, natural colors.

To set OLED Color,

In Shooting mode, press [MENU] →  → **OLED Color** → an option.

Examples



Without OLED Color effect



With OLED Color effect

White Balance

White Balance represents the light source that influences on the color of a photo.

The color of a photo depends on the type and quality of the light source. If you want the color of your photo to be realistic, select an appropriate lighting condition to calibrate the White Balance, such as **Auto WB**, **Daylight**, **Cloudy**, **Tungsten**, or adjust color temperature manually.

You can also adjust color for the preset light sources so that the colors of the photo match the actual scene under mixed lighting conditions.

To set the White Balance,

In Shooting mode, press [WB] → an option.

Icon	Description	* Default
AWB	Auto WB* : Use automatic settings depending on the lighting conditions.	
	Auto WB+Tungsten : Select when shooting under incandescent bulbs. This option offsets a reddish hue that incandescent tungsten bulbs tend to have. In other situations, use automatic settings depending on the lighting conditions.	
	Tungsten : Select when taking indoor photos under incandescent bulbs or halogen lamps. Incandescent tungsten bulbs tend to have a reddish hue. This option offsets that effect.	
	Daylight : Select when taking outdoor photos on a sunny day. This option results in photos closest to the natural colors of the scene.	

Icon	Description	* Default
	Cloudy : Select when taking outdoor photos on a cloudy day or in shadows. Photos captured on cloudy days tend to be more bluish than on sunny days. This option offsets that effect.	
	Fluorescent White : Select when shooting under a daylight fluorescent lamp, especially for white fluorescent light.	
	Fluorescent NW : Select when shooting under a daylight fluorescent lamp, especially for white fluorescent light of very white hues.	
	Fluorescent Daylight : Select when shooting under a daylight fluorescent lamp, especially for white fluorescent light of slightly bluish hue.	
	Flash WB : Select when using a flash.	
	Custom Set : Use your pre-defined settings. You can manually set the White Balance by pressing [DISP], and then shooting a white sheet of paper. Fill the spot metering circle with the paper and set the White Balance.	
	Color Temperature : Manually adjust the color temperature of the light source. Color temperature is a measurement in degrees Kelvin that indicates the specific type of light source. You can get a warmer photo with a higher value, and a cooler photo with a lower value. Press [DISP], and then adjust the color temperature.	



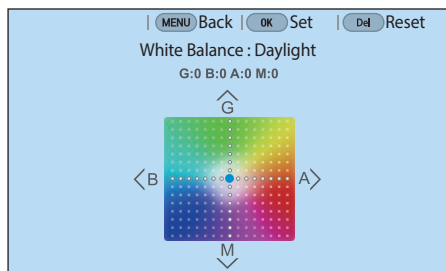
- You can also set the option by pressing [MENU] →  → **White Balance** → an option in Shooting mode.
- Available options may differ depending on shooting conditions.

Customizing preset White Balance options

You can also customize preset White Balance options.

To customize
preset options,

In Shooting mode, press [WB] → an option → [DISP] → scroll the command dial 1 or rotate the navigation button or press [DISP/1/=/=].



You can also touch an area on the screen.

Examples



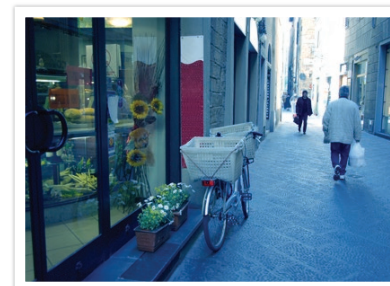
Auto WB



Daylight



Fluorescent Daylight



Tungsten

Picture Wizard (photo styles)

Picture Wizard lets you apply different photo styles to your photo to create various looks and emotional moods. You can also create and save your own photo styles by adjusting color, saturation, sharpness, contrast, and hue for each style.

There is no rule for which style is suitable in which conditions. Experiment with different styles and find your own settings.

To set a photo style,

In Shooting mode, press [MENU] →  → **Picture Wizard** → an option.

Examples



Standard



Classic



Vivid



Portrait



Landscape



Forest



Retro



Cool



Calm



- You can also adjust the value of the preset style settings. Select a Picture Wizard option, press [DISP], and then adjust color, saturation, sharpness, contrast, or hue.
- To customize your own picture wizard, select , , or  and then adjust the color, saturation, sharpness, contrast, and hue.
- Picture Wizard options cannot be set with Smart Filter options at the same time.

Smart Filter

Smart Filter lets you apply special effects to your photos. You can select various filter options to create special effects that are difficult to be achieved with normal lenses.

To set Smart Filter options,

In Shooting mode, press [MENU] →  → **Smart Filter** → an option.

Option	Description	* Default
Off*	No effect	
Vignetting	Apply the retro-looking colors, high contrast, and strong vignette effect of Lomo cameras.	
Miniature (H)	Apply a tilt-shift effect to make the subject appear in miniature. The top and bottom of the photo will be blurred.	
Miniature (V)	Apply a tilt-shift effect to make the subject appear in miniature. The left and right of the photo will be blurred.	
Watercolor	Apply a watercolor painting effect.	
Red	Desaturate all colors but red.	
Green	Desaturate all colors but green.	

Option	Description	* Default
Blue	Desaturate all colors but blue.	
Yellow	Desaturate all colors but yellow.	



- Smart Filter options cannot be set with Picture Wizard options at the same time.
- Available options may differ depending on the shooting conditions.

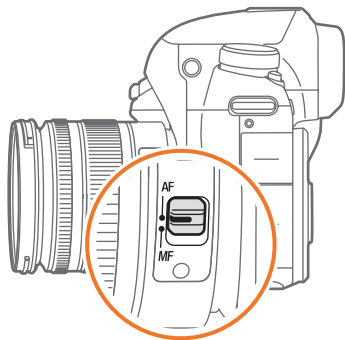
AF mode

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

You can select the appropriate focus mode for the subject: Single Auto Focus, Continuous Auto Focus, Action Auto Focus, or Manual Focus. The AF function is activated when you press **[Shutter]** halfway. In the MF mode, you have to rotate the focus ring on the lens to focus manually.

In most cases, you can have a focus by selecting **Single AF**. Fast moving subjects or subjects with small shading differences to the background are difficult to focus. Select an appropriate focusing mode for such instances.

If your lens has an AF/MF switch, you must set the switch according to the selected mode. Set the switch to AF when you select Single AF or Continuous AF. Set the switch to MF when you select Manual Focus.



When your lens has no AF/MF switch, press **[AF]** to select a desired AF mode.

To set the auto focus mode,

In Shooting mode, press **[AF]** → an option.



- You can also set the option by pressing **[MENU]** →  → **AF Mode** → an option in Shooting mode.
- The available options may differ depending on the lens in use.

Single AF

Single AF is appropriate for shooting a still subject. When you press **[Shutter]** halfway, the focus fixes in the focus area. The area turns green when the focus is achieved.



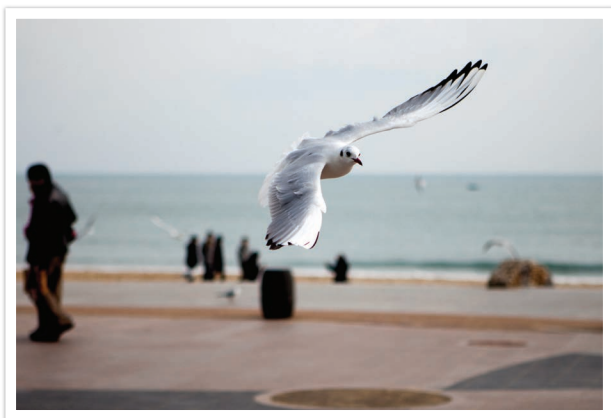
Continuous AF

While you are pressing **[Shutter]** halfway, the camera continues to focus automatically. This mode is recommended for shooting action, such as a person on a bicycle, a running dog, or a car racing scene.



Action AF

While you are pressing [**Shutter**] halfway, the camera automatically detects the subject's movement. It fixes the focus on the subject when the subject gets far from the camera (Single AF). It continues to focus automatically when the subject gets closer to the camera (Continuous AF). This mode is recommended for shooting subjects that are moving unpredictably.



Manual focus

You can manually focus on a subject by rotating the focus ring on the lens. The MF Assist function lets you easily achieve a focus. While you are rotating the focus ring, the focus area is magnified. When you use the Focus Peaking function, the color you selected appears on the focused subject. This mode is recommended for shooting an object similar in color to the background, a night scene, or fireworks.



If you use this function, you cannot set **Touch AF**, **AF Area**, and **Link AE to AF Point** options.

AF area

The AF area function changes the positions of the focus area.

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

To set the auto focus area,

In Shooting mode, press [MENU] →  → **AF Area** → an option.

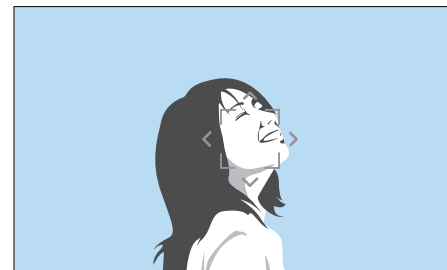


- Available options may differ depending on shooting conditions.
- When the AF/MF switch is set to **MF**, you cannot change the AF area from the shooting menu.
- When you use the Face Detection AF option, the camera focuses on the area with the white frame automatically.
- Depending on the Picture Wizard options, Face Detection may not be effective.
- When you set manual focus, Face Detection may not be available.
- Face Detection may not be effective when:
 - the subject is far from the camera
 - it is too bright or too dark
 - the subject is not facing the camera
 - the subject is wearing sunglasses or a mask
 - the subject's facial expression changes drastically
 - the subject is backlit or the lighting conditions are unstable

Selection AF

You can set the focus on an area you want. Apply an out-of-focus effect to make the subject more distinguishable.

The focus on the photo below was repositioned and resized so that it fits the subject's face.



To resize or move the focus area, in Shooting mode, press []. Use the navigation button or the command dial 2 to move the focus area. Scroll the command dial 1 to resize the focus area.

Multi AF

The camera displays a green rectangle in places where focus is set correctly. The photo is divided into two or more areas, and the camera obtains focus points of each area. It is recommended for scenery photos.

When you press [**Shutter**] halfway, the camera displays the focus areas as shown in the photo below.

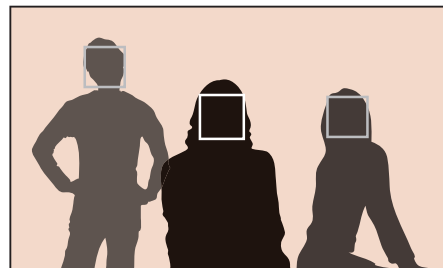


To resize or move the focus area, in Shooting mode, press [**OK**]. Use the navigation button or the command dial 2 to move the focus area. Scroll the command dial 1 to resize the focus area.

Face Detection AF

The camera focuses on human faces preferentially. Faces of up to 10 people can be detected. This setting is recommended for shooting a group of people.

When you press [**Shutter**] halfway, the camera focuses on faces as shown in the photo below. When shooting a group of people, the camera focuses on the nearest person's face or on the face in the center of the screen. It will display the focus subject's face in white and the other peoples' faces in gray.



Self-Portrait AF

It can be difficult to check whether your face is in focus when you are taking a self-portrait. When this function is on, the beep from the camera gets faster when your face is located at the center of the composition.



Touch AF

Select or focus on an area that you touch on the screen. Additionally, focus on the subject and capture a photo by touching on the screen.

To set Touch AF,

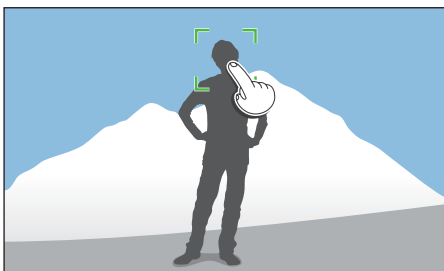
In Shooting mode, press [MENU] →  → **Touch AF** → an option.



Available options may differ depending on the shooting conditions.

Touch AF

Touch AF allows you to select and focus on the focus area that you touch on the screen.

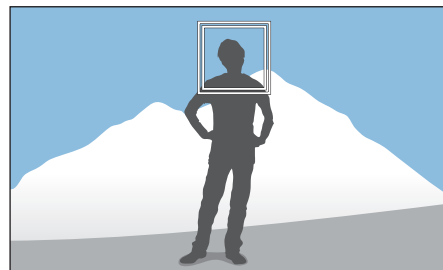


AF Point

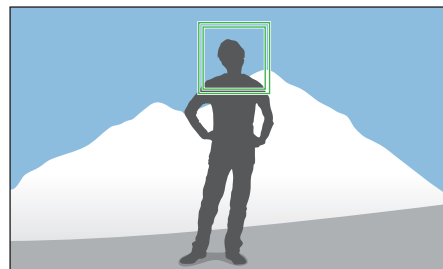
The focus area will correspond to the area you touch on the screen and the focus will not be achieved.

Tracking AF

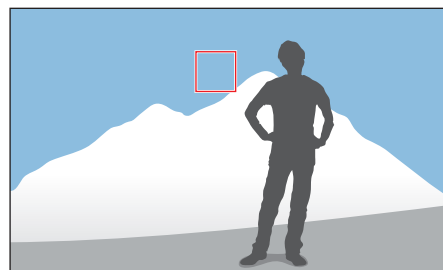
Tracking AF allows you to track and automatically focus on your subject, even when the subject is moving or when you change the shooting composition.



White frame: Your camera is tracking the subject.



Green frame: Your subject is in focus when you half-press [Shutter].



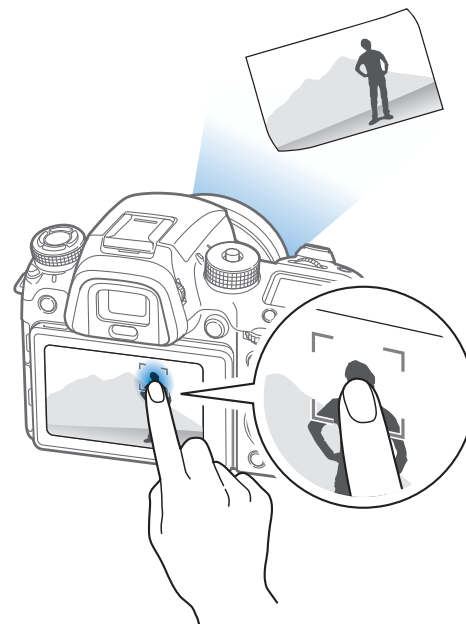
Red frame: Your camera failed to focus.



- If you do not select a focus area, the Auto Focus function does not work.
- Tracking a subject may fail when:
 - the subject is too small
 - the subject moves irregularly
 - the subject is backlit or you are shooting in a dark place
 - colors or patterns on the subject and the background are the same
 - the subject includes horizontal patterns, such as blinds
 - the camera shakes excessively
 - you capture photos continuously
- When tracking fails, the feature will be reset.
- If the camera fails to track the subject, the focus area will be reset.
- If the camera fails to focus, the focus frame will change to red and the focus will be reset.

One touch shot

You can capture a photo with the touch of your finger. As you touch a subject, the camera focuses on the subject automatically and captures a photo.



Focus assist

In the manual focus mode, you have to rotate the focus ring on the lens to focus. When you use the MF Assist function or the Focus Peaking function, you can achieve a clearer focus. This function is only available on a lens that supports manual focus.

You can also use the Direct Manual Focus (DMF) function to adjust the focus manually. After focusing with the Auto Focus function, adjust the focus by rotating the focus ring.

MF Assist

In the manual focus mode, you can enlarge the scene and easily adjust the focus while rotating the focus ring.

To set the manual focus assist,

In Shooting mode, press [MENU] →  → **MF Assist** → an option.

* Default	
Option	Description
Off	Do not use the MF Assist function.
Enlarge x5*	The focus area is magnified by 5 times when you rotate the focus ring.
	
Enlarge x8	The focus area is magnified by 8 times when you rotate the focus ring.
	

Focus Peaking

In the manual focus mode, the color you selected appears on the focused subject to help you focus while rotating the focus ring.

To set Focus Peaking options,

In Shooting mode, press [MENU] →  → **Focus Peaking** → an option.

* Default	
Option	Description
Level	Set a sensitivity for detecting the focused subject. (Off , High , Normal* , Low)
Color	Set a color to appear on the focused subject. (White* , Red , Green)

DMF (Direct Manual Focus)

You can adjust the focus manually by rotating the focus ring after achieving the focus by half-pressing [**Shutter**].

To set the DMF function,

In Shooting mode, press [MENU] →  → **DMF** → an option.

Setting DMF responsiveness

Set the focus ring's response when you use the DMF function. If you select **High**, slight rotations of the focus ring are made to adjust the focus. If you select **Low**, longer rotations of the focus ring are made to adjust the focus.

To set DMF Responsiveness options,

In Shooting mode, press [MENU] →  → **DMF Responsiveness** → an option.

Optical Image Stabilization (OIS)

Use the Optical Image Stabilization (OIS) function to minimize camera shake. OIS may not be available with some lenses.

Camera shake tends to occur in dark places or when shooting indoors. In such cases, the camera uses slower shutter speeds in order to increase the amount of light taken in, which can result in a blurry photo. You can prevent this situation by using the OIS function.

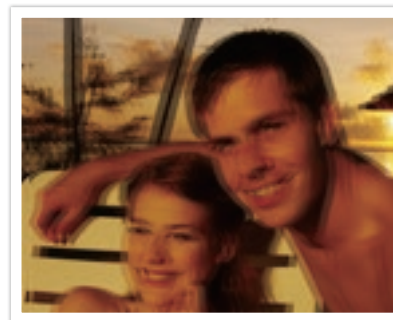
If your lens has an OIS switch, you have set the switch to **ON** to use the OIS function.

To set OIS options,

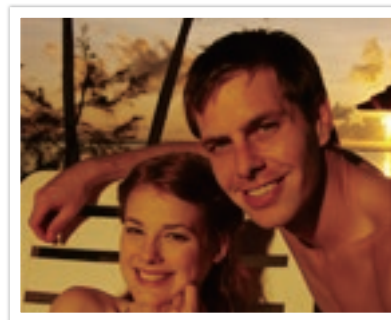
In Shooting mode, press [MENU] →  → **OIS (Anti-Shake)** → an option.

* Default

Icon	Description
	Off: The OIS function is off.
	Mode 1*: The OIS function is applied only when you press [Shutter] in full or half.
	Mode 2: The OIS function is on.



Without OIS correction



With OIS correction



- OIS may not function properly when:
 - you move your camera to follow a moving subject
 - there is too much camera shake
 - the shutter speed is slow (for example, when you select **Night** in **S** mode)
 - 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.
- Use the OIS function only when needed because the function consumes more battery power.
- To set an OIS option on the menu, set the OIS switch on your lens to **ON**.
- This option may not be available with some lenses.

Drive (shooting method)

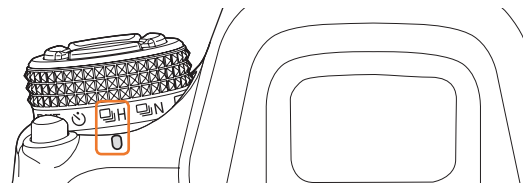
You can set the shooting method, such as Continuous, Timer, or Bracketing.

Select **Single** to capture one photo at a time. Select **Continuous Normal** or **Continuous High** to shoot fast moving subjects. Select **AE Bracket**, **WB Bracket**, **P Wiz Bracket**, or **Depth Bracket** to adjust exposure, White Balance, apply picture Wizard effects, or capture photos with different depths of field. You can also select **Timer** to capture a photo automatically after a specified time.



Available options may differ depending on shooting conditions.

When Continuous High is selected (example)



Icon	Description
	Single (p. 103)
	Continuous Normal (p. 103)
	Continuous High (p. 103)
	Timer (p. 104)
BKT	Bracketing (p. 104)



Do not rotate the drive dial without pressing the drive dial lock button. Doing so may damage the camera.

Single

Capture one photo whenever you press [**Shutter**]. Recommended for general conditions.

To set the shooting method,

Rotate the drive dial to .



Continuous

Continuously capture photos while you are pressing [**Shutter**]. You can capture up to 4, 6, or 8 photos (**Continuous Normal**) or 10, 12, or 15 photos (**Continuous High**) per second.

To set the shooting method,

Rotate the drive dial to N (Continuous Normal) or H (Continuous High).



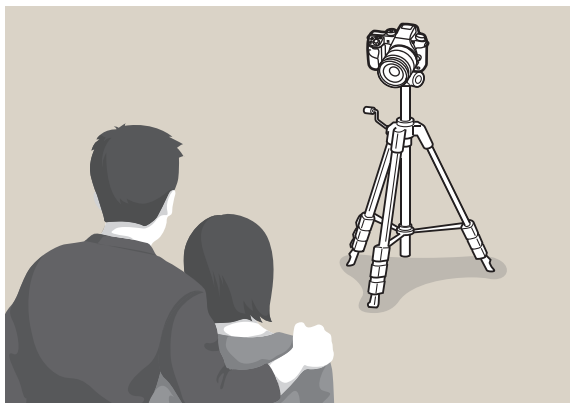
- To set the number of shots, rotate the drive dial to N (Continuous Normal) or H (Continuous High), and then press [MENU] →  → **Drive Settings** → **Continuous Settings** → **Continuous Normal** or **Continuous High** → set the number of shots.
- The noise reduction function is not available with this option.
- The Tracking AF function is available with this option.

Timer

Capture a photo after a specified time. You can also set the shooting interval, number of shots, and shooting time.

To set the shooting method,

Rotate the drive dial to .



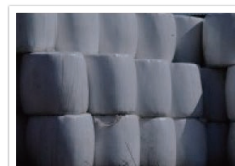
- Press **[Shutter]** to stop capturing.
- To set the timer details, rotate the drive dial to , and then press **[MENU]** →  → **Drive Settings** → **Timer Settings** → set the shooting interval, number of shots, and shooting time.

Auto Exposure Bracketing (AE Bracket)

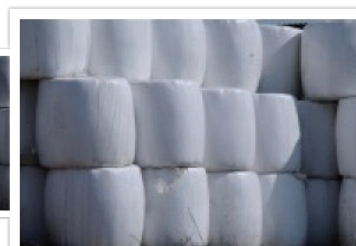
When you press **[Shutter]**, the camera captures 3 consecutive photos: the original, one a step darker, and one a step lighter. Use a tripod to prevent blurry photos as the camera captures three photos continuously. You can adjust the settings in **Bracket Settings** menu.

To set the shooting method,

Rotate the drive dial to BKT, and then press **[MENU]** →  → **Drive Settings** → **Bracket Settings** → **AE Bracket**.



Exposure -2



Original



Exposure +2

White Balance Bracketing (WB Bracket)

When you press [**Shutter**], the camera captures 3 consecutive photos: the original and two more with different White Balance settings. The original photo is captured when you press [**Shutter**]. The other two are automatically adjusted according to the White Balance you have set. You can adjust the settings in **Bracket Settings** menu.

To set the shooting method,

Rotate the drive dial to BKT, and then press [MENU] →  → **Drive Settings** → **Bracket Settings** → **WB Bracket**.



WB-2



Original



WB+2



This option cannot be used with the RAW file format. Selecting this option will change the photo quality from RAW to JPEG.

Picture Wizard Bracketing (P Wiz Bracket)

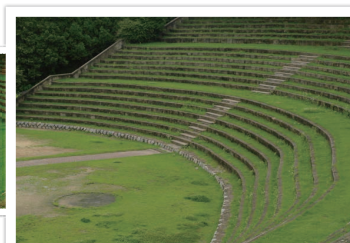
When you press [**Shutter**], the camera captures three consecutive photos, each with a different Picture Wizard setting. The camera captures a photo and applies the three Picture Wizard options you have set to the image captured. You can select three different settings in **Bracket Settings** menu.

To set the shooting method,

Rotate the drive dial to BKT, and then press [MENU] →  → **Drive Settings** → **Bracket Settings** → **P Wiz Bracket**.



Vivid



Standard



Retro



This option cannot be used with the RAW file format. Selecting this option will change the photo quality from RAW to JPEG.

Depth Bracketing

When you press **[Shutter]**, the camera captures three consecutive photos, each with a different depth of field by adjusting the aperture value. Use a tripod to prevent blurry photos as the camera captures three photos continuously. You can adjust the settings in **Bracket Settings** menu.

To set the shooting method,

Rotate the drive dial to BKT, and then press [MENU] →  → **Drive Settings** → **Bracket Settings** → **Depth Bracket**.



This feature is available only in Program or Aperture priority mode.

Bracket Settings

You can set up the options for each bracketing.

To set a bracketing option,

In Shooting mode, press [MENU] →  → **Drive Settings** → **Bracket Settings** → an option.

* Default

Option	Description
AE Bracketing Settings	Set the exposure interval. Use the command dial 1 or the navigation button to select an option. You can also drag the slider or touch the arrows. (-/+0.3 EV*, -/+0.7 EV, -/+1.0 EV, -/+1.3 EV, -/+1.7 EV, -/+2.0 EV, -/+2.3 EV, -/+2.7 EV, -/+3.0 EV)
WB Bracketing Settings	Adjust the White Balance interval range of the 3 bracketed photos. Use the command dial 1 or the navigation button to select an option. (AB-/ +3*, AB-/ +2, AB-/ +1, MG-/ +3, MG-/ +2, MG-/ +1) For example, AB-/ +3 adjusts the Amber value plus or minus three steps. MG-/ +3 adjusts the Magenta value the same amount.
P Wiz Bracket Set	Select 3 Picture Wizard settings the camera uses to capture the 3 bracketed photos.
Depth Bracket Set	Set the depth interval. Use the command dial 1 or the navigation button to select an option. You can also drag the slider or touch the arrows to select an option. (-/+0.3, -/+0.7, -/+1.0*, -/+1.3, -/+1.7, -/+2.0, -/+2.3, -/+2.7, -/+3.0)

Interval Capture

Set the shooting interval, the number of shots, and shooting start time. Use this function to capture photos at regular intervals during an event such as a lunar eclipse or a sunrise.

To capture an interval shot,

In Shooting mode, press [MENU] →  → **Interval Capture** → set a shooting interval, the number of shots, and shooting start time → **Start Interval Capture** → press [Shutter] to capture the photo.



- To save interval shots as a video, select **Time Lapse** → **On**. A video is recorded up to 1 minute in UHD and at a rate of 10 fps.
- Touch  to pause while capturing photos.
- Touch  to resume.
- Touch  or press [Shutter] to stop capturing.
- Use a shutter release cable with a tripod to minimize camera movement when capturing interval shots.
- Connect the power cable if the shooting interval is long or the number of shots to be taken is high.
- If the shooting interval is set to between one minute and 10 minutes, the camera will enter Display save mode after it starts to capture a photo. If a shooting interval exceeds 10 minutes, the camera will enter Power save mode and turn on and capture a photo automatically at the next interval. Press [Shutter] to cancel Power save mode.

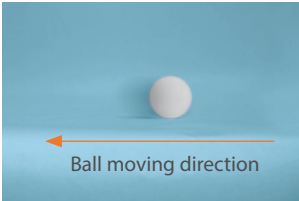


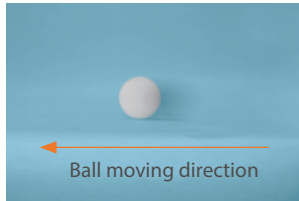
Flash

In order to capture a realistic photo of a subject, the amount of light should be constant. When the light source varies, you can use a flash and supply a constant amount of light. Select appropriate settings according to a light source and a subject.

To set flash options,

In Shooting mode, press [MENU] →  → **Flash** → an option.

Icon	Description
	Off: Do not use the flash.
	Smart Flash: The camera automatically adjusts the brightness of the flash according to the amount of light in the surrounding environment.
	Auto: The flash automatically fires in dark places.
	Auto Red-eye: The flash automatically fires and reduces red-eyes.
	Fill in: The flash fires whenever you capture a photo. (Brightness is automatically adjusted.)
	Fill-in Red: The flash fires whenever you capture a photo and reduces red-eyes.
	1st Curtain: The flash fires immediately after the shutter opens. The camera captures a photo of a subject earlier in an action sequence clearly. 

Icon	Description
	2nd Curtain: The flash fires just before the shutter closes. The camera captures a photo of a subject later in an action sequence clearly. 
	Hi-speed: If the shutter speed is faster than the camera's sync speed (the quickest time taken to open and close the shutter), the flash will fire multiple times at high speed. The flash starts to fire while the shutter opens. This option can be set only when you attach a compatible, optional external flash. (SEF-580A)



- The available options may differ depending on shooting conditions.
- There is an interval between two bursts of the flash. Do not move until the flash fires a second time.
- If you select **Off**, the flash does not fire even when an external flash is attached. If you adjust the flash intensity manually, the flash will fire once without a pre-flash.



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

Reducing the red-eye effect

If the flash fires when you capture a photo of a person in the dark, a red glow may appear in the eyes. To reduce the red-eye effect, select **Auto Red-eye**, or **Fill-in Red**.



Without red-eye reduction



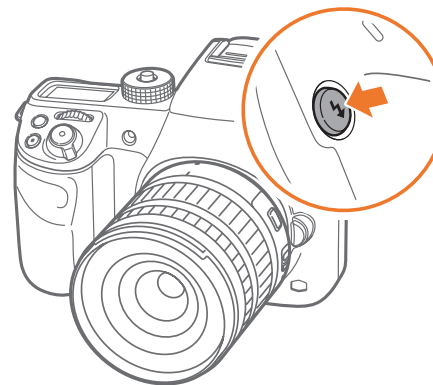
With red-eye reduction



If the subject is too far from the camera or moves when the first flash fires, red-eyes may not be reduced.

Using the built-in flash

To open the built-in flash, press the flash pop-up button. The flash does not fire when the built-in flash is closed.

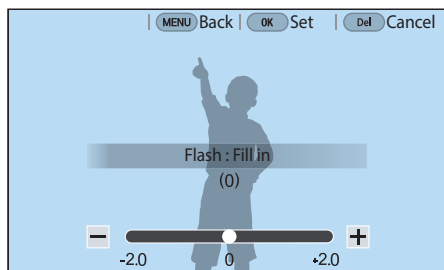


Adjusting the flash intensity

When the flash is on, adjust the flash intensity +/-2 levels.

To set the flash intensity,

In Shooting mode, select [MENU] → → **Flash** → an option → [DISP] → scroll the command dial 1 or the command dial 2 or rotate the navigation button or press [−/+] to adjust the flash intensity.



- You can also drag the slider or touch to adjust the intensity.
- Adjusting the flash intensity may not be effective when:
 - the subject is too close to the camera
 - you set a high ISO sensitivity
 - the exposure value is too big or too small
 - it is too bright or too dark
- In some shooting modes, you cannot use this function.
- If you attach an intensity-adjustable external flash to the camera, the intensity settings of the flash will be applied.
- If the subject is too close when you use the flash, some light may be blocked, resulting in a dark photo. Ensure that the subject is within the recommended range, which varies by lens.
- When a lens hood is attached, the light from the flash can be blocked by the hood. Remove the hood to use the flash.