

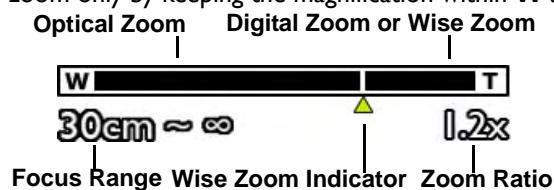
Operating the camera

The procedure below is a general guideline for basic operation. It is particularly useful if you are new to the camera.

1. Use the power switch to turn the power on.
2. Be sure that you have removed the lens cover before turning on the camera.
3. Set the mode dial to desired shooting mode.
4. If you need to use the flash for shooting, press the flash button to open the flash light.
5. Use the zoom lever for zooms.
6. Press the shutter halfway to set automatic focus. Once the focus is set, a beep sounds.
7. Press the shutter down fully to capture the image.
8. To switch to movie mode, press **●**. The video recording automatically starts. While recording, use the zoom lever to zoom-in/zoom-out for close-ups. Press **●** again to stop video recording.
9. To switch to playback mode, press **▶**. In playback mode, you can view captured images or recorded videos. You can use 4-way control to view other images/videos, slide the zoom lever to **W** to zoom-in on a captured image, or slide the zoom lever to **QT** to view 9-thumbnail images on the screen.



- During zoom-in/out, there is a separator in the zoom bar between **T** and **W**. For best image quality, it is recommended to use optical zoom only by keeping the magnification within **W** and the separator.










- Flash is automatically turned off in the movie mode.
- In movie mode, the camera records both sound and video. The recording time is continuous, but recording will stop once the memory card space is full.
- At any time, you can use the power switch to turn off the camera.

Capture mode

Shooting still images






| | Icon | Item | Description |
|---|------|--|---|
| A | | Scene Mode/Filter | Indicates the current mode. |
| | | Self-timer | Indicates Self-timer settings. |
| | | Focus Mode | Indicates focus is enabled. |
| | | Flash Mode | Indicates flash settings. |
| | | Flash EV | Indicates the flash strength based on the EV setting. |
| | | Burst Mode/AEB | indicates burst mode/AEB settings. |
| | | Focus Range/Wise Zoom Indicator/Zoom Ratio | Displays zoom. |
| B | | O.I.S./E.I.S. | Indicates stabilizer function is enabled. |
| | | White Balance | Displays white balance settings. |
| | | Color Mode | Indicates color mode settings. |
| | | Metering | Displays metering settings. |
| | | ISO | Displays ISO settings. |
| | | Histogram | Graphic display of tonal distribution. |
| | | Shutter Speed | Displays shutter speed settings. |
| | | Focus Frame | Indicates focus area. |
| | | OK | Indicates to press the button. |
| | | Aperture Value | Displays aperture settings. |

| | Icon | Item | Description |
|---|---|----------------------------|--|
| C | 1007 | Number of Recordable Image | Indicates the remaining shots available. |
| | AFL | AE/AF Lock | Indicates AE/AF Lock is enabled. |
| |  | Motion Detection | Indicates motion detection is enabled. |
| |  | Wind Cut | Reduces wind noise during movie recording. |
| |  | Storage Media | Indicates current storage media in use. |
| | 20M | Resolution | Displays photo size settings. |
| |  | Quality | Displays quality settings. |
| |  | Movie Option | Indicates movie size. |
| |  | Exposure Meter | Displays Exposure bracketing settings. |
| | EV+0.3 | Exposure Value | Displays exposure compensation settings. |
| |  | Battery | Indicates battery level. |

Mode dial





Rotate the mode dial to select one of the eight shooting modes:




| Icon | Mode | Description |
|---|------------------------|---|
| P | Program | The camera automatically configures the appropriate settings, so you can capture images with ease. |
| Tv | Shutter Priority (Tv) | You can choose a shutter speed, while the aperture value is automatically determined by the lighting condition of the subject. |
| Av | Aperture Priority (Av) | You can choose an aperture value, while the shutter speed is automatically determined by the lighting condition of the subject. |
| M | Manual Exposure | Lets you set exposure values of aperture and shutter speed manually. |
|  | Filter | Lets you select the desired filter to apply to what you want to take. |
|  | Panorama | Creates a panoramic photo by moving the camera. |
|  | Auto | The camera detects the shooting condition automatically and switches to the appropriate scene mode. |
| SCN | Scene Mode | Lets you select the desired scene mode that suits your shooting atmosphere. |

Using the self-timer

This feature allows you to set the self-timer settings.

| Icon | Mode | Description |
|---|---------------------------|---|
|  | 10-sec./2-sec. self-timer | Automatically takes a picture after 2 or 10-second delay. This mode is useful when you want to be part of the picture. |
|  | Double | Performs delay and capture twice: Performs a 10-second delay, then captures the image. Performs another 2-second delay then captures the image again. |
|  | Smile | Takes one picture at a time if the camera detects a smiley face |
|  | Off (Single) | Takes one picture at a time. |


- To enable self-timer setting:





1. Set the mode dial to the desired shooting mode.
2. Press  and use 4-way control to select your desired setting.

Focus mode

This feature allows you to define the focus setting when capturing an image or a recording a video clip.






- To select the focus setting:

1. Set the mode dial to the desired shooting mode.
2. Press  and use 4-way control to select your desired setting.


| Icon | Mode | Description |
|---|-----------------|--|
|  | Auto Focus | With auto focus, the camera will focus on the subject automatically. |
|  | Macro | This mode is designed for close-up photography. |
|  | Object Tracking | Focuses on the position of moving objects simultaneously. |
|  | Face Tracking | Focuses on the position of faces simultaneously |

Flash mode

The flash offers additional light source (usually used in a low-light environment). You can capture an image using one of the following flash settings.

| Icon | Mode | Description |
|---|-------------------|---|
|  | Auto Flash | The flash fires automatically based on the photographic conditions. |
|  | Red-eye Reduction | Reduces the red-eye phenomenon when capturing natural-looking images of people or animals in low-light conditions. Be sure to ask the subject to look at the camera lens or get as close to the camera as possible. The flash fires automatically based on the photographic conditions. |
|  | Forced On | The flash always fires regardless of the surrounding lighting conditions. Select this mode when capturing images with high contrast (backlighting) and deep shadows. |
|  | Slow Sync | Fires the flash immediately at the beginning of exposure with a slow shutter speed, so ambient lighting of the foreground subject and background scene can be balanced in a low-light environment. |
|  | Forced Off | The flash does not fire. Select this mode when flash photography is prohibited, or when the distance to the subject is beyond the effective range of the flash. |

• To select a flash setting:



1. Set the mode dial to the desired shooting mode.
2. Open the flash.
3. Press  and use 4-way control to select your desired setting.



- The flash mode is not available in Continuous Shooting modes.
- The flash mode cannot be activated if the flash does not open.
- When the flash is closed, flash mode is automatically set to flash off.

Exposure value

EV (Exposure Value) lightens or darkens the entire image. Adjust EV when the brightness between the subject and the background is not balanced, or when the subject occupies only a small part of the picture.

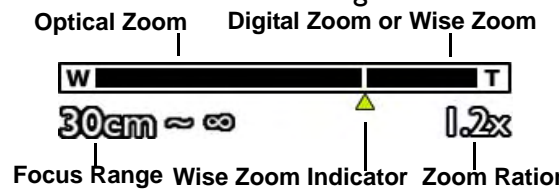
- To adjust exposure value: press  and use  to select your desired value. The value increases or decreases at an interval of 0.3.
- Under some circumstances, exposure value adjustment may not be applicable.

Exposure meter

When turning mode dial to **M**, the exposure meter display the exposure in real-time. If it is under or over exposed, i.e. exceeds +/- 2EV, the value is displayed -2.0EV (under -exposure) or +2.0 EV (over -exposure) in red. If it is normally exposed, the value is displayed in white.

Focus Range/Wise Zoom Indicator/Zoom Ratio

The zoom operation can be activated by rotating the zoom lever. When the camera is turned on, the zoom is at maximum wide-angle position. When the camera is zoomed at maximum optical position, rotate and hold the zoom lever at T to activate the digital zoom to 8x under Digital Zoom setting, to 3x under Wise Zoom setting.



Focus range

Whenever the zoom lever is rotated, the focus range at the current zoom point is displayed on the LCD screen.

Wise zoom Indicator

When Wise Zoom is enabled, the resolution setting is to 20M in 4:3 aspect ratio. As zooming is passed wise zoom indicator, the resolution will be reduced to avoid interpolations that create the pixilation/mosaic effect.

Zoom ratio





While rotating and holding the zoom lever to exceed the maximum optical position and enter the digital zoom, the Zoom Ratio is displayed on the LCD Screen.

O.I.S./E.I.S.





Reduces blur caused by camera vibration, and thus improves image quality and clearness.

To set the O.I.S./E.I.S.:

For capturing images:


1. Press MENU >  > O.I.S.
2. Press  or  to enter the submenu.
3. Use 4-way control to select On or Off.
4. Press  to confirm setting.

For recording movies:

1. Press MENU >  > E.I.S.
2. Press  or  to enter the submenu.
3. Use 4-way control to select On or Off.
4. Press  to confirm setting.

Shutter speed

Shutter speed is the effective length of time the camera's shutter is opened as well as the duration of light reaching the image sensor of the camera.

- If the shutter speed slower than the safety, a shake-warning icon  will be displayed.

- In shutter priority mode, shutter speed is adjustable. The aperture value is automatically determined by the lighting condition of the subject.
- In aperture priority mode, aperture value is adjustable. The shutter speed is automatically determined by the lighting condition of the subject.
- In manual mode, shutter speed and aperture value are both adjustable.

Focus frame

Focus frame is the area where the camera would focalize on the subject of shooting based on the atmosphere. Focus frame turns to green if successfully auto focused, and red, failed. The position of focus frame varies from focus modes.

Aperture value

Specified as an f-number, the lens aperture is the ratio of focal length to effective aperture diameter. Reducing the aperture size increases the depth of field and the distance from the plane of the subject in focus.



In general, a fast shutter requires a larger aperture to ensure sufficient exposure, and a slow shutter requires a smaller aperture to avoid excessive exposure.

Number of recordable image

Number of recordable image indicates the number of images that can be stored to internal memory or memory card at current settings and displays up to four digits (9999), regardless of applicable memory space, due to limited display space on the screen.

Burst mode/AEB (Auto Exposure Bracketing)

Automatically takes 3 pictures with slightly different exposures at the EV you set.

| Icon | Description | Icon | Description |
|-------------|--|-------------|--|
| OFF | Function is disabled. | ±0.3 | Camera varies exposure by 0, -0.3, and +0.3 for three shots. |
| ±0.7 | Camera varies exposure by 0, -0.7, and +0.7 for three shots. | ±1.0 | Camera varies exposure by 0, -1.0, and +1.0 for three shots. |

To select an EV setting for AEB photography:

1. Press > AEB.
2. Use 4-way control to select an EV setting.
3. Press to confirm.

White balance

Compensates for color temperatures in different lighting conditions, so white and other colors can be displayed properly when capturing images.

| Icon | Mode | Description |
|------|------------------|---|
| | Auto | Adjusts white balance automatically. |
| | Daylight | Used in bright daylight conditions. |
| | Cloudy | Used in twilight or shady conditions. |
| | Tungsten | Used when subjects lit by tungsten (incandescent) lighting. |
| | Fluorescent High | Adjusts for fluorescent lighting. Corrects the green hue of fluorescent lighting. Ideal for indoor photos under fluorescent lighting without a flash. |
| | Fluorescent Low | |
| | Flash | Adjusts for flash conditions. |
| | Manual | Used when you want to manually adjust white balance in a particular lighting condition. |

To select White Balance:

1. Press > **White Balance**.
2. Use 4-way control to enter the submenu and select a white balance option.

When selecting the Manual mode:

- Point the camera at a blank sheet of white paper or something similar.
 - Use 4-way control to select **Adjust**. The camera will automatically detect the proper colors.
3. Press to confirm setting.

ISO




ISO configures the camera sensitivity to light. The higher the ISO value, the brighter picture you can take in a low-light environment. Yet, you may see more noise in the picture as you increase the ISO value.

| Icon | Description |
|------|---|
| | Automatically sets the ISO value. |
| | Automatically sets the ISO value within the range (maximum to ISO 600) to suit the recording environment. |
| | Equivalent to color ISO 100/200 film. Used for fine weather condition or portrait shooting. |
| | Equivalent to color ISO 400/800 film. Used for cloudy or twilight shooting. |
| | Equivalent to color ISO 1600/3200/6400 film. Used for night scene or sports shooting. |

To select an ISO value:

1. Press **Fn** > ISO.
2. Use 4-way control to select an ISO Value.
3. Press **OK** to confirm setting.

Metering

| Icon | Mode | Description |
|---|---------------|--|
|  | Matrix | Detects the exposure based on multiple points in the subject area. |
|  | Center Weight | Detects the exposure of the entire shooting screen with emphasis around the center spot. |
|  | Spot | Detects the exposure based on the center spot in the subject area. |

To select a metering option:

1. Press **Fn** > Metering.
2. Use 4-way control to select a metering option.
3. Press **OK** to confirm setting.

Flash EV








Adjust the flash strength based on the EV setting.

• To select an EV setting for flash photography:

1. Press **Fn** > Flash EV.
2. Use 4-way control to select a flash strength option.
3. Press **OK** to confirm setting.

Color tone

Adds color filter effects to the image or video you want to capture.





| Icon | Mode | Description |
|---|-----------------|---|
|  | Normal | No effects are added. |
|  | Sepia | Adds an effect with reddish brown color tones, so the image or video looks old-fashioned. |
|  | Black and White | Adds an effect with monochromatic color tones. |
|  | Vivid | Adds an effect with very clear and bright color tones. |
|  | Vivid Red | The image becomes reddish. |
|  | Vivid Green | The image becomes greenish. |
|  | Vivid Blue | The image becomes bluish. |

To select an effect:

1. Press **Fn** > **Color Mode**.
2. Use 4-way control to select a color mode option.
3. Press **OK** to confirm setting.

Continuous shooting setting

In this mode, you can take consecutive shots.

| Icon | Mode | Description |
|---|----------------------------|---|
|  | Single | Takes one picture at a time. |
|  | Continuous | Continuously takes pictures as long as you keep pressing the shutter. Only will the first captured picture be auto-focused, and the flash is forced off. |
|  | Continuous Burst | Continuously takes pictures at the speed up to 3fps as long as you keep pressing the shutter. The first captured picture needs to be auto-focus, and the resolution is limited to 5M. |
|  | Speedy Burst 10 fps | Captures 10 shots instantly and the resolution is limited to 3M. |


To select a continuous mode:

1. Press **Fn** > **Continuous Shooting**.
2. Use 4-way control to select a continuous shooting option.
3. Press **OK** to confirm setting.

Histogram

Histogram is a graphical representation of the tonal distribution in a digital image that helps photographers on details of blown-out highlights or blacked-out shadows. The horizontal axis of the graph represents the tonal variations, while the vertical axis represents the number of pixels in that particular tone.

To turn on Histogram:







1. Press **MENU** >  > **Display Mode** > **Histogram**.
2. Use 4-way control to turn on or off histogram.
3. Press **OK** to confirm setting.

AE/AF Lock

AE-Lock is very useful in difficult lighting situations and allows you to lock your exposure settings (i.e. aperture and shutter speed) for photograph such as in panoramic that needs identical exposures.

AF-Lock can be very useful if you want to focus on a subject that is on one side of an image. Once activated, you can lock the focus on the subject, and then re-compose the image without press your finger on the shutter button.



To set Q Key for use with AE/AF-Lock:

1. Press MENU >  > Q Key.
2. Use 4-way control to select from AE Lock, AF Lock, and AE/AF Lock.
3. Press  to confirm setting.
 - At next shooting, press and hold shutter halfway and press  to enable AE Lock, AF Lock, or AE/AF Lock.
 - Press  to release from locked, and press  again to retain locked.
 - Press and hold shutter halfway and press  to set for other selections.


Wind cut

Use this feature to reduce wind noise during video recording.





To enable Wind Cut:

1. Press MENU >  > Wind Cut.
2. Use 4-way control to enter the submenu and select On or Off.
3. Press  to confirm setting.



Storage media

Once an external memory card is inserted,  is displayed.

Movie option

| Icon | Description | Icon | Description |
|---|-----------------|---|-----------------|
|  | 1280x720p@30fps |  | 1280x720p@15fps |
|  | 640x480@30fps |  | 640x480@15fps |



To select a movie size:

1. Press MENU >  > Movie Option.
2. Use 4-way control to enter the submenu and select an option.
3. Press  to confirm setting.


Scene mode

Lets you select the desired scene mode that suits your shooting atmosphere.

To select a scene mode:

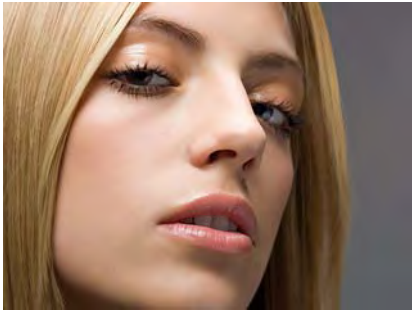
1. Set the mode dial to SCN.
2. Press MENU > 
3. Use 4-way control to select desired scene mode.
4. Press  to confirm the setting.








Slide the Zoom lever to  to view information on the selected scene mode.

Beauty Enhancer

Enhances the tone of skin so that the facial skin appears smooth.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Beauty Enhancer ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Portrait

Makes the subject (usually a person) stand out with smooth and natural-looking skin tones.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Portrait ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Night Scene

Captures photos in a low-light environment, such as in the evening or at night.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Night Scene ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Night Portrait

Shoots night scenes and portraits clearly. Keep the camera steady or use a tripod while using this mode.








1. Set the mode dial to SCN.
2. Press MENU > .
3. Press  or  to select Night Portrait (.
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Landscape

Captures a scene in the distance with the focus area set to infinity and a lower aperture value. The maximum depth of view can also be achieved.








1. Set the mode dial to SCN.
2. Press MENU > .
3. Press  or  to select Landscape (.
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Fireworks

Adds exposure time to shoot trails of fireworks. Please keep the camera steady or use a tripod while using this mode.








1. Set the mode dial to SCN.
2. Press MENU > .
3. Press  or  to select Fireworks (.
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Snow

Used under a very bright light environment such as snow scenes.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Snow ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Sunset

Captures the warmth and atmosphere (represented by hue) of sunrise or sunset.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Sunset ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Sports

Uses a high shutter speed to capture objects in motion.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Sports ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Pets & Kids

Captures your pets or kids. Shoot from their eye level.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Pets ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Party

Captures the party atmosphere usually under indoor light source.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Party ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Backlight

Increases exposure (by turning on the flash) when light illuminates the subject from behind.








1. Set the mode dial to SCN.
2. Press MENU > 
3. Press  or  to select Backlight ().
4. Press  to confirm the setting.
5. Press shutter to capture an image.

HDR

Increases the dynamic range and enhances the details of dark areas.








1. Set the mode dial to SCN.
2. Press MENU > .
3. Press  or  to select HDR (.
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Text

Improves clarity & contrast when taking a close-up picture of documents.








1. Set the mode dial to SCN.
2. Press MENU > .
3. Press  or  to select Text (.
4. Press  to confirm the setting.
5. Press shutter to capture an image.

Love Portrait

Takes a self portrait of at least two faces.




1. Set the mode dial to SCN.
2. Press MENU > .
3. Press  or  to select Text (.
4. Press  to confirm the setting.
5. Once faces are detected, the camera will automatically take a picture after a two-second countdown.
6. The camera continues to detect faces and takes more pictures by repeating Step 5. Face tracking will automatically stop if no faces are detected.















During the countdown, you can press the shutter to cancel the countdown. The camera will then start detecting faces again.





Filter mode

Select one of the following filter modes to add into your shooting condition.

| Icon | Mode | Description |
|---|---------------|---|
|  | Season Change | Simulates an alternative scenery from a different season. |

| Icon | Mode | Description |
|---|----------------------|--|
|  | Inklines Effect | Enhances the edge and blur the detail to make the image look like drawn with ink. |
|  | Colored Pencil | Captures the details in the image with fine linear strokes to make the image appear as drawn with colored pencils. |
|  | Oil Painting | Simulates oil painting brushes to make an oil painting effect. |
|  | Sketch | Uses hand drawing effect to emphasize the outlines in the image. |
|  | Astral | Leaves astral marks on brightest spots of the image. |
|  | Color Accent | Highlights the subject by keeping one color domain of an image only while making other regions black and white. |
|  | MagiQ | Enhances the shadow and highlights the details of the image. |
|  | Lomo | Creates a lomo-like effect by adding over saturated colors, dark corners, and so on. |
|  | Toy | Simulates a shallow depth of field by gradually blurring the top and bottom areas of a composition |
|  | Fisheye | Simulates a fisheye lens effect and creates a distorted hemisphere-like image. |
|  | Mirroring | Takes an image of left-right symmetric or up-down symmetric as the mirror. |
|  | Duplicate Characters | Combines the identical character of 2 images into one to make duplication effect |

To select a filter mode:

1. Set the mode dial to .
2. Press MENU > .
3. Press  or  to select desired filter mode.

Press  to confirm the setting



Slide the Zoom lever to  to view information on the selected scene mode.

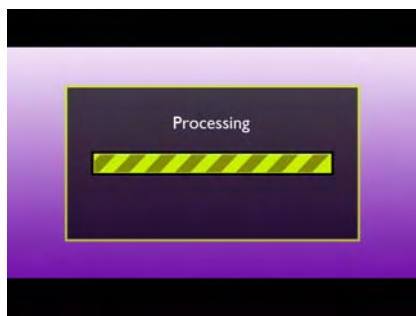
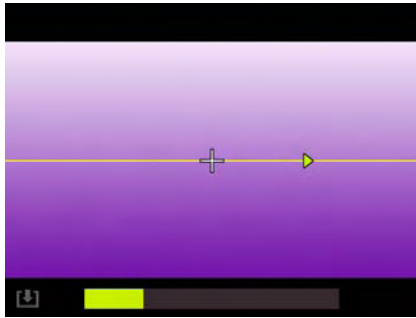
Using panorama mode


Use this feature to create a panoramic photo from multiple shots. You can combine several shots into one single image quickly and easily.



- Scenes will be taken based on 1280 x 720 pixels, but its actual size depends on the panoramic angle and stitching result.
- The actual size of stitched image varies from due to the panoramic angle and stitching result as well as the level of camera shaking.
- The direction is automatically detected. Once detected, a direction icon (indicating the direction) and a yellow line (for keeping moving straightly) appear. In addition, a shooting bar is displayed to indicate the shooting position.

To create a panoramic image:



1. Set the mode dial to .
2. Fully press and hold the shutter to start shooting. The shooting automatically saves the image when finished a 360 degrees take or released the shutter after a 30 degree take. When shooting starts, a white-cross locates on the center and a yellow line displays horizontally (or vertically) through the screen. In addition, a shooting bar displays to present the shooting position and the white portion of the bar indicates where has been taken.
3. If you move camera without keeping straight, the yellow line will move with the moving scene.
4. When the white portion of the bar goes to the end. The camera would finish automatically and save the panorama image