

# GH600 Digital Camera User Manual

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This symbol on the product or on the packaging indicates that this can not be disposed of as household waste. You must dispose of your waste equipment and/or battery by handling it over to the applicable take-back scheme for the recycling of electrical and electronic equipment and/or battery. For more information about recycling of this equipment and/or battery, please contact your city office, the shop where you purchased the equipment or your household waste disposal service. The recycling of materials will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and environment. Battery

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#### **CE** Regulatory Notice

This devise is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the Laws of the Member States relating Electromagnetic Compatibility (2004/108/EC); the Low Voltage Directive (2006/95/ EC); the Restriction of The Use of Certain Hazardous Substances in Electrical And Electronic Equipment Directive (2002/95/EC), Turkish EEE Directive; the Commission Regulation (EC) No 1275/2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to eco-design requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment, and the Directive 2009/125/EC of the European parliament and of the council establishing a framework for the setting of eco-design requirements for energy-related products.

#### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

#### Safety warning and notice

Before operating the camera, please make sure that you read and fully understand the content in this section. If you ignore and violate all safety warning notices indicated in this section, the camera warranty may be void. Meanwhile, not only the camera but also you and all other people and things around you may be severely damaged, injured, or even placed in danger of death.

#### For your safety

- Keep the camera and its accessories out of the reach of babies, toddlers, and children. In particular, small parts such as memory cards and batteries could be easily dismantled and swallowed by them.
- Use only the original accessories to avoid possible risks to health and property, and thus meet all related legal regulations.
- Do not dismantle the camera under any circumstances.
- When using the flash, do not go too close to human eyes (particularly for babies, toddlers, and children) or animal eyes. Otherwise, when the flash fires, the light may cause damage to human eyes or irritate animals.
- Batteries could explode, for instance. All batteries can cause property damage, injury or burns if a conductive material such as jewelry, keys or beaded chains touch exposed terminals. The material may complete an electrical circuit and become quite hot. Exercise care in handling any batteries, particularly when placing it inside your pocket, purse, or other container with metal objects. Do not dispose of batteries in fire as they may explode.
- To prevent electric shock, do not attempt to disassemble or repair your camera by yourself.
- Some camera models accept non-rechargeable batteries. When using these batteries, do not charge them. Otherwise, dangers such as explosion and fire may occur.
- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

#### Warranty

- Warranty is void if damage or system failure occurred due to outside factors such as collision, fire, flood, dirt, sewage, earthquake, and other force majeure events as well as incorrect usage of electricity or use of non-original accessories.
- It is the sole responsibility of the user if problems (such as data loss and system failure) occurred due to non-factory installed software, parts, and/or non-original accessories.
- Do not change the camera. Any changes to the camera invalidate the warranty.

#### Taking care of your camera

- Always keep the camera in the accompanying leather case or pouch for better protection against splashes, dust, and collision.
- The only way of replacing the battery and the memory card is to open the battery/ card cover.
- Dispose of unwanted batteries and cameras as permitted by the laws in your countries.
- Water may cause a fire or electric shock. Therefore, store your camera in a dry place.
- If your camera becomes wet, wipe it with a dry cloth as soon as possible.
- Salt or seawater may cause severe camera damage.
- Do not drop, knock, or shake the camera. A rude behavior of using the camera may damage the internal electronic circuit board, deform the lens shape, or make the lens unretractable.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the camera.
- Finger grease may be left on the camera lens and will result in unclear images or videos. To avoid this problem, be sure to clean the camera lens before taking pictures or recording videos. You should also clean the camera lens on a regular basis.
- If the lens is dirty, use a lens brush or soft cloth to clean the lens.
- Do not touch the lens with your fingers.
- If a foreign substance or water gets in your camera, please turn the power off immediately and disconnect the batteries. Next, remove the foreign substance or water and send it to the maintenance center.
- Whenever there is data in the internal memory or the external memory card, you should make a backup copy to a computer or disc. So, you can have a backup solution if data loss occurs.
- If the lens cannot retract into the camera, please replace the batteries first (usually this is because of drained batteries). Then the lens should retract automatically. If the lens still cannot retract, please contact your dealer.

- Under no circumstances should you push the lens back manually as this may damage the camera.
- All original accessories are designed only for use with this camera model you purchased. Do not use these accessories with other camera models or cameras of other brands to avoid unpredictable danger or damage.
- Before initial use of a memory card, always use the camera to format the card first.
- Remember to slide the write-protect tab (if available) to the unlock position. Otherwise, all data (if any) on the memory card is protected and the card cannot be edited or formatted.

#### Operating environment

- Do not use or store your camera in the environments listed below:
  - Direct sunlight
  - Dusty places
  - Next to an air conditioner, electric heater or other heat sources
  - In a closed car that is in direct sunlight
  - Unstable locations
- Do not use your camera outdoors when it is raining or snowing.
- Do not use your camera in or near water.
- The camera operating temperature is between 0 and 40 degrees Celsius. It is normal for the operating time to be shortened when the temperature is low.
- Storage at too high or low temperatures will also result in a gradual capacity loss. As a result, the operating time of your camera may be considerably reduced.
- It is normal for the camera to become warm during operation, because the camera casing might conduct heat.





Do not hold the camera by excessive force. Plus, be sure to protect the camera from strong impacts.

If the batteries suddenly depleted and caused the lens fail to retract, please carefully protect the lens to avoid collision and insert batteries with full power ASAP. To avoid accidental falling, please attach the neck strap to the camera and always put the camera around your neck.



When the camera is not in use, always turn the power off. Plus, before storing the camera in its case, make sure the lens has retracted successfully and you put the lens cover back. If you do not intend to use the camera for a long time, please remove the batteries from the camera and store the batteries carefully.



Keep your camera away from sharp objects and avoid collision.



When the camera is not in use, please place it in the pouch and a steady place. Plus, always keep your camera away from pressure to avoid possible damage.

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# Touring the camera

Carefully unpack your kit box and ensure that you have the following items.



- I. Quick Guide
- 2. Digital camera
- 3. USB cable
- 4. AA battery x 4
- 5. Neck strap
- 6. Software & User Manual CD
- 7. Pouch (optional)
- 8. Lens cover
- 9. Lens strap
  - All pictures, screen captures, and icons used in this manual are for illustration only. Actual and available products, accessories, as well as their appearance may vary depending on sales region.
    - If any items are missing or damaged, contact your dealer.
    - Save the packaging for future shipment or storage.

## Camera

#### Front and bottom views





- I. Lens
- 2. Microphone
- 3. Zoom lever
- 4. Shutter button
- 5. Strap eyelet
- 6. Power button
- 7. AF Assist Lamp / Self-timer LED indicator
- 8. Mode dial
- 9. Flash
- 10.Speaker
- II.Tripod mount
- 12.Battery/card cover

#### Rear view



- I. USB / AV port
- 2. LCD display
- 3. PLAYBACK button 🕩
- 4. Status LED
- 5. RECORD button
- 6. Multifunctional buttons (including a 4-way control and an **OK** button)
- 7. Function / Delete button Fn  $\cdot \overline{m}$
- 8. MENU button MENU

#### **LED** Indicator

Indicator	State	Description
Status LED	No light	The digital camera is off.
	Solid green	<ul> <li>The digital camera is ready to capture images.</li> <li>The digital camera is powering on, or is in</li> </ul>
		the power-saving mode.
Status LED	Blinking green	<ul> <li>The digital camera cannot focus.</li> <li>The digital camera is capturing a video clip.</li> <li>The flash is charging, or the USB communication/transfer is in progress.</li> </ul>
Self-timer LED	Blinking red	The self-timer function is activated.

• It is normal for the camera to become warm during operation, because the camera casing might conduct heat.

 The LCD display on this camera is manufactured with sophisticated technology, and more than 99.99% of the pixels on the LCD display meet standard specifications. Yet, it is possible that less than 0.01% of the pixels on the LCD display may have some light spots or show unusual colors. This is normal and does not indicate display malfunction, nor will this affect the pictures you take with the camera.

- The LCD monitor looks darker in strong sunlight or bright light. This is not a malfunction.
- To prevent your images from being blurred while pressing the Shutter button, always hold the camera steady. This is especially important when you are shooting under low lighting conditions, under which your camera may reduce the shutter speed to ensure your images are properly exposed.

# Multifunctional buttons

You can choose camera settings by pressing the 4-way control or **OK**.

- I. Left/Focus:
  - Scrolls left in menus.
  - Toggles between different focus modes.
- 2. Up/Face Tracking:
  - Scrolls up in menus.
  - Turns on/off Face Tracking. See "Face Tracking" on page 26 for details.
  - Rotates an image. See "Rotating an image" on page 52 for details.

#### 3. Right/Flash:

- Scrolls right in menus.
- Selects a flash mode.

#### 4. Down/Display:

- Scrolls down in menus
- Toggles between different display modes.
- 5. OK: Confirms a chosen setting.



# Preparing the camera for use

This section will guide you on how to prepare the camera before its initial use.

To attach the lens and neck straps to your camera, do the following:

- I. Insert one end of the neck strap through the strap eyelet.
- 2. Route it through the buckle as the inner loop.

- Route the other end of the neck strap to the other strap buckle to secure it.
   Follow the above steps to attach the other side of the neck strap.
- 4. Insert one end of the lens strap through the strap eyelet. Make a loop to secure it.
- 5. Attach the other end of the lens strap on the lens cover.











6. Once complete, make sure the straps are tight.



- C English
- Wrapping the strap around your neck is dangerous. Refrain children from playing with the strap.
  - Remove the lens cover before using the camera.

# Installing the batteries

Use only the specified batteries for the camera, and always turn off the camera before removing the batteries.

To install the batteries:

1. Push the button up and then slide the battery/card cover to the right to release and open it.

- Insert the batteries in the correct direction by matching the + - label on the battery slot.
- 3. Close the battery/card cover and then slide it to the left to lock it in place.







To remove the batteries:

- 1. Push the button up and then slide the battery/card cover to the right to release and open it.
- 2. Remove the batteries.
- Close the battery/card cover and then slide it to the left to lock it in place.



- Turn off the camera before removing the batteries.
- Use only the specified battery type. Using other types of batteries may damage the camera and invalidate the warranty.
  - Ensure that the batteries are inserted into the product with correct polarity. Incorrect polarity may damage the camera or cause fire.
  - Download all pictures and remove the batteries from the camera if you are going to store the camera for a long time.
  - The batteries may be warm after being used. This is normal and not a malfunction.
  - When using the camera in a cold environment, keep the camera and its batteries warm by holding it inside your jacket or another warm protective environment.
  - Please select the correct battery type before use (see "Battery Type" on page 50 for details).
  - High-capacity (such as 2500 mAh) rechargeable batteries are recommended.
  - Carbon-zinc batteries are not recommended.
  - The AA batteries that came with the camera are not rechargeable.
  - Do not combine old and new batteries or batteries of different makes or types.
  - Performance of alkaline batteries may vary greatly depending on the manufacturer. Choose a reliable brand.

English

## Installing an SD card

The camera comes with internal memory for storing captured images, video clips, or audio files. You can also add an SD card to store more files.

To install an SD card:

- 1. Push the button up and then slide the battery/card cover to the right to release and open it.
- 2. Insert an SD card in the correct direction.

3. Close the battery/card cover and then slide it to the left to lock it in place.

To remove an SD card:

- 1. Push the button up and then slide the battery/card cover to the right to release and open it.
- 2. Lightly press the edge of the memory card to eject.
- 3. Close the battery/card cover and then slide it to the left to lock it in place.

Before initial use of an SD card, please format the card first by pressing MENU >

#### 😎 > Manage Memory > OK / 🗲 > 🛃 Format > OK > Yes.







# Turning the Power On and Off

Before turning on the camera, be sure to remove the lens cover. Otherwise, the lens will not be extended and the camera will beep three times.

There are two ways to turn on the camera:

• Press the Power button.

The zoom lens extends and the camera is turned on in **Record** mode.

Press and hold 
 Image: A start of the start of

The camera is turned on in **Playback** mode, and the lens is not extended.

# Opening the Flash

You need to manually open the flash before switching the flash mode.

To open the flash:

Use hands to lift the flash to open it.



To close the flash: Push down the flash to close it.





# Initial setting

You will be prompted to set up the language and the date and time when the camera is turned on for the first time.

# Setting language

Selects the language version shown on the screen.

To select a language:

- Press MENU > . (Step I is needed only after the initial setting is complete.)
- Press [●] ( or | ) to locate
   Language / 語言 / 语言 , and then press OK or
   4.
- 3. Press 💙, \$, [•], or [□] to locate the language you want.
- 4. Press **OK** to set the language.

# Setting date and time

When using the camera for the first time or when the battery has been removed from the camera for a long time, you need to set the date and time. The date and time is recorded when a video or image is captured.

To set date and time:

- Press MENU > . (Step I is needed only after the initial setting is complete.)
- 2. Press [•] c or | to locate Date/

Time, and then press OK or \$.

3. Press [•] 🔆 or 🔲 to select date, time

and date format. Press  $\clubsuit$  or  $\clubsuit$  to move to another column as needed.

4. Press **OK** to set the date and time.

Language / 語言 / 语言		
	English	Português Br
	Español	Türkçe
	Deutsch	Česky
	Français	Polski
	Italiano	Română
SET		Back The



# Operating the camera

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

- I. Press the Power button to turn the power on.
  - Be sure that you have removed the lens cover before turning on the camera.
- 2. Set the mode dial to **P** or other desired shooting mode. See "Selecting the Shooting Mode" on page 28 for details.
  - Remember to follow the on-screen display or slide the Zoom lever to QT for instructions (wherever available). Next, press the corresponding buttons to access and set more options. At any time, you can cancel the current operation by pressing MENU to return to your previous step.
- 3. If you need to use the flash for shooting, open the flash.
- 4. Use the Zoom lever to zoom-in/zoom-out on the subject.
- 5. Press the Shutter button halfway to set automatic focus.
  - Once the focus is set, the focus frame color will turn from white (unfocused) to green (focused). If the focus frame color is red and you press the Shutter button down, it might result in a blurred photo.
- 6. Press the Shutter button down fully to capture the image.
- 7. To switch to **Movie** mode, press **•**. The video recording automatically starts.
  - While recording, use the Zoom lever to zoom-in/zoom-out on the subject. Press 
    again to stop video recording.
  - Press [ ] to pause/resume the video recording.
- 8. To switch to **Playback** mode, press **D**. In **Playback** mode, you can view captured images or recorded videos.
  - You can press 💓 or 💲 to view other images/videos, slide the Zoom lever to QT to zoom-in on a captured image, or slide the Zoom lever to W 🖬 side 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.
  - In Movie mode, sound is temporarily muted during zoom-in/out.
  - At any time, you can press the Power button to turn off the camera.
  - In **Capture** or **Playback** mode, press **C** to decide what information to show on the screen.

# Capture mode



ltem	Description	Page reference
I	Shooting mode	28
2	Flash mode	25
3	Focus mode	27
4	Drive mode	46
5	Number of shots available	
6	Image size	40
7	Image quality	40
8	Face Tracking	26
9	ISO	42
10	White Balance	41
11	AE metering	43
12	Exposure value (EV)	41
13	AF area	46
14	Histogram	
15	Battery status	48
16	Camera shake warning	

- In **Capture** mode, press | | to toggle among the 4 display modes (standard, complete, none, and rule of thirds).
  - Use the rule of thirds display mode to improve your composition by placing subjects on at least one of the intersections of these 4 imaginary lines.
  - While the shutter is pressed down halfway, the AF area color changes to green, camera shake warning (appears only if the camera itself detects possible shaking), aperture, shutter speed and ISO setting are also shown on the screen.

## 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 modes.

lcon	Mode	Description
る	Auto Flash	The flash fires automatically based on the photographic conditions.
¢.	Auto Anti Red- eye	Reduces the red-eye phenomenon when capturing natural-looking images of people and 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.
Ş	Force On	The flash always fires regardless of the surrounding lighting conditions. Select this mode when capturing images with high contrast (backlighting) and deep shadows.
₹ <sup>7</sup> 8	Slow Sync	Fires the flash immediately at the beginning of exposure with a longer shutter speed, so balanced ambient lighting of the foreground subject and background scene can be reached in a low-light environment.
٢	Force 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 mode:

- Set the mode dial to the desired shooting mode. See "Selecting the Shooting Mode" on page 28 for details.
- 2. Open the flash. See "Opening the Flash" on page 20 for details.
- 3. Press **\$** repeatedly until your desired flash mode is displayed on the LCD monitor.
  - 💊 The flash mode is not available in Continuous Shooting and Panorama modes.
    - The flash mode will remain at "Flash Off" if the flash does not open.
    - When the flash is closed, flash mode is automatically set to flash off.

# Face Tracking

Focuses on the position of faces (max. 10 faces) simultaneously. While using the Face Tracking function, point the camera to where the people (your subjects) are located. Focus frames of Face Tracking will automatically detect faces (maximum 10) and show on the LCD screen.

To enable face tracking:

 Set the mode dial to the desired shooting mode. See "Selecting the Shooting Mode" on page 28 for details.

2. To enable this function, press [].

A 🖳 icon appears on the LCD monitor.

- To disable face tracking function, press [•] 🔂 again.
  - This function is not available on most of capture modes. The camera will automatically determine the availability of this function.
  - Due to environmental factors such as lighting, the number of detected faces might be different from that of the actual faces.
  - To achieve the best result, ask your subjects not to turn their faces partially away from the lens.

# Focus mode

lcon	Mode	Description
(AF)	Auto focus	Adjusts focus automatically.
0)	Macro	Used when capturing images at a close distance.
<u></u>	Super Macro	Used when capturing images at a very close distance.
िंध्य	Pan Focus	Used when you want to capture the subjects in a certain focus range.
	Infinity	Used when capturing images at long distance.

To select the focus mode:

- Set the mode dial to the desired shooting mode. See "Selecting the Shooting Mode" on page 28 for details.
- 2. Press 🏶 repeatedly to toggle between Auto focus and focus modes.

# Selecting the Shooting Mode

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



No.	lcon	Mode	Description
Ι.	Ρ	Program	The camera automatically configures the appropriate settings, so you can capture images with ease.
2.	Τv	Shutter Priority	You can choose a shutter speed, while the aperture value is automatically determined by the lighting condition of the subject. See "Using Shutter Priority mode" on page 29 for details.
3.	Av	Aperture Priority	You can choose an aperture value, while the shutter speed is automatically determined by the lighting condition of the subject. See "Using Aperture Priority mode" on page 29 for details.
4.	Μ	Manual	Lets you set both aperture and shutter speed manually. See "Using Manual mode" on page 29 for details.
5.	ſ	Continuous Shooting	Lets you capture a series of shots with a single press of the Shutter button. See "Using Continuous Shooting mode" on page 30 for details.
6.	)Æ	Panorama	Lets you create a panoramic photo from three shots. See "Using Panorama mode" on page 30 for details.
7.	SCN	Scene Mode	Lets you select the desired scene mode that suits your shooting environment. See "Setting the Scene mode" on page 32 for details.

No.	lcon	Mode	Description
8.	ي م	Smart Scene	The camera detects the shooting condition and automatically switches to the appropriate scene mode. See "Using Smart Scene mode" on page 32 for details.

#### Using Aperture Priority mode

Aperture priority is often used when shooting static subjects or emphasizing the depth of field. In general, use a smaller aperture if a greater depth of field is needed.

To adjust aperture value:

- I. Set the mode dial to Av.
- 2. Press OK.
- 3. Press [•] C or [□] to adjust the aperture value.
- 4. Press **OK** to confirm setting.

#### Using Shutter Priority mode

Shutter priority is often used when shooting moving subjects. In general, use a shorter shutter speed to catch a fast-moving object.

To adjust shutter speed in Shutter Priority:

- I. Set the mode dial to  $\mathbf{Tv}$ .
- 2. Press OK.
- 3. Press  $\clubsuit$  or  $\clubsuit$  to adjust the shutter speed.
- 4. Press OK to confirm setting.

#### Using Manual mode

You can choose the aperture value and shutter speed in Manual mode.

To adjust values in Manual mode:

- I. Set the mode dial to  $\mathbf{M}$ .
- 2. Press OK.
- 3. Adjust the settings.
  - Press  $[\bullet]$  or  $[\bullet]$  to adjust the aperture value.
  - Press  $\clubsuit$  or  $\clubsuit$  to adjust the shutter speed.
- 4. Press **OK** to confirm setting.

#### Using Continuous Shooting mode

In this mode, you can take consecutive shots.

lcon	Mode	Description
Ø	Burst	Continuously takes pictures as long as you keep pressing the Shutter button. The flash is always off in this mode.
¢	Speedy Burst	Press and release the Shutter button. When the photo size you select is VGA, Speedy Burst will shoot continuously at the speed of 30 shots per second. This will stop after I second or when the memory card is full.
ß	AEB (Auto Exposure Bracketing)	Automatically takes 3 pictures with slightly different settings in the shutter speed or the aperture value.

To select a continuous mode:

- I. Set the mode dial to  $\overline{\mathbb{C}}$ .
- 2. Press  $[\bullet]$  to enter the select mode.
- 3. Press  $\clubsuit$  or  $\clubsuit$  to select a desired option.
- 4. Press OK to confirm.



## Using Panorama mode

Creates a panoramic photo from multiple shots. Two to three shots are stitched into one single and seamless large picture. For optimized performance, the image resolution is automatically set at  $IM (1024 \times 768)$  when this mode is selected.

- I. Set the mode dial to  $\boxdot$ .
- 2. Press [**D**] C to select how shots will be stitched.

3. Press the Shutter button to capture the first shot.



lcon	Mode	Description
	Left-to-Right	The direction of the succeeding shots will be to the right of the first shot.
<del>do</del> r	Right-to-Left	The direction of the succeeding shots will be to the left of the first shot.

4. A guidance bar appears on top of the screen. The screen icon indicates the location of the current screen. Pan the camera following the guidance arrow.

Guidance bar



Once the screen icon is overlaps the green block, the camera will automatically take the second shot. If you will only stitch two shots, press OK to complete the panoramic picture. Otherwise, proceed to the next step.

6. To take the third shot, pan the camera to the direction of the guidance arrow. Once the screen icon overlaps the green block, the camera will automatically take the third shot.



The camera captures the shot when the screen icon overlaps the block



Panoramic picture preview

#### Using Smart Scene mode



- I. Set the mode dial to 👩.
- 2. Press the Shutter button halfway to set automatic focus. The selected shooting mode is displayed in the top left corner of the screen.
- 3. Press the Shutter button to capture an image.

#### Setting the Scene mode

Select one of the following scene modes to fit your shooting condition.

lcon	Mode	Description
	Smile Catch	Automatically takes a shot when a smile is detected.
PRE	Pre- composition	Captures the background first, so the helper can use it to take the final shot.

lcon	Mode	Description
HDR	HDR	Increases the dynamic range and enhances the details of dark areas.
00	Fisheye	Simulates a fisheye lens effect and creates a distorted hemisphere-like image.
	Beauty Enhancer	Enhances the tone of skin so that the facial skin appears smooth.
	Portrait	Makes the subject (usually a person) stand out with smooth and natural-looking skin tones.
	Self Portrait	Takes a self portrait with at least one face in a confined area.
<b>R</b> - 1	Love Portrait	Takes a self portrait with at least two faces in a confined area.
	Blink Detector	Warns of eye blinks if detected and lets you decide whether to save the image file.
	Night Portrait	Shoots night scenes and portraits clearly. Please keep the camera steady or use a tripod while using this mode.

lcon	Mode	Description
	Child	Increases sensitivity and emphasizes children's skin tones.
	Sports	Uses a high shutter speed to capture objects in motion.
	Food	Captures food by enhancing color brightness and giving more vivid colors.
	Party	Captures the party atmosphere usually under indoor light source.
	Candle Light	Makes a picture look warm, and thus captures the mood under candle light source. Flash is always off.
	Back Light	Increases exposure (by turning on the flash) when light illuminates the subject from behind.
	Night Scene	Captures photos in a low-light environment, such as in the evening or at night.
	Fireworks	Adds exposure time to shoot firework trails. Please keep the camera steady or use a tripod while using this mode.

lcon	Mode	Description
	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.
	Foliage	Takes a clear and vivid picture of flowers or plant leaves by emphasizing their saturation and sharpness.
	Soft Flowing Water	Uses a low shutter speed for motion blur. Please keep the camera steady or use a tripod while using this mode.
	Sunset	Captures the warmth and atmosphere (represented by hue) of sunrise or sunset.
100	Snow	Used under a very bright light environment such as snow scenes.
	Building	Enhances lines & contracts to highlight the sense of the three dimensions (3D) for a building.
	Web Auction	Reduces the file size for faster internet upload.
	Text	Improves clarity & contrast when taking a close-up picture of documents.

lcon	Mode	Description
and the second s	Voice Rec. (Voice Recording)	Captures background sound only (no images or videos). When listening to the captured audio file later, you can see a unique icon that appears on the screen and indicates that this is an audio file.

To select a scene mode:

- I. Set the mode dial to SCN.
- 2. Press MENU. The last selected scene mode is highlighted on the menu option.
- 3. Press [①] C or [□] to select the desired scene mode.



When you are selecting from different scene modes, slide the Zoom lever to QT for detailed explanation of each scene mode. Slide the Zoom lever to W 🖬 to close the scene mode description when you are done.

4. Press **OK** to confirm setting.

#### Smile Catch

Captures an image when the subject smiles.

- I. Set the mode dial to SCN.
- 2. Press MENU and select Smile Catch.
- 3. The camera is tracking the face of your subject (a white frame shows).
- 4. Once a smile is detected, the camera instantly takes a picture.
- 5. The camera continues to detect smiles and takes more pictures (Step 3 is repeated).



Face tracking (one face only) is always on in the Smile Catch mode.

#### **Blink Detector**

Automatically detects blinking when you capture an image.

- I. Set the mode dial to SCN.
- 2. Press MENU and select Blink Detector.
- 3. Press the shutter to capture an image. If blinking is detected, a warning message appears on the screen.
- 4. Press [•] C or III to save or discard the image, and then press OK to confirm.

#### Love Portrait

Takes a self portrait of at least two faces.

- I. Set the mode dial to SCN.
- 2. Press MENU and select Love Portrait.
- 3. Once faces are detected, the camera will automatically take a picture after a two-second countdown.



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

 The camera continues to detect faces and takes more pictures by repeating Step 2. This face tracking will automatically stop if no faces are detected.

#### Fisheye

Simulates a fisheye lens effect and creates a distorted hemisphere-like image.

- I. Set the mode dial to **SCN**.
- 2. Press MENU and select Fisheye.
- 3. Take a picture. (The Fisheye effect will be applied to this picture immediately.





Before

After

#### Pre-composition

Captures the background first for positioning the final image. Ideal for asking others to take your photo.

- I. Set the mode dial to **SCN**.
- 2. Press MENU and select Pre-composition.
- 3. Press the shutter to capture the background. The bottom section of the screen displays the captured background image in a semi-transparent region.
- 4. Use the captured background image to frame the composition, and press the shutter to capture the final image.

#### Web Auction

Combines a maximum of 4 shots into one single image on a VGA ( $640 \times 480$ ) size, so it can be quickly used in situations such as Internet auctions. Each picture can have different color effects.

- I. Set the mode dial to SCN.
- 2. Press MENU and select Web Auction.
- 3. Press 🖤 or 🕏 to move to the number of shots you want to take, and then press OK.

lcon	Mode	Description
	l shot	Takes one picture only.
	2 shots	Takes two pictures based on the numeric order shown below:
	3 shots	Takes three pictures based on the numeric order shown below:

lcon	Mode	Description
	4 shots	Takes four pictures based on the numeric order shown below:
		1 2 3 4

- 4. Press the shutter to take one picture.
- 5. If you are satisfied with the picture, press **OK** to take the next one.
  - You can change another color effect (if needed). See "Effect Mode" on page 43 for details.
  - If you want to re-take the previous picture, press MENU and repeat Step 3.
- 6. Once you have finished taking all pictures, the camera will automatically combine these images into one.

# Using the Function menu

Press the Function button  $Fn \cdot \hat{m}$  to access more capture options. Depending on your settings, the displayed option icons in the Function menu may vary.



To use the Function menu:

- I. Press  ${\rm Fn}{\cdot}\overline{\rm m}$  to enter the Function menu, the currently selected settings are shown.
- 2. Press  $[\bullet]$  or  $[\bullet]$  to select a menu item.
- 3. Press  $\clubsuit$  or  $\clubsuit$  to select a setting.

#### 4. Press **OK** to confirm the setting.

#### Image size

lcon	Description	lcon	Description
16 <b>M</b>	16 megapixels (4608 x 3456)	3M	3 megapixels (2048 x 1536)
3:2	3:2 (14 megapixels; 4608 x 3072)	HD 16:9	HD 16:9 (1920 x 1080 in full HD format)
8M	8 megapixels (3264 x 2448)	VGA	VGA (640 x 480)
5M	5 megapixels (2592 x 1944)		

To select an image size:

- I. Press Fn•m > Resolution.
- 1. Press  $\clubsuit$  or  $\clubsuit$  to select a setting.
- 2. Press OK to confirm setting.

#### Image quality

lcon	Mode	Description
	Super Fine	Best image quality with the lowest compression rate. File size is the largest.
	Fine	Better image quality with medium compression rate. File size is medium.
88	Normal	Good image quality with the highest compression rate. File size is the smallest.

To select an image quality level:

- I. Press Fn•m > Quality.
- 2. Press 🖤 or 🔱 to select a setting.
- 3. Press OK to confirm setting.

#### Movie size

lcon	Description	lcon	Description
но 720р	HD 720p (16:9; 1280 x 720)	Q- VGA	QVGA (320 × 240)
VGA	VGA (640 × 480)	Web	Web (640 x 480)

To select a movie size:

- I. Press Fn.m > Video Format.
- 2. Press  $\clubsuit$  or  $\clubsuit$  to select a setting.
- 3. Press **OK** to confirm setting.

#### Setting EV

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 select an EV:

- Press Fn · m̄ > EV Compensation.
- 2. Press 💙 or 🕹 to select an EV from the EV bar.
- 3. Press **OK** to confirm setting.

#### White Balance

Compensates for color temperatures in different lighting conditions, so white and other colors can display properly when you capture images.

lcon	Mode	Description
*	Auto	Adjusts white balance automatically.
<b>※</b>	Daylight	Used in bright daylight conditions.
×	Cloudy	Used in twilight or shady conditions.



lcon	Mode	Description
*	Tungsten	Used when subjects lit by tungsten (incandescent) lighting.
影	Fluorescent H Fluorescent L	Adjusts for fluorescent lighting. Corrects the green hue of fluorescent lighting. Ideal for indoor photos under fluorescent lighting without a flash.
X	Manual	Used when you want to manually adjust white balance in a particular lighting condition.

To select White Balance:

- I. Press  $Fn \cdot \overline{m} > White Balance$ .
- Press ♥ or \$ to select a white balance option. The preview result based on the currently selected white balance is shown on the screen. (When selecting the manual mode, you must first point the camera at a blank sheet of white paper or something similar and press the Shutter button for the camera to detect proper colors.)
- 3. Press OK to confirm setting.

#### ISO

ISO configures the camera's 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.

lcon	Description
10 10	Automatically sets the ISO value.
<b>ISO</b> 100 <b>ISO</b> 200	Equivalent to color ISO 100/200 film. Used for outdoor photography in bright sunlight.
ISO ISO 400 800 ISO ISO ISO 1600 3200 6400	Equivalent to color ISO 400/800/1600/3200/6400 film. Used it in a low-light environment or where the flash light is not allowed.
	• ISO 6400/3200 for resolution of 314/16:9/VGA under only

To select an ISO value:

Press Fn·m > ISO.

- 2. Press 🖤 or 💲 to select an ISO Value.
- 3. Press **OK** to confirm setting.

#### Metering

lcon	Mode	Description
	Matrix	Detects the exposure based on multiple points in the subject area.
	Cen. Weight	Detects the exposure of the entire shooting screen, but gives more importance to the values near the center.
[•]	Spot	Detects the exposure based on the center spot in the subject area.

- To select a metering option:
- I. Press  $Fn \cdot \overline{m} > Metering$ .
- 2. Press  $\clubsuit$  or  $\clubsuit$  to select a metering option.
- 3. Press **OK** to confirm setting.

#### Effect Mode

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

lcon	Mode	Description
$\square$	Normal	No effects are added.
<b>8</b>	LOMO	Creates a lomo-like effect by adding over saturated colors, dark corners, and so on.
	Vivid	Adds an effect with very clear and bright color tones.
	Sepia	Adds an effect with dark reddish brown color tones, so the image or video looks as if it is old.
	Color Accent (Red)	Highlights the subjects by keeping the red color domain of an image only while making other regions black and white.

lcon	Mode	Description
	Color Accent (Green)	Highlights the subjects by keeping the green color domain of an image only while making other regions black and white.
	Color Accent (Blue)	Highlights the subjects by keeping the blue color domain of an image only while making other regions black and white.
	B&W (Black and White)	Adds an effect with monochromatic color tones.
	Vivid Red	The image becomes reddish.
	Vivid Green	The image becomes greenish.
	Vivid Blue	The image becomes bluish.





Before



After - when Color Accent (Green) is applied

After - when Color Accent (Red) is applied



After - when Color Accent (Blue) is applied

To select an effect:

- I. Press Fn.m > Effect.
- 2. Press  $\clubsuit$  or  $\clubsuit$  to select a color mode option.
- 3. Press OK to confirm setting.

# **Recording Videos**

You can record video with this camera. Set the movie size before you start recording a video. See "Movie size" on page 41 for details. To record the video clip:

- I. Press 
  to start recording.
- 2. Use the Zoom lever to zoom in/out on the subject.
- 3. Press [] to pause the recording. Press [] to resume.
- 4. Press 
  to stop the recording.
  - Video recording will automatically stop when the video file size reaches 4 GB.
    Video recording at HD 720p (16:9; 1280 x 720) will automatically stop when the
    - video file size reaches 4 GB or the total recording time is near 29 minutes.
    - Recording a video at HD 720p (16:9; 1280 x 720) requires a Class 6 or above SDHC card.
    - Videos captured in Web mode are stored under the XXXUTUBE directory (XXX are numbers) with the file size limited to 1 GB or 10 minutes per video file (video recording will automatically stop).

# Using the Capture Menu

Press MENU to access the Capture Menu. In this menu, you can change the drive mode and set up other capture settings.

- I. Press MENU > 🔼.
- 2. Press [•] c or [•] to select a menu item.
- 3. Press **OK** or **\$** to enter the submenu.
- 4. Press  $\clubsuit$  or  $\clubsuit$  to select the settings.
- 5. Press **OK** > MENU to save the setting and exit the menu mode.

#### Setting the Drive Mode

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

lcon	Mode	Description
<b>G G</b>	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.
3	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.
OFF	Off (Single)	Takes one picture at a time.

To select a drive mode:

- 1. Press MENU > or > Drive Mode.
- 2. Press **OK** or **\$**, and then select a desired option.
- 3. Press OK > MENU.

#### Setting the AF Area

This feature determines the area on which the camera focuses.

To set the AF Area:

- I. Press MENU > 
  > AF Area.
- 2. Press OK or \$, and then select Wide or Center.
- 3. Press OK > MENU.

#### Using AF Assist Lamp

This feature allows you to add extra light when the lighting is insufficient while capturing images.

To enable the AF Assist Lamp:

- I. Press MENU > 
  a > AF Assist Lamp.
- 2. Press OK or \$, and then select on.
- 3. Press OK > MENU.

#### Setting Sharpness, Saturation and Contrast

Adjusts how colors appear in the pictures by setting sharpness, saturation, and contrast.

To set sharpness, saturation, or contrast:

- I. Press MENU > 0, and then select Sharpness, Saturation, or Contrast.
- 2. Press OK or \$, and then select High, Normal, or Low.
- 3. Press OK > MENU.

#### **Digital Zoom**

The digital zoom enlarges or shrinks the image using a software process.

lcon	Mode	Description
	Wise Zoom	Reduces the image size, and thus increases the effective zoom length without sacrificing image quality.
	Digital Zoom	Turns on the digital zoom feature.
OFF	Off	Turns off the digital zoom feature.

To select a digital zoom:

- Press MENU > 
   > Digital Zoom.
- 2. Press **OK** or  $\clubsuit$ , and then select a digital zoom type or **OFF**.
- 3. Press OK > MENU.

#### Date Stamp

Imprints the date when a picture was taken on the picture itself.

To set the date stamp:

- I. Press MENU > o > Date Stamp.
- 2. Press OK or \$, and then select Date, Date & Time, or orf.
- 3. Press OK > MENU.

#### Instant Review

This feature displays the still image that just recorded for I second.

To set the Instant Review:

- 1. Press MENU > o > Instant Review.
- 2. Press OK or \$, and then select on or off.
- 3. Press OK > MENU.

During instant review, half press the shutter to return to the capture mode.

#### Stabilizer

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

To set the Stabilizer:

- 1. Press MENU > 0.I.S..
- 2. Press OK or \$, and then select on or off.
- 3. Press OK > MENU.

When the battery power is low, the Stabilizer will be turned off automatically.

#### Battery status

lcon	Description
Ē	Battery power is full.
Ē	Battery power remains adequate.
	Battery power is low.
	Battery power is very low. You should replace the battery ASAP.

# Other settings

Press MENU >  $\rightarrow$ , and then select an option.

lcon	Mode	Description
Sounds	[Startup]	Sets a type of the startup sound.
	[Shutter]	Sets the shutter sound on and off.
	[Operation]	Sets the button (excluding shutter) sound on and off.
	[Beep Volume]	Adjusts the volume of the shutter sound, startup sound, operation sound and playback sound.
Power Saving	1mm [1 min.]	For power conservation, the camera automatically enters the standby mode
	3min [3 min.]	after it has been idle for a period of
	5min [5 min.]	time. (Tress any key to resume.)
	off [Off]	The camera remains on when idle.
LCD Saving	oN [On]	For power conservation, the LCD screen is automatically dimmed after the camera has been idle for 20 seconds. (Press any key to resume.)
	OFF [Off]	The LCD screen remains bright when the camera is idle.
Date & Time	Sets the date and	l time.
Language	Select a language for display menus and other information.	
File Numbering	[Series]	Stores the most recently used file number regardless of deleted files or a change of memory card. This is useful for avoiding the file name duplication when images are downloaded to a computer.
	[Reset]	Resets file numbering each time the memory card is changed.

#### 50 Operating the camera

lcon	Mode	Description	
TV Out	You can review in	mages on a television with an AV cable.	
	NT [NTSC]	America, Japan, Taiwan and others	
	PAL [PAL]	China, Europe, Oceania, and others	
	🔗 TV Format sl	hould be set to either NTSC or PAL depending	
	on your region. Fo check with your lo	r details about which system should be used, cal authorities.	
LCD Brightness	🔛 [Auto]	The LCD brightness is automatically set based on the surrounding environment.	
	[High]	The LCD brightness is increased.	
	[Normal]	The LCD brightness remains at the default value.	
Battery Type To ensure the camera dis the type to match the ba batteries are not recomm		mera displays battery level correctly, set h the batteries used. Carbon-Zinc : recommended.	
	[ [Alkaline]	When using Alkaline batteries.	
	🔛 [NiMH]	When using NiMH batteries.	
	🔛 [Lithium]	When using Lithium batteries.	
Manage Memory	[Format]	Formats the internal memory or the memory card.	
	[Copy to Card]	Copies files from the internal memory to the memory card.	
Reset All	Resets the entire initial default.	e menu and button operation settings to	
	The following settings do not change after Reset All:		
	Date & Time set	ting	
	Language setting		
	TV Out setting		

# Playback mode

Press **b** to switch to **Playback** mode.



- If the camera is turned off, you can directly switch to Playback mode by pressing and holding .
- While pausing video playback, you can press the Shutter button to capture the video frame as a still image in the VGA format.

ltem	Description	Page reference
I	Indicates that the camera is in <b>Playback</b> mode.	
2	Indicates that the file is protected and cannot be deleted.	55
3	Indicates this file has a voice memo or the file is an audio file.	55
4	Indicates the file is marked for printing.	
5	Displays the shooting parameters when you took the	
	picture or playback controls. Press <b>I</b> to toggle between different displayed information.	
6	Date and time when the file was created.	
7	File number	
8	Histogram	

ltem	Description	Page reference
9	File name, file size, shutter speed, and aperture value	

# Options for playback and editing

When the camera is in **Playback** mode, press 💙 or 💲 to view the next/ previous recorded files. You can also select any of the following options.

#### Enlarging an image

Magnifies an image, so more details can be seen.

To enlarge an image:

- 1. Press 💽 to switch to Playback mode.
- 2. Press 🖤 or 💲 to select the image you want to enlarge.
- 3. Use the Zoom lever to zoom-in/out on the image.
- 4. Press  $[\mathbf{Q}]_{\mathbf{C}}$ ,  $[\mathbf{D}]_{\mathbf{C}}$ ,  $\mathbf{V}_{\mathbf{C}}$ , or  $\mathbf{L}$  to move to the area you want to see.
- 5. Press MENU to return to the normal viewing size.

#### Rotating an image

You can press  $[\bullet]$  to change the orientation of an image at 90 degrees clockwise at a time.

For each rotation, the image file in the new orientation is automatically saved.

#### Viewing multiple files at a time

Shows up to 9 files at a time on the screen.

To view multiple files:

- 1. Press 💽 to switch to Playback mode.
- 2. Slide the Zoom lever to WE. In this mode, maximum 9 files (shown in

thumbnails) are displayed on the screen. Press  $[\underline{\bullet}]$ ,  $[\underline{\bullet}]$ ,  $\underline{\bullet}$ , or 4 to select a file, and then press **OK** or **MENU** to view it in its normal viewing size.

3. Slide the Zoom lever to WE. In this mode, all files are arranged by dates.

Press  $[\bullet]$ ,  $[\bullet]$ ,  $[\bullet]$ ,  $[\bullet]$ ,  $[\bullet]$ , or [c] to select a file, and then press **OK** or **MENU** to view it in its normal viewing size.

If there are more than 9 thumbnails, you can press \$ repeatedly until the scroll bar is highlighted. Then you can press [9] to move to the previous 9 thumbnails or [0] to move to the next 9 thumbnails. To cancel highlighting the scroll bar, just

press 🖤.

#### Playing back video clips

View recorded video clips in the playback mode.

To view a video clip:

- 1. Press 🕩 to switch to **Playback** mode.
- 2. Press 🖑 or 🕏 to select the video clip you want to view.
- 3. Press OK to start playing the video clip.
  - Press  $[\Box]$  to stop the video clip, or press  $[\bullet]$  to pause it. Press

[**①**] 🗘 again to resume.

- 🖉 During video playback, press 🗲 to fast forward or press 🖤 to rewind.
  - While pausing video playback, you can press the shutter to capture the video frame as a still image in the VGA format.
  - $\cdot$  While pausing video playback, you can view the video frame by frame. Press  $\clubsuit$  to

fast forward one frame, or press 🖤 to rewind one frame. Press and hold 🖇 to

fast forward frame by frame continuously, or press and hold  $\bigvee$  to rewind frame by frame continuously.

#### Adjusting the playback volume

Increase or decrease the volume of video clips, audio clips, or voice memos.

To adjust the playback volume:

- I. Press **b** to switch to **Playback** mode.
- 2. Press 🖤 or 🕏 to select a video clip, audio clip, or voice memo that you want to play.

- 3. Adjust the volume.
  - To increase the volume, slide the Zoom lever to QT.
  - To decrease the volume, slide the Zoom lever to WI.



The volume can be set during playback, but not during rewind, fast forward, or pause.

#### Slideshow

Sets the time interval for presenting a series of captured image and video files (first frame only).

To play a slideshow:

- 1. Press **1** to switch to **Playback** mode.
- 2. Press MENU > 💽 > Slideshow > OK or \$.
- 3. Change the slideshow settings.
  - Use the four-way control to set one of the following slideshow effects:
    - Applies a transition effect from left to right.
    - 🔀 Applies a transition effect from upper-left side to lower-right side.
    - Applies a horizontal transition effect.
    - Applies a vertical transition effect.
    - 📑 Applies a horizontal transition effect by intersecting an image.
  - You can set the interval between 1/3/5/10 seconds.
- 4. Select whether you want to repeat the slideshow.
- 5. Select Start and press OK to play the slideshow.



If you want to pause it at any time, press **OK**. Press **OK** again to resume playback. To stop the slideshow, press MENU.

#### **Deleting files**

Removes selected or all files.

To delete files:

- I. Press **I** to switch to **Playback** mode.
- 2. Press MENU > 💽 > Delete > OK or \$.
- 3. Select whether to delete this selected file, voice memo only, other selected file, or all files, and then press OK.

#### **Protecting files**

Prevents selected files from accidental removal.

To protect files:

- I. Press **I** to switch to **Playback** mode.
- 2. Press MENU > **>** Protect > OK or **\$**.
- 3. Select whether to protect this selected file, other selected file, or all files, and then press **OK**. You will then see the icon rail indicating the file is protected.

You can remove the protection anytime by following the same procedure as shown above. Note that in Step 2 the on-screen instruction will ask you how you want to remove the protection.

#### Red-eye Removal

The Red Eye Correction function is used to reduce red eye in captured images. This function is only available for still images. Red eye correction can be applied to an image several times, but the quality may gradually deteriorate.

- I. Press 💽 to switch to **Playback** mode.
- 2. Press 🖤 or 🔱 to select the image you want to apply Red-eye Removal.
- 3. Press MENU > D > Red-eye Removal > OK or \$.
- 4. Press **OK** to confirm the change and save the image file.

You cannot use this function on images captured in Panorama mode.

#### Voice memo

Inserts a voice annotation to an image file.

To record a voice memo:

- 1. Press 🕩 to switch to **Playback** mode.
- 2. Press 🖤 or 🗲 to select the image you want to add a voice memo.
- 3. Press MENU > D > Voice Memo > OK or \$.
- 4. Select Start > OK to start your voice recording.
- 5. Select Stop > OK to stop recording.

To play back a voice memo:

I. Press OK to play the voice memo.

- 2. Press [] to pause the playback.
- 3. Press [] to resume the playback.
- 4. Press MENU to exit playback.

#### Photo Effect

You can add special effects to your images.

lcon	Mode	Description
	Normal	No effect is added to the image.
	Sepia	Recorded image will be stored in a sepia tone.
	B/VV	Convert image to black & white.
	Negative	Colors become the opposite of what they were in the original image.
9	Mosaic	Applies a mosaic tile effect to the image.
	Vivid Red	The image becomes reddish.
	Vivid Green	The image becomes greenish.
	Vivid Blue	The image becomes bluish.

To add a special effect to an image:

- 1. Press 💽 to switch to **Playback** mode.
- 2. Press  $\clubsuit$  or  $\clubsuit$  to select the image you want to add an effect to.
- 3. Press MENU > D > Photo Effect > OK or \$.
- 4. Press  $\clubsuit$  or  $\clubsuit$  to select the effect.

5. Press OK to confirm the change and save the image file.





You cannot use this function on images captured in Panorama mode.

#### Trimming

Crops part of an image file, reduces the image size, and overwrites the image file or saves it as another new file.

To trim an image:

- I. Press **b** to switch to **Playback** mode.
- 2. Press 🖤 or 🗲 to select the image you want to trim.
- 3. Press MENU >  $\square$  > Trim > OK or  $\clubsuit$ .
- 4. Use the Zoom lever to select the target image size (8M, 5M, 3M, VGA) to which you want to reduce.
- 5. Press  $[\mathbf{Q}]$ ,  $[\mathbf{Q}]$ ,  $\mathbf{V}$ , or  $\mathbf{F}$  to locate the area to trim.
- 6. Press OK to confirm the change and save the image file.



You cannot trim images in the size of 3:2, 16:9, or VGA, or images captured in Panorama mode.

#### Resizing

Changes an image file to a smaller size, and overwrites the image file or saves it as another new file.

To resize an image:

- I. Press **b** to switch to **Playback** mode.
- 2. Press  $\clubsuit$  or  $\clubsuit$  to select the image you want to resize.
- 3. Press MENU > **S** > **Resize** > **OK** or **4**.

- 4. Press [] c or [] to select the target image size to which you want to reduce.
- 5. Press OK to confirm the change and save the image file.

You cannot resize images in the size of 3:2, 16:9, or VGA, or images captured in Panorama mode.

#### Startup image

Sets the welcome screen when the camera is powering on.

To select a startup image:

- 1. Press 🕩 to switch to **Playback** mode.
- 2. Press MENU > 💽 > Startup Image > OK or \$.
  - To use the default startup image, select Default.
  - To use a custom image, select **My Photos** and press 💓 or 🔱 to select an image.
  - To disable the startup image, select Off.
- 3. Press OK.

#### DPOF

The Digital Print Order Format (DPOF) setting allows you to select images on the memory card for printing and specify the number of print copies in advance using the camera. This is extremely convenient for sending the images to a photo developing service or for printing on a direct print function compatible printer.

To set up DPOF:

- 1. Press 🕩 to switch to **Playback** mode.
- 2. Press MENU > DPOF.
- 3. Press [] or [] to select one of the following options.
  - To set the DPOF setting for one image in a time, select One. Press 💥 or

5 to select an image.

- To set the DPOF setting for all images in a time, select All.
- To clear all DPOF settings to initial default, select Reset.
- 4. Press [ ] C or [ ] to specify the number of copies.
- 5. Press  $Fn \cdot \overline{m}$  to decide whether you want to turn the date stamp on.

6. Press OK.

#### Radial Blur

Applies a rotating motion effect to give a feel of speed.

To apply a Radial Blur effect:

- I. Press 💽 to switch to **Playback** mode.
- 2. Press MENU > 💽 > Radial Blur > OK or \$.
- 3. Press  $[\mathbf{P}]$  or  $[\mathbf{D}]$  to select a degree of Radial Blur.
- 4. Press **OK** to confirm the change and save the image file.

You cannot use this function on images captured in Panorama mode.

# Working with computer and AV system

# **Bundled software**

The camera offers the following programs on a CD.

ArcSoft PhotoImpression 5	Combines photo editing with creative enhancement and sharing tools that maximize your digital media experience.
ArcSoft VideoImpression 2	Creates multimedia presentations by combining photos and video clips with audio, text and scene transitions.

To install these programs, see the information supplied with the CD.

## Connecting the camera to a computer

You can connect the camera to a PC or notebook to transfer, view, print, or edit files.

To connect the camera to a computer:

- I. Open the USB/AV port cover.
- 2. Connect the end of the smaller plug of the USB cable to the camera.
- 3. Turn on the camera.



- 4. Connect the other end of the USB cable to an available USB port on your computer.
- 5. Select **Computer** and wait for the connection.
- 6. A **Removable Disk** icon appears in **My Computer**. Click this icon to access the files in your camera.
  - When connecting the camera to a computer, it is necessary to install a battery into the camera.
    - When connecting the camera to a computer, please use the original accessory of the USB cable to avoid possible system conflicts and damage to the camera.

## Connecting the camera to an AV system

You can play files in your camera from an AV system such as TV or projector.

To connect the camera to an AV system:

- I. Open the USB/AV port cover.
- 2. Connect the end of the smaller plug of an AV cable to the camera.
- 3. Connect the yellow video plug and the white audio plug of the AV cable to a video-input jack and an audio-input jack (left channel) on your AV system.
- 4. Turn on the AV system, and then switch to the AV source connecting to the camera.
- 5. Turn on the camera.
- 6. Follow the on-screen instructions to operate the camera via the TV or projector screen.

# Printing images

In addition to printing images by connecting the camera to a printer via a computer or bringing the memory card (if available) to a photo-processing center, you can choose to print using PictBridge.

## Printing with PictBridge

You can directly print images by connecting your camera to a PictBridgecompatible printer without using a computer.

To print images from a PictBridge-compatible printer:

- I. Open the USB/AV port cover.
- 2. Connect the end of the smaller plug of the USB cable to the camera.
- 3. Connect the other end of the USB cable to an available USB port on your printer.

- 4. Turn on the printer. Wait for a while until it finishes starting up and is ready to print.
- 5. Turn on the camera.
- 6. Select **Printer** and wait for the connection.
- 7. Select one of the following options:
  - To print one image at a time, select **Print Select**, and press 🖤 or 🔱 to select an image.
  - To print all images at a time, select Print All.
  - To print all images (shown by thumbnails) at a time, select Print Index.
- 8. Press OK.
  - The above procedure may vary depending on the printer type you are using.
  - If you connect the camera to your printer while the printer is still starting up, the camera will be automatically turned off.
  - Failure to follow the above procedure will make the camera show an error message. Please disconnect the camera and the camera will be automatically turned off.

# Troubleshooting and service information

If your camera cannot operate normally, see the frequently encountered problems and solutions listed below. If the problem persists, contact your nearest service center or technical support.

Problem	Cause	Solution
The camera cannot power up.	There is no battery or the batteries are not inserted correctly.	Insert the batteries correctly.
	The batteries have no power.	Replace the batteries.
The battery power is draining quickly.	The external temperature is extremely low.	
	Many shots are being captured in dark places, requiring a flash.	
The batteries or camera is warm.	The camera or flash was used continuously over a long period of time.	
The LCD screen is black.	The lens cover is on.	Remove the lens cover.
No image is displayed on the screen and the camera beeped three times.	The lens cover is on.	Remove the lens cover.
l cannot adjust the flash mode.	The flash is closed.	Open the flash.
The flash does not fire.	The camera flash is turned off.	Set the flash to Auto Flash.
	The light source is sufficient.	

Problem	Cause	Solution
Even though the flash fired, the image is dark.	The distance to the subject is greater than the flash's effective range.	Get closer to the subject and shoot.
The image is too bright or too dark.	The exposure is excessive or inadequate.	Reset exposure compensation.
l cannot format a memory card.	The memory card is write- protected.	Remove the write protection.
	End of the memory card life.	Insert a new memory card.
l cannot download images from the camera to my computer.	The free space on the hard disk of your computer is insufficient.	Ensure that the hard disk has enough space for running Windows and that the drive for loading image files has free space equal to or greater than the memory card in the camera.
	There is no power being supplied to the camera.	Replace the batteries.
The camera does not shoot even when pressing the Shutter button.	The batteries are running low.	Replace the batteries.
	The camera is not in <b>Capture</b> mode.	Switch to <b>Capture</b> mode.
	The Shutter button was not pressed all the way down.	Press the Shutter button all the way down.
	The internal memory or memory card does not have any free space.	Load a new card or delete unwanted files.
	The flash is recharging.	Wait until the flash mode icon, indicated on the screen, stops flashing.
	The camera does not recognize the memory card.	Format the memory card before the initial use or before using with another camera.

Problem	Cause	Solution
I cannot print images with PictBridge- compliant printers.	The camera is connected to the printer when the camera is powered off.	Connect the camera to the printer, turn on the camera, and then select <b>Printer</b> .

# Technical support

For technical assistance, free driver updates, product information, and news releases, visit the following web site:

http://www.BenQ.com

# Specifications

Sensor	Sony 16 Mega Pixels, 1/2.3 inch CCD
Zoom	Optical: 21X Digital: Up to 5X (Preview) / Up to 12X (Playback)
Lens	f = 4.5 (W) ~ 94.5 (T) mm F= 3.1 (W) ~ 5.8 (T) (f = 25 mm ~ 525 mm, 35 mm equivalent)
Focus Range	Normal: W = 50 cm ~ Infinity; T = 500 cm ~ Infinity Macro: W = 2 cm ~ Infinity; T = 60 cm ~ Infinity Super Macro: 1 cm (M) ~ Infinity
LCD	3.0" LCD 460k pixels
Image Resolution	16M / 3:2 / 8M / 5M / 3M / 16:9 / VGA
Movie Mode	HD 720p (1280 x 720) / VGA (640 x 480) / QVGA (320 x 240) / Web (640 x 480) 30 fps, Continuous recording with sound
Shutter Speed	Auto: 1/2000 ~ 1 sec. Manual mode: 1/2000 ~ 15 sec. (Fireworks 2 sec.; Night Scene 1/2000 ~ 15 sec.)
White Balance	Auto / Daylight / Cloudy / Tungsten / Fluorescent H / Fluorescent L / Manual
Exposure	-2.0 ~ +2.0 EV (0.3EV / step)
ISO	Auto / 100 / 200 / 400 / 800 / 1600 / 3200 (3M or lower) / 6400 (3M or lower)
Flash	Auto Flash / Auto Anti Red-eye / Forced On / Slow Sync / Forced Off
Drive mode	Off / 10 sec. / 2 sec. / Double
Power Source	CIPA approximately 330 (based on bundled AA Alkaline batteries); 500 based on NiMH batteries; 850 based on Lithium batteries)
Storage Type	Built-in approx. 108MB (+-5%) SD (up to 4GB) / SDHC (up to 32GB) / SDXC (> 32GB)
File Format	Still Image: JPEG (EXIF 2.3 compatible); DCF compatible; Support DPOF Video: MJPEG Audio: WAV

Dimensions / Weight	112.5 x 75.9 x 63.4 mm 355g (w/o batteries & SD card)
Interface	Digital output: USB 2.0 compatible Audio / Video output (NTSC/PAL) PictBridge compatible
Accessories	USB Cable / Software & User Manual CD / Quick Guide / Lens Cover / Lens Strap / Neck Strap / Non-rechargeable AA Batteries / Pouch (optional) Available accessories depend on the actual items shipped
	and may vary from the list above.



English

All information, designs, and specifications are subject to change without prior notice.